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April 24, 2025

VIA EMAIL AND HAND DELIVERY

Stephen Viele, Chairman
Town of Florida Planning Board
Town of Florida Town Hall
214 Fort Hunter Road
Amsterdam, New York 12010

Re: BMG Albany, LLC – Amazon Warehouse/Distribution Facility
NYS Route 5S, Town of Florida, Montgomery County, NY (SBL # 54-1-36)

Dear Chairman Viele and Members of the Planning Board:

This firm represents BMG Albany, LLC ("BMG") with respect to its amended applications to the Planning Board (the "Planning Board") for the development of the above-referenced parcel on NYS Route 5S in the Town (the "Property") with an advanced e-commerce logistics and distribution center with a building footprint of 652,060 square feet (consisting of five floors with approximately 3.2 million square feet of gross floor area) (the "Project").

Amended Site Plan Review and Special Permit approvals are required from the Planning Board for the Project pursuant to the Town of Florida Zoning Ordinance (the "Zoning Ordinance") and NYS Town Law §§ 274-a and 274-b. Accordingly, an application for the Project was made to the Planning Board in January 2025, followed by a supplemental submission in February 2025.

To support the Planning Board's SEQRA review of the Project, BMG has prepared and respectfully submits the enclosed site plans and extensive SEQRA documentation in support of the application for the Project. This submission includes a binder with narratives and studies and

attached site plans entitled "MSV1 Amazon Distribution Facility, SEQRA Expanded Environmental Assessment Form and Narrative."

As requested by the Planning Board Secretary, we are emailing a digital copy of the entire submission to her. Ten binder sets of our full submission (except for the SWPPP and Preliminary Site Assessment) with attached, folded maps will be delivered to the Planning Board Secretary as specified. If you would like additional electronic or hard copies of the submission, please let me know.

At the Planning Board's May 5th meeting, we respectfully ask that the Board formally establish itself as SEQRA lead agency for coordinated environmental review of the Project, since the 30-day period for other agencies to object to the Board's February 5, 2025 Notice of Intent to serve as SEQRA lead agency has expired. See 6 NYCRR § 617.6(b)(3)(i).

We look forward to the Planning Board's continued review of the Project at the May 5th meeting. Please let me know if you have any questions on the materials submitted.

Very truly yours,

/s/ David R. Everett

David R. Everett

Enclosures

c: Josh Garofano, BMG
Sean Baggett, BMG
Steve Wilson, P.E., Bohler
Michael Crowe, Esq.

MSV1 AMAZON DISTRIBUTION FACILITY

Site Plan/Special Permit Applications

SEQRA Expanded Environmental Assessment Form Narrative



Applicant: BMG Albany, LLC

Project Engineer: Steve Wilson, LEED AP
Bohler Engineering

Project Attorney: David R. Everett, Esq.
Whiteman Osterman & Hanna, LLP

Dated: April 24, 2025

BLUEWATER PROPERTY GROUP

BOHLER

WHITEMAN OSTERMAN & HANNA LLP ATTORNEYS AT LAW

MSV1 Amazon Distribution Facility

Town of Florida, Montgomery County, New York

State Environmental Quality Review Act ("SEQRA")
Expanded Environmental Assessment Form ("EAF") and Narrative

April 24, 2025

TABLE OF CONTENTS

I. PROPOSED ACTION

II. BACKGROUND

III. SEQRA COMPLIANCE

IV. INVOLVED AND INTERESTED AGENCIES

V. EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

1. Impact on Land

2. Impact on Geological Features

3. Impact on Surface Water

4. Impact on Groundwater

5. Impact on Flooding

6. Impact on Air

7. Impact on Plants and Animals

8. Impact on Agricultural Resources

9. Impact on Aesthetic Resources

10. Impact on Historic and Archeological Resources

11. Impact on Open Space and Recreation

12. Impact on Critical Environmental Areas

13. Impact on Transportation

14. Impact on Energy

15. Impact on Sound, Odor, and Light

16. Impact on Human Health

17. Consistency with Community Plans

18. Consistency with Community Character

19. Impact on Disadvantaged Community

VI. CONCLUSION

I. PROPOSED ACTION

BMG Albany, LLC ("BMG") is proposing to develop property between N.Y.S. Route 5S ("Route 5S") and the New York State Thruway ("I-90") with an e-commerce logistics, storage and distribution facility on lands comprising approximately 137.24± acres in the Town of Florida (the "Town"), Montgomery County, New York (the "Project" or "MSV1"). The Project will be served by a new electric substation (the "Substation") to be separately owned by the user and operated by National Grid pursuant to an easement.

The Project will be entirely built in the Town's Commercial ("C-2") zoning district on SBL # 54-1-36 (the "Project Site"), where warehouse/distribution centers are an allowed use subject to Special Permit and Site Plan approvals by the Town of Florida Planning Board (the "Planning Board") pursuant to the Town's Zoning Ordinance. Accordingly, to meet the needs of a new, specific user, BMG applied to the Planning Board for approval of MSV1 in January 2025, which together with a supplemental submission on February 20, 2025 and this SEQRA Expanded EAF submission comprise the Application for MSV1.

As discussed further below, the proposed Project represents an amendment to a warehouse/distribution center project (the "2019 Project") that was conditionally approved by the Planning Board in December 2019, after the Board's determination pursuant to the New York State Environmental Quality Review Act and its implementing regulations in 6 NYCRR Part 617 (collectively, "SEQRA") that the project would not have any significant adverse impacts on the environment. For that project, the Planning Board issued a conditional Special Use Permit and granted conditional Site Plan Review approval for the proposed approximately 1,000,000 square foot ("SF") warehouse/ distribution center.

Project Description

MSV1 will have a footprint of approximately 652,000 SF with five stories and a total floor area of approximately 3.2 million SF. See Appendix 4, Site Plans. Each story will provide floor space for operational needs, along with associated office space on the mezzanine level. The height of the building will be 103.5'. As proposed, the facility will meet the user's objective of a multi-story e-commerce logistics, storage and distribution facility that maximizes the scale and efficiency of operations within a substantially smaller footprint than the footprint that was previously approved by the Planning Board for the 2019 Project.

The multi-story facility is designed with lower floor-to-ceiling distances due to lower storage heights of bins operated by robots. This results in a more efficient design for the total amount of square-footage without wasted space. The extra floors not only add space to keep a larger amount of goods on hand close to customers in the distribution area, but they also provide the floor area required for the state-of-the-art equipment and robotics required to efficiently facilitate the storing, picking, and packaging of customer orders. The upper floors are strategically designed to optimize the building's height and use gravity to route inventory to the distribution system on the first floor for outbound shipments.

There is no feasible alternative to the requested building height for MSV1 that meets the user's goals for an e-commerce logistics, storage and distribution facility with enough useable square footage to provide the required scale and maximum efficiency for its operations. The only feasible way to achieve the goal of approximately 3.2 million SF of floor space that will meet Project 's scale, operational and logistics needs is through the proposed 5-story, 652,000± SF footprint building.

Spreading the building's footprint to reduce the height of the building would cause logistical issues and adversely impact the operational efficiency of MSV1, preventing the defined user from achieving its goals. It would substantially increase impacts to the 16.5± acres of wetlands on the Project Site, as compared to the 1.8± acres of wetlands that will be impacted by MSV1. Moreover, spreading the 3.2 million SF of floor space horizontally over the Project Site would require substantial area variances for lot coverage and building coverage and would not be feasible in any case because of the lack of required space on the Project Site for parking, internal driveways, stormwater controls, etc. See Appendix 4, Site Plans. Further, any reduction of the Project's floor space would prevent MSV1's user from achieving its operational requirements. Finally, the costs of constructing a shorter facility that provides the required approximately 3.2 million SF of floor space, along with the substantially increased operational costs associated with a much less efficient design, are not economically feasible.

Accessory features proposed for MSV1 include 2 guard shacks (with 1 operating seasonally); 990 car parking spaces (including 8 motorcycle parking spaces); 417 trailer stalls and 59 loading docks; 2 water storage tanks; stormwater management practices and improvements; site driveways; lighting, landscaping; signage; and other related improvements. Once constructed, operational activities will take place within the proposed building in a secured environment that is not open to the public.

Access to and from Project Site will occur from three driveways along Route 5S. Primary access by passenger vehicles only would be provided from the center driveway, across from the eastern driveway from the existing Target distribution facility. BMG proposes to install a new traffic signal at this driveway intersection, with the addition of a new left-hand turn lane onto the Site, which will improve traffic conditions on Route 5 once the Project is operational. To the west of the primary driveway, a second driveway for trucks will provide a stop-controlled, full-movement intersection with Route 5S. The third driveway, to the east of the primary driveway, will be stop-controlled and provide right-in/right-out access only. This driveway will primarily be used by passenger vehicles, however, it will also be used for trucks leaving the Project Site during limited seasonal peak periods. Overall, it is anticipated that this design will reduce potential impacts from the Project on the Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

To connect MSV1 to public water and sewer, new service laterals will be connected to the existing Town of Florida water and sewer mains located along Route 5S. The Project Site is located within existing water/sewer districts. Water will be provided to the Project for both potable and fire service purposes.

MSV1 will be built on vacant lands between Route 5S and I-90. As described above, traffic from the Project would enter onto Route 5S, an established east/west state highway with a direct connection via N.Y.S. Route 30 ("Route 30") to I-90 approximately 1.5 miles away to the east through a mostly commercial corridor. MSV1's layout is oriented towards I-90, with the building and parking areas located as far away from adjoining properties as possible. As

discussed below, through the Project's design, including site layout, set-backs, architecture and landscaping, impacts to surrounding lots and the environment will be minimized while supporting the Town's long-term planning objectives to locate commercial/industrial development in the C-2 zoning district along the Route 5S corridor next to I-90.

Finally, MSV1 will result in substantial local benefits with minimal impact on local services due in significant part to the Project's use of Routes 5S/30, state-maintained highways, for access to I-90. These benefits would include:

- Substantial building permit fees for the Project paid to the Town;
- Creation of a minimum of 300 construction jobs through the construction of the Project;
- Creation of a minimum of 750 permanent jobs with full comprehensive benefits and educational opportunities, plus hundreds of part-time and seasonal jobs;
- Productive use of a vacant industrial site in the C-2 zoning district long-targeted for industrial development;
- Significant increase in the taxable value of the Project Site, with a total capital investment in excess of several hundred million dollars;
- Indirect employment resulting from the build-out of Project ;
- Local procurement opportunities for small businesses;
- Ancillary economic output due to employment and construction; and
- Positive impact creating substantial new opportunities with fiscal benefits supporting local public schools and community infrastructure.

II. BACKGROUND

In 2019, as discussed above, a SEQRA negative declaration and conditional approvals were granted by the Planning Board for the 2019 Project. The Planning Board's conditional Special Permit and Site Plan Review approvals of the 2019 Project remain valid, allowing for the development of the 1,000,000± SF warehouse/distribution center as previously approved by the Planning Board once all conditions of the approvals are satisfied. However, a new, preferred user has been identified by BMG for the project that is prepared to move forward with construction of MSV1 based on timely receipt of amended approvals. Accordingly, the successful development of the Project Site for MSV1 requires the proposed amendments of the conditionally approved Special Permit and Site Plan for the 2019 Project by the Planning Board.

III. SEQRA COMPLIANCE

SEQRA Review of MSV1 is Required

Even though there was an extensive, prior SEQRA review of the 2019 Project by the Planning Board that was coordinated with other agencies, the amended Project's potential environmental impacts must be reviewed pursuant to SEQRA. Pursuant to 6 NYCRR § 617.6(a)(1)(iv), "as soon as an agency receives an application for...approval of an action, it must … make a preliminary classification of the action as Type 1, Type 2 or Unlisted." This "preliminary classification" assists agencies in determining whether a full Environmental Assessment Form ("FEAF") and coordinated review are necessary.

For the Planning Board, review of the amended Project is the SEQRA "action" based on the application submitted by BMG. Because the amended Project involves the disturbance of

over 10 acres of land, the Planning Board has properly classified it as a Type 1 action pursuant to 6 NYCRR § 617.4(b)(i). As a result, coordinated environmental review of MSV1 is required under SEQRA. For this submission, BMG has completed an updated Part 1 of the FEAF which is attached as Appendix 5. It has also submitted this expanded EAF narrative to discuss the environmental criteria listed in Part 2 of the FEAF consistent with the scope of the Planning Board's SEQRA review as discussed below. Finally, this submission includes the evaluation of the potential impacts of MSV1 on a nearby designated Disadvantaged Community ("DAC") based upon proposed amendments by NYSDEC to the SEQRA regulations and the criteria in the FEAF Part 2. The Project Site is not located in the DAC but traffic from the Project will travel through the DAC to and from I-90. A DAC report for MSV1 is attached as Appendix 20.

SEQRA requires agencies to make a determination as early as possible in the review process as to whether the involved action has the potential to have a significant adverse impact on the environment. Pursuant to 6 NYCRR § 617.6(b)(2), when more than one agency is involved in the review of a Type 1 action, this determination must be made by a "lead agency" that is normally the agency principally responsible for approving the action. After a coordinated review, if the SEQRA lead agency issues a negative declaration concluding that the action will not have a significant adverse impact on the environment, then that negative declaration is binding upon all other involved or interested agencies.

The Planning Board had previously served as SEQRA lead agency with respect to its review of the 2019 Project. At its February 2025 meeting, the Planning Board stated its intention to continue to serve as SEQRA lead agency for review of Project and notice of that intent was circulated to other involved and interested agencies identified in the FEAF Part 1. At its May 2025 meeting, it is anticipated that the Planning Board will establish itself as SEQRA lead agency for the coordinated environmental review of MSV1.

On December 12, 2019, the Planning Board issued the Negative Declaration for the 2019 Project after its review of the project's potential environmental impacts, concluding that no significant adverse environmental impacts would occur and that no environmental impact statement would be required. See Appendix 1. Thereafter, the Planning Board granted conditional approval of the 2019 Project, foreclosing any amendment or recission of the Negative Declaration pursuant to 6 NYCRR §§ 617.7(e) and (f), respectively.

Pursuant to 6 NYCRR § 617.6(b)(3)(iii), the Negative Declaration for the 2019 Project remains binding upon the Planning Board and other involved and interested agencies with respect to the 2019 Project. See Appendix 1. The approved site plan for the 2019 Project is attached as Appendix 2.

Accordingly, the appropriate scope of SEQRA review of amended MSV1 is limited to the review of any additional or different impacts that may occur from the Project, as compared to the 2019 Project. To the extent that the Project has the same or less impacts than the 2019 Project, the Planning Board is constrained by its prior Negative Declaration. This narrative compares and evaluates the potential impacts of the modified Project with those of the 2019 Project in the prior Negative Declaration. The chart comparing the two projects' site plans, attached as Appendix 6, provides much of the information that the Planning Board needs in order to properly evaluate whether any additional or different impacts from MSV1 may result in a significant adverse environmental impact that requires preparation of an environmental impact statement.

Finally, as required by recently enacted New York State law regarding SEQRA review, this submission provides an evaluation of whether MSV1 "may cause or increase a disproportionate pollution burden on a disadvantaged community"[1] While the Project Site is not in an area that has been designated by New York State as a disadvantaged community ("DAC"), it is adjacent to a DAC and its traffic will travel through a DAC to I-90, triggering this new, additional SEQRA review requirement.

IV. INVOLVED AND INTERESTED AGENCIES

In the FEAF Part 1, BMG identified the following agencies that may be involved or interested in the environmental review and approval of MSV1:

Town of Florida Town Board;
Town of Florida Highway Department;
Montgomery County Planning Department;
Montgomery County Health Department;
Montgomery County Industrial Development Agency;
NYS Department of Environmental Conservation, Region 4 ("NYSDEC");
NYS Department of State;
NYS Office of Parks, Recreation and Historic Preservation ("SHPO"); and
NYS Department of Transportation, Region 1 ("NYSDOT").

V. EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

The SEQRA lead agency must consider the criteria for determining the significance of potential environmental impacts from the Project as set forth in the SEQRA regulations at 6 NYCRR § 617.7(c). To accomplish this, the lead agency reviews all relevant information and completes Parts 2 and 3 of the FEAF to provide the basis for its SEQRA determination.

For MSV1, the identification and assessment of potential environmental impacts based on FEAF Part 2 (including the proposed FEAF Part 2 criteria for DACs) is discussed below. Based on the following discussion, it is BMG's opinion that MSV1's potential impacts are consistent with those of the 2019 Project as previously reviewed by the Planning Board in its 2019 SEQRA Negative Declaration. Accordingly, MSV1 will not create any significant adverse environmental impacts, and it is respectfully submitted that a Negative Declaration is warranted under SEQRA.

[1] Recent developments to SEQRA review procedures in and around environmental justice communities have expanded the scope of SEQRA review in designated DACs. In 2023, SEQRA was amended to add to the criteria for whether an action may require an EIS "whether it may cause or increase a disproportionate pollution burden on a disadvantaged community" (see 2023 N.Y. ALS 49, 2023 N.Y. Laws 49, 2023 N.Y. Ch. 49, 2023 N.Y. AB 1286). The law took effect on December 30, 2024, and covers impacts from all forms of "pollution," as the term is defined in ECL 1-0303. In January 2025, NYSDEC proposed changes to 6 NYCRR Part 617 and the FEAF Part 2 to implement the amendments to SEQRA: https://dec.ny.gov/regulatory/regulations/proposed-emergency-recently-adopted-regulations/state-environmental-quality-review-act-regulatory-revisions. The public comment period for these proposed amendments remains open until May 7, 2025.

1. Impact on Land

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Land.

MSV1's potential for impacts on Land are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Land.

Consistent with the 2019 Project, based upon review of the FEAF Part 2, MSV1 will involve construction on land where depth to water table is less than 3 feet; slopes are 15% or greater; and bedrock is exposed, or generally within 5 feet of existing ground surface. Further, it is expected that construction of the Project will take 18-24 months. As discussed below, however, none of these potential impacts will result in any significant adverse impacts and, critically, the Project will not result in any increased erosion.

It is not anticipated that the Project will involve the excavation and removal of significant amounts natural material from the Project Site. Any topsoil that cannot be reused for landscaping purposes and/or other rock or unsuitable soils, if any, will be stockpiled on Site in accordance with the Site Plans.

As was the case for the 2019 Project, construction of MSV1 will require the removal of shallow bedrock through a combination of ripping via a large track mounted backhoe and controlled blasting. Where blasting is determined to be necessary, it would be completed in accordance with all applicable state and federal regulations. At a minimum, the blasting protocol will include preparing pre-blast surveys; preparing a blasting plan; performing the work within regulatory limits for vibration and overpressure (noise); field monitoring for vibration and overpressure using seismographs; and maintaining logs of the drilling and blasting work. A figure in Appendix 7 containing the Geotechnical Engineering Report shows the area of potential blasting on the Site and land within 500' of the area. There are no sensitive receptors within the area of blasting or within 500' of the area.

The Project will involve impacts to 1.8± acres of wetlands "where depth to water table is less than 3 feet." In comparison (See Appendix 6), the 2019 Project involved impacts to 6.5± acres of wetlands, which were approved pursuant to an individual permit issued by the U.S. Army Corps of Engineers ("USACE") that is included as Appendix 2. MSV1, which will involve 4.7± less acres of wetland impacts than the 2019 Project, will be undertaken in accordance with the USACE wetlands permit that was recently renewed. See Appendix 2. In other areas of the Site, perched groundwater may be encountered, which may require dewatering measures and/or diversion ditches that will be undertaken in accordance with the Project's Geotechnical Engineering Report (Appendix 7). Finally, the Project will also require grading and/or filling involving "slopes of 15% or greater" in some areas of the Project Site (particularly the southwestern portion) where those steep slopes exist, in order achieve the elevations required for construction of the Project.

As discussed in Impact on Surface Water below, all Project construction will be undertaken in accordance with the approved Stormwater Pollutions Prevention Plan ("SWPPP") for MSV1 in order to prevent impacts from erosion. See Appendix 8. During Project construction, erosion and sediment control, soil stabilization, dewatering and pollution prevention measures will be installed, implemented and maintained on the Property as set forth

in the SWPPP to minimize the discharge of erosion of sediment and prevent a violation of the State's water quality standards.

Finally, while MSV1 is anticipated to require 18-24 months for completion of construction after receipt of all required approvals, this is entirely consistent with the expected construction time for the 2019 Project that was previously considered by the Planning Board. Construction will be limited to daylight hours and will not occur on Sundays or major holidays. Furthermore, construction traffic onto and leaving the Site will be minimized due to the limited amount of material expected to be excavated and removed from the Site.

Accordingly, for the foregoing reasons, MSV1 will not result in any significant adverse environmental impacts on Land.

2. Impact on Geological Features

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Geological Features.

As reflected in the FEAF Part 1 for MSV1 (See Appendix 5), there are no unique landforms on the Project Site that will be impacted by MSV1. Accordingly, MSV1 will not have any significant adverse impact on Geological Features.

3. Impact on Surface Water

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Surface Water.

MSV1's potential for impacts on Surface Water are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Surface Water.

Consistent with the 2019 Project, based upon review of the FEAF Part 2, MSV1 will involve construction within a freshwater wetland and has the potential to "cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies" and to "affect the water quality of any water bodies within or downstream of the site."

As discussed above, MSV1 will involve impacts to 1.8± acres of wetlands "where depth to water table is less than 3 feet."[2] The 2019 Project involved impacts to 6.5± acres of wetlands (See Appendix 6), which were approved pursuant to a permit issued the U.S. Army Corps of Engineers ("USACE") that is included as Appendix 2. MSV1 will thus involve 4.7± less acres of wetland impact and will be undertaken in accordance with the USACE wetlands permit that was recently renewed. See Appendix 2.

Avoidance and/or mitigation of turbidity or erosion will occur through the Project's implementation of the SWPPP (See Appendix 8) which includes modern stormwater management controls designed to ensure that any stormwater discharged from the Project Site

[2] NYSDEC has confirmed that MSV1 is a transitional project that is not subject to the agency's revised wetlands jurisdiction

will meet NYSDEC water quality standards, both during and after construction, resulting in minimal impacts to surface waters. Stormwater from the Project will be managed, treated and discharged in accordance with the requirements set forth in the 2025 NYSDEC State Pollution Discharge Elimination System general stormwater permit and the Project's SWPPP, subject to prior review and oversight by the Town's engineer and continuing regulatory oversight and enforcement by NYSDEC. Stormwater will be collected and treated to protect water quality prior to discharge. As required by law, stormwater will be managed to control the rate of stormwater runoff to less than pre-development rates for a full range of storm events from the 1-year storm to the 100-year storm.

During the Project's construction, erosion and sediment control, soil stabilization, dewatering and pollution prevention measures will be installed, implemented and maintained on the Project Site as set forth in the SWPPP and as required by law to minimize the discharge of erosion of sediment and prevent a violation of the State's water quality standards. These mitigation measures are designed to limit erosion of land by controlling the flow of water until permanent stormwater control measures are installed and pervious surfaces are stabilized with vegetation and/or buildings and parking areas.

Measures will include, but not be limited to, installation of silt-fencing to control disturbed areas; stockpiling soils and vegetative soil stabilization; seeding and mulching of all disturbed surfaces; dust control (as necessary); and ongoing inspection and maintenance of erosion control measures to ensure their effectiveness until all disturbed surfaces are stabilized. The Project's SWPPP and Site Plans will comply with the requirements of NYSDEC General Stormwater Permit GP-0-25-001 and the adopted New York State Stormwater Management Design Manual, dated July 31, 2024.

Post-construction, MSV1's stormwater management system will collect stormwater run-off from the Project Site through a series of catch basins and pipes and convey the water to the proposed stormwater management areas (including surface and Floridaurface areas) depicted on the Project's Site Plans and in the SWPPP. Mitigation of potential impacts will occur through the treatment of sediments and other contaminants in the run-off as described in the SWPPP to ensure the stormwater discharges meet applicable water quality standards and have minimal impacts on the downstream water courses and wetlands. As required by the NYSDEC stormwater regulations, the peak rate of run-off from the Project Site will be essentially the same or less than the peak rate of run-off under the existing conditions.

As a result of these mitigation measures, potential surface water impacts from MSV1 will be significantly less than from existing conditions. By their nature, exposed soils and disturbed lands on the Project Site have greater potential for erosion and sedimentation in surface waters than the more stable status of the Project Site after the Project is constructed with its state-of-the-art stormwater controls.

Overall, MSV1's SWPPP and erosion and stormwater controls that will be undertaken during and post-construction will provide the same level of minimization of potential impacts on Surface Water and the same level of compliance with NYSDEC requirements as previously reviewed for the 2019 Project.

Based on the foregoing, the Project will not create any significant adverse environmental impacts on Surface Water.

4. Impact on Groundwater

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Groundwater.

MSV1's potential for impacts on Groundwater are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Groundwater.

The Project is estimated to require 65,000 gallons per day of water and to involve the discharge of 55,000 gallons per day of wastewater. BMG proposes to obtain water and wastewater services from the Town of Florida and to connect to existing water mains along Route 5S. BMG's engineer has provided a report on Water & Sewer Services for the Project (See Appendix 9), demonstrating that the Town should have sufficient capacity to provide these services.

The Project will not discharge wastewater into the ground. No subsurface disposal systems will be used on the Project Site. It should also be noted that the Project Site is not located over or adjoining any primary or principal aquifer, nor over or adjoining any aquifers used as a community drinking water source. The Project will not require any wells or involve the use of groundwater. See FEAF Part 1, Appendix 5.

Furthermore, stormwater run-off from the truck parking areas on the Project Site will be collected separately and treated as "hot-spot" areas as identified by NYSDEC stormwater regulations. These areas will be collected and discharged through a series of stormwater treatment practices suitable to treat stormwater from hot-spot areas in accordance with the NYSDEC Stormwater Design Manual. Hot-spot run-off is directed to onsite oil-water separators followed by hydrodynamic separator quality treatment structures and ultimately to a proposed stormwater extended detention wetland/pond to adequately clean and remove any potential contaminates prior to discharge.

A Phase 1 Preliminary Site Assessment ("PSA") conducted on the Property did not indicate the presence of any known or suspected current or historic sources of soil or groundwater contamination on the Project Site. See Appendix 10. The PSA identified miscellaneous non-hazardous debris on the Site which will be cleaned up during construction of the Project.

Finally, Project construction will not have any significant impact on groundwater, as demonstrated by the Geotechnical Report (See Appendix 7). The Geotechnical Report indicates that perched groundwater conditions may be encountered at some locations, which may require some limited dewatering as part of some excavations.

Based on the foregoing, the Project will not create any significant adverse impacts on Groundwater.

5. Impact on Flooding

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Flooding.

MSV1's potential for impacts on Flooding are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Flooding.

The Project will not have any significant adverse impacts on Flooding. As discussed in detail above and shown on the Site Plans, all storm water from the Site will be collected, managed and treated by a stormwater management system in accordance with the NYSDEC General SPDES permit for stormwater discharges and SWPPP. Also, the Federal Emergency Management Administration Flood Insurance Rate Maps ("FIRM") covering the Town of Florida show that the Property is located outside any designated floodway, 100-year floodplain or 500-year floodplain (See FIRM Map, Appendix 11).

Based on the foregoing, MSV1 will not create any significant adverse impacts on Flooding.

6. Impact on Air

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Air.

MSV1's potential for impacts on Air are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Air. The Project does not have any air emission sources that require permits or registrations. Further, as required by law truck idling for more than 5 minutes on the Project Site is prohibited and subject to enforcement by NYSDEC and other state and local police.

BMG also evaluated the potential for MSV1 to result in impacts on Air from on-site operations and vehicle and truck traffic. To evaluate the potential air quality impacts of MSV1, both at the Project Site and between the Project's driveway access onto Route 5S to the I-90 interchange, BMG prepared an air quality report (the "Study") attached as Appendix 12.

The Study estimated the projected future cumulative emissions from mobile sources (i.e., passenger vehicles and long-haul trucks) using Environmental Protection Agency ("EPA") approved modeling software and the traffic volume projections provided in the Traffic Impact Study ("TIS") for MSV1 discussed below. The TIS considered MSV1's mobile sources and other existing and projected sources based upon a 2027 expected operational timeframe for the Project. The air quality dispersion modeling results were compared to EPA's National Ambient Air Quality Standards ("NAAQS") to determine if there are potential air quality impacts to nearby sensitive receptors (i.e., local residential areas and schools).

The potential impacts of mobile source emissions on sensitive receptors focused on areas that would also be affected by MSV1's mobile sources. Specifically, these areas include the Routes 5S/30 corridor between the MSV1 site and I-90, areas of public access and residential areas along Routes 5S/30. Modelling receptors were conservatively placed along this corridor.

The surrounding area was reviewed for sensitive locations, such as schools, hospitals, and nursing homes, including a medical clinic located on Route 5S.

With respect to potential impacts on air quality from MSV1 and existing and projected mobile air emission sources along the Routes 5S/30 corridor to I-90, the Study found that projected emissions associated with mobile sources in 2027, added to background concentrations, would not result in an exceedance of the applicable air quality standards at any receptor locations, including at sensitive receptor locations. This includes from mobile sources operating on MSV1's site as well as between the Site and I-90 along the Routes 5S/30 corridor.

In addition to the analysis discussed above, the potential for cumulative air quality impacts from mobile sources on ozone was considered. Ozone is a colorless gas composed of three oxygen atoms, known chemically as O_3. It occurs both in the Earth's upper atmosphere and at ground level. Ground-level ozone is a major component of smog and poses health risks to humans, animals, and vegetation. The formation of ground-level ozone is a photochemical process involving precursor pollutants such as NO_X and volatile organic compounds ("VOCs").

The Study found that projected emissions of NOx associated with projected mobile sources in 2027, added to background concentrations, would not result in an exceedance of applicable air quality standards and therefore, projected contributions of NOx to the formation of ozone are expected to be minor. Additionally, the Study included consideration of four pollutants which are VOCs. These VOCs are projected to be below the respective regulatory thresholds; therefore, projected contributions of VOCs to the formation of ozone are also expected to be minor.

Based on the foregoing, it is not anticipated that MSV1 will have any significant adverse impact on Air.

7. Impact on Plants and Animals

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Plants and Animals.

MSV1's potential for impacts on Plants and Animals are consistent with those reviewed by the Planning Board for the 2019 Project and based on the Application habitat assessment provided as Appendix 13 will not have a significant adverse impact on Plants and Animals for the following reasons:

- The Project Site is located between Route 5S and I-90 and is predominantly a disturbed, open area providing minimal habitat for Plant and Animal species. The Site's potential habitat has been extensively disturbed by farming activities.
- Of the only 20± acres of forest on the Project Site, only 8± acres are proposed to be removed. Accordingly, there is limited terrestrial habitat on the Project Site that may potentially provide minimal habitat for large mammals.
- The 12± acres of freshwater wetlands on the Site, which will be minimally impacted by the Project, may provide habitat for small mammals. Terrestrial species may also utilize the freshwater wetlands on the Property for foraging, cover, or migration. All but 1.8± acres of the wetlands on the Site will remain intact as potential wetland habitat.

- State and federally protected species identified in the FEAF Part 1 and the USFWS IPaC GIS tool for the Project Site include Northern Long-eared Bats and Tri-colored Bats.
    - These protected bat species share the same overwintering and summer roosting habitat requirements. No overwintering habitat for protected bat species has been identified on the Project Site and minimal potential summer roosting habitat for bats was identified on the Project Site that would be impacted by tree clearing for MSV1. Since MSV1 will not involve any additional tree clearing of potential bat habitat than those projects based on the Project's site plans, no different or additional impacts to potential bat habitat on the Project Site will occur.
    - Any potential impacts to bats that may use the Project Site for summer roosting will be avoided by limiting any tree cutting to winter months from November through March.
- Monarch Butterflies are proposed for federal protection. The FEAF Part 1 for the Project indicates that potential preferred habitat for Monarch Butterflies (i.e., Meadows, grasslands or brushlands) will only decrease by approximately 4 acres as a result of the undertaking of the Project, minimizing the potential for impacts to this species. As mitigation, milkweed will be planted on the Project Site wherever possible. Also, other open field areas in the vicinity of the Project Site will continue to provide potential habitat for this species.
- General wildlife species are not anticipated to be significantly impacted by the Project as wildlife occurrences and habitation within the Project Site is expected to be very limited due to the existing uses and disturbed and open nature of the Site. Wildlife should be able to disperse to and use other nearby habitats.

For the foregoing reasons, MSV1 will not have any significant adverse impact on Plants and Animals.

8. Impact on Agricultural Resources

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Agricultural Resources.

MSV1's potential for impacts on Agricultural Resources are consistent with those reviewed by the Planning Board for the 2019 Project and will not have any significant adverse impact.

The impacts of MSV1 are mitigated by the location of the project between I-90 and Route 5S in a commercial/industrial zoning district designated by the Town for precisely the use proposed by BMG. The Town's Comprehensive Plan and zoning map reflect the community's priorities of protecting agricultural land in the Town through land use controls while also encouraging the development of lands in the C-2 district for commercial/industrial purposes. See Section17, Consistency with Community Plans below. Most of the land in the Town is zoned to encourage agricultural uses and, by contrast, lands in the C-2 zoning district only comprise a small portion of the Town.

For the foregoing reasons, MSV1 will not result in any significant adverse impact on Agricultural Resources.

9. Impact on Aesthetic Resources

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Aesthetic Resources.

MSV1's potential for impacts on Aesthetic Resources are generally consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Aesthetic Resources.

Consistent with the 2019 Project, based upon review of the FEAF Part 2, MSV1 will likely be visible from publicly accessible vantage points both seasonally (e.g., screened by summer foliage, but visible during other seasons) and year-round; and that visibility will occur during routine travel by residents, including to and from work and during recreational or tourism-based activities. As discussed below, however, none of these potential impacts will result in any significant adverse impacts for the following reasons:

- The Project is an allowed use under the Zoning Ordinance that will be located in a growing commercial/industrial zoning district in the Town, where some visibility of proposed uses similar to the Project is to be reasonably expected and is permitted by the Zoning Ordinance.
- Based on the FEAF Part 1 and the SEQRA Comparison Chart submitted in support of the Application, Project will be taller but will provide a smaller footprint than the 2019 Project.
- Overall, the Project Site is uniquely situated near the I-90 right-of-way and the Project Site's layout is purposefully oriented to be as far away as possible from residential uses to the north and east of the Project Site. Existing trees and other vegetation on the Project Site and adjacent properties, proposed landscaping, together with distance and topography, combine to reduce potential views of the Project Site from offsite residential uses.
- The Project will not be visible from any officially designated federal, state, or local scenic or aesthetic resources nearby, nor will it impact any officially designated scenic views.
- The Visual Impact Assessment submitted in support of the Application (See Appendix 15) sufficiently demonstrates that any potential visibility of the 103.5' tall building will not result in a significant adverse impact due to distance, topography and intervening vegetation. Further, any partial views of the Project by the traveling public will be short in duration along both highways, where vehicles are traveling at high speeds.
- To further minimize aesthetic impacts, based upon the Application a building design will be used for MSV1 that is more representative of a high-tech R&D production facility than a warehouse, with projecting first-floor glass entry elements at the office area, attractive paint schemes to add depth and character, varied roof lines on the amended Project's elevations, decorative aluminum composite material that will highlight the primary and secondary office entries, horizontal reveals to add dimension to the building's façade, and decorative parapets that include glass clerestory windows on the north and south elevations. This design and diverse paint scheme will make the building more visually appealing when viewed from off-site locations.

For the foregoing reasons, MSV1 will not have any significant adverse impacts on Aesthetic Resources.

10. Impact on Historic and Archeological Resources

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Historic and Archeological Resources.

MSV1's potential for impacts on Historic and Archeological Resources are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Historic and Archeological Resources.

The potential for impacts on Historical and Archeological Resources was thoroughly evaluated during the original review of the 2019 Project (See Appendix 16). Moreover, by letter of February 20, 2025, the NYS Historic Preservation Office determined that the development of the Project on the Site would not impact any Historic and Archeological Resources listed in or eligible for listing in the New York State and National Registers of Historic Places.

Based on the foregoing, MSV1 will not result in any significant adverse impacts on Historic and Archeological Resources.

11. Impact on Open Space and Recreation

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Open Space and Recreation.

MSV1's potential for impacts on Open Space and Recreation are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Open Space and Recreation.

MSV1 will not result in any loss of recreational opportunities, or any reduction of an open space resource designated in a governmental open space plan. The Project Site is located in a zoning district intended for commercial/industrial development such as the Project. The Project Site is privately owned and is not used for public recreation. Moreover, it is not designated by any governmental plans as open or recreation space.

Based on the foregoing, MSV1 will not have any significant adverse impact on Open Space and Recreation.

12. Impact on Critical Environmental Areas

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Critical Environmental Areas.

MSV1's potential for impacts on Critical Environmental Areas are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Critical Environmental Areas ("CEAs"). The Project Site does not contain any CEAs and there are no CEAs in the Town of Florida or Montgomery County.

Accordingly, MSV1 will not have any significant adverse impact on any CEA.

13. Impact on Transportation

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Transportation.

Based on the Traffic Impact Study ("TIS") prepared for MSV1 (See Appendix 17), MSV1's will not have a significant adverse impact on Transportation.

Site access is proposed via three driveway locations along the Project Site's approximately 4,000 feet of frontage on Route 5S. The primary access is the central driveway, proposed to intersect Route 5S opposite Target Drive East, and will be used by passenger vehicles only. This driveway will be full-movement and signalized to improve intersection operation. As discussed below, a traffic signal warrant analysis of the Route 5S and Target Driveway East intersection under future traffic conditions indicates that a signal is warranted for this intersection, which MSV1 will install subject to NYSDOT review and approval. The western driveway will be a stop-controlled full-movement intersection for trucks only. The eastern driveway will be used by passenger vehicles only except during limited seasonal peak periods when outbound site trucks may use it as well. The eastern driveway will be a stop-controlled right-in/right-out only access.

These three driveways are proposed in order to reduce onsite interaction between passenger vehicles and trucks. This layout provides for separate access to the parking area for trucks and the western driveway will also provide sufficient room for truck stacking before the guardhouse.

Further, due to site constraints and to avoid unnecessary impacts, the layout of the employee parking area results in the necessity of two access points, one on each end of the parking areas. Overall, this layout is expected to minimize impacts to the Route 5S corridor and adjacent properties by providing efficient access/egress and appropriate on-site circulation.

Offsite, the TIS evaluated the potential traffic impact of the Project on the Routes 5S/30 corridor and nearby roadways. Thee TIS analyzed roadway volumes under two conditions, including the "Roadway Peak Hour Condition" and "Generator Peak Hour Condition". Since a user has been identified for MSV1, actual trip rates based upon staggered employee shift times and operations at other, similar facilities were able to be used for the TIS. This provides more accurate data for purposes of the MSV1 TIS and the Planning Board's review.

Since the user's required timing of shift changes and corresponding loading/unloading operations do not correspond to the peak hours for traffic on surrounding roadways, MSV1's traffic impact during the Roadway Peak Hour Condition is reduced. For the Roadway Peak Hour Condition, the weekday morning peak hour of the adjacent roadway system occurs from 7:30 AM to 8:30 AM and the weekday evening peak of the adjacent roadway system occurs from 3:30 PM to 4:30 PM. MSV1 will have two general shifts for employees with peak traffic occurring from 6:30 AM to 7:30 AM and from 5:30 PM to 6:30 PM, representing the Generator Peak Hour Condition.

The TIS conducted a capacity analysis at the following intersections:

- 5S and NYS Route 30 Southbound Ramps / P.S. Street;
- 5S and NYS Route 30 Northbound Ramps;

- NYS Route 30 and Route 5S Ramps;
- NYS Route 30 and I-90 Exit 27 Ramps;
- Route 5S and Target Driveway East / Proposed Central Driveway;
- Route 5S and Proposed West Driveway; and
- Route 5S and Proposed East Driveway.

MSV1 is expected to be operational in 2027, so the TIS analyzes the capacity of local roadways and intersections to handle the addition of MSV1 traffic in 2027 during the Roadway Peak Hour Condition and Generator Peak Hour Condition based on projected future traffic levels. For this analysis, the TIS used current traffic counts and estimated a 1.8% per year increase in future traffic to develop projected "2027 No-Build" traffic volumes that do not include MSV1's anticipated traffic.

MSV1's site-generated trips were then added to the 2027 No-Build traffic volumes to provide the 2027 Build traffic volumes. Based on a review of the analysis, with the addition of the improvements recommended in the TIS, the TIS concludes that the adjacent roadway network and proposed driveway system have the capacity to accommodate the anticipated traffic from MSV1 without resulting in any significant adverse impact on Transportation. Specifically, with the anticipated addition of MSV1 traffic in 2027, all of the studied intersections (except for the proposed intersection between MSV1's central driveway and Target's eastern driveway on Route 5S) will continue to provide acceptable levels of service without any additional mitigation measures.

Proposed mitigation measures to minimize traffic impacts from MSV1 are only recommended for the proposed intersection of the Project's central driveway and Target's eastern driveway on Route 5S. To improve traffic conditions at this new intersection, a traffic signal will be provided. In addition, the TIS recommends the widening of Route 5S at this intersection to provide a dedicated, 400-foot westbound left turn lane into the Project's central driveway. The TIS has been submitted to NYSDOT for its review and these improvements will be undertaken subject to NYSDOT review and approval. `

For the foregoing reasons, MSV1 will not result in any significant adverse impacts on Transportation.

14. Impact on Energy

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Energy.

MSV1's potential for impacts on Energy are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Energy.

The Project will require the use of electricity subject to the specific needs of the user. Increased electricity usage will be required for lighting, HVAC systems, office/warehouse equipment, etc. See FEAF Part 1, Appendix 5. This energy usage will be similar in amount to the energy used for comparable commercial buildings in the Town, County, and across the State. The Substation will be built on the Project Site to serve the Project and National Grid has indicated that it can serve the Project. Overall, the Project will not result in a significant increase in the use of energy.

Accordingly, no significant adverse impact on Energy will occur from MSV1.

15. Impact on Noise, Odor and Light

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Noise, Odor and Light.

MSV1's potential for impacts on Noise, Odor and Light are consistent with those reviewed by the Planning Board for the 2019 Project and will not have a significant adverse impact on Noise, Odor and Light.

As with the 2019 Project, no significant adverse noise, odor or light impacts are expected from MSV1. During construction, any noise and odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any noise and lighting impacts will be substantially mitigated so that no significant adverse impacts will occur.

During construction, like the 2019 Project, blasting would occur during the initial phases of MSV1's construction in order to establish necessary elevation grades for the building and other improvements. This blasting will be very limited in duration during the first several months of construction. All blasting during construction would be performed pursuant to a program developed by a qualified geotechnical engineer to minimize impacts, including noise.

Proposed measures to reduce potential noise from blasting include only conducting blasting activities during weekday working hours and not blasting when weather conditions, including wind direction, are unfavorable for avoiding noise impacts. As noted above, no sensitive receptors, including residences are located within 500 feet of where blasting will occur on the Project Site. Notwithstanding, prior notice of planned blasting activities will be provided to all landowners within 500 feet of the overall Project Site's boundaries.

To evaluate potential onsite noise impacts based upon MSV1's proposed operations, BMG conducted a sound study (the "Sound Study") that demonstrates that the Project will comply with NYSDEC's noise guidelines and have no adverse impact on nearby residential uses. See Appendix 18. The Project Site is uniquely situated adjacent to I-90 and the Project's layout is purposefully oriented to be as far away as possible from residential uses to the north and east of the Project Site. This distance is a critical factor for reducing potential noise impacts from the Project. Further, MSV1's loading docks will face away from nearby residences, so the intervening building will block noise associated with truck activities at those loading docks. Also, the Sound Study found that existing ambient sound levels are heavily affected by the constant noise of passing traffic on Route 5S and I-90.

The Study also evaluated the potential for off-site noise impacts from MSV1 due to increased traffic based upon the TIS. See Appendix 17. This offsite sound study demonstrates that the projected noise impacts from increased traffic will not have any significant adverse impact on the residential or other sensitive receptors along the Routes 5S commercial/industrial corridor between the Project Site and I-90. Specifically, based upon NYSDEC's noise guidance, the supplemental study found that all receptors would not experience any significant adverse impact from sound levels as compared to existing ambient conditions.

Similarly, MSV1's lighting will not result in any significant adverse impacts. New, dark-sky compliant, modern and energy-efficient lighting will be used throughout the Project Site. See Appendix 4, Site Plans. Exterior site lighting will comply with the Zoning Ordinance and will be the minimum necessary while ensuring a safe and secure facility. All proposed lighting will be downward facing and will minimize sky glow and light pollution from the Project Site. Where appropriate, lighting fixtures will be of a full cutoff type or provided with shields to reduce glare and light pollution. As shown on the Photometric Plan (See Appendix 4), the fixture locations have been sited to avoid any light trespass onto adjacent properties. These measures have been incorporated to minimize otherwise potential adverse impacts from site lighting of the new building and parking facilities. Though MSV1 involves a taller building, mitigation measures including interior blinds will be employed to ensure that any higher windows do not contribute to new lighting impacts. Also, since the building involves a substantially smaller footprint than the 2019 Project, it is likely that fewer windows overall will be provided.

Based on the foregoing, the Project will not cause any significant adverse impacts involving Noise, Odor or Light.

16. Impact on Human Health

Proposed Finding: The Project will not result in any significant adverse environmental impacts on Human Health.

MSV1's potential for impacts on Human Health are consistent with those reviewed by the Planning Board for the 2019 Project and will not result in any significant adverse impact.

As discussed in Impact on Air, the Project will not involve any stationary air emission sources requiring NYSDEC permits and cumulative mobile source air emissions will comply with the NAAQS and not contribute significantly to Ozone pollution. Nor will the Project involve the generation, treatment or storage of hazardous wastes. Further, the Project will not involve the bulk storage of over 1,100 gallons of petroleum or chemical products and no pesticides or herbicides are proposed to be used for the Project.

Additionally, there are no environmental conditions existing on the Project Site indicating the presence of contamination requiring any remediation. Public water will be provided for the Project and wastewater will be pumped to an existing public wastewater treatment plant and treated prior to discharge subject to a NYSDEC SPDES permit. No septic system will be used. Further, the Project's SWPPP provides for "hotspot" treatment to prevent any ground or surface water contamination from Project-generated stormwater.

Finally, all construction and operational activities will be undertaken in accordance with and in compliance with all pertinent environmental and land development regulations and related permit and approval procedures and requirements.

Accordingly, no significant adverse impacts on Human Health will occur from MSV1.

17. Consistency with Community Plans

Proposed Finding: The Project is consistent with Community Plans.

The Project has been designed in accordance with the Town of Florida's Zoning Ordinance and to comply with its standards for a special permit and site plan approval.

For the reasons noted in the chart below, the Project is consistent with the Town's Zoning Ordinance and its 1996 Comprehensive Plan. The 2011 Amendment to the Town's Comprehensive Plan provides further support for consistency of MSV1 with Community Plans.

Community Plan Consistency	**Source**
The Project Site is located in the C-2 zoning district, where warehouse/distribution centers are allowed uses.	Town of Florida Zoning Map
"To promote health and general welfare." The Project would promote the general welfare by supporting development of a new business in the Town of Florida with accompanying jobs and direct and indirect economic benefits to the community.	Town of Florida Zoning Ordinance Section 2(3)
"To encourage the most appropriate use of land throughout the Town." The Project is consistent with the uses already allowed for lands in the C-2 zoning district, where the Site is located.	Town of Florida Zoning Ordinance Section 2(9)
"Improve employment opportunities for residents of the area." The Project would provide substantial employment opportunities to residents of the Town.	Town of Florida Comprehensive Plan (1996), Goal #2, Objective #1, Page 48
"Limit industrial…development to an area of the town where it will have the least impact…as close as possible to existing built up areas." The Project will be located on lands in the C-2 district between Route 5S and I-90 and across Route 5S from the IBP district. There is existing commercial and industrial development in the C-2 district to the east and west of the Project Site and two warehouse/distribution centers in the IBP district to the north of the Site across Route 5S, with I-90 bounding the Project Site to the south.	Town of Florida Comprehensive Plan (1996), Goal #3, Objective #3, Page 50
"Institute land use policies, where practical, that also promote regional economic development and environmental goals." The Project would support the Town's objective of economic development.	Town of Florida Comprehensive Plan (1996), Goal #4, Objective #1, Page 51
The Town of Florida Comprehensive Plan (1996) contemplated the development of warehouses and distribution centers along Route 5S west of Amsterdam, including the lands comprising the Project Site. The Project is consistent with the Comprehensive	Town of Florida Comprehensive Plan (1996), Preferred Land Use Development Map; Town of Florida Zoning Map (2016)

Community Plan Consistency	Source
Plan's goal of allowing these types of uses in this portion of the Town, including on the Project Site.	
In its Comprehensive Plan, the Town selected a preferred future land use/zoning pattern which includes "new industrial business zones to accommodate potential new businesses and jobs." The Project is consistent with this preference for new industrial development in the Town, including on the Project Site.	Town of Florida Comprehensive Plan (1996), Page 60 and Preferred Land Use Development Map
In its 2011 Comprehensive Plan Amendment, the Town envisioned that development such as the Project would "continue in the concentrated area around the IBP zoning district, away from the more rural and residential portions of the Town." The Project Site is immediately adjacent to the Town's IBP district across Route 5S, fulfilling this community planning goal.	Town of Florida Comprehensive Plan Amendment (2011), Page 5

Overall, MSV1 is consistent with the adopted vision for industrial development in the Town in the C-2 district that will reduce the property tax burden on local residents with a Project that will produce many jobs, provide substantial private and public revenues and have minimal local impacts. MSV1 will significantly contribute to the achievement of the community's goals through:

- Substantial building permit fees for the Project will be paid to the Town for the Project;
- Creation of a minimum of 300 construction jobs through the construction of the Project;
- Creation of a minimum of 750 permanent jobs with full comprehensive benefits and educational opportunities, plus hundreds of part-time and seasonal jobs;
- Productive use of a vacant site in the C-2 zoning long-targeted for industrial development;
- Significant increase in the taxable value of the Project Site, with a total capital investment in excess of several hundred million dollars;
- Indirect employment resulting from the build-out of Project;
- Local procurement opportunities for small businesses;
- Ancillary economic output due to employment and construction; and
- Positive impact creating substantial new opportunities with fiscal benefits supporting local public schools and community infrastructure.

For the foregoing reasons, MSV1 will support and substantially further the goals and objectives of local community plans and will not have a significant adverse impact on them.

18. Consistency with Community Character

Proposed Finding: The Project is consistent with Community Character.

MSV1 conforms to the existing and planned character of the area where the Project Site is located between I-90 and Route 5S in the Town's C-2 zoning district and directly across Route 5S from the IBP district . The Project Site is situated with immediate access to Route 5S. Further, in the C-2 district where the Site is located, new residential uses are not allowed, so no further development of homes may occur there. As discussed above, impacts on existing residential properties will be minimized by the Project's design.

The Project Site is located in an area zoned for such uses that includes a growing number of warehouses and other commercial buildings located along the Route 5S commercial/industrial corridor. In this context, MSV1 is entirely consistent with, and will improve, the immediately surrounding C-2 zoning district's primarily nonresidential community character.

As discussed above, while the Project's building is taller than the building approved by the Planning Board for the 2019 Project, the potential visual impacts of the Project on nearby residential uses will be lessened by intervening vegetation, along with an attractive architectural design for the Project. Further, due to the location of the Project Site in the C-2 commercial/industrial zoning district, some visibility of the Project from surrounding uses is to be reasonably expected.

Similarly, as discussed in relation to potential Project impacts on Noise, the Project will result in minimal increases in the noise experienced by nearby residential receptors neighbors above existing, ambient levels. Finally, as discussed above regarding impacts on Light, the Project's proposed lighting will be dark-sky compliant, minimize sky glow and light pollution and, as shown on the Site Plans, will substantially avoid any light trespass onto adjacent properties.

As designed, MSV1 will be consistent with the character of this area of the C-2 zoning district along I-90 and the Town's existing and planned Route 5S commercial/industrial corridor. The Project Site will be repurposed with a use appropriate to its location in that district, substantially benefitting the Town.

Accordingly, the Project will be consistent with the Town's expectations for the community character of the C-2 district.

19. Impact on Disadvantaged Communities

Proposed Finding: The Project will not result in any significant adverse environmental impacts on a Disadvantaged Community.

MSV1 is located outside of but within ½ mile of a designated Disadvantaged Community and Project traffic will travel through the DAC on Routes 5S/30 to I-90. Accordingly, the Planning Board has evaluated the potential for Project impacts on the DAC based upon the questions presented in NYSDEC's proposed addition to the FEAF Part 2 for DACs as part of proposed changes to the SEQRA regulations in 6 NYCRR Part 617. MSV1 will not have any significant adverse impact on the DAC involving the Project for the following reasons:

Question 19(a) – Is the potentially affected disadvantaged community identified as having comparatively higher burdens or vulnerabilities by the Disadvantaged Community Assessment Tool (https://on.ny.gov/DACAT)?

Yes. The DAC potentially affected by the Project is identified as having comparatively higher burdens of vulnerabilities by the Disadvantaged Community Assessment Tool.

Question 19(b) – The proposed action may create new air emissions or increase existing air emissions within a disadvantaged community.

Yes. MSV1 will create new air emissions or increase existing air emissions that may affect a disadvantaged community, however, air emissions associated with MSV1 will not result in any significant adverse impact on the DAC for the reasons discussed in relation to Impacts on Air (Section 6) above. Based upon this conservative analysis that considered the potential for cumulative impacts beyond those of MSV1 alone, MSV1 will not result in any significant adverse impacts to air quality in the nearby DAC through which Project traffic will travel along Route 5S to I-90.

Question 19(c) – The proposed action may create new wastewater treatment or discharges, or expand existing wastewater treatment or discharges, within a disadvantaged community.

Yes. MSV1 will expand existing wastewater treatment or discharges, within a disadvantaged community. As noted above, wastewater from the Project will be pumped from the Project Site through an underground force main through the Town's sanitary infrastructure, ultimately to the City of Amsterdam wastewater treatment plant, where it will be treated prior to discharge in accordance with a NYSDEC SPDES permit. The Amsterdam plant is located in an adjoining DAC census tract and wastewater discharges are not identified as a significant pollution burden in that DAC. The discharge from Project will not require any pretreatment because it will consist only of sanitary wastewater from a limited number of restrooms. Accordingly, MSV1 will have a minimal impact on the DAC as a result of its expansion of the wastewater discharge at the Amsterdam wastewater treatment plant.

Question 19(d) – The proposed action creates or expands a solid or hazardous waste management facility, or involves the generation of solid or hazardous waste, within or near a disadvantaged community.

No. As reflected in the FEAF Part 1 provided in support of the Application, MSV1 will not result in the generation of any hazardous waste and will not be a solid waste management facility. Per the FEAF 1, MSV1 will generate an estimated 1-2 tons per month of solid waste during operations that will be hauled offsite and disposed of by a private carting business at a license and permitted solid waste management facility subject to NYSDEC permit requirements. No waste will be disposed of on the Project Site**.**

Question 19(e) – The proposed action may increase traffic within a disadvantaged community.

Yes. MSV1 will increase traffic within a disadvantaged community but will not result in any significant adverse impact to the DAC for the reasons discussed above in regard to Impact on Transportation (Section 13).

Question 19(f) – The proposed action affects or involves one or more of the following facility types: landfill; other industrial, manufacturing, or mining land uses; major oil or chemical bulk storage facility; municipal waste combustor; power generation facility; risk management plan site; remediation site; or scrap metal processor.

Yes. MSV1 result in the development of a warehouse/distribution facility on lands between Route 5S and I-90 in the C-2 zoning district, where commercial and industrial uses such as the Project are allowed by the Town's Zoning Ordinance and are consistent with the Town's Comprehensive Plan. Based on the proposed findings that MSV1 is consistent with Community Plans (Section 17) and Community Character (Section 18), MSV1 will not have a significant adverse impact on the nearby DAC through which Project traffic will travel along Route 5S to I-90.

Question 19(g) – Other "pollution" impacts

For the following reasons and based upon the SEQRA Expanded EAF Narrative and its appendices, MSV1 will not have any significant adverse impacts on the DAC from the following other forms of pollution as follows:

Noise

Consistent with the Planning Board's findings set forth in Impacts to Noise, Odor and Light provided in Section 15 above, MSV1 will not result in any significant adverse impacts on Noise in the DAC either from Project operations or as a result of offsite traffic along Routes 5S/30 to I-90. In particular, based upon the study provided by BMG's qualified noise expert in support of the Application, MSV1 will comply with NYSDEC's noise guidance and will not result in any significant adverse noise impacts on the residential properties in the DAC.

Further, projected noise impacts from increased traffic will comply with the NYSDEC noise guidance for the residential or other sensitive receptors in the DAC along the Route 5S commercial/industrial corridor between the Project Site and I-90. Based upon NYSDEC's noise guidance, the sound impact information by BMG's qualified expert consultant concluded that no receptors within that area would experience any significant adverse impact from sound levels as compared to existing ambient conditions.

For the foregoing reasons, the potential impacts of MSV1 on Noise will not result in any significant adverse impact on the DAC.

Odors

With respect to Odors, MSV1 is not anticipated to result in more than minimal impacts to the DAC associated with construction and operation. During construction, any odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any odor impacts from mobile sources on the DAC will be no different than existing traffic along the Route 5S commercial/industrial corridor.

Light

MSV1's lighting will be substantially consistent with the lighting analyzed by the Planning Board for the 2019 Project and will not have more than a minimal impact on the DAC.

New, dark-sky compliant, modern and energy-efficient lighting will be used for the Project, consistent with what would reasonably be expected for an industrial use in the C-2 zoning district. Exterior site lighting will comply with the Zoning Ordinance and will be the minimum necessary while ensuring a safe and secure facility. All proposed lighting will be downward facing and will minimize sky glow and light pollution from the Project. Where appropriate, lighting fixtures will be of a full cutoff type or provided with shields to reduce glare and light pollution. As shown on MSV1's Site Plans, the fixture locations have been sited to avoid any light trespass onto adjacent properties. These measures have been incorporated to minimize otherwise potential adverse impacts from site lighting of the new building and parking facilities. Though MSV1 involves a taller building, mitigation measures including interior blinds will be employed to ensure that any higher windows do not contribute to new lighting impacts. Accordingly, no significant adverse impact on the DAC from MSV1's lighting is expected to occur.

VI. CONCLUSION

Based on the foregoing discussion, MSV1 is generally consistent with the impacts reviewed by the Planning Board for the 2019 Project for which a SEQRA Negative Declaration was issued and will not create any significant new or additional adverse environmental impacts. Consistent with the SEQRA Negative Declaration issued for the 2019 Project and based on the review of the Application by the Planning Board and its consultants and the Planning Board's review of the FEAF Part 2 for MSV1, BMG respectfully submits that MSV1 will not result in any significant adverse impacts and that a Negative Declaration for the Project is warranted under SEQRA.

APPENDICES

Appendix 1 – 2019 Project Approvals

Appendix 2 – Wetland approvals

Appendix 3 – 2019 Project Overall Site Plan

Appendix 4 – MSV1 Proposed Site Plans

Appendix 5 – Updated Full Environmental Assessment Form, Part 1

Appendix 6 – SEQRA Comparison Chart

Appendix 7 – Geotechnical Report

Appendix 8 – Stormwater Pollution Prevention Plan

Appendix 9 – Water and Sewer Memorandum

Appendix 10 – Phase 1 Environmental Site Assessment

Appendix 11 – Federal Emergency Management Administration Flood Insurance Rate Map

Appendix 12 – Air Quality Report

Appendix 13 – Natural Resources Information (including prior wetland permits

Appendix 14 – Agricultural Resources Information

Appendix 15 – Visual Impacts Report

Appendix 16 – Historic and Archaeological Resources Information

Appendix 17 – Traffic Impact Study

Appendix 18 – Sound Study (Onsite and Offsite)

Appendix 19 – Special Permit/Site Plan Review Narrative

Appendix 20 – Disadvantaged Community Report

APPENDIX 1

TOWN OF FLORIDA

Eric M. Mead, Supervisor
Emily Staley, Town Clerk
Steven Anderson, Hwy. Superintendent

214 Ft. Hunter Rd.
Amsterdam, NY 12010

Office: **518-843-6372**
Fax: **518-843-3324**

Part II of the SEQRA was read by Douglas Cole of Prime Engineering and all questions were answered. Since there was no moderate to large impact found a motion was made by Rudy Horlbeck and seconded by Mike Taylor to find that the proposed action will not result in any significant adverse environmental impacts and therefore constitutes a negative declaration for the SEQRA. All other members present were in favor.

Roll Call:
Mike Taylor – Yes
Richard Romeo – Yes
Don Perretta – Yes
Rudy Horlbeck – Yes
Rich Romeo – Yes
Christopher Holloway – Yes
Matt Gogis - Yes

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Route 5S Warehouse/Storage Facility		
Project Location (describe, and attach a general location map): Approximately 1.5 miles west of Interchange 27 on the south side of Route 5S		
Brief Description of Proposed Action (include purpose or need): The Applicant is proposing to construct a 1,000,000 SF warehouse. The project would include approximately 700 tractor trailer spaces and 150 loading docks. A separate driveway from Route 5S would provide access to an approximately 250 automobile parking lot for employees and visitors. The project would include a new stormwater management system, lighting, and landscaping. Project would connect to municipal water and sewer located along Route 5S.		
Name of Applicant/Sponsor: WE Acquisitions	Telephone: E-Mail:	
Address: 300 George Street		
City/PO: New Haven	State: CT	Zip Code: 06511
Project Contact (if not same as sponsor; give name and title/role): Steven Wilson, Project Manager, Bohler Engineering	Telephone: 519-438-9900 E-Mail: steven.wilson@bohlereng.com	
Address: 17 Computer Drive West		
City/PO: Albany	State: NY	Zip Code: 12205
Property Owner (if not same as sponsor): see attached list	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Planning Board - Site Plan Review; Special Use Permit; Subdivision/Lot Consolidation	4/24/19
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☑Yes☐No	Montgomery County Planning Board - 239M Review	
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYSDOT - Highway Work Permit NYSDEC - SPDES NOI & Section 401 WQC, OPR	
h. Federal agencies ☑Yes☐No	Corps of Engineers - Section 404 Wetland Permit	

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

NYS Heritage Areas:Mohawk Valley Heritage Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☑Yes☐No

If Yes, identify the plan(s):

A portion of the site is listed in the Draft 2017 Agricultural and Farmland Protection Plan for Montgomery County; plan is still in draft.

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
C-2 Commercial

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Greater Amsterdam

b. What police or other public protection forces serve the project site?
Montgomery County Sheriff, New York State Police

c. Which fire protection and emergency medical services serve the project site?
Florida Volunteer Fire Department

d. What parks serve the project site?
N/A

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Warehouse/Storage

b. a. Total acreage of the site of the proposed action? 140 acres
b. Total acreage to be physically disturbed? 100+/- acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 140+/- acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Consolidation of 12 lots and subdivision of two lots
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18-24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☑No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: 30-35' height; 2000' width; and 500' length

iii. Approximate extent of building space to be heated or cooled: 1,000,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑Yes ☐No

If Yes,

i. Purpose of the impoundment: Stormwater management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑Other specify: Stormwater Runoff

iii. If other than water, identify the type of impounded/contained liquids and their source. N/A

iv. Approximate size of the proposed impoundment. Volume: 7 million gallons; surface area: 12+/- acres

v. Dimensions of the proposed dam or impounding structure: N/A height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☑Yes ☐No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑Yes ☐No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Project will impact federally regulated wetlands.

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
6.5 acres of wetland impacts are expected by this project.

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____
Project will replace wetlands >>>>>

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 6,850 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: Town of Florida Water District; City of Amsterdam water supply
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☑Yes ☐No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 6,850 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: City of Amsterdam
- Name of district: Town of Florida Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

2.4M Square feet or 55 +/- acres (impervious surface)

6M Square feet or 138+/- acres (parcel size)

ii. Describe types of new point sources. Stormwater discharge from treatment system

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

New stormwater management areas

- If to surface waters, identify receiving water bodies or wetlands: Unnamed tributary of Chuctanunda Creek
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery vehiilces and tractor trailers

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

N/A

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐Morning ☐Evening ☐Weekend
☑ Randomly between hours of 7am to 7pm.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): TBD

iii. Parking spaces: Existing 10-15+/- Proposed 1,050 Net increase/decrease 1,035

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
TBD

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action:
7,600,000 KWH

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
National Grid

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am to 6 pm
- Saturday: 7 am to 5 pm
- Sunday: closed
- Holidays: closed

ii. During Operations:

- Monday - Friday: 24 hours per day
- Saturday: 24 hours per day
- Sunday: 24 hours per day
- Holidays: Closed

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Blasting will be require for shale removal; blasting will be during the initial phase of construction and will be approximately 90 days in duration

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking lot lighting will be needed for safety; closest structure is approximately 600' away. All light fixtures will be dark sky friendly.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: 10+ tons per 18-24 month (unit of time)
- Operation : 1-2 tons per monthly (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Recyclable materails (e.g., wood, metal, etc.) would be seperated from solid waste
- Operation: Recyclable materails (e.g., paper, cardboard, plastic bottles, etc.) would be seperated from solid waste

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Commercial waste hauler will transfer solid waste and recycables to appropriate facility
- Operation: Commercial waste hauler will transfer solid waste and recycables to appropriate facility

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	< 1	55 +/-	+ 54 +/-
• Forested	6 +/-	1 +/-	- 5 +/-
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	TBD	TBD	TBD
• Agricultural (includes active orchards, field, greenhouse etc.)	75	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	TBD	TBD	TBD
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Lawn/landscape areas	5 +/-	10+/-	+ 5

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☑No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☑No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☑No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☐No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 8'+/- feet

b. Are there bedrock outcroppings on the project site? ☑Yes ☐No
If Yes, what proportion of the site is comprised of bedrock outcroppings? 5 %

c. Predominant soil type(s) present on project site:

Appleton Silt Loam	40 %
Palatine Silt Loam	20 %
Lansing Silt Loam	10 %

d. What is the average depth to the water table on the project site? Average: 0-10' feet

e. Drainage status of project site soils:
☑ Well Drained: 20 % of site
☑ Moderately Well Drained: 60 % of site
☑ Poorly Drained 20 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 50 % of site
☑ 10-15%: 40 % of site
☑ 15% or greater: 10 % of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑Yes ☐No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑Yes ☐No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑Yes ☐No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 876-162 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, Federal Waters, Federal Waters,... Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100-year Floodplain? ☐Yes ☑No

k. Is the project site in the 500-year Floodplain? ☐Yes ☑No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
White tail deer, squirrel
raccoon, skunk
variety of birds

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑No
If Yes:
i. Species and listing (endangered or threatened):

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☑Yes ☐No
If Yes, provide county plus district name/number: MONT003

b. Are agricultural lands consisting of highly productive soils present? ☑Yes ☐No
i. If Yes: acreage(s) on project site? 60+/-
ii. Source(s) of soil rating(s): NRCS

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: J Houck Historic Site

iii. Brief description of attributes on which listing is based:

19th century homestead

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☑ Yes ☐ No

If Yes:

i. Describe possible resource(s): J Houck Historic Site

ii. Basis for identification: Phase 1 and 2 Cultural Resource Investigation

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Riverlink Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): City Park

iii. Distance between project and resource: 2+/- miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

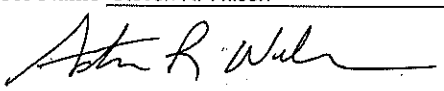
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

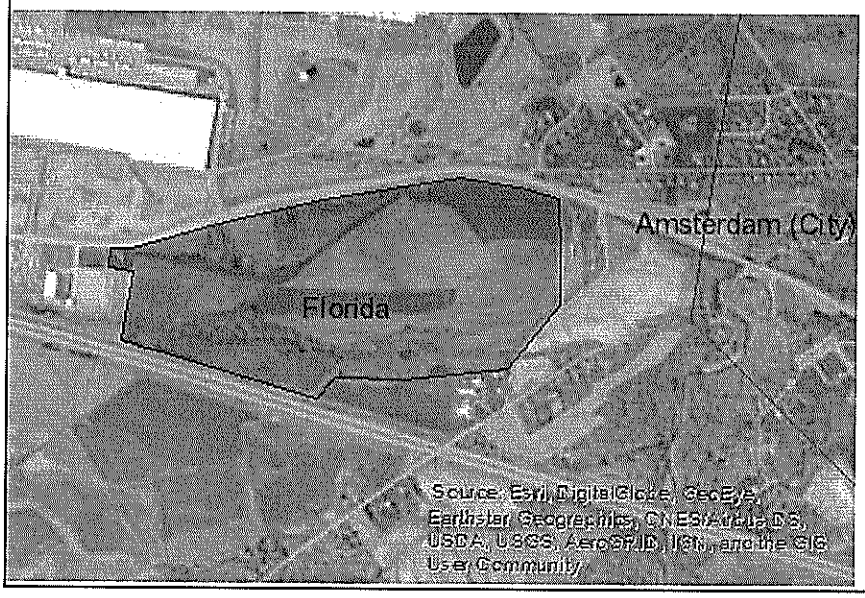
Applicant/Sponsor Name Steven R. Wilson Date 8/28/19

Signature  Title Project Manager

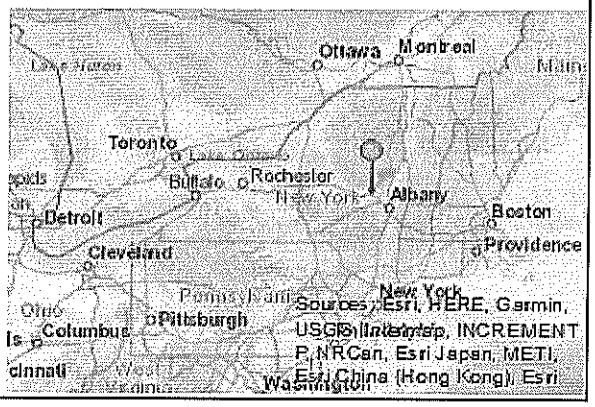
PRINT FORM

EAF Mapper Summary Report

Tuesday, March 12, 2019 12:48 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:Mohawk Valley Heritage Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	876-162
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No

E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	MONT003
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project : Interchange 27 Warehouse
Date : 8/21/19

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☐	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☐	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☐	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☐	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐ NO ☑ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☑	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☑	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☑	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☑	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☑	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☑	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐ NO ☑ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☑	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☐NO ☑YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☑	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☑	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☑	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☑	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☑	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☑	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☑	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☑ ☐	☐ ☑
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☑ ☑	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☑	☐
g. Other impacts: _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☐	☑
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☑
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☑	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☑
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☑
f. Other impacts: _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☑	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☑	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☑	☐
e. Other Impacts: _____		☐	☐

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☑	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☑	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [IfApplicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:
To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Mitigation of potentially moderate to large impacts:

10. Impact on Historic and Archaeological Resources: The proposed loss of the J. Houck historic site will be mitigated by the completion of a Phase III Retrieval Plan and issuance of a Phase III Report within 18 months of USACE authorization.

13. Impact on Transportation: The large impervious parking area will have runoff treated by the proposed on-site stormwater management facility. The need for a traffic signal at the employee parking entrance on Route 5S did not meet the NYSDOT threshold, but will be further studied after the project is complete.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information provided by the applicant

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the Town of Florida Planning Board as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Route 5S Warehouse/Storage Facility

Name of Lead Agency: Town of Florida Planning Board

Name of Responsible Officer in Lead Agency: Michael Taylor

Title of Responsible Officer: Chairman

Signature of Responsible Officer in Lead Agency: Michael Taylor Date: 6/20/20

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Michael Taylor, Planning Board Chairman

Address: Town of Florida, 214 Fort Hunter Road, Amsterdam, NY 12010

Telephone Number: 518-491-2478

E-mail: Michael.Taylor@canals.ny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Town of Florida
Planning Board
Thursday, December 12, 2019
7:00pm

MEMBERS PRESENT:
Mike Taylor, Chairman
Richard Romeo, Vice Chairman
Chris Holloway, Member
Don Perretta, Member
Rudy Horlbeck, Member
Matt Gogis, Alternate Member

ABSENT:
Kim Graff, Member
Charles Saul, Member

OTHERS PRESENT:
Amanda Bearcroft, Secretary/Consultant
Deb Slezak, Town Attorney
Paul Slansky, Town Code Enforcement Officer
John Sampone, Town Building Inspector

I. Call to Order

A meeting of the Town of Florida Planning Board was called to order at 7:01pm by Chairman Mike Taylor.

II. Adoption of the Agenda

Motion was made by Rudy Horlbeck and seconded by Chris Holloway to accept the Agenda. All other members present were in favor.

III. Adoption of Minutes

Motion was made by Don Perretta and seconded by Richard Romeo to accept the minutes from November 4, 2019. All other members present were in favor.

IV. Correspondence

There was no correspondence.

V. Interchange 27 Warehouse - Bohler Engineering

Steve Wilson from Bohler Engineering and Val Farro were present. They discussed the status of studies and next steps involved in the Interchange 27 warehouse project. Ms. Farro discussed the viewsheds of the site on neighboring properties. Mr. Wilson stated that the change in topography helps hide the building from the neighboring residential properties. The landscaping along the parking lot and building will also help to hide the activity. Tops of buildings will be able to be seen but not the whole site. Ms. Farro stated that they are not using moderately mature vegetation. They will be planting a mix of deciduous and year-round trees. If the tenant needs a smaller space that illustrated that will orientate the building closer to the topography that hides the building, so you would see less of the site.

Ms. Slezak wanted to know if the board was satisfied with the plan as it is laid out, especially after the last month's public hearing on the project. She wanted to know if all of the residents' concerns were reviewed and satisfied. Mr. Horlbeck stated that he thinks the concerns were addressed.

The board agreed that once a tenant was identified the tenant and firm would meet again with the Town Planning Board to go over their plan.

Douglas Cole of Prime Engineering, the TDE on the project, went through the two additional comment letters that were received and the SEQR Part II on the project along with the board. The TDE supplied the Board with a letter stating all of the conditions he believes the Town Planning Board should include with their approval of the project. That letter was submitted to the board as part of the final packet.

Part II of the SEQRA was read by Douglas Cole of Prime Engineering and all questions were answered. Since there was no moderate to large impact found a motion was made by Rudy Horlbeck and seconded by Mike Taylor to find that the proposed action will not result in any significant adverse environmental impacts and therefore constitutes a negative declaration for the SEQRA. All other members present were in favor.

Roll Call:
Mike Taylor – Yes
Richard Romeo – Yes
Don Perretta – Yes
Rudy Horlbeck – Yes
Rich Romeo – Yes
Christopher Holloway – Yes
Matt Gogis - Yes

A Resolution was proposed by Kim Graff and seconded by Rudy Horlbeck to approve the subdivision, special use permit, and site plan application for the Interchange Warehouse 27 Project. Whereas the formal resolution was read in front of the board.

Roll Call:
Mike Taylor – Yes
Richard Romeo – Yes
Don Perretta – Yes
Rudy Horlbeck – Yes
Rich Romeo – Yes
Christopher Holloway – Yes
Matt Gogis - Yes

VI. Winery/Brewery/Distillery/Cider Code Amendments

Mike Taylor wanted to know if the Town Planning Board could supply the Town Board with language to review. Matt Gogis spoke about doing research on other communities with micro beverage language in their zoning codes. He stated that most of them had language on a micro or a farm which focused on how much they were making or how large the building is. Ms. Bearcroft stated that since the Town's code is mostly zoned Agriculture to take a broader approach. It was suggested to look at just alcohol production as a definition and determine where in our zoning map this should be included or a special use permit. The approach might be to look at allowing alcohol production in certain zones as a special permit rather than a site plan approval. The

first step would be to draft up language for the Town Board to be presented at the next meeting to hear their comments and move forward with drafting up language for the code.

VII. Public Comment:

Terri Phillips, 189 Pattersonville Road: She had a question about where farm tourism and camping fell into the zoning code. Ms. Bearcroft stated that it would fall under the permitted farming use, or through the code under commercial recreation as a special permitted use. It should be under the farm use because tourists would be paying to stay and work on the land as a means of farm tourism.

VIII. Adjournment

A **Motion** was made by Richard Romeo and seconded by Rudy Horlbeck to adjourn at 8:44pm. All in favor.

Respectfully Submitted
Amanda Bearcroft

APPENDIX 2

Steve Wilson

From: Welch, Maranda E (DEC) <Maranda.Welch@dec.ny.gov>
Sent: Wednesday, March 5, 2025 11:22 AM
To: Sean Baggett; Steve Wilson; Kichurchak, Ronald J (DEC); David Everett (deverett@woh.com); Josh Garofano; ECOLSOL@AOL.COM
Cc: Jed Randell Sarabia
Subject: RE: DEC No. 4-2726-00096/0001 - Route 5S Town of Florida (MSV1)

EXTERNAL: Use caution with attachments and links.

Thank you for the clarification. Since this project received a town neg dec prior to the Freshwater Wetland Jurisdiction and Classification regulations change and the project did not change to include more, but less impacts, this project will not need a freshwater wetland jurisdiction and can proceed with just a Water Quality Certification. Myself and Ron will still be reviewing this project to make sure it will fit our standards for the Water Quality Certification.

Thank you,

Maranda Welch
Environmental Analyst
518-357-2446
Maranda.welch@dec.ny.gov

From: Sean Baggett <sbaggett@bluewaterpg.com>
Sent: Friday, February 28, 2025 11:28 AM
To: Steve Wilson <Steven.Wilson@bohlereng.com>; Welch, Maranda E (DEC) <Maranda.Welch@dec.ny.gov>; Kichurchak, Ronald J (DEC) <Ronald.Kichurchak@dec.ny.gov>; David Everett (deverett@woh.com) <deverett@woh.com>; Josh Garofano <jgarofano@bluewaterpg.com>; ECOLSOL@AOL.COM
Cc: Jed Randell Sarabia <jsarabia@bohlereng.com>
Subject: RE: DEC No. 4-2726-00096/0001 - Route 5S Town of Florida (MSV1)

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

All,

To finish the thought for total clarity, the Army Corp permit was approved for 1.9 acres, and yes we will be amending to 1.5 acres, to be under both the Town's Approval, and the Corps.

Thank you,

Sean

Sean Baggett
VP Development & Construction
Bluewater Property Group
781-974-3628 m
sbaggett@bluewaterpg.com

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

Regulatory Branch December 9, 2024

SUBJECT: Modification (M1) Request for Department of the Army Permit No. NAN-2019-00679-USH
WE 5S, LLC
Commercial Development
Town of Florida, Montgomery County, New York

Adam Winstanley
WE 5S, LLC
300 George Street
New Haven, Connecticut 06511

Dear Mr. Winstanley:

In accordance with the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344), WE 5S, LLC, was issued Department of the Army (DA) Permit Number NAN-2019-00679-USH by the District Engineer on January 10, 2021. This permit authorized the discharge of fill material into 1.90 acres of waters of the United States, including wetlands, to facilitate the construction of an 800,000 square foot warehouse and distribution facility, in the Town of Florida, Montgomery County, New York.

The New York District has reviewed your submittal dated May 31, 2024, in which you requested a two-year extension of DA Permit No. NAN-2019-00679-USH to allow additional time to complete the project. This would make the new expiration date January 10, 2027. On July 22, 2024, the New York District received a response to the request for additional information, dated June 6, 2024, from your consultant, Bohler Engineering and Landscape Architecture, PLLC in a letter dated July 22, 2024. This was done to address specific concerns related to impacts to an endangered species, the Northern long-eared bat; to confirm that the purpose and need of the project is unchanged; to inquire about how much work has been completed to-date; and to clarify any potential changes in the project plans.

Based upon our evaluation of the submitted materials, we hereby approve your request to modify the subject permit. The modification of this permit shall be known as Department of the Army Permit Number NAN-2019-00679-M1. Apart from General Condition (1) and the additional special condition (F) that has been added to address potential impacts to the Northern long-eared bat, all other permit conditions to which the

authorized work was made subject shall remain in effect (copies enclosed). This letter shall be added to all copies of the permit, including those at the work site. The following General Condition (1) shall supersede General Condition (1) from the DA Permit Modification No. NAN-2019-00679-USH.

1. **The time limit for completing the work authorized ends on <u>January 10, 2027</u>. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.**

This condition (Special Condition F) related to tree clearing has been added to address the potential impact to an endangered species the Northern long-eared bat (*Myotis septentrionalis*) has been added to your authorization.

F. The permittee shall ensure that all tree cutting necessary to complete the authorized work shall only occur during the period from October 1 through March 31 in any year this verification is in effect.

In order for us to better serve you, please complete our Customer Service Survey located at:

http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx

If any questions should arise concerning this matter, please contact John Short, of my staff, at (518) 266-6354.

Sincerely,

Amy L. Mitchell

FOR AND ON BEHALF OF
Stephan A. Ryba
Chief, Regulatory Branch

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ATTN: CENAN-OP-RU
UPSTATE REGULATORY FIELD OFFICE
1 BUFFINGTON ST., BUILDING 10, 3RD FL. NORTH
WATERVLIET, NEW YORK 12189-4000

CENAN-OP-RU

IMPORTANT

This letter must be completed and mailed to the Upstate New York Section at the above address prior to commencement of any work authorized under the permit.

Permittee: _WE 5S, LLC_____ Permit No. NAN-2019-00679-M1-USH

Date Permit Issued: _December 9, 2024_ Expiration Date: __January 10, 2027_

Waterway: _Mohawk River_____

City & State: _Town of Florida, New York___

Work will commence on or about:_____
Name, Address & Telephone Number of Contractor:

_____ _____
Signature of Permittee Date

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below **or EMAIL TO: cenan.rfo@usace.army.mil.**

_____
_____
_____

Place Stamp
Here

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
ATTN: CENAN-OP-RU
Upstate New York Section
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ATTN: CENAN-OP-RU
UPSTATE REGULATORY FIELD OFFICE
1 BUFFINGTON ST., BUILDING 10, 3RD FL NORTH
WATERVLIET, NEW YORK 12189-4000

CENAN-OP-RU

IMPORTANT

This letter must be completed and mailed to the Upstate New York Section at the above address following completion or cancellation of work authorized under the permit.

Permittee: WE 5S, LLC
Permit No. NAN-2019-00679-M1-USH
Date Permit Issued: December 9, 2024
Expiration Date: January 10, 2027
Waterway: Mohawk River
City & State: Town of Florida, New York

Check and complete applicable item(s) listed below:

____ Work was completed on _____.
____ Work will not be performed on the project.
____ Deviation from work authorized in permit is explained below.
____ Other (explain) _____
_____
____ For dredging projects, list the volume of material dredged, and the amount placed at each disposal location (if more than one).
_____ cubic yards placed at _____
_____ cubic yards placed at _____
_____ cubic yards placed at _____

_____ _____
Signature of Permittee Date

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below **or EMAIL TO:** **cenan.rfo@usace.army.mil**.

_____
_____
_____

Place Stamp Here

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
ATTN: CENAN-OP-RU
Upstate New York Section
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

MEMORANDUM OF AGREEMENT AMONG THE UNITED STATES ARMY CORPS OF ENGINEERS, THE NEW YORK STATE HISTORIC PRESERVATION OFFICER, AND WE 5S, LLC REGARDING THE PROPOSED WAREHOUSE FACILITY, NYS ROUTE 5S, TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK

USACE PERMIT APPLICATION NUMBER NAN-2019-00679-USH

WHEREAS, the WE 5S, LLC proposes to construct a warehouse and distribution facility along NYS Route 5S in the Town of Florida, Montgomery County, New York ("the Project"); and

WHEREAS, pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344, USACE has been requested to issue a permit authorizing the discharge of fill material into approximately 1.90 acres of waters of the United States, including wetlands to facilitate construction of the Project; and

WHEREAS, the construction of 800,000 square foot warehouse and distribution facility with approximately 188 loading docks, 339 tractor trailer spaces, and parking spaces for 151 cars by the applicant is identified as the "Undertaking"; and

WHEREAS, USACE has defined the Permit Area for the Undertaking, as defined at 33 CFR Part 325, Appendix C, as described in Attachment 1; and

WHEREAS, USACE has determined that the Permit Area for the Undertaking is identical to the Area of Potential Effect; and

WHEREAS, USACE has determined that the undertaking will have an adverse effect on the J. Houck Historic Site (05704.000188), which is eligible for listing in the National Register of Historic Places; and

WHEREAS, USACE has consulted with the New York State Historic Preservation Officer ("SHPO") pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); Advisory Council of Historic Preservation (ACHP) implementing regulations at 36 CFR Part 800; USACE implementing regulations at 33 CFR Part 325, Appendix C, and subsequent interim guidance dated April 25, 2005 and January 31, 2007; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), USACE has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effects determination with specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

NOW, THEREFORE, USACE, SHPO, and WE 5S, LLC agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

I. USACE Authorization. USACE shall ensure implementation of the terms of this MOA as a condition of the Permit.

II. WE 5S, LLC shall implement the Phase III Data Retrieval Plan (Attachment 2) and submit a report on the status of the implementation of same to the SHPO within twelve (12) months of the execution of this Agreement.

III. WE 5S, LLC shall submit to the USACE and the SHPO the Phase III Report as set forth in the Phase III Data Retrieval Plan, within eighteen (18) months of USACE issuance of authorization.

IV. WE 5S, LLC shall temporarily curate and protect all artifacts and other materials collected, including all notes, photographs, and other data generated during the performance of the Phase III data recovery, until all of these materials are accepted by a permanent curation facility in accordance with the Phase III Data Retrieval Plan.

V. In connection with the Phase III Data Retrieval Plan and artifacts obtained during the Phase III DRP excavations, WE 5S, LLC shall complete the permanent curation of the artifacts and shall convey the artifacts and other materials collected, within one (1) year after the date of SHPO and USACE approval of the Phase III Report to the New York State Museum or other facility approved by SHPO and USACE which will curate the artifacts and serve as the final repository.

VI. Within ten days of conveying the artifacts and the materials collected, WE 5S, LLC shall submit copies of the deed of gift, full copies of the artifact catalog and listing, and copies of a letter acknowledging receipt by the facility which will serve as the permanent curation facility, to SHPO and USACE.

VII. WE 5S, LLC shall complete dissemination of information to the public, as set forth in the Phase III Data Retrieval Plan, within six (6) months after the date of SHPO and USACE approval of the Phase III Report.

VIII. DURATION

This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, USACE may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation XI.

IX. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, WE 5S, LLC shall provide all parties to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in USACE's efforts to carry out the terms of this MOA.

X. DISPUTE RESOLUTION

Should any signatory (either signatory or invited signatory) or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, USACE shall consult with such party to resolve the objection. If USACE determines that such objection cannot be resolved, USACE will:

A. Forward all documentation relevant to the dispute, including USACE's proposed resolution, to the ACHP. The ACHP shall provide USACE with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, USACE shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. USACE will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, USACE may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, USACE shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such response.

C. USACE's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

XI. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all the signatories is filed with the ACHP.

XII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation XI, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the Undertaking, USACE must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. USACE shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by USACE, SHPO, and WE 5S, LLC and implementation of its terms evidence that USACE has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

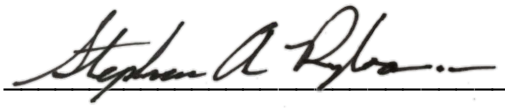
Attachments:

Attachment 1. Permit Area

Attachment 2. Phase III Data Retrieval Plan

SIGNATORIES:

U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT



_____ Date **07APR2021**

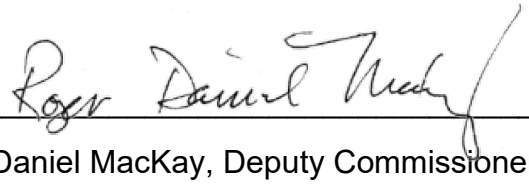
Stephan A. Ryba, Chief, Regulatory Branch

WE 5S, LLC

Adam D. Winstanley _____ Date 3-9-2021

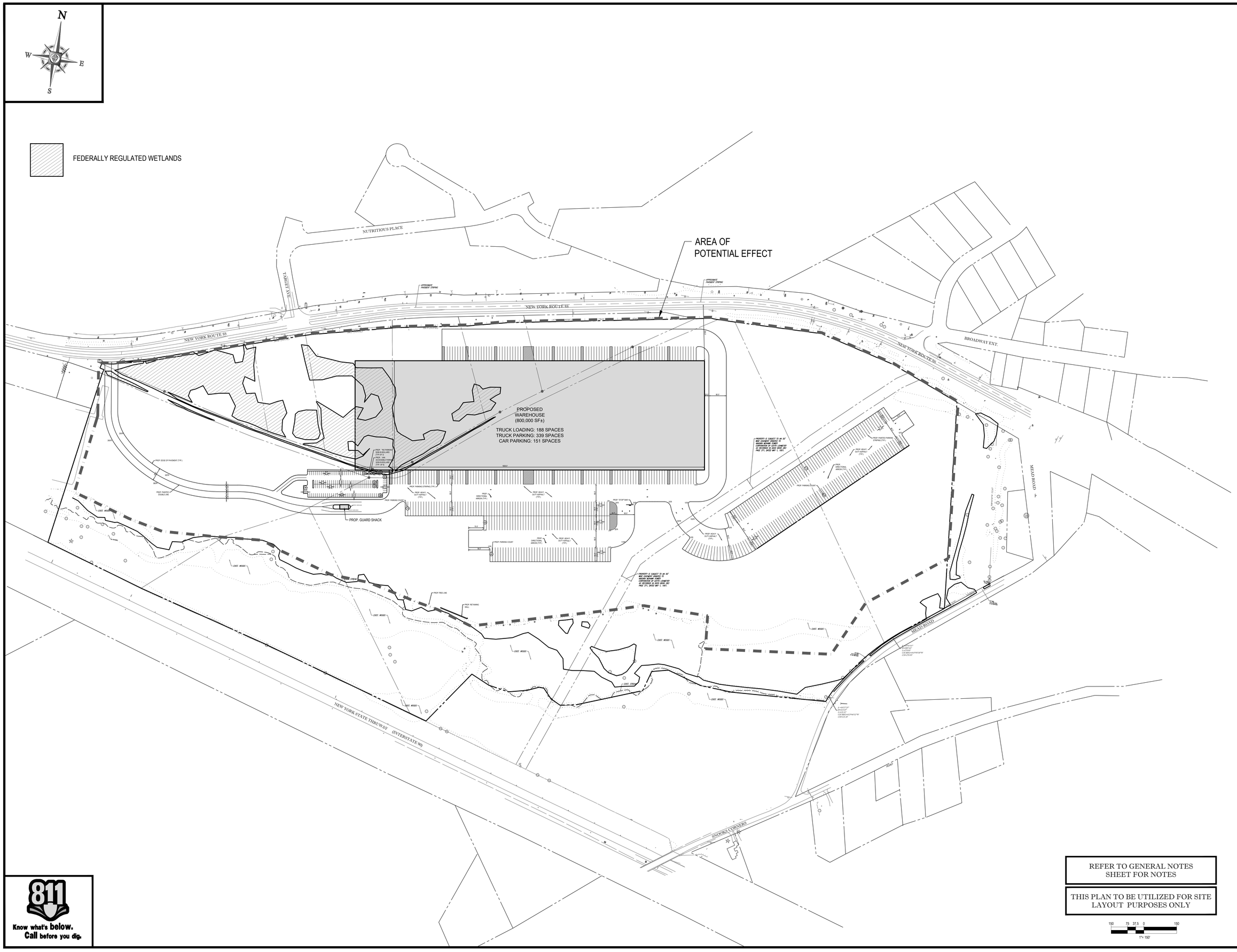
Adam Winstanley, Authorized Signatory

New York State Historic Preservation Officer



_____ Date March 11, 2021

R. Daniel MacKay, Deputy Commissioner for Historic Preservation



REFER TO GENERAL NOTES
SHEET FOR NOTES

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REVISIONS

REV	DATE	COMMENT	BY

PRELIMINARY

PROJECT No.:	B180283
DRAWN BY:	SG
CHECKED BY:	SRW
DATE:	7/6/2020
SCALE:	AS NOTED
CAD I.D.:	CONCEPT 800K

PROJECT:
SITE DEVELOPMENT PLAN
FOR
WAREHOUSE

LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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SHEET TITLE:
AREA OF POTENTIAL EFFECT

SHEET NUMBER:
1
OF 11

REV 0

HARTGEN
archeological associates inc

DATA RETRIEVAL PLAN

Winstanley Distribution Center

New York State Bicycle Route 5 and Mead Rd.
Town of Florida
Montgomery County, New York

HAA # 5334-41
OPRHP 19PR04728

Submitted to:
WE Acquisitions, LLC
300 George Street
New Haven, CT 06511

Prepared by:
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May 2019

MANAGEMENT SUMMARY

SHPO Project Review Number: *Not Yet Assigned*
Involved State and Federal Agencies: *Not Yet Determined*
Phase of Survey: *III (Data Retrieval Plan)*

LOCATION INFORMATION

Municipality: *Town of Florida*
County: *Montgomery*

SURVEY AREA

Length: *207 feet (63 meters)*
Width: *195 feet (60 meters)*
Acres: *0.85 acres*

RECOMMENDATIONS

This document provides a proposed Data Retrieval Plan for the J. Houck Historic Site located on property being developed as part of the Winstanley Distribution Center project. The site consists of the remains of a single-residential structure and an associated well located along the original route of State Highway 5S, which is now runs to the north of the site. The remains of the residence consist of a stone foundation with cellar hole, a collapsed brick fireback associated with a stone hearth built into the stone foundation and what appears to be an "L" shaped addition along the east and south sides of the structure. Our data suggests that main portion of the residence was built between 1820 and 1853 when it is first shown on historic maps. The addition was built sometime after 1888 based on the date of a coin found just below the stone floor slabs. The well is stone lined and still contains water. Efforts to examine any contents were hampered by a post-occupational deposit of field cobbles filling up to a depth of about 5 feet below the ground surface. The property was owned by the locally important Houck family over several generations who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family.

Report Authors: *Bradley W. Russell, Ph.D.*
Date of Report: *May 9, 2019*

TABLE *of* CONTENTS

PHASE III DATE RETRIEVAL PLAN 1
1 Introduction 1
2 Project Information 1
2.1 Project Location 1
2.2 Description of the Area of Potential Effects (APE) 1
2.3 Historic Context 1
2.4 Previous Archeological Study 8
3 Research Questions 8
4 Data Collection Methods 9
4.1 Unit Excavation 9
4.2 Mechanical Trenching 10
4.3 Mechanical Stripping 10
4.4 Feature Excavation 10
4.5 General Documentation of the Excavations 10
4.6 Treatment of Human Remains 10
5 Laboratory and Analytical Techniques 10
5.1 Artifacts and Laboratory 10
5.2 Specialized Analyses 11
5.3 Curation 11
6 Deliverables 11
6.1 End of Fieldwork Letter 11
6.2 Report 11
6.3 Public Information Plan 12
7 Bibliography 13

Maps
Appendix 1: Protocol for the Unanticipated Discovery of Human Remains

Map List

Map 1. Project Location (USGS 2015)
Map 2. Project Map (Esri Inc. 2015)

Table List

Table 1. Summarized Houck family genealogy 2
Table 2. Chai of ownership from 1793 to 1905 of the larger Houck property 4
Table 3. Summary of occupation of the J. Houck Historic Site home site. 7
Table 4. Summary of Phase II field investigations 8

PHASE III DATE RETRIEVAL PLAN

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) proposes to conduct a Phase III Date Retrieval at the J. Houck Historic Site, which is located within the Area of Potential Effects (APE) for the proposed Winstanley Distribution Center project in the Town of Florida, Montgomery County, New York. The site was first identified during a Phase I Archeological Investigation (Hartgen Archeological Associates 2019a). Hartgen returned for a Phase II Site Evaluation (Hartgen Archeological Associates 2019b) to determine the site boundaries and concluded that the site was National Register eligible (NRE) meeting eligibility Criteria B "are associated with the lives of persons significant in our past" (in this case the locally important Houck family) and Criteria D has "yielded, or may be likely to yield, information important in prehistory or history." Due to the location of the site, avoidance is not feasible. So, we are proposing that a Phase III Date Retrieval be conducted.

These investigations were conducted to comply with Section 14.09 of the State Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

2 Project Information

2.1 Project Location

The Project is located between New York State Bicycle Route 5, the New York State Thruway (I-90), and Mead Road, in the Town of Florida, Montgomery County, New York (Map 1).

2.2 Description of the Area of Potential Effects (APE)

The area of potential effects (APE) for the proposed construction project includes all portions of the property that will be directly altered by the undertaking. The APE encompasses ~120 acres. The Phase III Project Area is a much smaller 0.85 acre portion of the overall APE encompassing the J. Houck Historic Site including remains of a 19th-century farmhouse, associated well and area shown (by Phase I/II shovel testing) to contain related archeological materials.

2.3 Historic Context

Historic maps indicate that development occurred throughout the region, beginning prior to 1850. Five early-to mid-19th-century archeological sites have been recorded within one mile of the current Project, two located within 500 feet [Farm Complex 2, Fossgate/Houck Farm (The Jacob and Christina Houck House) (05704.000121) and Farm Complex 1, DeForest/Pettengill/Lohmeyer Farm (05704.000120)]. Three other reported farm sites are located north of the Project. All of these farm houses are visible on the 1853 Geil Montgomery Co. map (Geil and Hunter 1853). The property under study was owned by Charles Williams in the years immediately following the Revolutionary War (DeWitt 1802, 1847 [1790]) and was referred to as "Warrensborough" (Sauthier 1779).

The National Register Eligible (NRE) Jacob and Christina Houck House (Hartgen Archeological Associates 2008a, b) was located at the intersection of Hirschfield Road and NY State Highway 5S. The earlier Fossgate designation has been dropped as later research has revealed that the association was an error. Hirschfeld Road, which was once located near the intersection of Broadway and NY Rt. 5S, across the street from the current Project, was removed sometime after 2003. It was replaced by "Nutritious Pl." and the distribution center

complex. The Beech-Nut Relocation Project was located just north of the current Project, on the opposite side of NY-Route 5S.

Maps indicate additional historic developments in the Phase I Project. Late 19th- to mid-20th-century maps, dating between 1895 and 1947, depict a historic road through the APE (Old Route 5S), which appears to follow the current V-shaped tree line containing the features under investigation. On late 19th to early 20th-century maps, two map-documented structures appear along this road (MDS 1 and 2). They were incorrectly labeled "J. Hawke", rather than Houck. Both are first visible on the 1853 map by Geil (Geil and Hunter 1853). It appears that MDS 1, which is located at the southern point of the angle in the highway, is the structure currently being investigated.

Surface survey has not located any structure in the location of MDS 2 as shown on the Geil map, nor have shovel tests produced remains in the vicinity. It is probable that the structure shown actually represents the Jacob and Christina Houck house, which is located farther east along the same roadway and is missing from its correct location on the map despite being a very prominent and well known structure (See Figure 5).

MDS 1 is depicted on maps through 1924 (Century Map Company 1905; Nichols 1868), after which it is absent. It is likely that the house had been demolished prior to 1924, as a series of topo maps from 1895 to 1924 look virtually identical and were apparently not updated. The next available 1931 map (the first to not depict the structure) shows a number of major differences and clearly represents new, updated mapping. However, it appears that the structure was definitely still present as of 1905 (Century Map Company 1905). MDS 2, The Jacob and Christina Houck house, continues to be shown our most recent maps (New York State Department of Transportation (NYSDOT) 1992). It was carefully dismantled in 2008 with plans to re-erect it in another location (Hartgen Archeological Associates 2008a, b). Topo maps indicate that Route 5S was reraligned to its current configuration by 1947 (present-day NYS Bicycle Route 5) (United States Geological Survey (USGS) 1947) and two houses were constructed on lots north of the former roadway. The Old Route 5S ran along the properties' southern boundaries, along or through what is currently a tree line.

Research on the Houck properties is somewhat complicated by the repeated use of certain family names generation after generation. The first Jacob Houck was born between 1770 and 1780 as was his wife Christina. Jacob had a brother by the name of Peter. Jacob and Christina had four children, Isaac, Jacob, Catherine and Christina. Isaac, who was born in 1803, went on to marry a woman who was also called Christina. He inherited his father's house and remained there until his death in 1850. The couple had two sons, Jacob and Peter. Jacob, who was born in 1833, went on to inherit the house and remained there until his death in 1905. This is the "J. Hawke/J. Houck" whose name is associated with the property in the available historic maps. He and his wife Adeline had no children of their own. But, they adopted Jennie Miller (later Houck), his brother Peter's daughter. A forth Jacob, Jacob TenEyck, also shows up in various records. He appears to be the son of Christina, widowed daughter of the original Jacob and Isaac's sister.

Table 1. Summarized Houck family genealogy

Generation	First name	Last name	Birth	Death	Relationship	Children	Residence
1	Jacob (1)	Houck	1770-1780	1839	Husband to Christina (married 1799)	Isaac, Jacob (2), Catherine (1) and Christine (2)	Jacob and Christina House
1	Christina (1)	Entis	1770-1780	1849	Wife of Jacob (1) (married 1799)	Isaac, Jacob (2) 2 daughters	Jacob and Christina House
1	Peter (1)	Houck			Brother of Jacob	?	
2	Isaac	Houck	1803	1850	Son of Jacob (1) and Christina	Jacob, Peter, Maria (?)	Jacob and Christina House (owner as of 1840)
2	Catherine (Katie)		1810-1813	1890	Wife of Isaac	Jacob, Peter, Maria (?)	
2	Jacob (2)	Houck			Son of Jacob (1) and Christina	?	

Generation	First name	Last name	Birth	Death	Relationship	Children	Residence
2	Catherine (1)				Daughters of Jacob (1)		
2	Christina (2)				Daughters of Jacob (1)		
3	Jacob (3)	Houck	1833	1905	Son of Isaac and Catherine/Grandson of Jacob (1)	Adopted Jennie Miller	Jacob and Christina House (owner from 1850-1905)
3	Adeline	Van Horn	1833	1903	Wife of Jacob (3)	Adopted Jennie Miller	
3	Peter (2)	Houck	1839		Son of Isaac and Catherine/Grandson of Jacob (1)	Jennie (Jane) Miller	
3	Jacob	TenEyck			Son of Catherine (1) (?)/Grandson of Jacob (1)		
3	Catherine (2)	TenEyck (?)			Daughter of Catherine		
3	Christina (3)	TenEyck (?)			Daughter of Catherine		
3	Elizabeth	TenEyck (?)			Daughter of Catherine		
4	Jennie (Jane)	Miller	1866		Daughter of Peter (2) adopted by Jacob (3)		

Hartgen conducted deed research to reconstruct the ownership history of the property under study. The first deed found for this property equaling ± 200 acres was between brothers Peter and Jacob Houck, grantees and John Watts, grantor in 1793. This property was described in the deed as follows:

> …as a part of a tract of land called Warrensborough and included within that tract therof which was heretofore sold and conveyed by Henry Gage & Susanna his wife & their trustees to the said party of the first part and is known in a map of the subdivision thereof made by John R. Bleecker Surveyor, in the year 1766, by Lot No. one hundred and forty seven…(Montgomery County Clerk 1793).

This area was referred to as Warrensborough in the eighteenth century (Sauthier 1779). Sometime between 1793 and 1839 Peter Houck granted his portion of this property to his brother Jacob Houck, although no deed has been found describing this transaction.

Jacob Houck married Christina Entis on January 27, 1799 according to a Dutch Reformed Church marriage record (Ancestry.com 2019a). Jacob died in 1839 granting this property to his eldest son, Isaac Houck. This transaction is described in great detail in his will executed on March 7, 1839. Also, in this will, Jacob Houck conveyed another piece of land to his two sons, Jacob and Isaac. The land was described as:

> A certain piece of land situated in Florida which has been for some years past in possession of James Greenman, Esq. containing about eighteen acres of Land, and bounded as follows, north by lands belonging to me, east by the George Servoss farm, south by the highway and west by James Greenmans land, the said Jacob and Isaac or the survivor of them shall whenever they shall deem it desired and proper to do to sell and convey the said land in fee simple, and out of the proceeds of said sale shall educate, support and maintain my grandson, Jacob A. TenEyck and if there be any surplus left pay the same to him when he arrives at the age of twenty one years. I give to my said grandson Jacob my silver watch, and it is my desire and I hereby request that my sons Jacob & Isaac shall take care of and provide of my said

> grandson until he shall arrive to an age when he shall be capable of taking care of himself. I do also order & direct that my son Isaac shall give my grandson Jacob a house when he arrives of age to be worth sixty or seventy dollars…(Ancestry.com 2019b).

This description fits the property under study perfectly when correlated with historic maps identifying the adjacent property owners. While the will specified that the sons can sell the land if wished, the fact that it remains identified as belonging to the Houck's into the 20th century indicates that they did not. It is unclear where the house that Jacob wanted constructed for his grandson Jacob TenEyck was located, or if it was even built. However, it does not appear to be the house being investigated. Indications are that it was built near the time of the property transfer. But, it is not clear if it was before or after. Jacob Ten Eyck does not appear in census records relating to the property.

Isaac Houck and his wife, Catherine had two sons, Jacob and Peter. After the death of Isaac in 1850, this property was transferred to Isaac's son, Jacob Houck, although no deed or will record could be located explaining this transaction (Montgomery County History and Archives n.d.). Given the range of possible dates for the house under study, Jacob may have built it when he received the property. Jacob Houck maintained the ownership of this property from 1850 until his death in 1905. Jacob and his wife, Adeline had no children of their own. But, they are known to have adopted Jennie (Jane) Miller. A will for Jacob Houck was found which was executed on September 8, 1905 (Ancestry.com 2019c). Interestingly, their adopted daughter is not listed as a beneficiary.

The following table lists the chain of ownership for the Project from before 1793 to 1905.

Table 2. Chai of ownership from 1793 to 1905 of the larger Houck property

Date	Rec'd Date	Grantee	Grantor	Book, Page		Acres	$	Notes
Unknown	Unknown	John Watts	Henry and Susanna Gage					This transaction is described in Deed 4: Liber 257 when John Watts sold the property to Peter and Jacob Houck
21 September 1793	17 October-1793	Peter and Jacob Houck	John Watts	4:257		±200	800 pounds	
7 March 1839	7 March 1839	Jacob Houck	Isaac Houck					By will
8 September 1905	8 September 1905	Jacob A. TenEyck, Anna C. Hills, Ira Mann, Sophia Van Vechten, Remelia Young, Chester Lerudrum, Catherine Diety	Jacob Houck					By will, John P. Miller was executor; Isaac Van Vechten was administrator of goods

Census records have been consulted to determine the individuals present in both the Jacob and Christina Houck house. In addition, they provide critical information on tenants that would have occupied the rental properties owned by the Houck family. The first population record for Jacob Houck was in 1810 when he was between 25 and 45 years of age. At this time, he was living in the Jacob and Christina Houck House, east of the J. Houck Historic site. He was listed in the population census as living with one woman of the same age, four children and two slaves (United States Census Bureau 1810). By 1820, the population census listed him as living with one woman, five children/young adults, two slaves (one adult male and one young adult female), and one free African American female under the age of fourteen (United States Census Bureau 1820).

This is the last census that shows the family owning any slaves. However, labor provided by African Americans remained important to the family's income. In 1830, Jacob Houck was between 50 and 60 years of age and

lived with one woman of the same age, two young adult men, one boy, one young adult female, one girl, and one free African American male between 10 and 23 years of age (United States Census Bureau 1830). According to cemetery records, Jacob Houck died in 1839 (Montgomery County History and Archives n.d.).

By 1840, the ownership of the Jacob and Christina Houck House was transferred to Jacob's son Isaac Houck. In the 1840 population census, Isaac Houck was listed as the head of the family between the age of 30 and 40. He lived with one female the same age, four boys, 1 young adult female, three girls, and one female between 50-60 years of age (United States Census Bureau 1840). Christina Houck, the wife of Jacob and the mother of Isaac died in 1847 according to cemetery records (Montgomery County History and Archives n.d.).

In 1850, Isaac Houck was recorded at age 47 and living with his wife, Catherine, age 37. They had two sons, Jacob and Peter. 64 year old Maria Houck was living with them in this year (United States Census Bureau 1850b). Perhaps Maria Houck was Jacob's sister, but no documentation was found to support that assumption. In this year, Isaac Houck's farm was valued at $10,000 and he farmed 170 acres of land. His main crops were oats, rye, and corn. He had 9 horses, 4 milk cows, 9 beef cattle, 2 oxen, 34 sheep and 9 pigs. His livestock was valued at $718 (United States Census Bureau 1850a).

According to cemetery records, Isaac Houck died in 1850 (Montgomery County History and Archives n.d.). His son, Jacob, acquired the property of the Houck estate and was listed as the head of the household in the 1860 population census at the age of 27, living with his wife, Adeline. His brother, Peter, and his mother, Catherine also resided with him. An African American 16-year old boy named James Dennis, most likely a farm laborer also was listed in the household.

After analysis of the 1860 population census record, it was determined that African American John Miller and his wife Jane were living in the house at the J. Houck Historic Site. It is believed that John Miller who was listed as a farm laborer in the population census living directly adjacent positioned west of the Jacob and Christina Houck House, was working for Jacob Houck and living in this house on the Houck estate (United States Census Bureau 1860b). According to the 1860 agricultural census, the amount of land farmed increased to 264 acres, and the value of the farm increased to $16,000. The main crops in this year were oats and corn. The value of livestock increased to $1,400 which included 5 8 horses, milk cows, 20 beef cattle, 4 oxen, 45 sheep, and 5 pigs. John Miller was not listed in the agricultural census of this year considering only landowners appear to be recorded at this time (United States Census Bureau 1860a).

By 1870, James Dennis no longer lived at the household, but Jennie (Jane) Miller, a four-year old girl lived with the family. It is believed that this child, Peter's daughter and later adopted daughter of Jacob, was a relation to John and Jane Miller who lived next door in 1860 (most likely the granddaughter of Jane Miller). John and Jane Miller were listed as living in a different area of the town of Florida according to the population census for that year. After an examination of the 1870 population records, it is thought that farmer, Loronzo Lisdell rented farm land from Jacob Houck as well as the house which stood at the J. Houck Historic Site. He was age 23 in 1870 and lived with his young wife, Anna and their daughter, Minnie. He is not recorded as owning any real estate in the population census, but having $100 for his personal estate. There is another young farmer who lived directly next door. Jay Burt, 25 years old, was also most likely renting farmland from Jacob Houck. It is probable that he lived in what is known as the Houck Tenant Farmhouse which was situated directly west of the Jacob and Christina Houck House.

Jay Burt lived with his young wife, Lydia and their 2-year old daughter, Amy (United States Census Bureau 1870b). Neither Loronzo Lisdell nor Jay Burt were listed in the 1870 agricultural census because they were not property owners. According to the agricultural census of this year, the Houck farm decreased in acreage down to 180 acres, but maintained the same value most likely because Houck was renting out approximately 85 acres of farmland. The main crop continued to be oats, with an increase in their wheat crop. The farm was still heavy with livestock maintaining 10 horses, 6 milk cows, 6 beef cattle, 2 working oxen, 23 sheep, 3 pigs, and 210 chickens (United States Census Bureau 1870a).

After the analysis of an 1875 state census record, it became clear that Jennie (Jane) Miller who was listed in the 1860 population census living with the Houck family was in fact Peter Houck's daughter (New York State

Census Bureau 1875), likely with a daughter of John and Jane Miller. She is listed in the records as Jacob's niece. She was eventually adopted by Jacob and Adeline who had no children of their own, changing her name to Houck and eventually being buried in the family cemetery. By 1880, Peter and Jennie did not live at the Jacob and Christina Houck House. In this year, Jacob Houck and his wife, Adeline continued to live in the main house with Jacob's mother, Catherine. They had a female servant from Prussia living with them and two male farm laborers. It is believed that the two male farm laborers were living in the tenant farmhouse. Living directly next door to Jacob Houck was farmer, Timothy Fero and his family. It is very possible that the Fero family lived in the house which used to stand at the J. Houck Historic Site. In 1880, Timothy Fero was listed at age 44 and his wife, Dorcas, who was recorded as aged 48. The couple had two teenage children (United States Census Bureau 1880b). According to the 1880 agricultural census, Timothy Fero was renting 85 acres of farmland in that year. It is believed that Fero was renting farmland from Jacob Houck while living at the J. Houck Historic Site. The 1880 federal census was the first year recorded if a farmer was the owner or renter.

Jacob Houck's farm increased in value between 1870 and 1880 by $6,000. His main crop was still oats, but did increase his buckwheat and corn crop. His wheat crop diminished from 200 bushels down to 18 bushels in that year. Houck had 6 horses, 5 milk cows, 7 beef cattle, 2 working oxen, 30 sheep, 5 pigs, and 120 chickens. Recorded immediately adjacent to Jacob Houck, was Timothy Fero in the 1880 agricultural census. Fero rented 86 acres of farmland from Houck in that year and his farm was valued at $9,000. His main crop was also oats, with his next largest crop being corn. He had 2 horses, 6 milk cows, 9 beef cattle, and 12 chickens. There are no later agricultural censuses available after 1880 (United States Census Bureau 1880a).

According to the 1892 state census, Jacob Houck and his wife Adeline were both 60 years old in that year, and his mother Catherine was 81. They had a seventeen year old female servant living with them, and an eighteen-year old male laborer possibly living at the tenant farmhouse. It is believed that African American Benjamin Havens and his wife Grace Havens lived at the house at the J. Houck Historic site in this year. The state census does not distinguish between households as the federal census does, so it is unclear if they lived in a separate house from the Houck family (New York State Census Bureau 1892).

Catherine Houck died in 1898 reported by the New York State Death Index (Ancestry.com 2019d). In 1900, Jacob and Adeline Houck continued to occupy the Jacob and Christina Houck House. Living with them in this year was a young female servant and a young male farm laborer. Recorded living next door in the population census was John and Kate Miller. John Miller was listed as a 32-year old farm laborer who rented out the house which he occupied. It is supposed that he and his wife were living in the Houck Tenant Farmhouse at this time. William Sanders and his family was recorded living next to the Miller's. William Sanders was documented as a 40-year old farmer who rented out a house. Living with him was his wife, Amelia and their four sons. It is believed that the Sander family was renting out the house which used to be situated at the J. Houck Historic Site.

According to cemetery records, Adeline Houck, wife of Jacob Houck died in 1903 at the age of 70 and Jacob Houck died in 1905 at the age of 72 (Montgomery County History and Archives n.d.).

After the analysis of historical maps, it has been determined that the house which used to be situated at the J. Houck Historic site was demolished between 1905 and 1931, probably closer to the earlier date (Century Map Company 1905; USGS 1931).

The following table summarizes the known (or suspected) identities of the tenants renting either the Houck Tenant Farmhouse adjacent to the main house or the J. Houck Historic Site home that is the focus of this study between 1860 and 1900. Due to the timing of censuses, it is likely that additional renters were present in the two properties which were not recorded.

Table 3. Summary of occupation of the J. Houck Historic Site home site.

First Name	Last Name	Residence	Age	Census year	Occupation	Note
John	Miller	J. Houck Historic Site	45	1860	Farm laborer	African American
Jane	Miller	J. Houck Historic Site	45	1860		African American
Loronzo	Lisdell	J. Houck Historic Site	23	1870	Farmer	
Anna	Lisdell	J. Houck Historic Site	19	1870	Keeping house	
Minnie	Lisdell	J. Houck Historic Site	2	1870		
Jay	Burt	Houck Tenant Farmhouse	25	1870	Farmer	
Lydia	Loranzo	Houck Tenant Farmhouse	19	1870	Keeping house	
Amy	Burt	Houck Tenant Farmhouse	2	1870		
Benjamin	Haven	Houck Tennant Farmhouse	27	1880	Laborer	Presumably the same as the Benjamin "Havens" identified as an African American laborer in the 1892 census
John	Bickford	Houck Tenant Farmhouse	18	1880	Laborer	
Timothy	Fero	J. Houck Historic Site	44	1880	Farmer	
Dorcas	Fero	J. Houck Historic Site	48	1880	Keeping house	
Frank	Fero	J. Houck Historic Site	14	1880	At home	
Josephine	Fero	J. Houck Historic Site	12	1880	At home	
James	Dence	Houck Tennant Farmhouse	19	1892	Laborer	
Benjamin	Havens	J. Houck Historic Site	41	1892	Laborer	African American
Grace	Havens	J. Houck Historic Site	31	1892	Dress maker	African American
John	Miller	Houck Tenant Farmhouse	32	1900	Farm laborer	
Kate	Miller	Houck Tennant Farmhouse	30	1900		
William	Sanders	J. Houck Historic Site	40	1900	Farmer	
Amelia	Sanders	J. Houck Historic Site	39	1900		
Howard	Sanders	J. Houck Historic Site	14	1900	Farm Laborer	
Seymore	Sanders	J. Houck Historic Site	12	1900	At school	
Morris	Sanders	J. Houck Historic Site	9	1900	At school	
Erving	Sanders	J. Houck Historic Site	2	1900		

2.4 Previous Archeological Study

The J. Houck Historic Site was initially identified during Hartgen's Phase I Archeological Investigation of a 140 acre parcel of land that will be developed as part of the Winstanley Distribution Center project (Hartgen Archeological Associates 2019a). During the Phase IB shovel testing, a total of 1014 tests were excavated at 15 meter (50 foot) intervals. Seven of those tests were positive for historic artifacts. Six of the positives were located in close proximity to a cut stone foundation and well also recorded during the study. The location matched the position of the J. Houck property first identified during the Phase IA study.

These findings resulted in a Phase II Site Evaluation intended to establish the site boundaries and determine National Register eligibility (Hartgen Archeological Associates 2019b). A total of 64 additional shovel tests were excavated during Phase II. Fifty-eight of those were placed at 8 meter (26 foot) intervals surrounding the foundation, well and previous positive tests. Six tests at 2 meter intervals were excavated in a line extending north from the centerline of the stone foundations in hopes of locating a privy or other structure associated with the foundations. A privy was not identified. But, the testing allowed us to establish site boundaries. In addition nine units were excavated revealing a total of 8.5 m^2. Those tests revealed significant data used to establish the dating of the structure and refine our understanding of the architecture present. An effort was also made to core the sediment at the bottom of the well to determine if any artifacts were present. However, discarded field cobbles blocked access to the lower levels.

Table 4. Summary of Phase II field investigations

Field method	Qty/Area	Rationale	Results
Shovel tests	64 tests	Conducted to determine the site boundaries and chronology	Site boundaries were established based in drop-off of archeological materials. TPQ dates had large range from 1780 to 1920 suggesting long term use of the site before and after residence was present.
Units	9/8.5 m^2	Conducted to investigate structure form, function and chronology	Some ambiguity remains about the form of the structure. Excavations suggested the visible foundation and cellar hole were the original structure dating between 1820 and 1853 when it appears on the Geil map. Stone walls and floor slabs suggest that the structure had at least one addition wrapping around the east and south sides added sometime after 1888.

3 Research Questions

The J. Houck Historic Site has the potential to answer a wide range of research questions. These include the following:

- Phase II investigations suggested that the residential structure was expanded decades after the initial construction of the stone foundations and cellar. Can a more detailed construction history and chronology of the residential structure and its possible additions be reconstructed? Are any activity areas evident from the remains of the structure?

- Unit 1 from our Phase II study was terminated after it filled with ground water and did not reach the floor of the cellar. Can the floor be exposed and activity areas defined with the water table lowered through the excavation of a sump?

- Previous work did not reveal the location of a privy, a common feature of 19th-century houses which often provides significant preserved remains that can shed light on a variety of issues. Can a privy or other important features, such as middens, be located?

- If so, can study of the night soils give us data on the health and diet of the home's residents? Can their remains help us reconstruct the socioeconomic status and or ethnicity of the households occupying the site?

- Initial examination of the existing well feature suggests that it has been blocked with deposited field cobbles following abandonment of the residence. Does the well contain archeological remains below the field cobbles which could help us reconstruct life in this rural farmstead?

- Are there remains of the second structure (likely a barn) shown on the 1905 Century map? If so, is there evidence of its function remaining in the archeological record?

- Historical research on the property suggest that it was a rental home occupied by a series of tenant farmers, most working for the Houck family, who owned the residence and surrounding farmland. Previous research at the Jacob and Christina Houck House (Hartgen Archeological Associates 2003, 2008a) provided us information on their lifeways. How do the lives of tenants renting this property differ from those of their Houck Family landlords?

- Historical research revealed that several of these tenant farmers were African Americans living in the decades immediately following manumission of enslaved individuals in New York state. The Houck family is shown to have owned slaves as of the 1820 census (United States Census Bureau 1820). However, they continued to rely on labor provided by free African Americans long after that date. Can we recover information that would illuminate how ethnicity, social class and socioeconomic status were expressed and interrelated in rural New York communities during the 19th century? Can that data help us understand how African American laborers and former slave owners transitioned from enslaved labor to freedom?

It is not guaranteed that this research will provide answers to all of these questions nor will we restrict our investigations to just these questions if others can be answered by the remains discovered during the Data Recovery.

4 Data Collection Methods

To address the above research questions, Hartgen will conduct the following data retrieval excavations:

Method	Quantity	Approach/Rationale
Unit Excavation	8 square meters	• Investigate activities within the cellar hole • Investigate layout of structure and addition. • Investigate deposits around the well. • Sample middens and other artifact bearing deposits.
Mechanical Trenching	Approximately 10 meters	• Expose well in profile to locate any artifact bearing deposits. • Expose stratigraphy within cellar hole, stripping away cobbles and post-abandonment deposits.
Mechanical Stripping	Up to 500 square meters	• Locate privy, middens, trash pits, outbuildings or other features and to expose foundations and cellars.
Feature Excavation	Up to 3 subsurface features (not including foundations)	• Map and photograph all features. • Collect soil samples as warranted.

4.1 Unit Excavation

Units will be rectangular with dimensions of one-by-one or one-by-two meters (3.3 by 3.3. or 3.3 by 6.6 m). Soil levels will be excavated separately, and all excavated soil passed through 0.25-inch hardware mesh and examined for historic artifacts. Soil depths, Munsell colors, textures, artifact content, and other relevant observations were recorded (Munsell Color 2000). Profiles and plan views will be drawn when appropriate. The location of each unit will be mapped with a Trimble Geo7X GPS unit and plotted on the project map. Unit

excavation fieldwork and unit wall stratigraphy will be photographed. Unit excavation and mechanical trenching will be aided through the digging of a sump to lower the current water table.

4.2 Mechanical Trenching

Backhoe trench excavation will be directed by the archeological crew. Trenches will be excavated stratigraphically and soils were piled next to each trench and investigated for artifacts. Selected soils will be screened through 0.25-inch hardware mesh and examined for historic artifacts. Trench walls will be cleaned and examined for artifacts in trenches that were less than four feet deep, and the walls will be profiled and photographed. Trenches greater than four feet deep will be documented from the surface. If artifact bearing deposits are found at the base of the well, the area will be sloped to allow safe access for hand excavation. Trench locations will be mapped with a Trimble Geo7X GPS unit and plotted on the project map.

4.3 Mechanical Stripping

Mechanical excavation equipment with a toothless bucket will be used to removal the plowzone in selected areas as well as more fully expose foundations and cellar holes. An archeologist will direct the excavator to carefully remove the overlying stratum and expose the boundary with in situ subsoil. Archeologists will then hand scrape the uppermost portion of the subsoil stratum while inspecting for the presence of archeological features. The depth of mechanical soil removal will be about 1 foot in the rear of the house, and several feet within the foundation. The limits of the stripped area will be mapped with a Trimble GPS unit and plotted on the project map.

4.4 Feature Excavation

Features encountered during the unit excavations and mechanical stripping will be bisected, recorded, and excavated by stratigraphic levels. All artifacts will be collected. Samples of feature soils and charcoal will be collected. Profiles and plan view will be drawn when appropriate. The location of each feature will be mapped with a Trimble GPS unit and plotted on the project map. Feature excavations will be photographed.

4.5 General Documentation of the Excavations

Documentation of the excavations will include digital photography. General views of the site and the various phases of the investigation including all of the excavations will be recorded for inclusion in the final report.

The fieldwork will be followed by documentation of the excavations, laboratory analysis, curation of the archeological assemblage obtained during the fieldwork, comparative studies with artifact assemblages from other 19th-century historic sites, and report preparation. As part of compliance and in consultation with SHPO staff, other products such as a public information plan, may also be undertaken.

4.6 Treatment of Human Remains

In the event that human remains are identified during the data retrieval excavations, the archeologists will stop work in the vicinity of the find and immediately notify Winstanley Construction Management, LLC. Hartgen will ensure that the appropriate measures are taken in the treatment of the human remains and artifacts associated with the grave. The SHPO human remains protocol is attached

5 Laboratory and Analytical Techniques

5.1 Artifacts and Laboratory

As general procedure, significant historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items will be collected. Coal, ash, cinder, brick, and modern materials will be noted. Artifacts collected will be placed in paper or plastic bags labeled by provenience and inventoried in a bag list. Artifacts

will be cleaned and cataloged in a database or spreadsheet, such as Microsoft Access or Excel. A copy of the complete catalog will be included in the report.

5.2 Specialized Analyses

The data recovery effort will include the use of analytical techniques selected based the potential to produce unique information. The techniques and the quantity of samples selected for each technique will depend on the types of artifacts and deposits recovered during the fieldwork. Examples of the types of analyses that may be conducted are listed below:

- Floral and pollen analysis to identify species present.
- Faunal analysis to identify species, cut, minimum number of individuals, and butchering methods.
- Parasite analysis to identify parasitic infections carried by the site occupants, which can shed light on the nutrition, disease, living conditions and overall health of the individuals.
- Trace element analysis of privy deposits which can shed light on the types of medications that were in use.
- DNA analysis of residue from pipe stems or other potential sources for information on ethnicity.

Samples will be collected from temporally discrete deposits with the potential to contain dietary remnants. Standard techniques will be followed for collecting samples to assure they are not contaminated by soil from strata above or below.

The following estimates serve to demonstrate the level of effort that will be devoted to analytical techniques; the actual techniques employed and the quantity of samples analyzed may differ.

- Floral analysis: 1 sample
- Pollen analysis: 1 sample
- Faunal analysis: 100 specimens

5.3 Curation

The cultural material assemblage from the data recovery study will make an important contribution to the study of New York history. As such, the collection should be placed in a suitable repository where it will be available for archeologists and other scholars to use in comparative analyses and studies. The New York State Museum (NYSM) is considered a suitable final repository for the collection. If the NYSM does not accept the collection, Hartgen will work with SHPO to find a viable alternative repository.

6 Deliverables

6.1 End of Fieldwork Letter

Following completion of the Phase III data retrieval fieldwork, Hartgen will prepare an end-of-field work letter demonstrating that the fieldwork component of this DRP has been completed and summarizing preliminary results of the study. This document will be submitted to SHPO with the recommendation that construction be permitted to proceed within the site area while the Phase III report is prepared.

6.2 Report

Hartgen will author the Phase III report in accordance with this DRP, OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005) and the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994). As appropriate, the report will contain text, tables, color maps and photographs, scale drawings, and an artifact inventory. Hartgen will provide a PDF version of the draft report for the client's review. The client will compile and submit all comments to Hartgen in a single submission. Hartgen will address one round of comments, making revisions

to the report as appropriate. Hartgen will issue a PDF copy of the final report. A copy of the final report will be uploaded to OPRHP via CRIS.

6.3 Public Information Plan

Hartgen will take the following steps to disseminate the results of the Phase III data retrieval study to the public:

- Distribute full-color hard copies and electronic copies of the final Phase III report to the Montgomery County Historical Society and one local library to ensure long-term accessibility of the information to the local community.
- Create a J. Houck Historic Site archeology resource in the Digital Archaeological Record (tDAR), an international digital repository for the digital records of archaeological investigations. tDAR's use, development, and maintenance are governed by Digital Antiquity, an organization dedicated to ensuring the long-term preservation of irreplaceable archaeological data and to broadening the access to these data.

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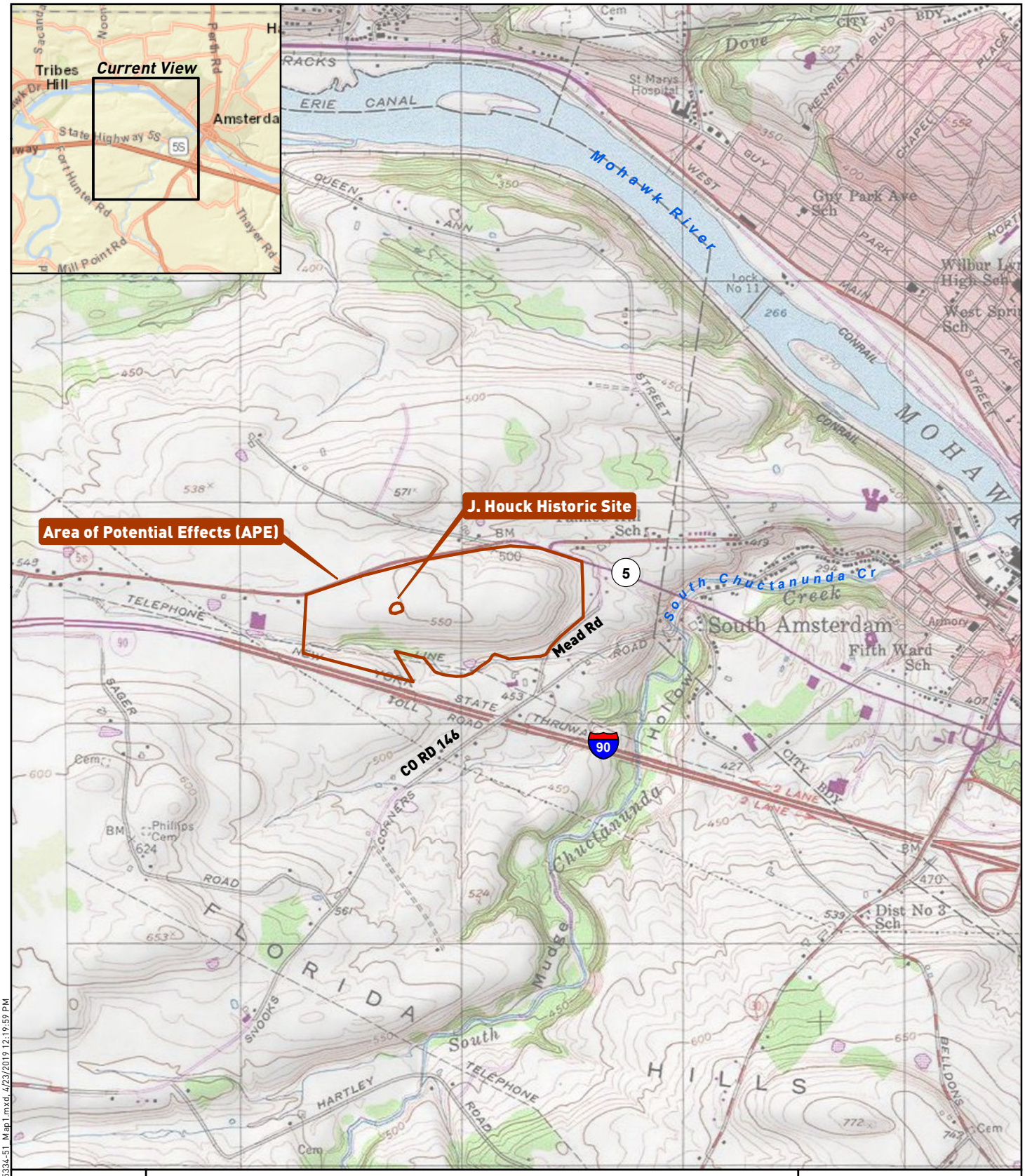
Maps



1,000 0 1,000 2,000 Feet

300 0 300 600 Meters

Note: Contour interval is 20 feet.

Project Location

GIS Services Accessed 4/23/2019: Environmental Systems Research Institute, Inc., World Street Map; National Geographic Society USA Topo Maps Layer

HARTGEN archeological associates inc

Map 1

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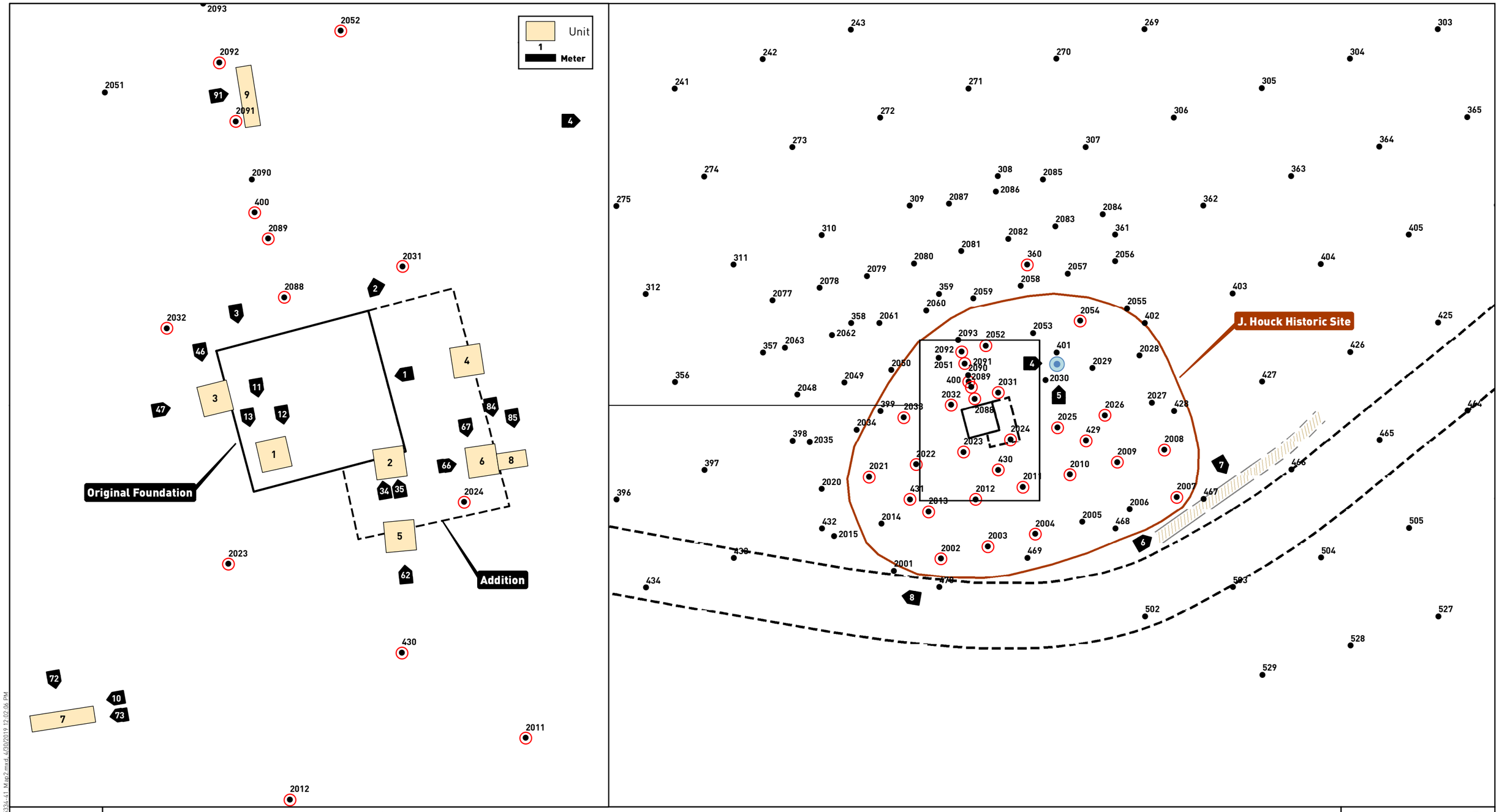

N

25 0 25 50 Feet

6 0 6 12 18 Meters

Legend

- Shovel Test (ST)
- Positive ST (historic)
- Photo Angle
- Well
- Stone Wall
- Original Route 55

Project Map

Environmental Systems Research Institute, Inc., World Imagery Accessed 4/30/2019

HARTGEN archeological associates inc

Map 2

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Appendix 1: Protocol for the Unanticipated Discovery of Human Remains

State Historic Preservation Office/
New York State Office of Parks, Recreation and Historic Preservation
Human Remains Discovery Protocol
(August 2018)

If human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends that the following protocol is implemented:

- Human remains must be treated with dignity and respect at all times. Should human remains or suspected human remains be encountered, work in the general area of the discovery will stop immediately and the location will be secured and protected from damage and disturbance.

- If skeletal remains are identified and the archaeologist is not able to conclusively determine whether they are human, the remains and any associated materials must be left in place. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains in situ to help determine if they are human.

- No skeletal remains or associated materials will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

- The SHPO, the appropriate Indian Nations, the involved state and federal agencies, the coroner, and local law enforcement will be notified immediately. Requirements of the corner and local law enforcement will be adhered to. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains in situ to help determine if the remains are Native American or non-Native American.

- If human remains are determined to be Native American, they will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option of the SHPO and the Indian Nations. The involved agency will consult SHPO and the appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance. Photographs of Native American human remains and associated funerary objects should not be taken without consulting with the involved Indian Nations.

- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

- To protect human remains from possible damage, the SHPO recommends that burial information not be released to the public.

SITE DEVELOPMENT PLANS

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 1 of 13

January 10, 2022

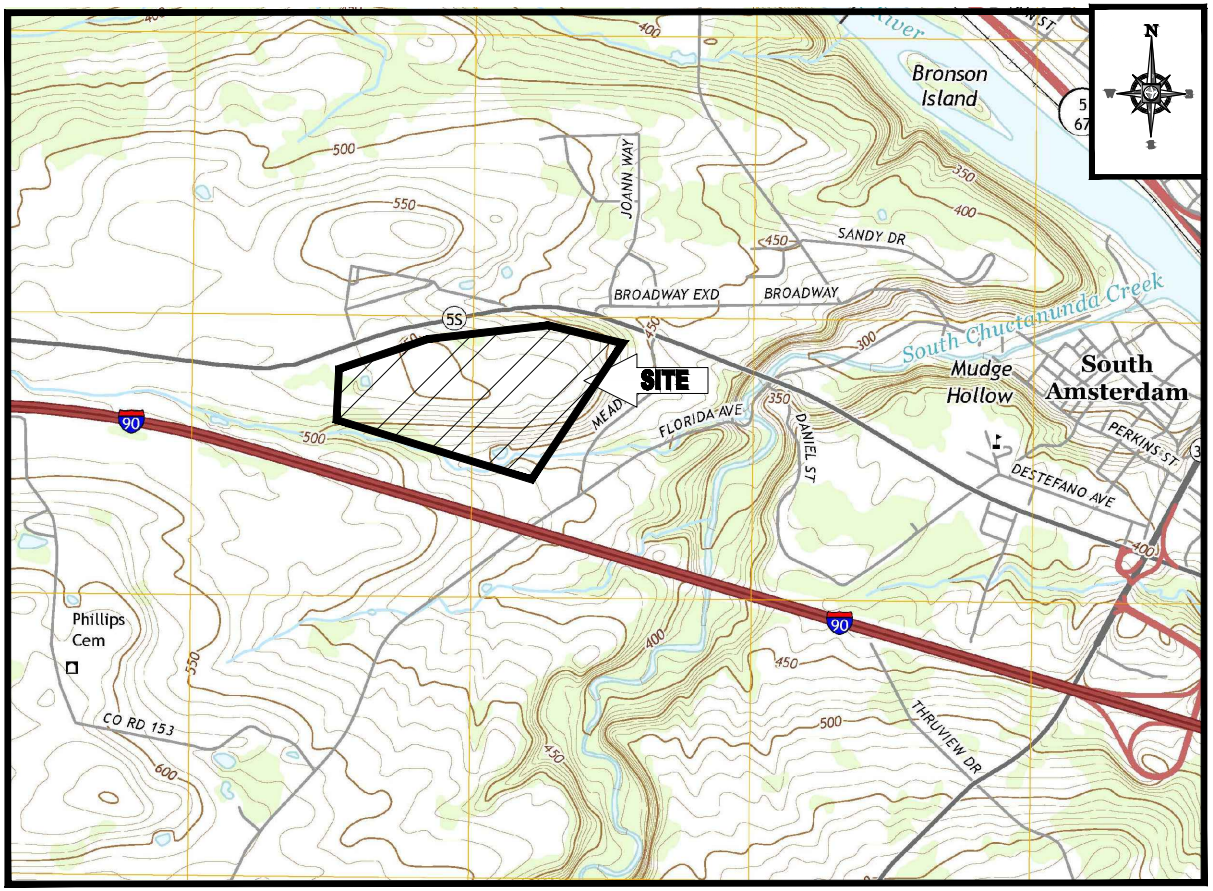
FOR:
PROPOSED

WAREHOUSE

LOCATION OF SITE:

NYS ROUTE 5S
TOWN OF FLORIDA, MONTGOMERY COUNTY
NEW YORK STATE

TAX ID. 55 - 01 - 35.161 TAX ID. 55 - 01 - 35.151 TAX ID. 55 - 01 - 35.141
TAX ID. 55 - 01 - 35.131 TAX ID. 55 - 01 - 35.121 TAX ID. 55 - 01 - 1.1
TAX ID. 55 - 02 - 4.1 TAX ID. 55 - 01 - 37 TAX ID. 55 - 01 - 36



LOCATION MAP
NOT TO SCALE
PLAN REFERENCE: AMSTERDAM, NY USGS QUADRANGLE

PREPARED BY

BOHLER ENGINEERING

TYPICAL ABBREVIATIONS

KEY	DESCRIPTION	KEY	DESCRIPTION
BC	BOTTOM CURB	PROP.	PROPOSED
TC	TOP CURB	TBR/R	TO BE REMOVED AND REPLACED
BOC	BACK OF CURB	TBR	TO BE REMOVED
BW	BOTTOM OF WALL GRADE	TPF	TREE PROTECTION FENCE
TW	TOP OF WALL	BLDG.	BUILDING
EXIST.	EXISTING	SF	SQUARE FEET
BM.	BENCHMARK	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	DMH	DRAIN MANHOLE
℄	CENTERLINE	STM.	STORM
FF	FINISHED FLOOR	SAN.	SANITARY
V.I.F.	VERIFY IN FIELD	CONC.	CONCRETE
GC	GENERAL CONTRACTOR	ARCH.	ARCHITECTURAL
HP	HIGH POINT	DEP.	DEPRESSED
LP	LOW POINT	R	RADIUS
TYP.	TYPICAL	MIN.	MINIMUM
INT.	INTERSECTION	MAX.	MAXIMUM
PC.	POINT OF CURVATURE	No. / #	NUMBER
PT.	POINT OF TANGENCY	W.	WIDE
PI.	POINT OF INTERSECTION	DEC.	DECORATIVE
PVI.	POINT OF VERTICAL INTERSECTION	ELEV.	ELEVATION
STA.	STATION	UNG.	UNDERGROUND
GRT	GRATE	R.O.W.	RIGHT OF WAY
INV.	INVERT	LF	LINEAR FOOT
DIP	DUCTILE IRON PIPE	LOD	LIMIT OF DISTURBANCE
PVC	POLYVINYL CHLORIDE PIPE	LOW	LIMIT OF WORK
HDPE	HIGH DENSITY POLYETHYLENE PIPE	L.S.A.	LANDSCAPED AREA
RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS
S	SLOPE	°	DEGREE
ME	MEET EXISTING	Ø / DIA.	DIAMETER

TYPICAL LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	SETBACK	
	EASEMENT	
	CURB	
	STORM MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
WF/5	WETLAND FLAG	
	WETLAND LINE	
× 54.83	SPOT ELEVATION	53.82
× TC 54.58 G 53.78	TOP & BOTTOM OF CURB	TC=54.32 BC=53.82
53	CONTOUR	23
	FLOW ARROW	5%
	PAINTED ARROW	
	RIDGE LINE	
	GAS LINE	G G
	TELEPHONE LINE	T T
	ELECTRIC LINE	E E
	WATER LINE	W W
	OVERHEAD WIRE	OH OH
	STORM PIPE	
	SANITARY LINE	S S
10	PARKING COUNT	4
	SIGN	
	LIGHT POLE	
	GUIDE RAIL	
	UTILITY POLE	

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BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	4/1/20	PER CORP OF ENGINEER COMMENTS	SG
2	5/4/20	PER CORP OF ENGINEER COMMENTS	SG
3	8/5/20	PER COE AND DEC COMMENTS	MDL

PRELIMINARY

PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	7/16/2019
SCALE:	AS NOTED
CAD I.D.:	B180283 8X11SITEPLAN

PROJECT:
SITE PLAN
FOR
WAREHOUSE
LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

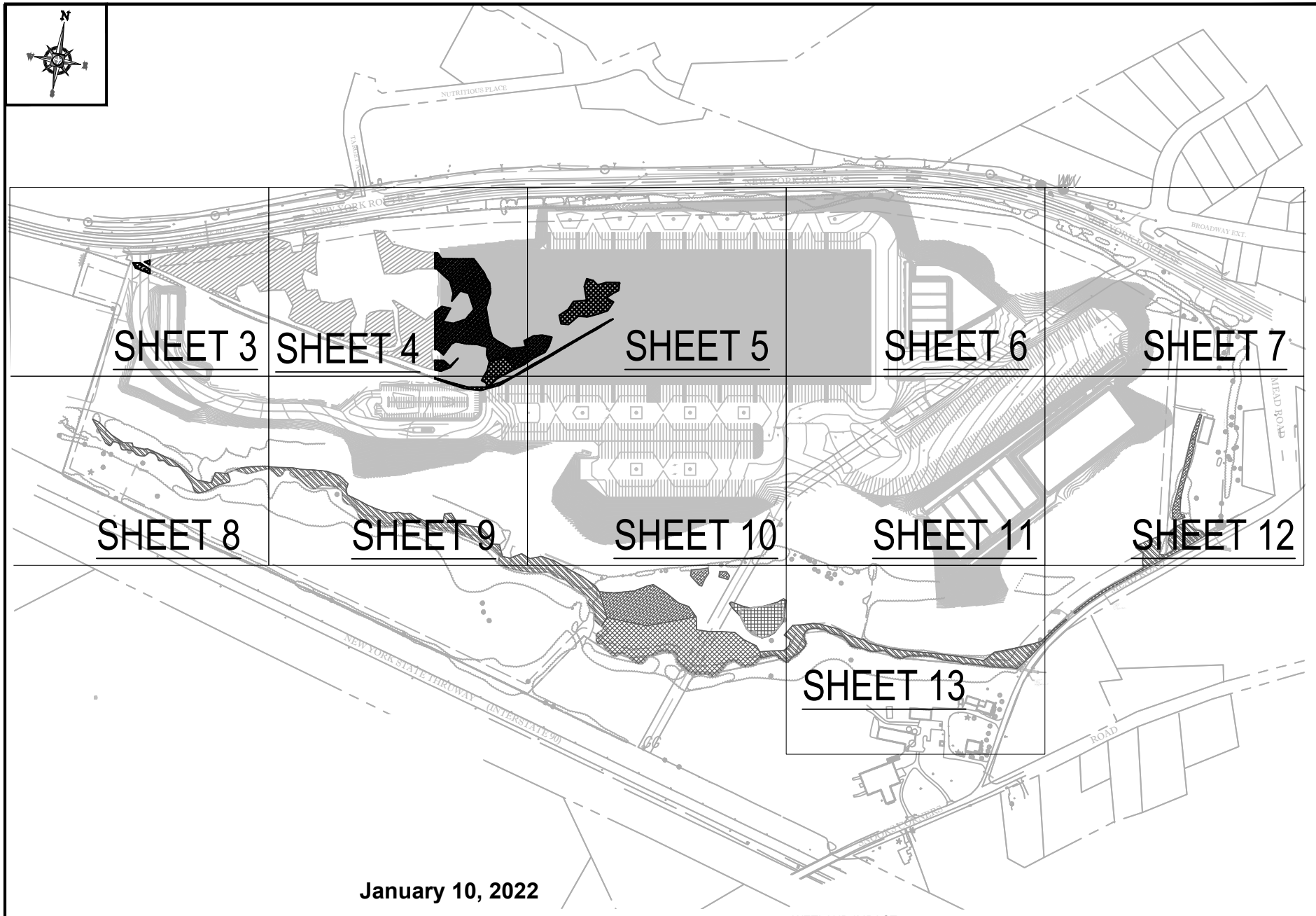
BOHLER ENGINEERING
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1
OF 13

REV 3



January 10, 2022

NAN-2019-00679-USH
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Drawing 2 of 13

WETLAND IMPACT
SCRUB SHRUB = 0.4 ACRES
WET MEADOW = 1.5 ACRES
TOTAL = 1.9 ACRES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

500 250 125 0 500
1"= 500'

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PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11 SITEPLANS

PROJECT:
SITE PLAN
FOR:
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LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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ALBANY, NY 12205
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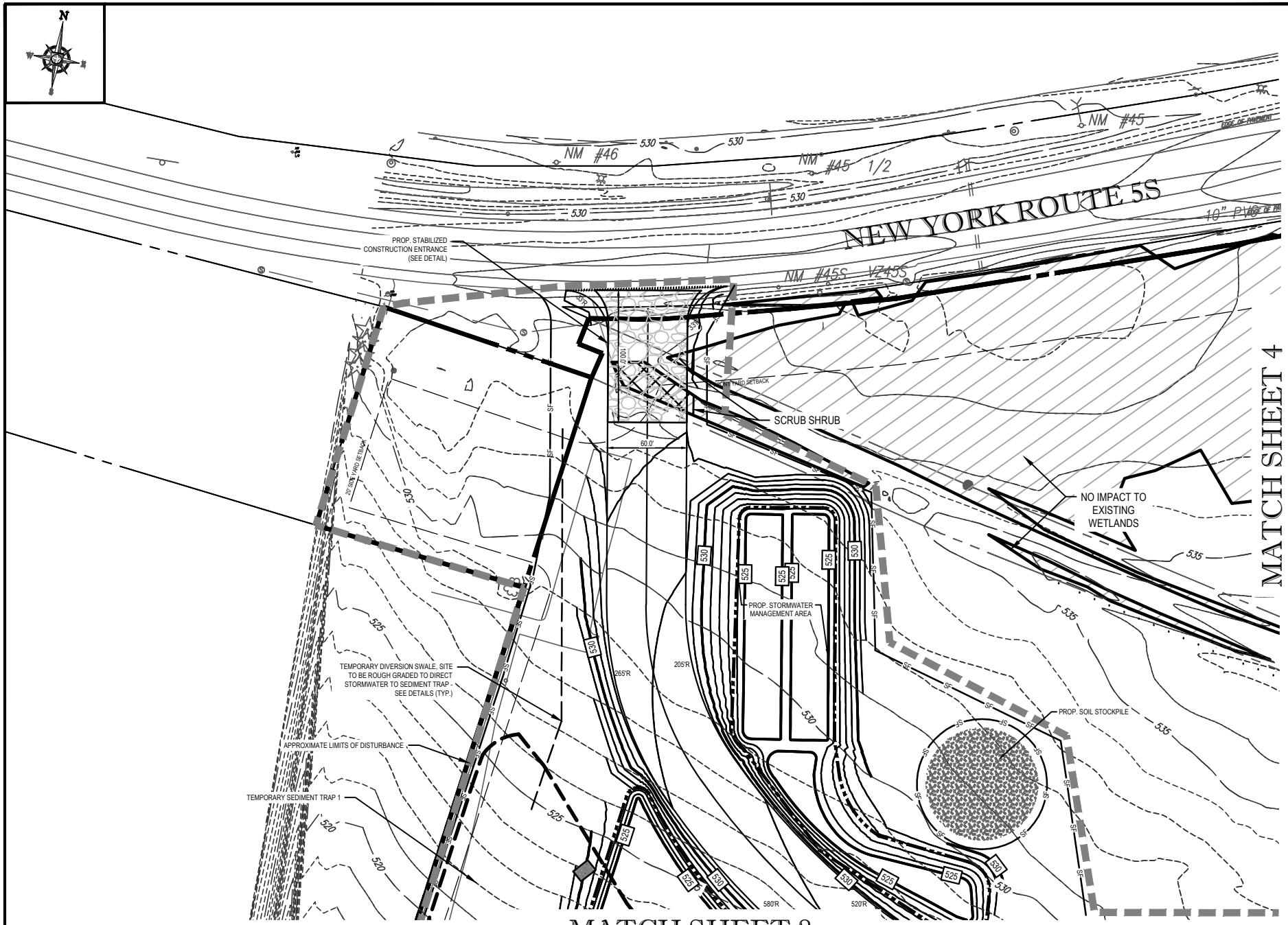
W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
2
OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 3 of 13

January 10, 2022

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100 50 25 0 100

1"= 100'

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CAD I.D.: B180283 8X11 SITEPLANS

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 45481
RHODE ISLAND LICENSE No. 7364
CONNECTICUT LICENSE No. 27918
VERMONT LICENSE No. 084.0149
MAINE LICENSE No. 25a
NEW HAMPSHIRE LICENSE No. 18811
FLORIDA LICENSE No. 82922

SHEET TITLE:

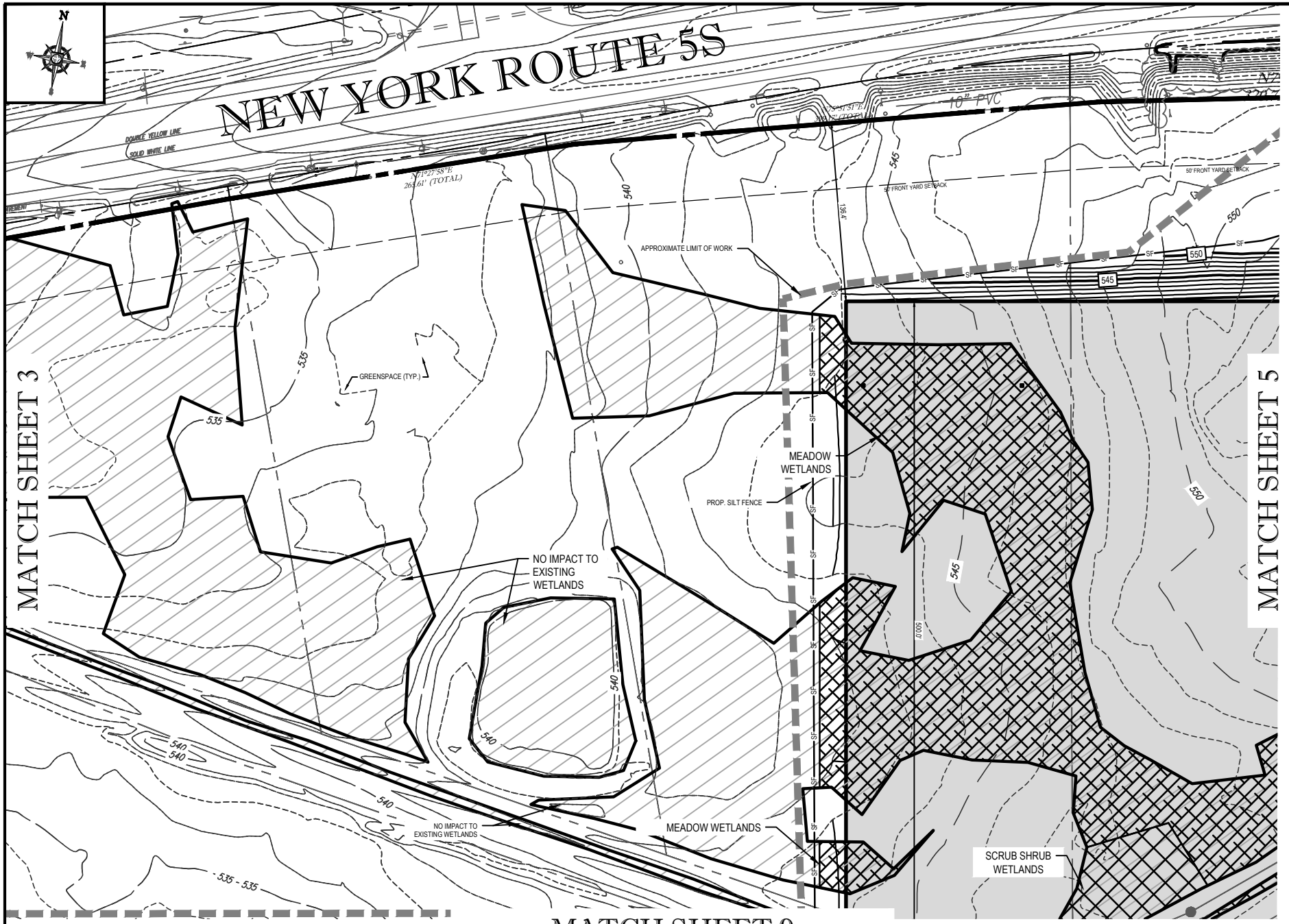
SITE PLAN

SHEET NUMBER:

3

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 4 of 13

January 10, 2022

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BOHLER ENGINEERING

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SITE PLAN

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WAREHOUSE

LOCATION OF SITE

ROUTE 5S
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MONTGOMERY COUNTY
NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

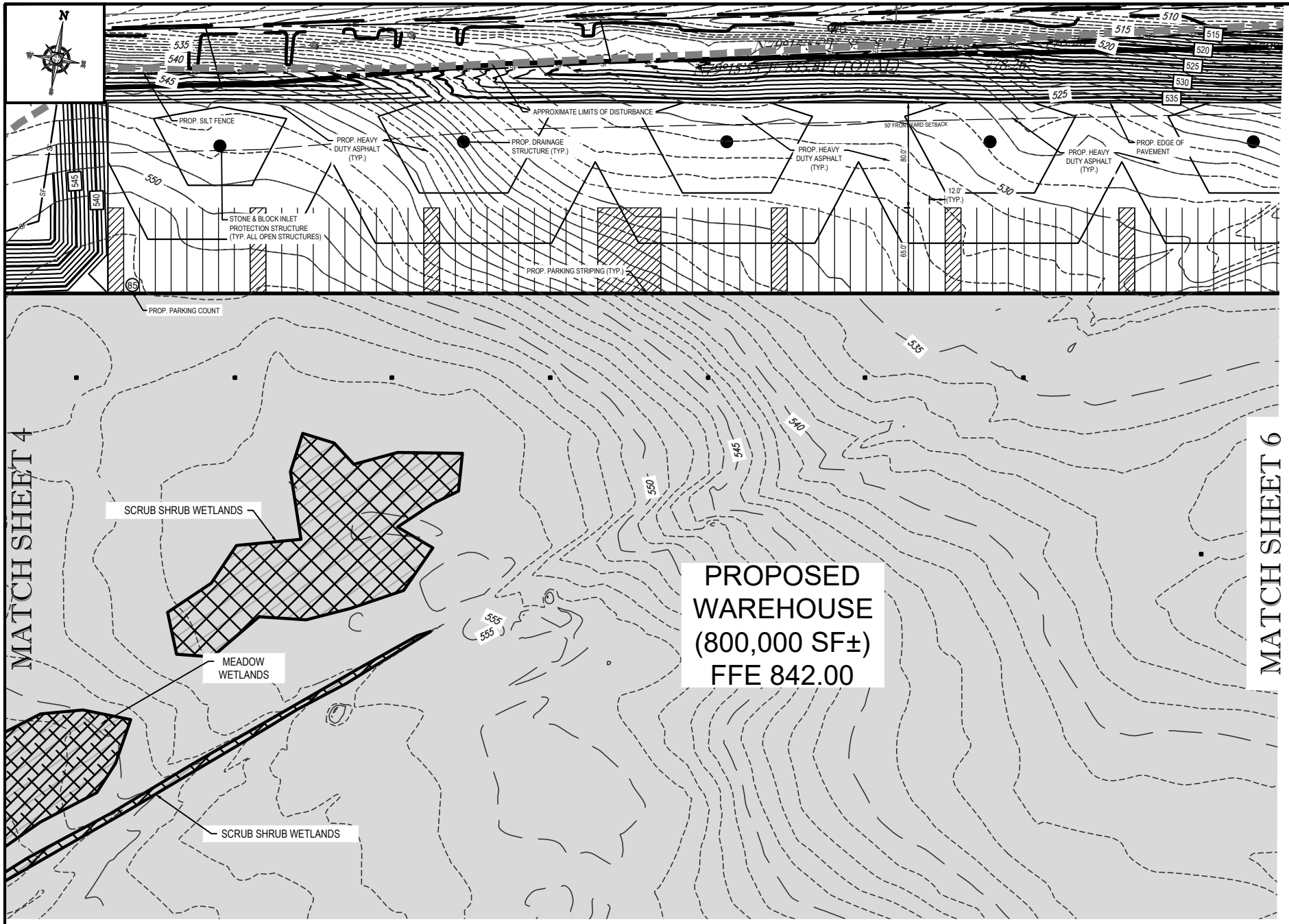
SITE PLAN

SHEET NUMBER:

4

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 5 of 13

January 10, 2022

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100 50 25 0 100

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CAD I.D.: B180283 8X11 SITEPLAN

PROJECT:

SITE PLAN

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WAREHOUSE

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NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

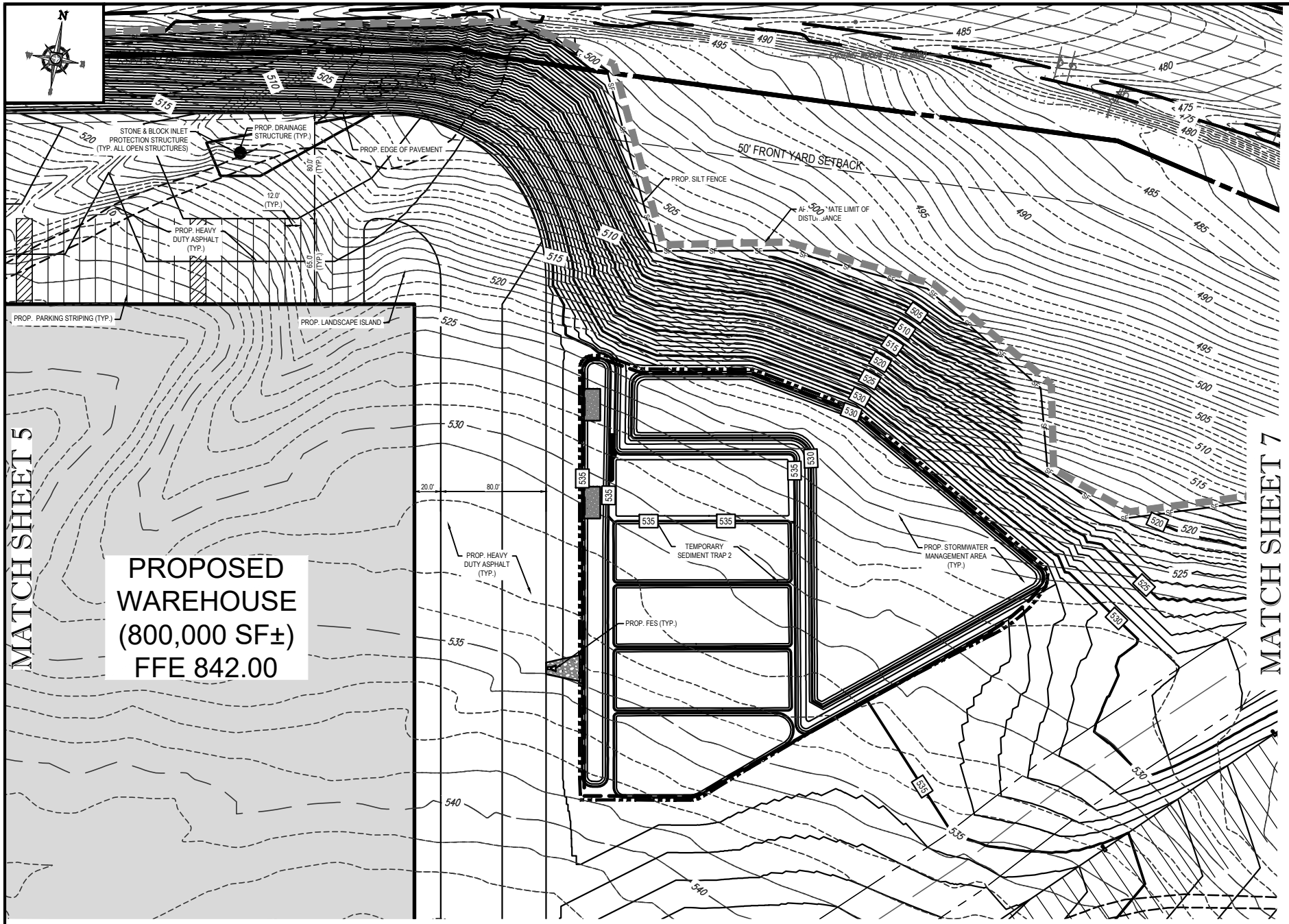
SITE PLAN

SHEET NUMBER:

5

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 6 of 13

January 10, 2022

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100 50 25 0 100

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PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/16/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11 SITEPLAN

PROJECT:

SITE PLAN

FOR

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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ALBANY, NY 12205
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www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

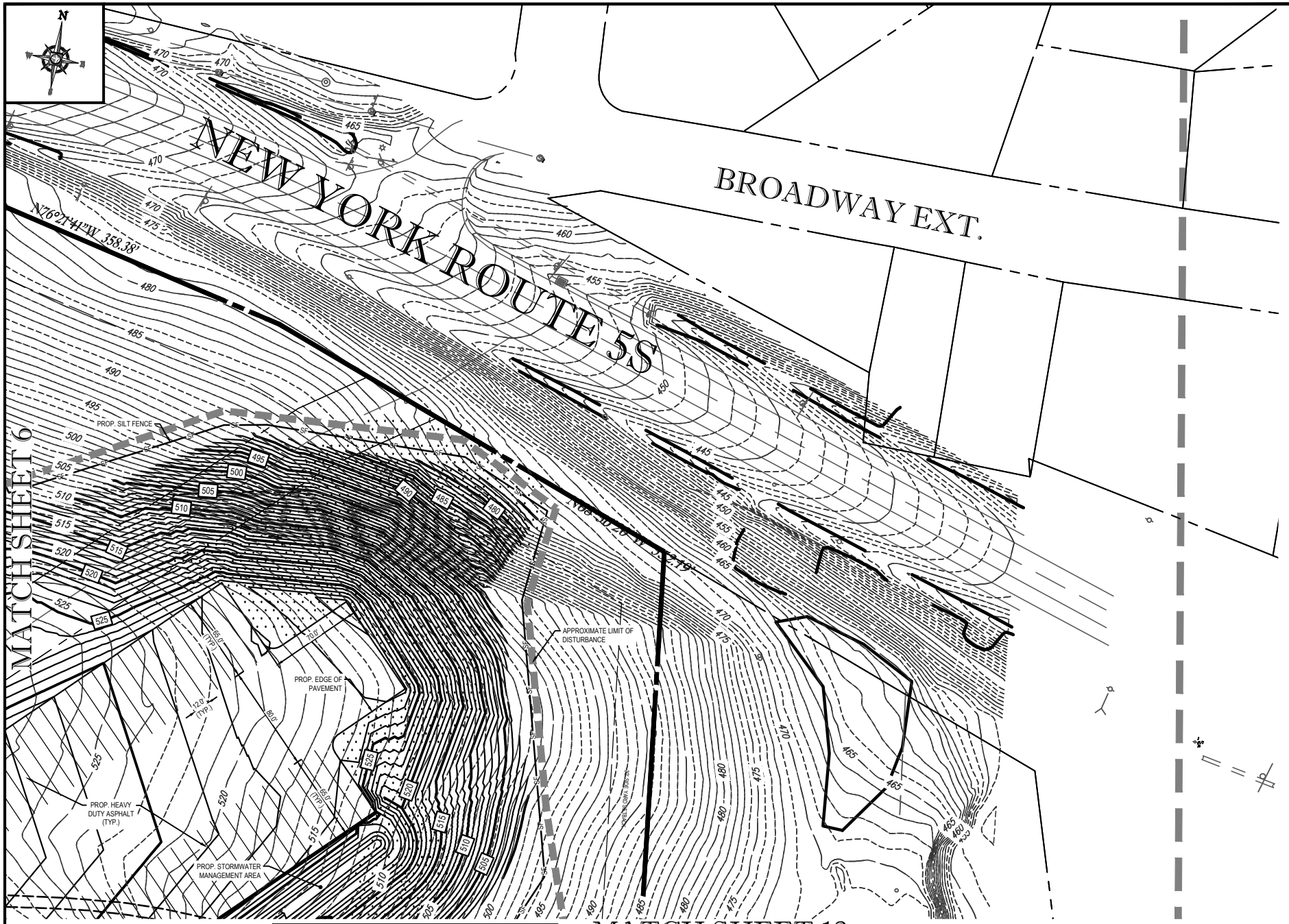
SITE PLAN

SHEET NUMBER:

6

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 7 of 13

January 10, 2022

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PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/16/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11SITEPLAN

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

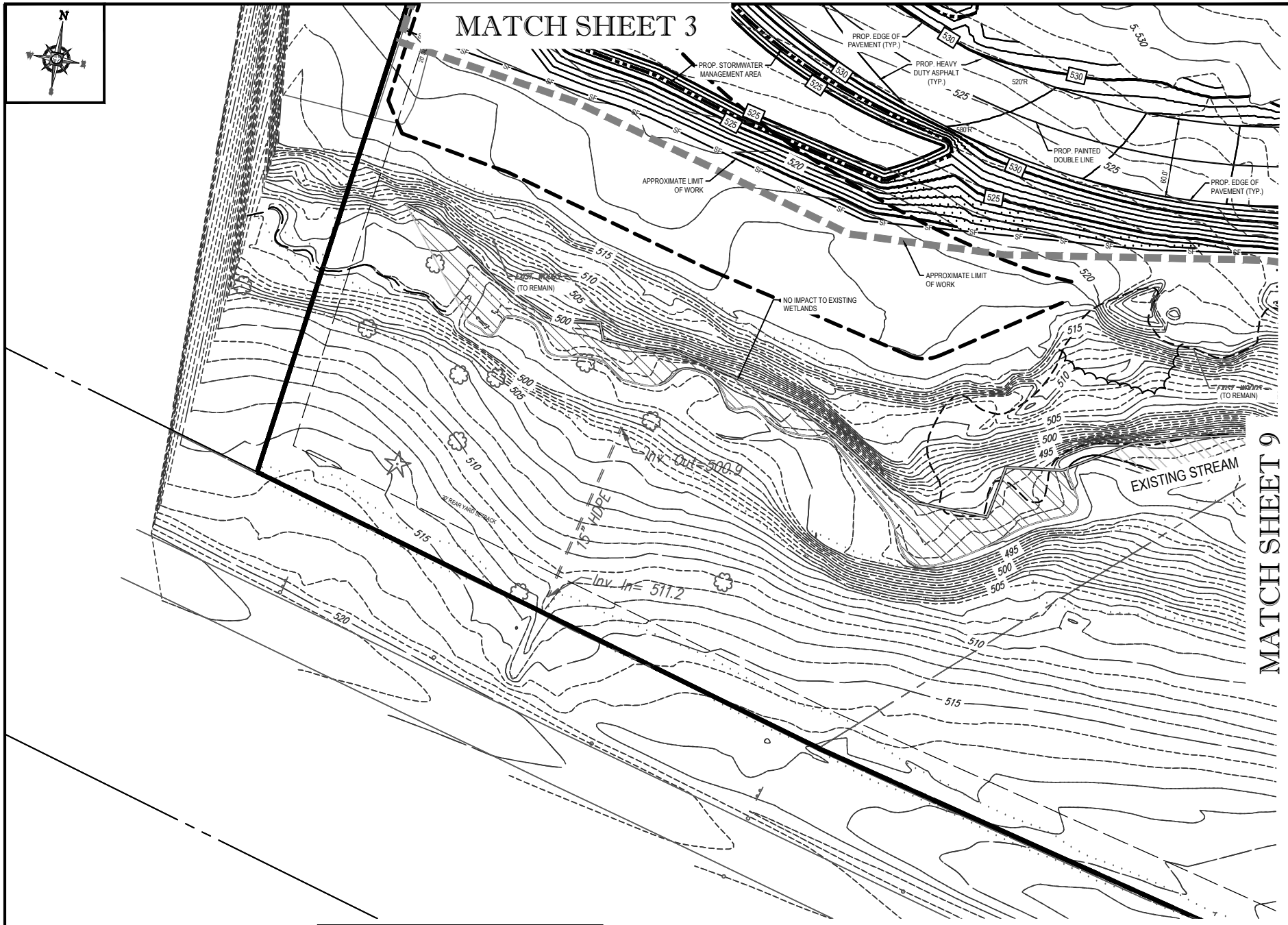
SITE PLAN

SHEET NUMBER:

7

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 8 of 13

January 10, 2022

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100 50 25 0 100

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PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11 SITEPLANS

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
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www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

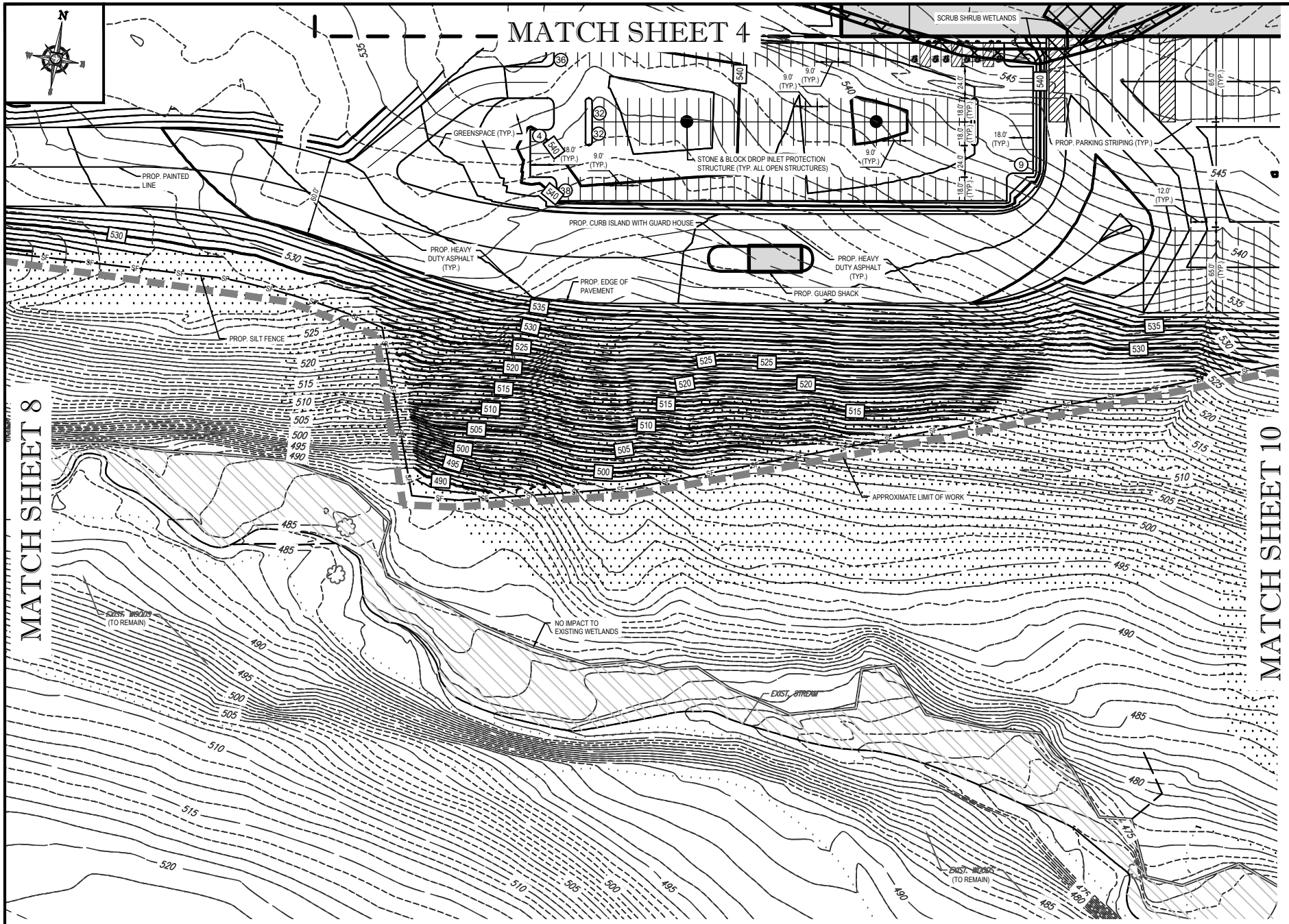
SITE PLAN

SHEET NUMBER:

8

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 9 of 13

January 10, 2022

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100 50 25 0 100

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PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 BX11SITEPLAN

PROJECT:

SITE PLAN

FOR

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
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W.D. GOEBEL
PROFESSIONAL ENGINEER

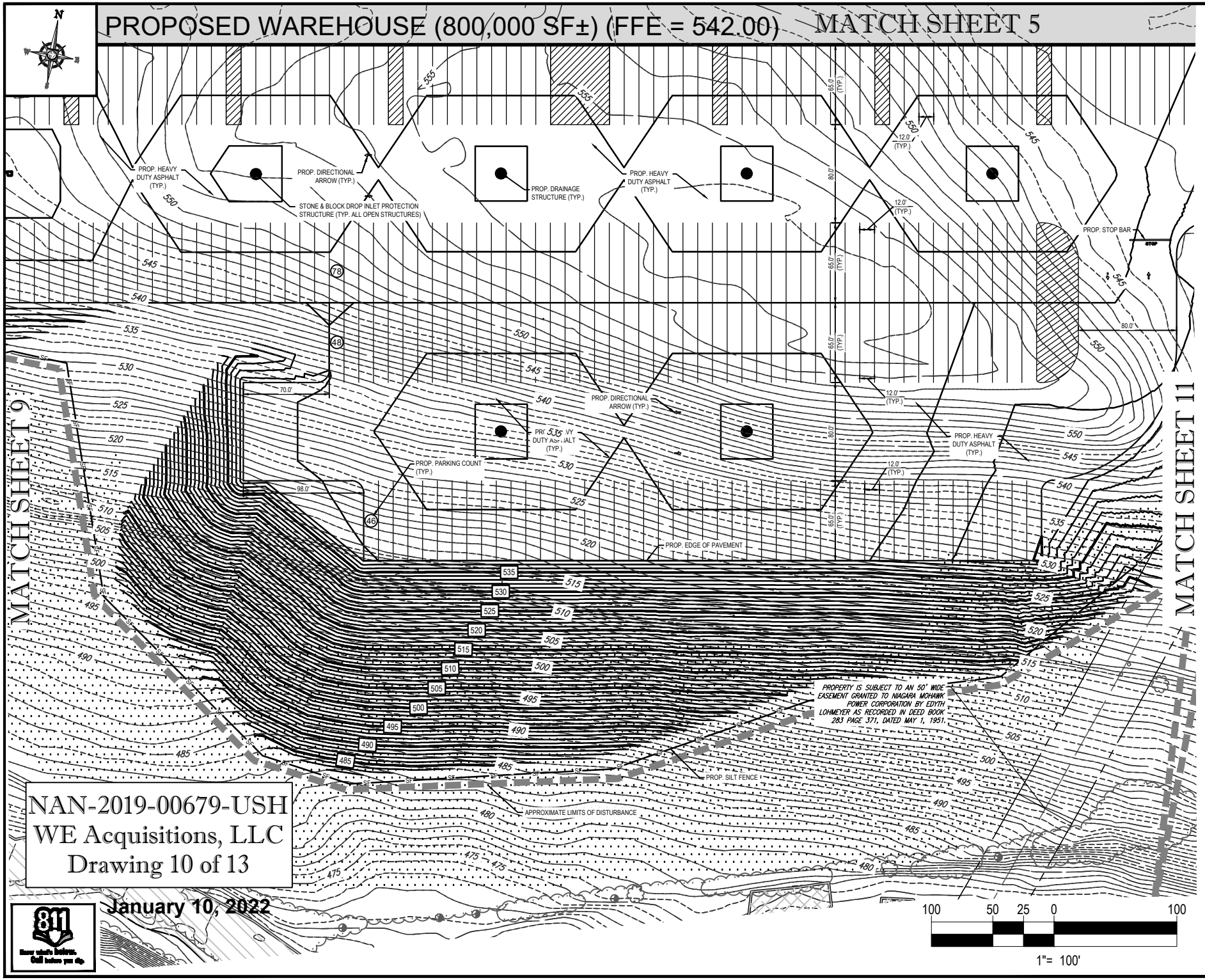
SHEET TITLE:

SITE PLAN

SHEET NUMBER:

9
OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 10 of 13

January 10, 2022

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DRAWN BY: JSH
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DATE: 7/15/2019
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CAD I.D.: B180283 SX11SITEPLAN

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

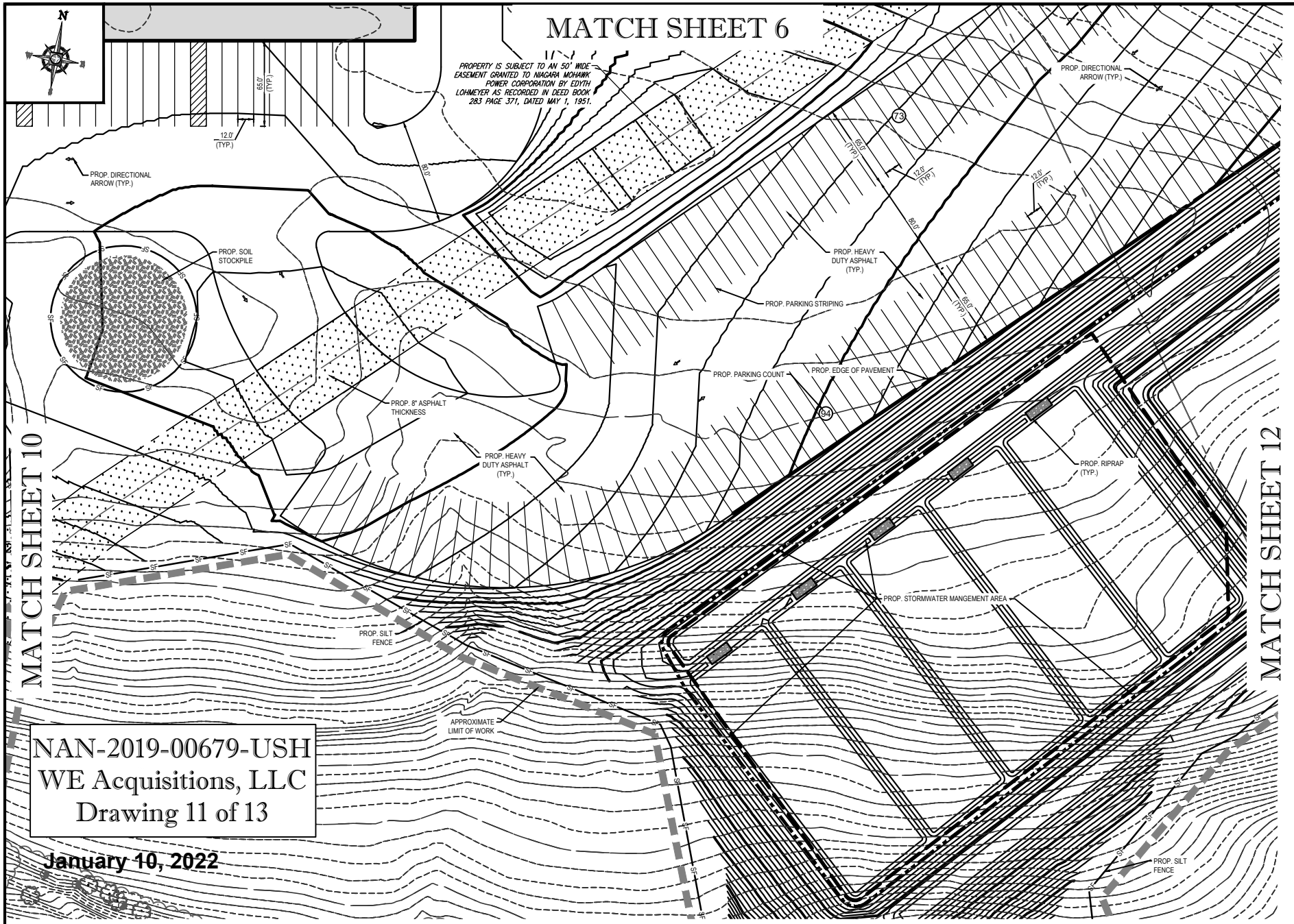
SITE PLAN

SHEET NUMBER:

10

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 11 of 13

January 10, 2022

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100 50 25 0 100

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SITE PLAN

FOR

WAREHOUSE

LOCATION OF SITE

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MONTGOMERY COUNTY
NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER

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SITE PLAN

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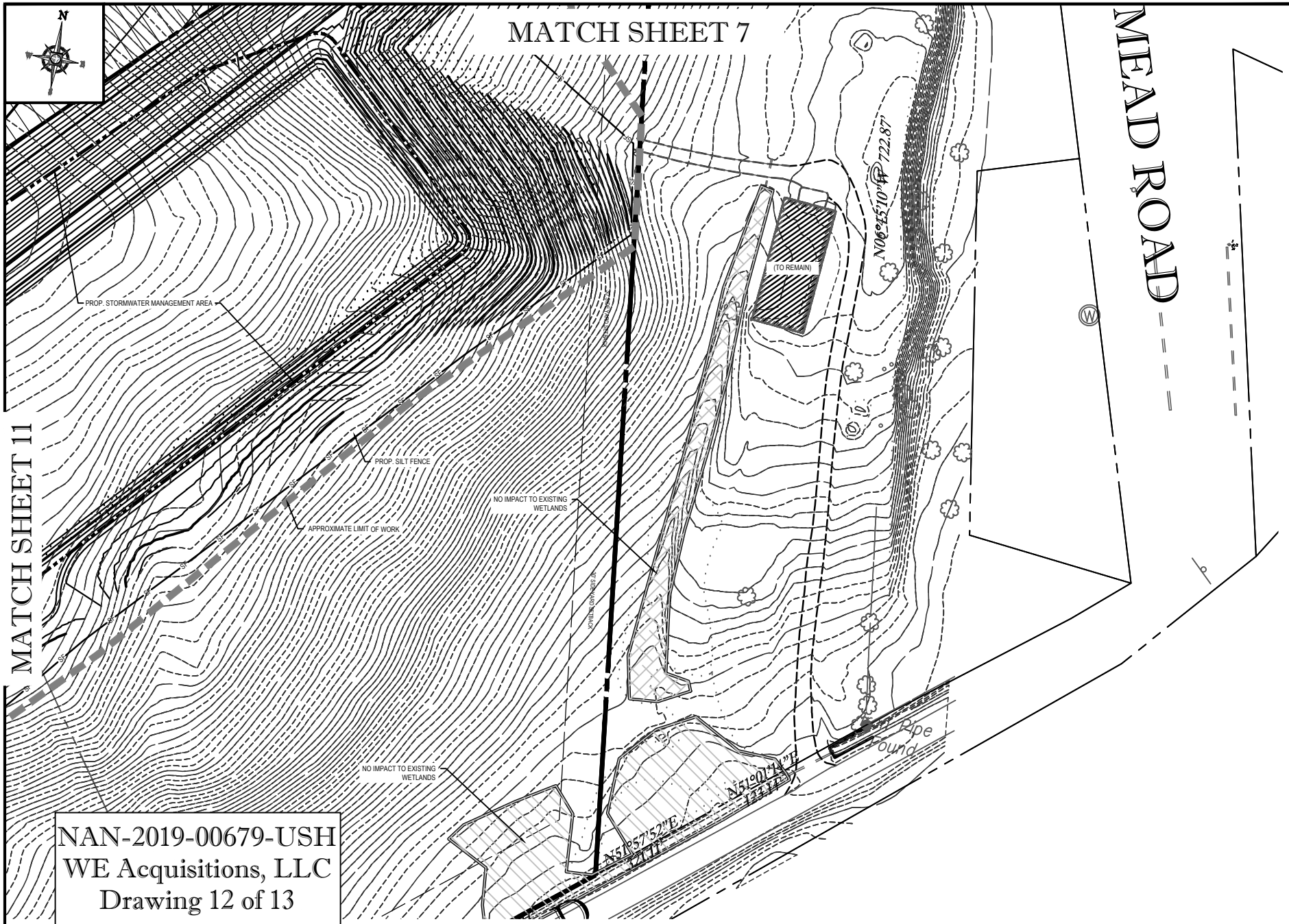
11
OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 12 of 13

January 10, 2022

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NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

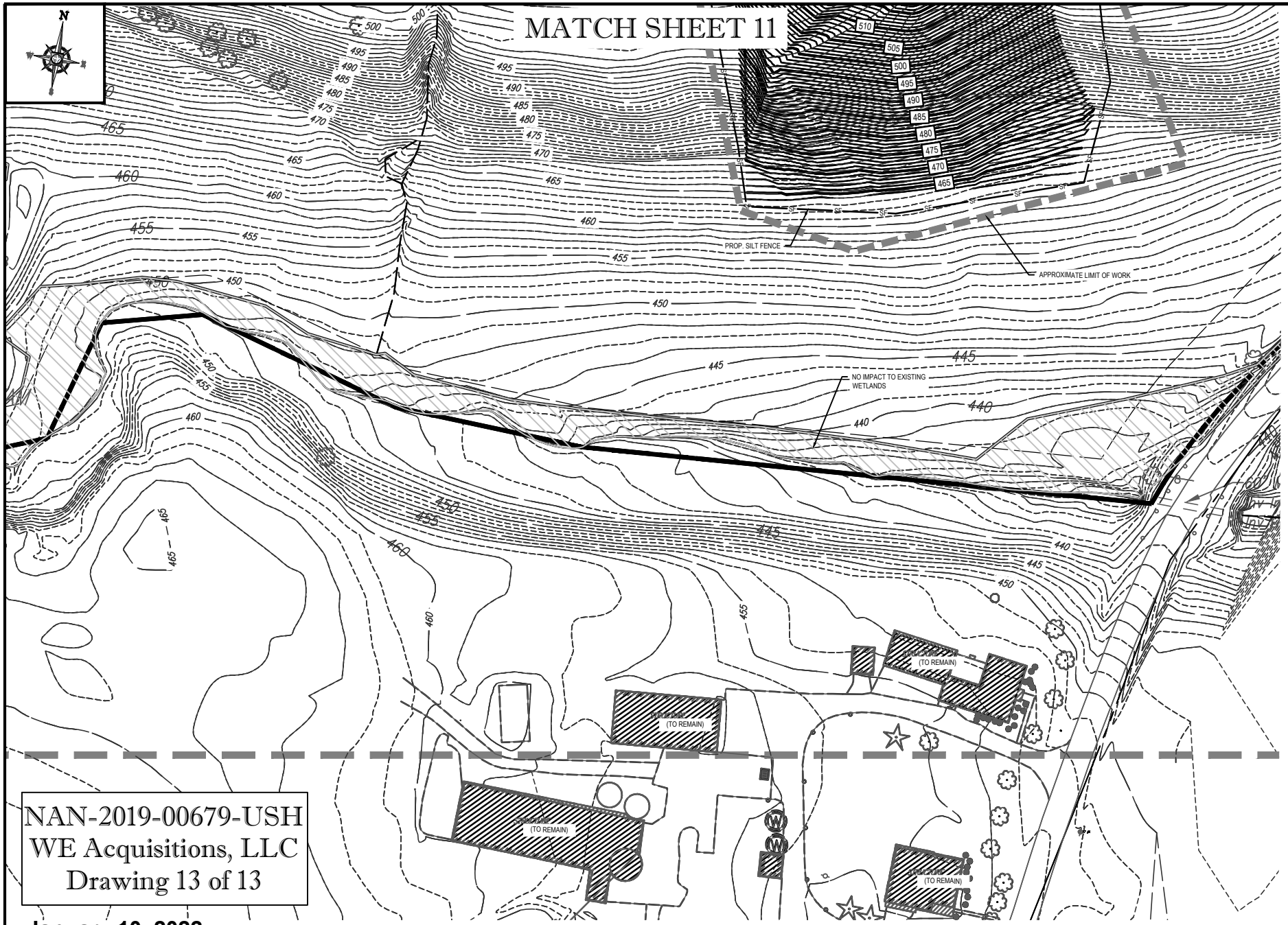
SITE PLAN

SHEET NUMBER:

12

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 13 of 13

January 10, 2022

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

100 50 25 0 100

1"= 100'

811 Know what's below. Call before you dig.

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BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	4/1/20	PER CORP OF ENGINEER COMMENTS	SG
2	5/4/20	PER CORP OF ENGINEER COMMENTS	SG
3	8/5/20	PER COE AND DEC COMMENTS	MDL

PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11SITEPLANS

PROJECT:

SITE PLAN

FOR

WAREHOUSE

LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

13
OF 13

REV 3

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

Regulatory Branch January 10, 2022

SUBJECT: Permit Application Number NAN-2019-00679-USH
by WE 5S, LLC
Town of Florida, Montgomery County, New York

Adam Winstanley
WE 5S, LLC
300 George Street
New Haven, Connecticut 06511

Dear Mr. Winstanley:

Enclosed is a Department of the Army permit for your work.

You are required to submit to this office the dates of commencement and completion of your work. Enclosed are two forms for you to use to submit the required dates.

If for any reason, a change in your plans or construction methods is found necessary, please contact us immediately to discuss modification of your permit. Any changes must be approved before they are undertaken.

In order for us to better serve you, please complete our Customer Service Survey located at:

http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx

Sincerely,

Stephan A. Ryba
Chief, Regulatory Branch

Enclosures

PLEASE USE THE ABOVE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH THIS OFFICE

DEPARTMENT OF THE ARMY PERMIT

Permittee: Adam Winstanley
WE 5S, LLC
300 George Street
New Haven, Connecticut 06511
(978-287-8631)

Permit Number: NAN-2019-00679-USH

Permit Date: January 10, 2022

Issuing Office: U.S. Army Corps of Engineers, New York District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer. You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The proposed work includes the discharge of fill material into a total of 1.90 acres of wetlands, including palustrine emergent (1.50), and palustrine scrub-shrub (0.40) wetlands, to facilitate the construction of an 800,000 square foot warehouse and distribution facility. In addition, the project will include a parking area capable of accommodating approximately 151 cars, along with approximately 339 tractor trailer spaces, and 188 loading docks.

To mitigate for unavoidable impacts to waters of the United States, the applicant is required to purchase 2.3 wetland credits from The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Mitigation Program, Mohawk Service Area – HUC (02020004), for the permanent impacts to waters of the United States.

All work shall be performed in accordance with the attached thirteen (13) dated permit drawings and Special Conditions (A) thru (E) listed below, all of which are hereby made part of this permit.

Project Location: IN: Wetlands

AT: Town of Florida, Montgomery County, New York

Permit Conditions:

General Conditions:

1. Time limit for completing the regulated work authorized herein ends on January 10, 2025. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least two (2) months before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned Section 401 of the Clean Water Act water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. The permittee shall allow representatives from this office to inspect the authorized activities at any time deemed necessary; and shall promptly provide any required written reports, to ensure that authorized activities are being or have been accomplished in accordance with the terms and conditions of this permit.

Special Conditions:

(A) The permittee shall submit to this office the dates of commencement and completion of the herein authorized activities on the attached forms.

(B) The permittee shall undertake the authorized filling activities in a manner aimed at reducing impacts upon the general environment. In addition, the permittee shall not stockpile fill or other materials in a manner conducive to erosion, or in areas likely to cause high turbidity runoff during storm events. All exposed soils shall be re-vegetated in a timely manner to further reduce potential effects. The permittee shall also fence off all wetlands and other sensitive ecological areas during construction periods to prevent equipment and personnel from entering these areas.

(C) The permittee shall ensure that all synthetic erosion control features (e.g., silt fencing, netting, mats), which are intended for temporary use during construction, are completely removed and properly disposed of after their initial purpose has been served. Only natural fiber materials, which will degrade after time, may be used as permanent measures, or if used temporarily, may be abandoned in place.

(D) The permittee shall adhere to the requirements set forth in the attached Memorandum of Agreement among the U.S. Army Corps of Engineers, the New York State Historic Preservation Office, and WE 5S, LLC, executed on April 7, 2021, regarding the treatment of historic properties in the project area.

(E) The permittee shall accomplish compensatory mitigation through the purchase of 2.3 credits from The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Mitigation Program, Mohawk Service Area – HUC (02020004).

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code 403).
(X) Section 404 of the Clean Water Act (33 U.S. Code 1344).
( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
b. This permit does not grant any property rights or exclusive privileges.
c. This permit does not authorize any injury to the property or rights of others.
d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: in issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
d. Design or construction deficiencies associated with the permitted work.
e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Adam D. Wistar — 1/6/22

(PERMITTEE) **(DATE)**
WE 5S, LLC

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Stephen A Rybka — January 10, 2022

(DISTRICT ENGINEER) **(DATE)**
FOR AND ON BEHALF OF

Matthew W. Luzzatto
Colonel, U.S. Army
Commander and District Engineer

PERMITTEE: WE Acquisitions, LLC
PERMIT NUMBER: NAN-2019-00679-USH

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below. A copy of the permit signed by the transferee should be sent to this office.

_____ _____

(TRANSFEREE) **(DATE)**

SITE DEVELOPMENT PLANS

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 1 of 13

January 10, 2022

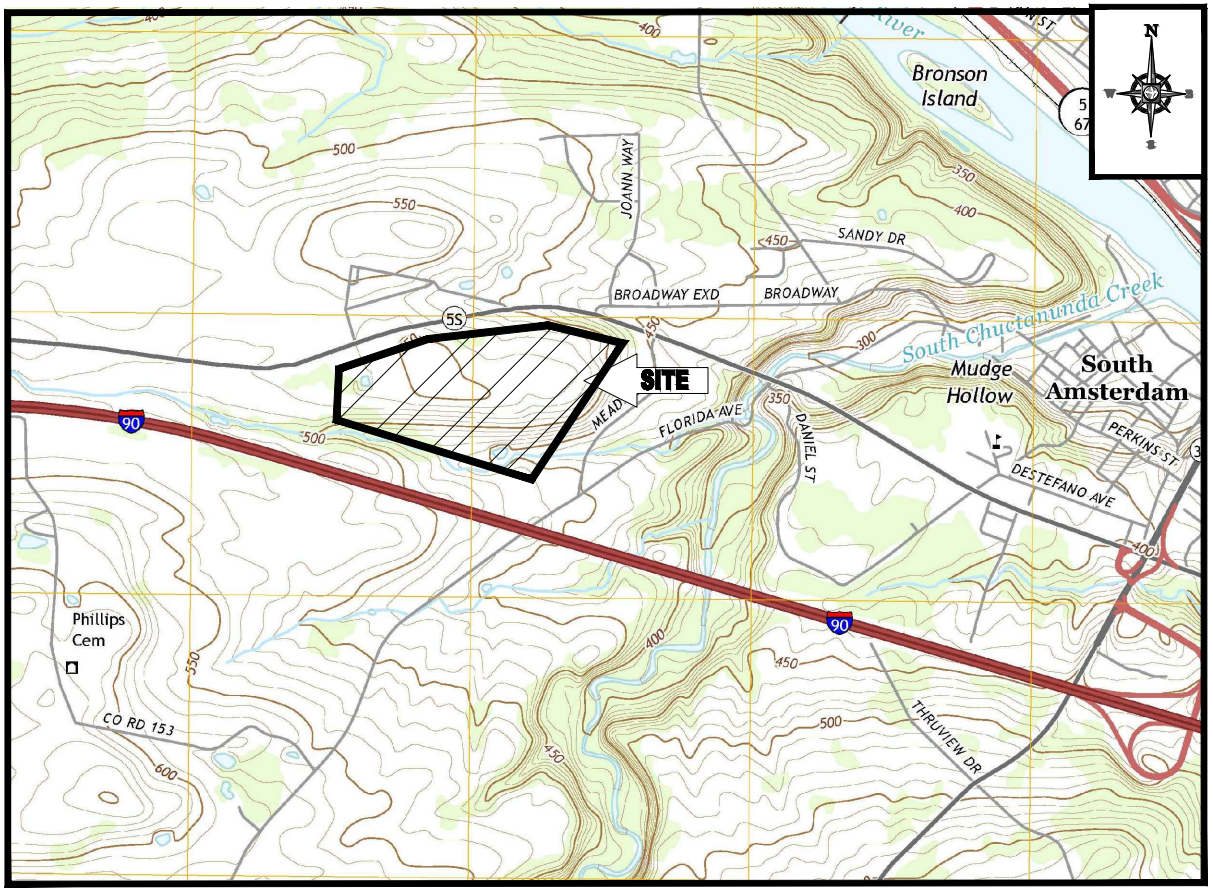
FOR:
PROPOSED

WAREHOUSE

LOCATION OF SITE:

NYS ROUTE 5S
TOWN OF FLORIDA, MONTGOMERY COUNTY
NEW YORK STATE

TAX ID. 55 - 01 - 35.161 TAX ID. 55 - 01 - 35.151 TAX ID. 55 - 01 - 35.141
TAX ID. 55 - 01 - 35.131 TAX ID. 55 - 01 - 35.121 TAX ID. 55 - 01 - 1.1
TAX ID. 55 - 02 - 4.1 TAX ID. 55 - 01 - 37 TAX ID. 55 - 01 - 36



LOCATION MAP
NOT TO SCALE
PLAN REFERENCE: AMSTERDAM, NY USGS QUADRANGLE

PREPARED BY

BOHLER ENGINEERING

TYPICAL ABBREVIATIONS

KEY	DESCRIPTION	KEY	DESCRIPTION
BC	BOTTOM CURB	PROP.	PROPOSED
TC	TOP CURB	TBR/R	TO BE REMOVED AND REPLACED
BOC	BACK OF CURB	TBR	TO BE REMOVED
BW	BOTTOM OF WALL GRADE	TPF	TREE PROTECTION FENCE
TW	TOP OF WALL	BLDG.	BUILDING
EXIST.	EXISTING	SF	SQUARE FEET
BM.	BENCHMARK	SMH	SEWER MANHOLE
EOP	EDGE OF PAVEMENT	DMH	DRAIN MANHOLE
℄	CENTERLINE	STM.	STORM
FF	FINISHED FLOOR	SAN.	SANITARY
V.I.F.	VERIFY IN FIELD	CONC.	CONCRETE
GC	GENERAL CONTRACTOR	ARCH.	ARCHITECTURAL
HP	HIGH POINT	DEP.	DEPRESSED
LP	LOW POINT	R	RADIUS
TYP.	TYPICAL	MIN.	MINIMUM
INT.	INTERSECTION	MAX.	MAXIMUM
PC.	POINT OF CURVATURE	No. / #	NUMBER
PT.	POINT OF TANGENCY	W.	WIDE
PI.	POINT OF INTERSECTION	DEC.	DECORATIVE
PVI.	POINT OF VERTICAL INTERSECTION	ELEV.	ELEVATION
STA.	STATION	UNG.	UNDERGROUND
GRT	GRATE	R.O.W.	RIGHT OF WAY
INV.	INVERT	LF	LINEAR FOOT
DIP	DUCTILE IRON PIPE	LOD	LIMIT OF DISTURBANCE
PVC	POLYVINYL CHLORIDE PIPE	LOW	LIMIT OF WORK
HDPE	HIGH DENSITY POLYETHYLENE PIPE	L.S.A.	LANDSCAPED AREA
RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS
S	SLOPE	°	DEGREE
ME	MEET EXISTING	Ø / DIA.	DIAMETER

TYPICAL LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	SETBACK	
	EASEMENT	
	CURB	
	STORM MANHOLE	
	SEWER MANHOLE	
	CATCH BASIN	
WF/5	WETLAND FLAG	
	WETLAND LINE	
× 54.83	SPOT ELEVATION	53.82
× TC 54.58 G 53.78	TOP & BOTTOM OF CURB	TC=54.32 BC=53.82
53	CONTOUR	23
	FLOW ARROW	5%
	PAINTED ARROW	
	RIDGE LINE	
	GAS LINE	G G
	TELEPHONE LINE	T T
	ELECTRIC LINE	E E
	WATER LINE	W W
	OVERHEAD WIRE	OH OH
	STORM PIPE	
	SANITARY LINE	S S
10	PARKING COUNT	4
	SIGN	
	LIGHT POLE	
	GUIDE RAIL	
	UTILITY POLE	

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PRELIMINARY

PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	7/16/2019
SCALE:	AS NOTED
CAD I.D.:	B180283 8X11SITEPLAN

PROJECT:
SITE PLAN
FOR
WAREHOUSE
LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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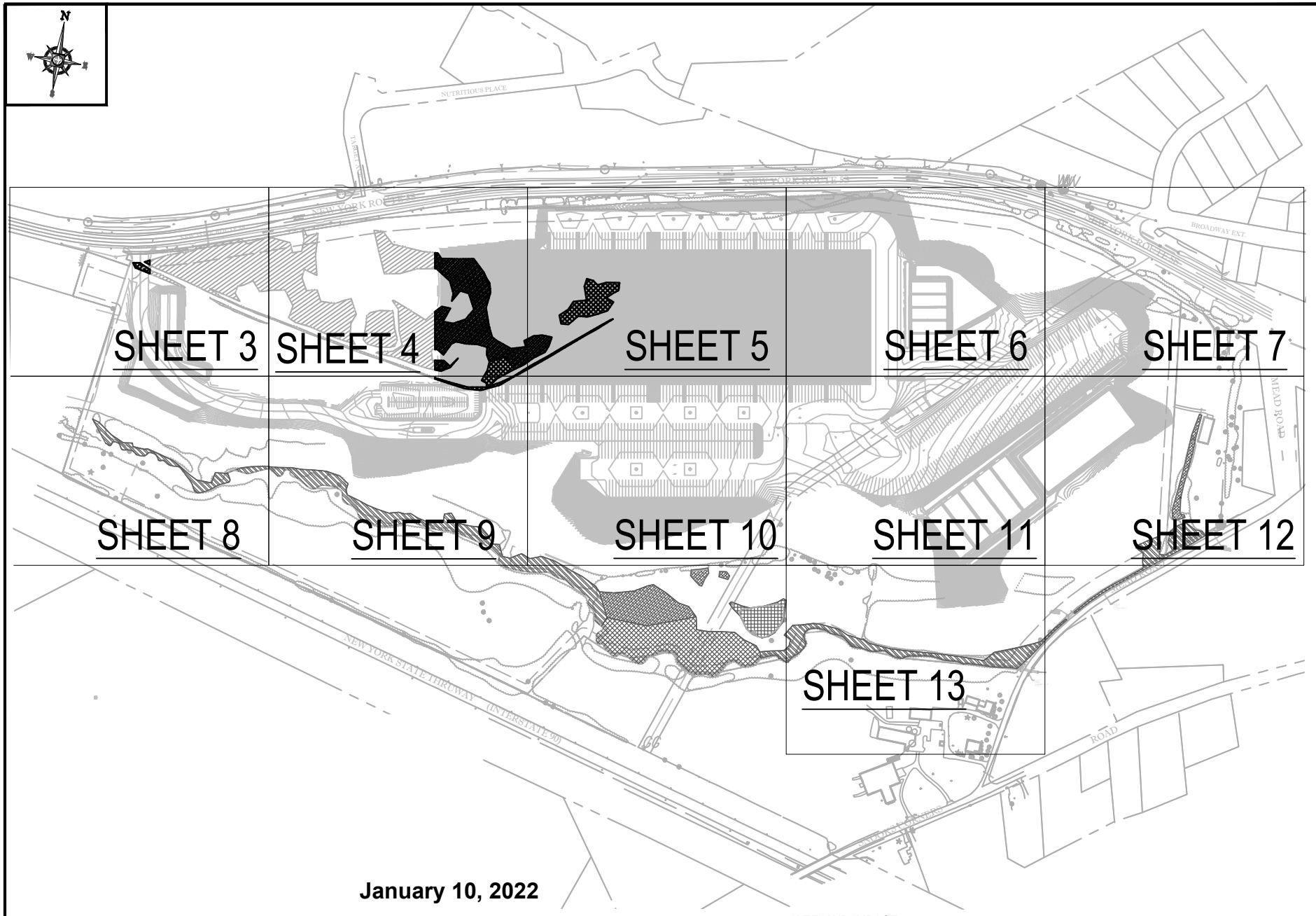
ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1
OF 13

REV 3



January 10, 2022

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 2 of 13

WETLAND IMPACT
SCRUB SHRUB = 0.4 ACRES
WET MEADOW = 1.5 ACRES
TOTAL = 1.9 ACRES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

500 250 125 0 500
1"= 500'

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FOR:
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LOCATION OF SITE
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TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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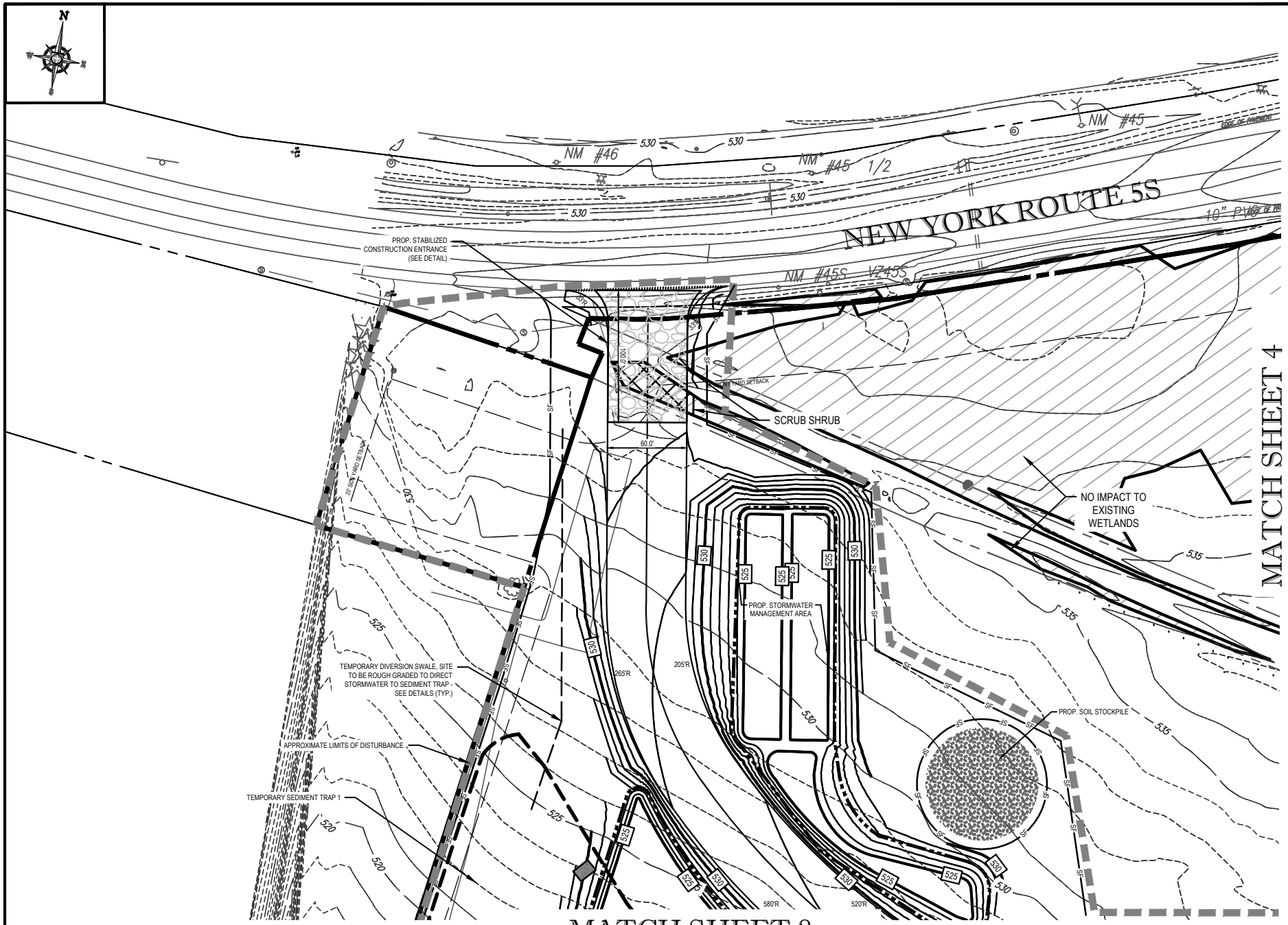
W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
2
OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 3 of 13

January 10, 2022

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LOCATION OF SITE

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NEW YORK STATE

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W.D. GOEBEL
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 45481
RHODE ISLAND LICENSE No. 7364
CONNECTICUT LICENSE No. 27918
VERMONT LICENSE No. 084.0149
MAINE LICENSE No. 25a
NEW HAMPSHIRE LICENSE No. 18811
FLORIDA LICENSE No. 82922

SHEET TITLE:

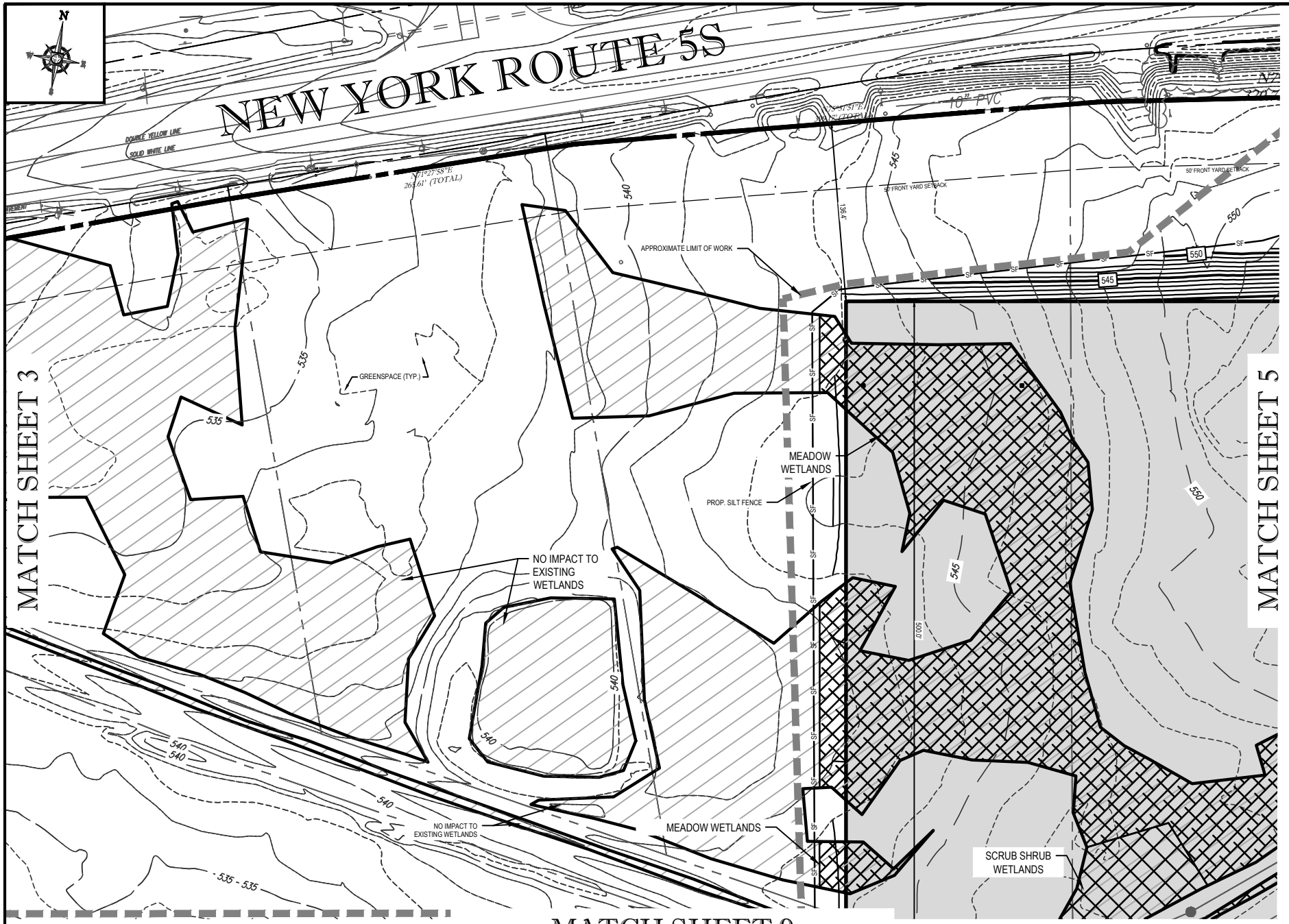
SITE PLAN

SHEET NUMBER:

3

OF 13

REV 3



NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 4 of 13

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PROFESSIONAL ENGINEER

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4

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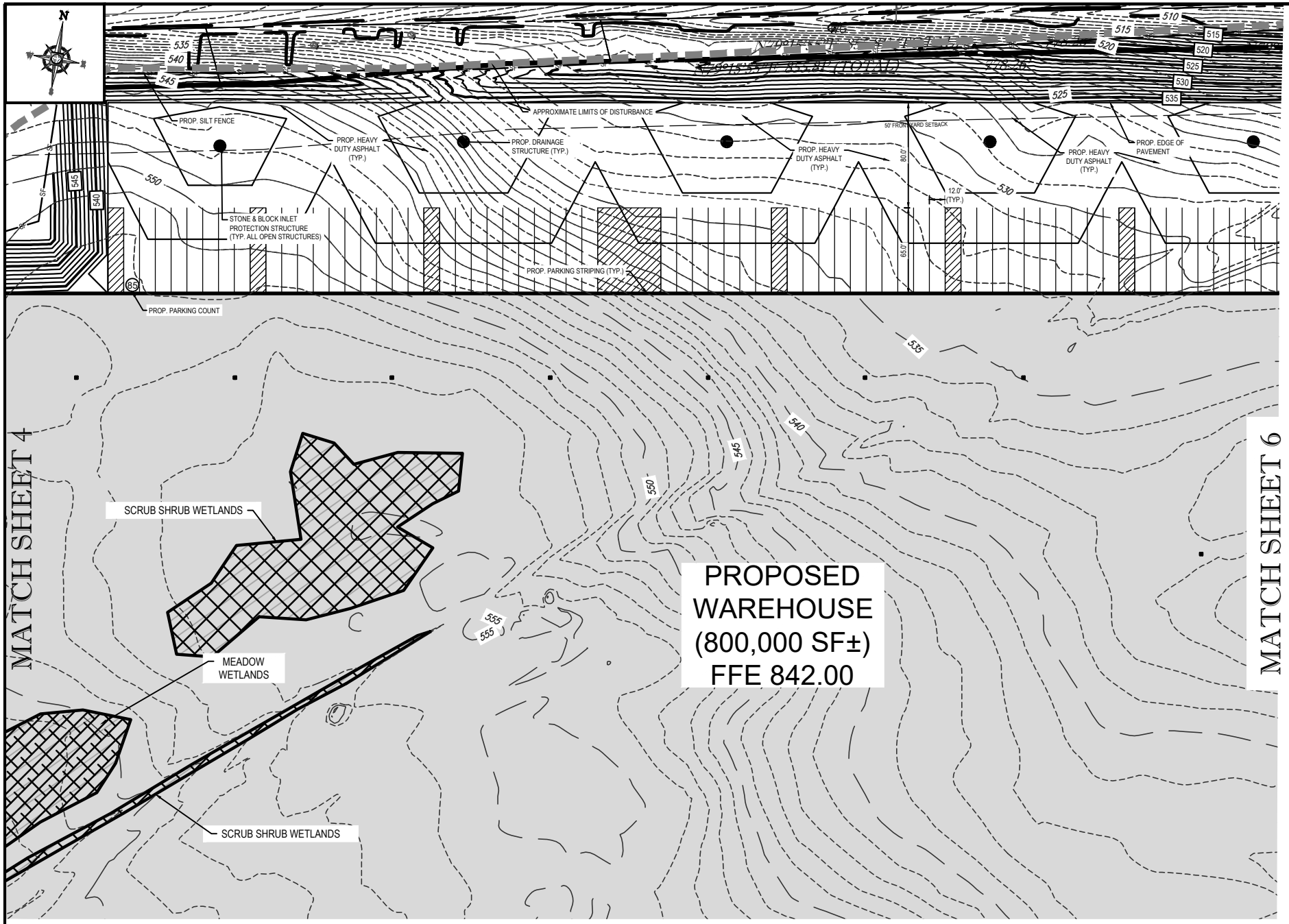
REV 3



NAN-2019-00679-USH
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Drawing 5 of 13

January 10, 2022

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PROFESSIONAL ENGINEER

SHEET TITLE:

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5

OF 13

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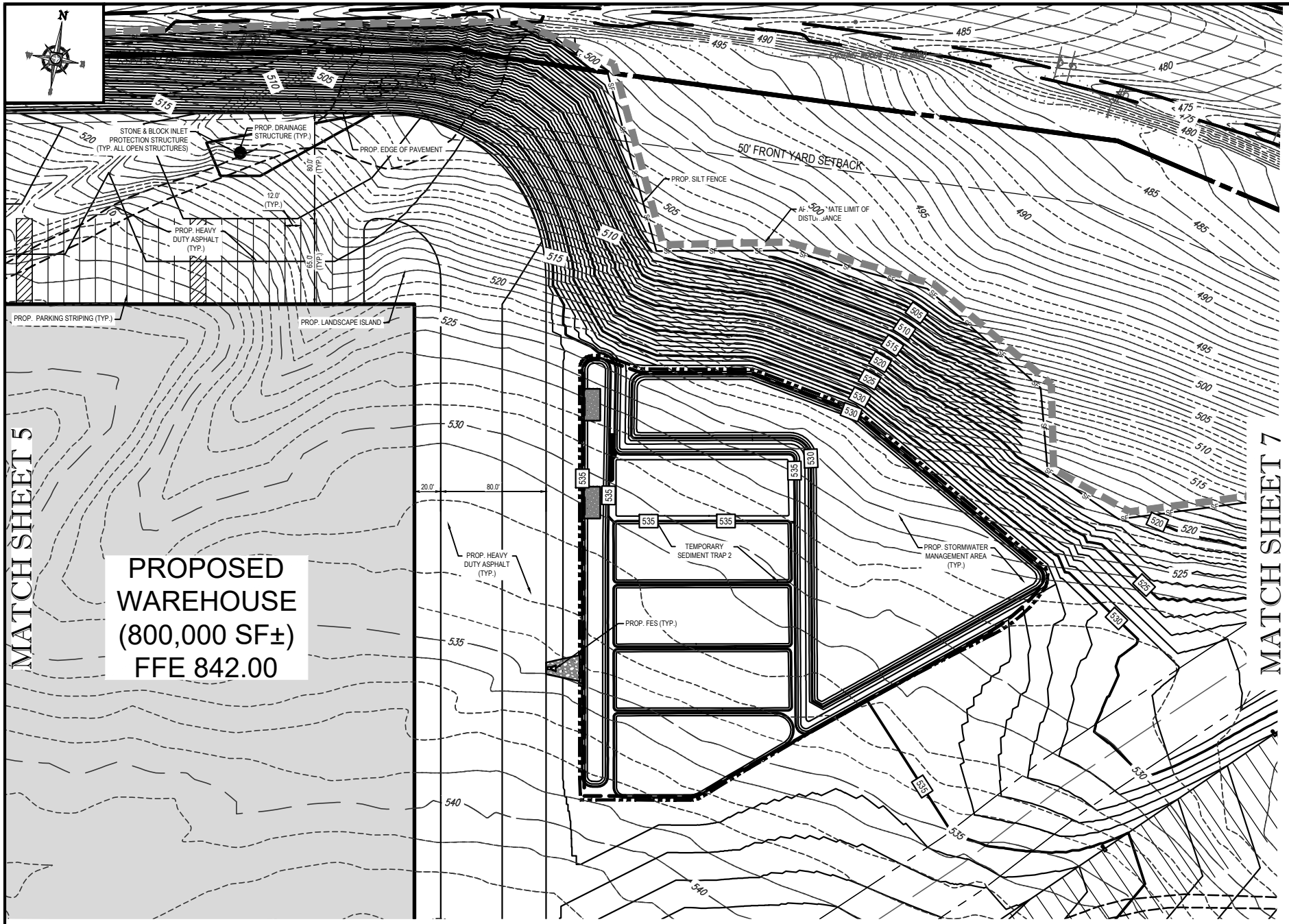

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 6 of 13

January 10, 2022

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SHEET TITLE:

SITE PLAN

SHEET NUMBER:

6

OF 13

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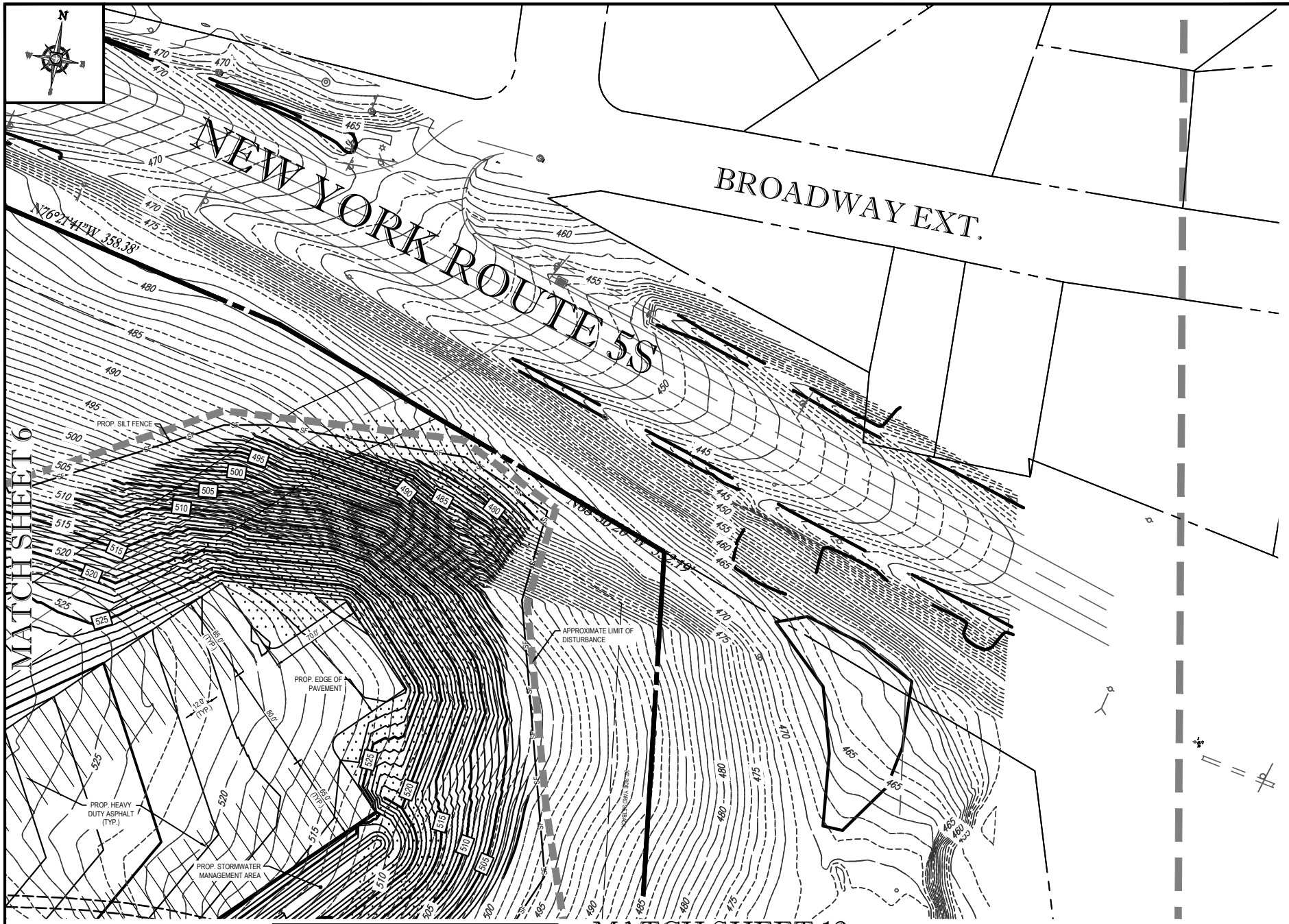

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 7 of 13

January 10, 2022

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3	8/5/20	PER COE AND DEC COMMENTS	MDL

PRELIMINARY

PROJECT No.: B180283
DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/16/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11SITEPLAN

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
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ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER

SHEET TITLE:

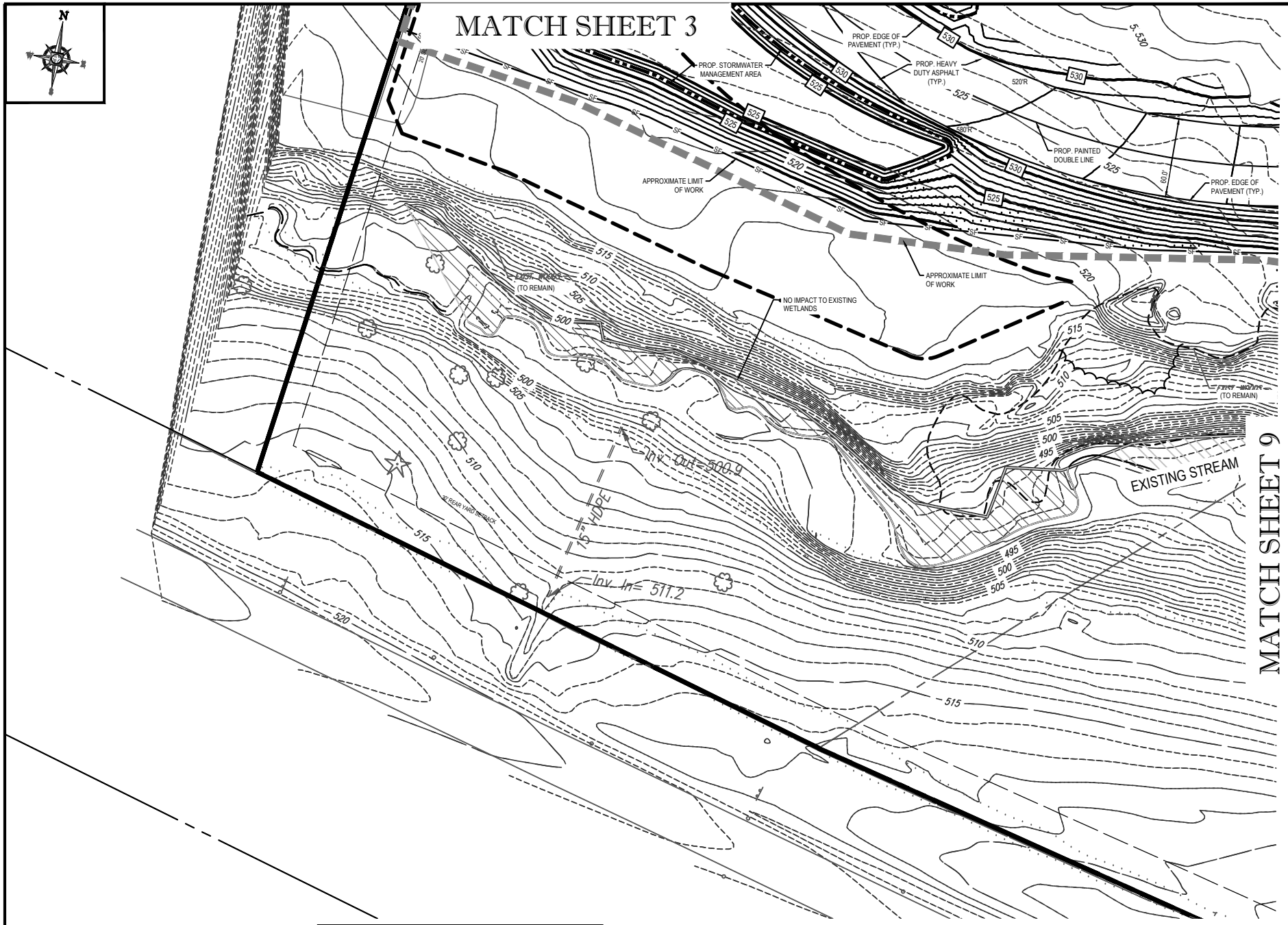
SITE PLAN

SHEET NUMBER:

7

OF 13

REV 3



NAN-2019-00679-USH
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DRAWN BY: JSH
CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 8X11 SITEPLANS

PROJECT:

SITE PLAN

FOR:

WAREHOUSE

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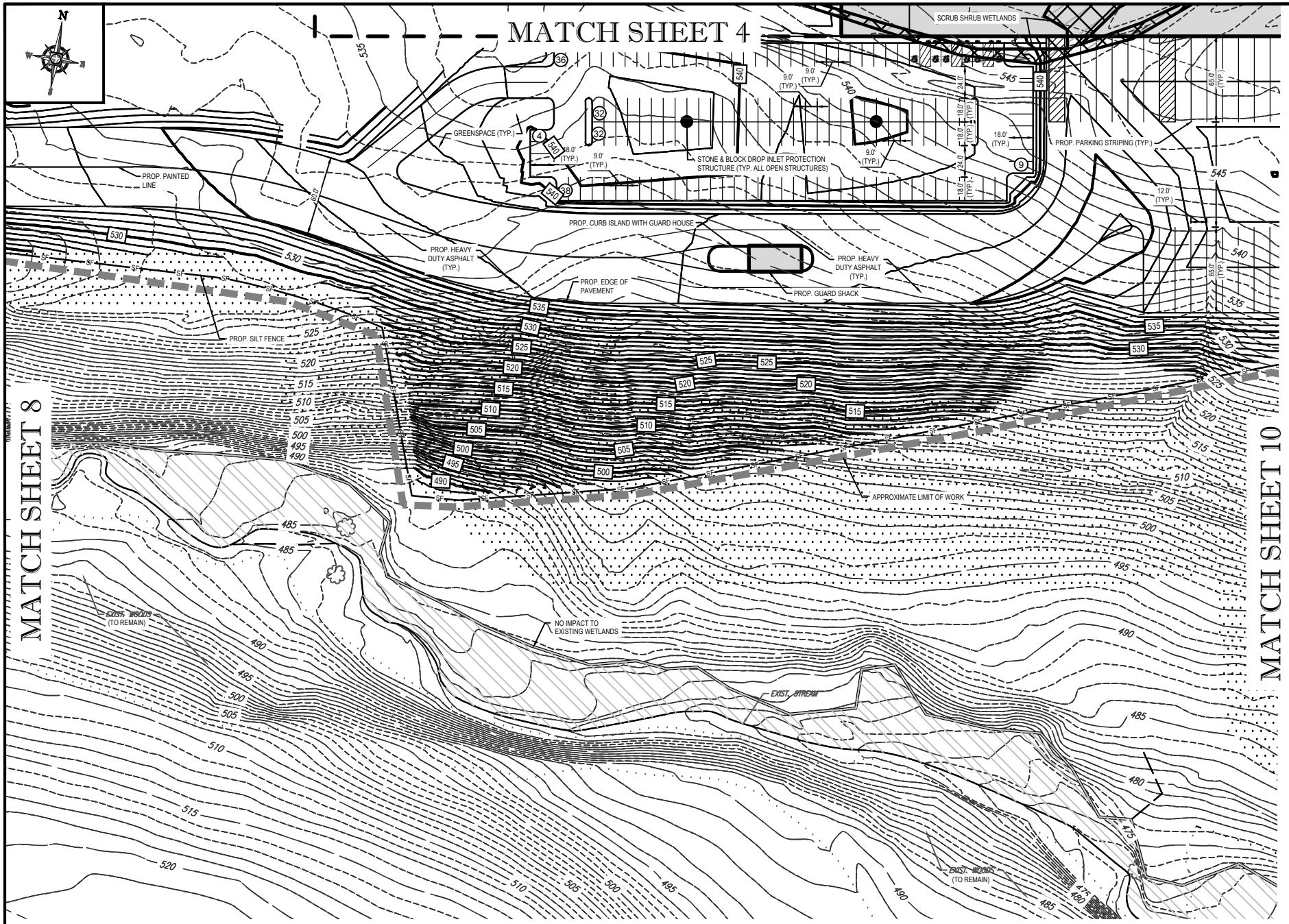
REV 3



NAN-2019-00679-USH
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PROJECT No.: B180283
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CHECKED BY: SRW
DATE: 7/15/2019
SCALE: AS NOTED
CAD I.D.: B180283 BX11SITEPLAN

PROJECT:

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FOR

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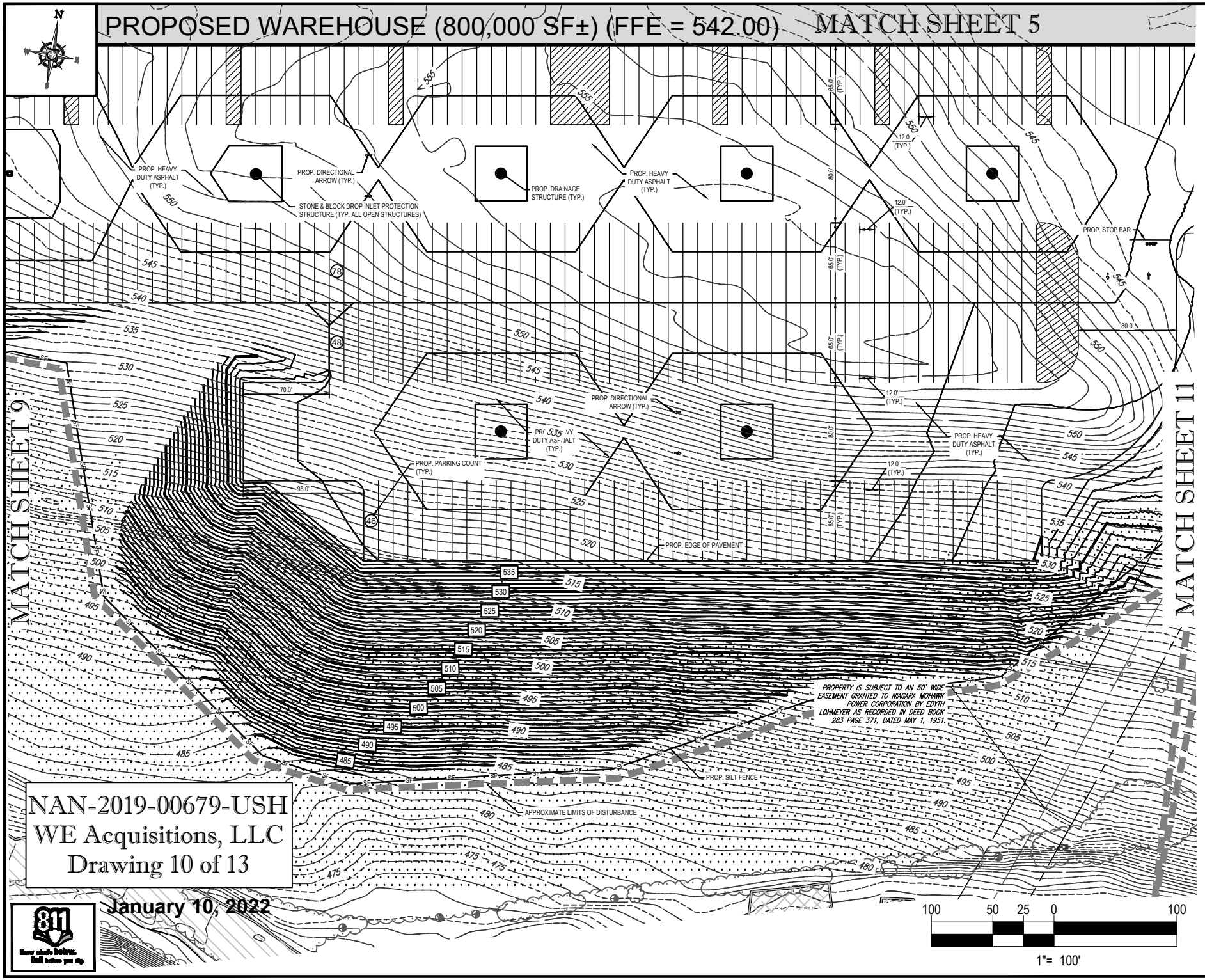

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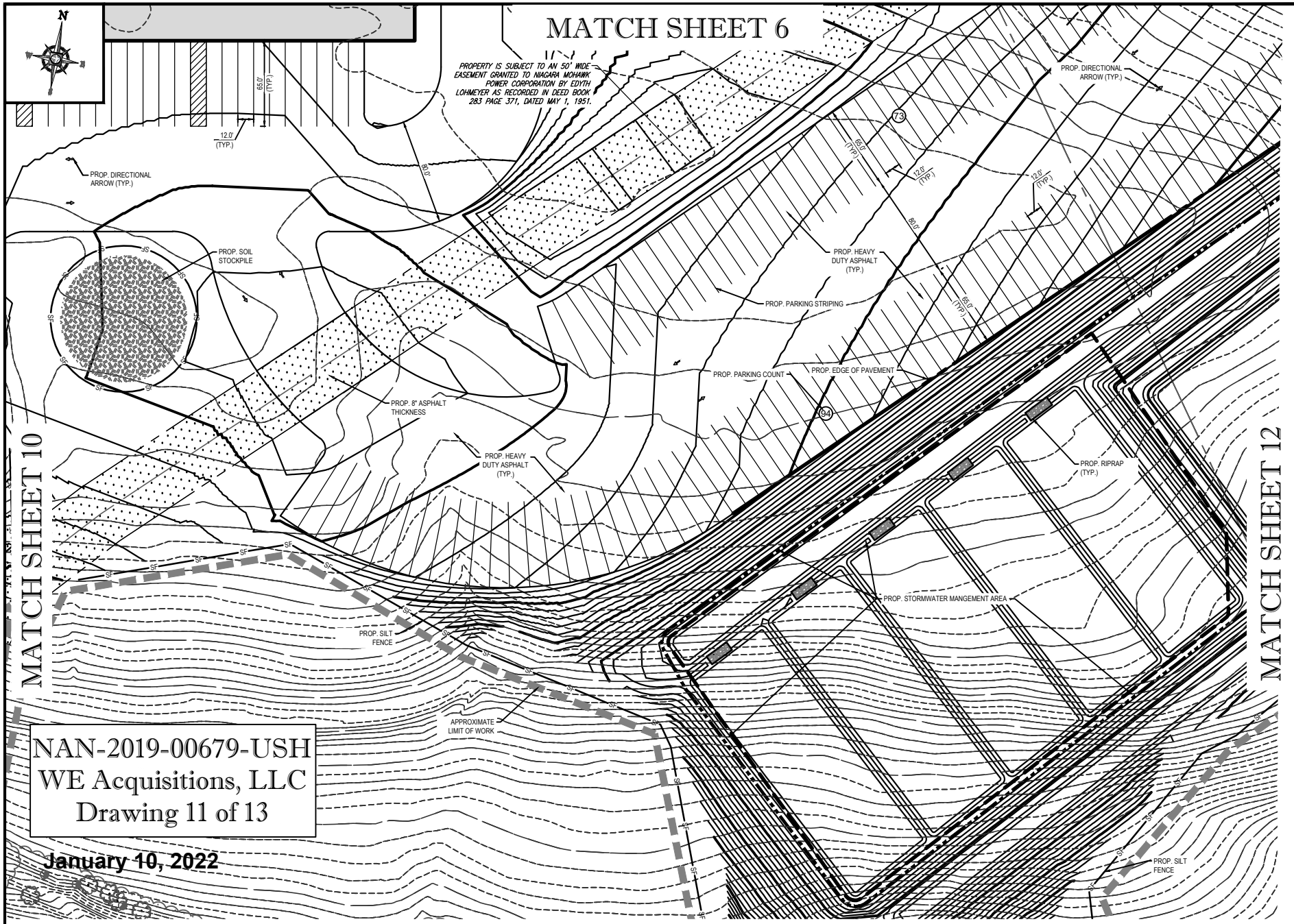

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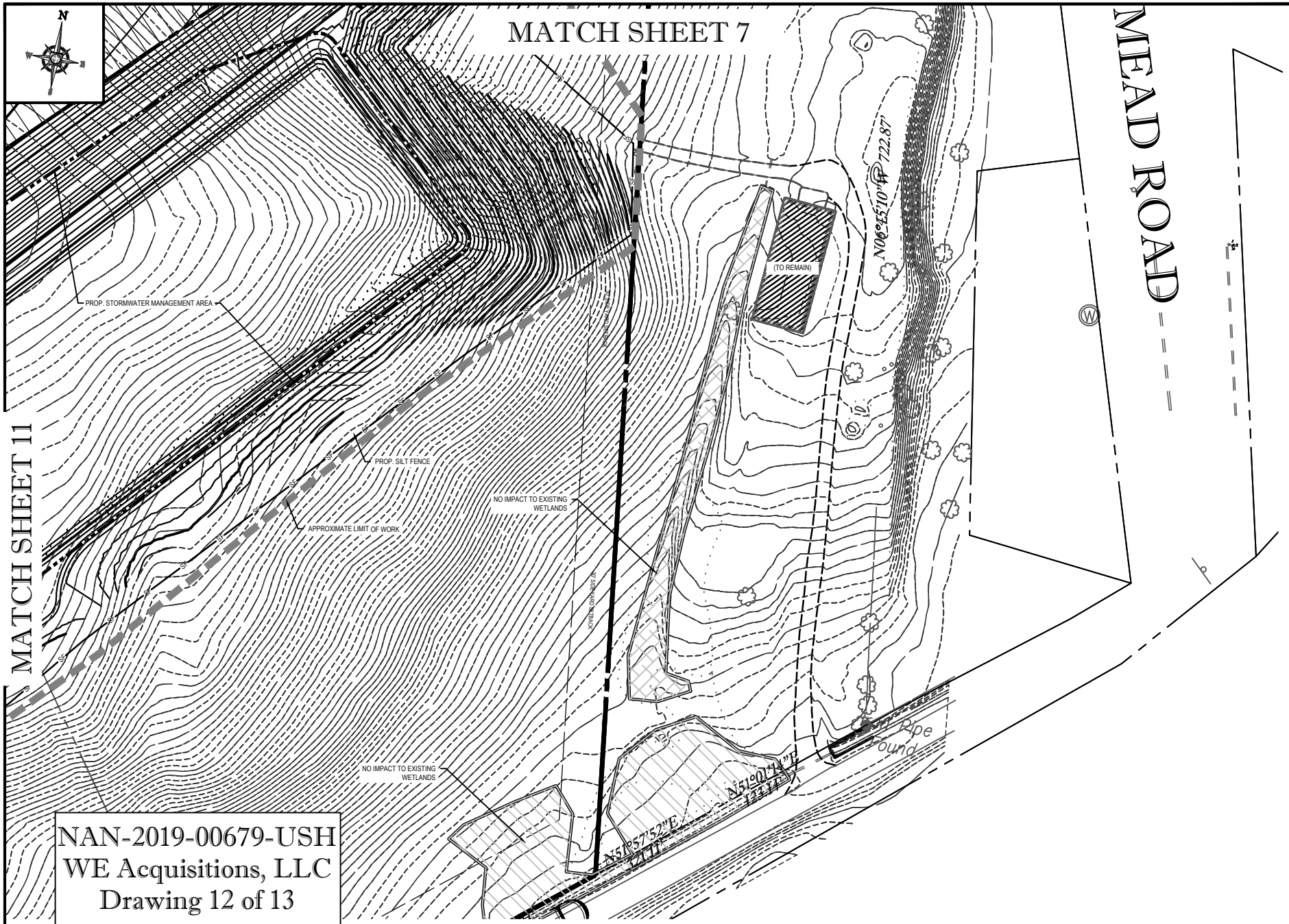

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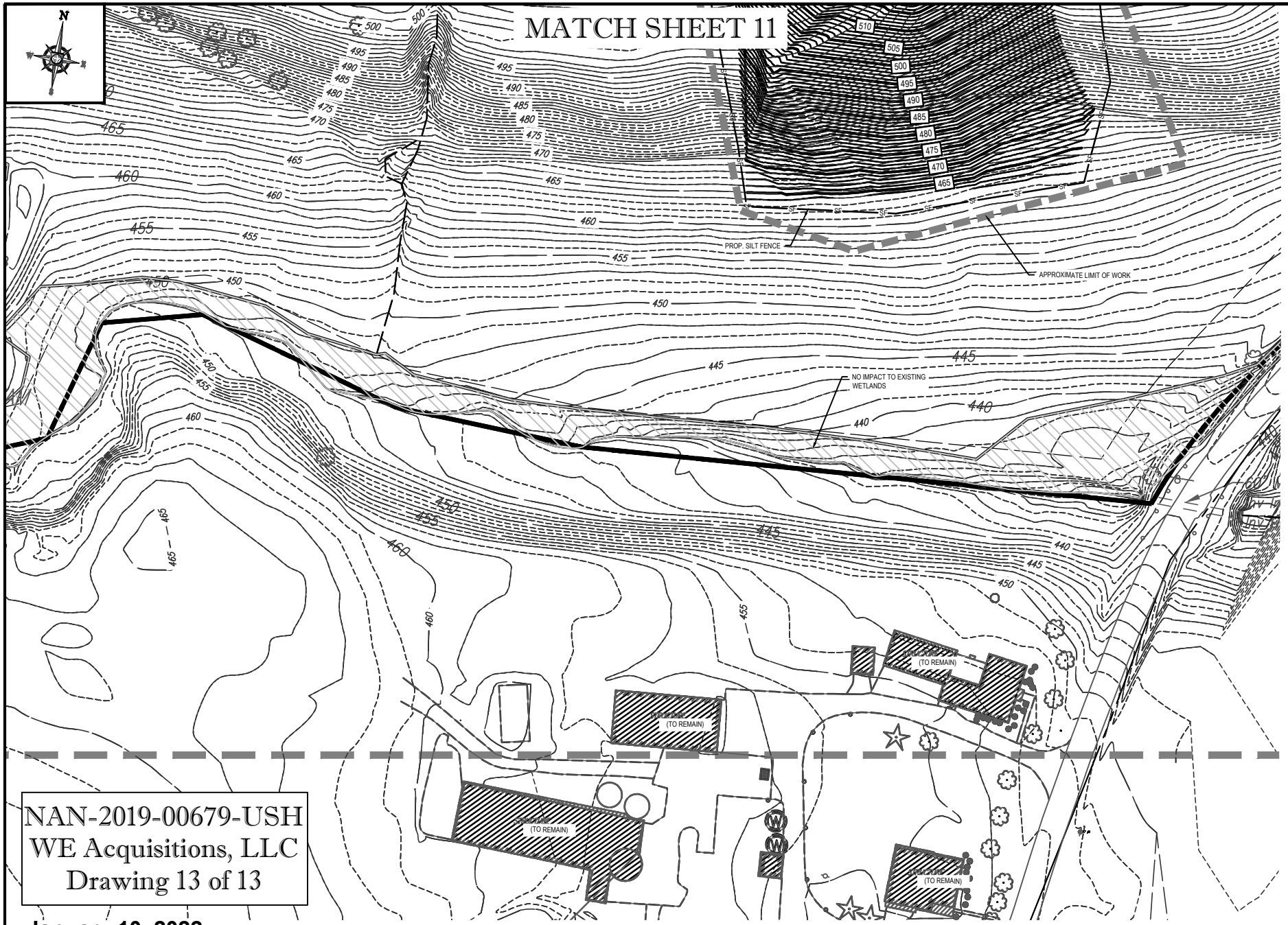

NAN-2019-00679-USH
WE Acquisitions, LLC
Drawing 13 of 13

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13
OF 13

REV 3

MEMORANDUM OF AGREEMENT AMONG THE UNITED STATES ARMY CORPS OF ENGINEERS, THE NEW YORK STATE HISTORIC PRESERVATION OFFICER, AND WE 5S, LLC REGARDING THE PROPOSED WAREHOUSE FACILITY, NYS ROUTE 5S, TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK

USACE PERMIT APPLICATION NUMBER NAN-2019-00679-USH

WHEREAS, the WE 5S, LLC proposes to construct a warehouse and distribution facility along NYS Route 5S in the Town of Florida, Montgomery County, New York ("the Project"); and

WHEREAS, pursuant to Section 404 of the Clean Water Act, 33 U.S.C. § 1344, USACE has been requested to issue a permit authorizing the discharge of fill material into approximately 1.90 acres of waters of the United States, including wetlands to facilitate construction of the Project; and

WHEREAS, the construction of 800,000 square foot warehouse and distribution facility with approximately 188 loading docks, 339 tractor trailer spaces, and parking spaces for 151 cars by the applicant is identified as the "Undertaking"; and

WHEREAS, USACE has defined the Permit Area for the Undertaking, as defined at 33 CFR Part 325, Appendix C, as described in Attachment 1; and

WHEREAS, USACE has determined that the Permit Area for the Undertaking is identical to the Area of Potential Effect; and

WHEREAS, USACE has determined that the undertaking will have an adverse effect on the J. Houck Historic Site (05704.000188), which is eligible for listing in the National Register of Historic Places; and

WHEREAS, USACE has consulted with the New York State Historic Preservation Officer ("SHPO") pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); Advisory Council of Historic Preservation (ACHP) implementing regulations at 36 CFR Part 800; USACE implementing regulations at 33 CFR Part 325, Appendix C, and subsequent interim guidance dated April 25, 2005 and January 31, 2007; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), USACE has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effects determination with specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

NOW, THEREFORE, USACE, SHPO, and WE 5S, LLC agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

I. USACE Authorization. USACE shall ensure implementation of the terms of this MOA as a condition of the Permit.

II. WE 5S, LLC shall implement the Phase III Data Retrieval Plan (Attachment 2) and submit a report on the status of the implementation of same to the SHPO within twelve (12) months of the execution of this Agreement.

III. WE 5S, LLC shall submit to the USACE and the SHPO the Phase III Report as set forth in the Phase III Data Retrieval Plan, within eighteen (18) months of USACE issuance of authorization.

IV. WE 5S, LLC shall temporarily curate and protect all artifacts and other materials collected, including all notes, photographs, and other data generated during the performance of the Phase III data recovery, until all of these materials are accepted by a permanent curation facility in accordance with the Phase III Data Retrieval Plan.

V. In connection with the Phase III Data Retrieval Plan and artifacts obtained during the Phase III DRP excavations, WE 5S, LLC shall complete the permanent curation of the artifacts and shall convey the artifacts and other materials collected, within one (1) year after the date of SHPO and USACE approval of the Phase III Report to the New York State Museum or other facility approved by SHPO and USACE which will curate the artifacts and serve as the final repository.

VI. Within ten days of conveying the artifacts and the materials collected, WE 5S, LLC shall submit copies of the deed of gift, full copies of the artifact catalog and listing, and copies of a letter acknowledging receipt by the facility which will serve as the permanent curation facility, to SHPO and USACE.

VII. WE 5S, LLC shall complete dissemination of information to the public, as set forth in the Phase III Data Retrieval Plan, within six (6) months after the date of SHPO and USACE approval of the Phase III Report.

VIII. DURATION

This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, USACE may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation XI.

IX. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, WE 5S, LLC shall provide all parties to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in USACE's efforts to carry out the terms of this MOA.

X. DISPUTE RESOLUTION

Should any signatory (either signatory or invited signatory) or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, USACE shall consult with such party to resolve the objection. If USACE determines that such objection cannot be resolved, USACE will:

A. Forward all documentation relevant to the dispute, including USACE's proposed resolution, to the ACHP. The ACHP shall provide USACE with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, USACE shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. USACE will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, USACE may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, USACE shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such response.

C. USACE's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

XI. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all the signatories is filed with the ACHP.

XII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation XI, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the Undertaking, USACE must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. USACE shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by USACE, SHPO, and WE 5S, LLC and implementation of its terms evidence that USACE has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

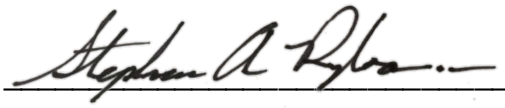
Attachments:

Attachment 1. Permit Area

Attachment 2. Phase III Data Retrieval Plan

SIGNATORIES:

U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT



_____ Date **07APR2021**

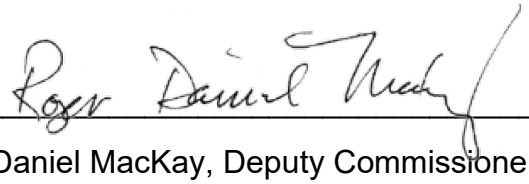
Stephan A. Ryba, Chief, Regulatory Branch

WE 5S, LLC

Adam D. Winstanley _____ Date 3-9-2021

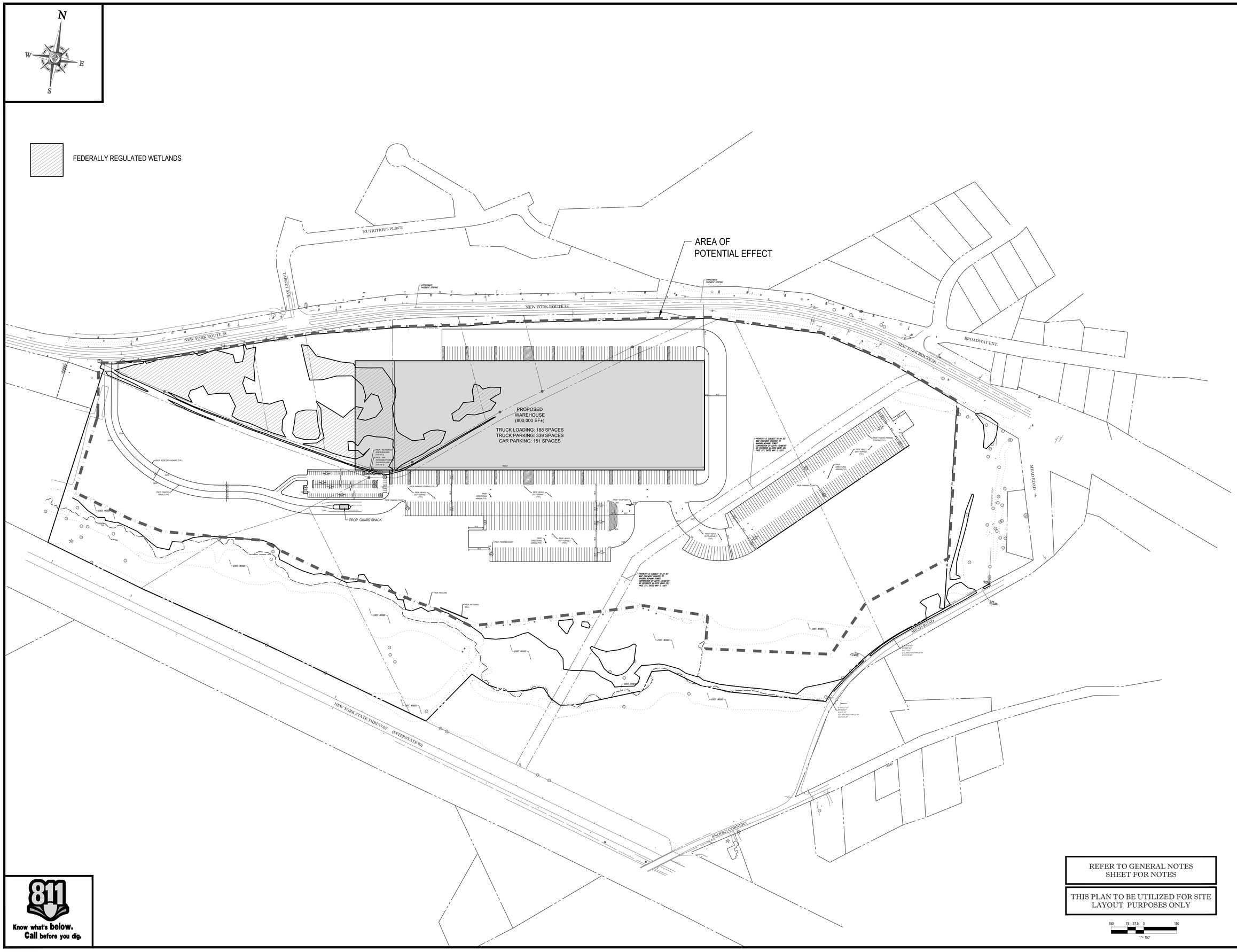
Adam Winstanley, Authorized Signatory

New York State Historic Preservation Officer



_____ Date March 11, 2021

R. Daniel MacKay, Deputy Commissioner for Historic Preservation



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CHECKED BY:	SRW
DATE:	7/6/2020
SCALE:	AS NOTED
CAD I.D.:	CONCEPT 800K

PROJECT:
SITE DEVELOPMENT PLAN
FOR
WAREHOUSE

LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
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SHEET TITLE:
AREA OF POTENTIAL EFFECT

SHEET NUMBER:
1
OF 11

REV 0

HARTGEN
archeological associates inc

DATA RETRIEVAL PLAN

Winstanley Distribution Center

New York State Bicycle Route 5 and Mead Rd.
Town of Florida
Montgomery County, New York

HAA # 5334-41
OPRHP 19PR04728

Submitted to:
WE Acquisitions, LLC
300 George Street
New Haven, CT 06511

Prepared by:
Hartgen Archeological Associates, Inc.

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Rensselaer, New York 12144
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f +1 518 283 6276
e hartgen@hartgen.com

www.hartgen.com

An ACRA Member Firm
www.acra-crm.org

May 2019

MANAGEMENT SUMMARY

SHPO Project Review Number: *Not Yet Assigned*
Involved State and Federal Agencies: *Not Yet Determined*
Phase of Survey: *III (Data Retrieval Plan)*

LOCATION INFORMATION

Municipality: *Town of Florida*
County: *Montgomery*

SURVEY AREA

Length: *207 feet (63 meters)*
Width: *195 feet (60 meters)*
Acres: *0.85 acres*

RECOMMENDATIONS

This document provides a proposed Data Retrieval Plan for the J. Houck Historic Site located on property being developed as part of the Winstanley Distribution Center project. The site consists of the remains of a single-residential structure and an associated well located along the original route of State Highway 5S, which is now runs to the north of the site. The remains of the residence consist of a stone foundation with cellar hole, a collapsed brick fireback associated with a stone hearth built into the stone foundation and what appears to be an "L" shaped addition along the east and south sides of the structure. Our data suggests that main portion of the residence was built between 1820 and 1853 when it is first shown on historic maps. The addition was built sometime after 1888 based on the date of a coin found just below the stone floor slabs. The well is stone lined and still contains water. Efforts to examine any contents were hampered by a post-occupational deposit of field cobbles filling up to a depth of about 5 feet below the ground surface. The property was owned by the locally important Houck family over several generations who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family.

Report Authors: *Bradley W. Russell, Ph.D.*
Date of Report: *May 9, 2019*

TABLE *of* CONTENTS

PHASE III DATE RETRIEVAL PLAN 1
1 Introduction 1
2 Project Information 1
2.1 Project Location 1
2.2 Description of the Area of Potential Effects (APE) 1
2.3 Historic Context 1
2.4 Previous Archeological Study 8
3 Research Questions 8
4 Data Collection Methods 9
4.1 Unit Excavation 9
4.2 Mechanical Trenching 10
4.3 Mechanical Stripping 10
4.4 Feature Excavation 10
4.5 General Documentation of the Excavations 10
4.6 Treatment of Human Remains 10
5 Laboratory and Analytical Techniques 10
5.1 Artifacts and Laboratory 10
5.2 Specialized Analyses 11
5.3 Curation 11
6 Deliverables 11
6.1 End of Fieldwork Letter 11
6.2 Report 11
6.3 Public Information Plan 12
7 Bibliography 13

Maps
Appendix 1: Protocol for the Unanticipated Discovery of Human Remains

Map List

Map 1. Project Location (USGS 2015)
Map 2. Project Map (Esri Inc. 2015)

Table List

Table 1. Summarized Houck family genealogy 2
Table 2. Chai of ownership from 1793 to 1905 of the larger Houck property 4
Table 3. Summary of occupation of the J. Houck Historic Site home site. 7
Table 4. Summary of Phase II field investigations 8

PHASE III DATE RETRIEVAL PLAN

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) proposes to conduct a Phase III Date Retrieval at the J. Houck Historic Site, which is located within the Area of Potential Effects (APE) for the proposed Winstanley Distribution Center project in the Town of Florida, Montgomery County, New York. The site was first identified during a Phase I Archeological Investigation (Hartgen Archeological Associates 2019a). Hartgen returned for a Phase II Site Evaluation (Hartgen Archeological Associates 2019b) to determine the site boundaries and concluded that the site was National Register eligible (NRE) meeting eligibility Criteria B "are associated with the lives of persons significant in our past" (in this case the locally important Houck family) and Criteria D has "yielded, or may be likely to yield, information important in prehistory or history." Due to the location of the site, avoidance is not feasible. So, we are proposing that a Phase III Date Retrieval be conducted.

These investigations were conducted to comply with Section 14.09 of the State Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

2 Project Information

2.1 Project Location

The Project is located between New York State Bicycle Route 5, the New York State Thruway (I-90), and Mead Road, in the Town of Florida, Montgomery County, New York (Map 1).

2.2 Description of the Area of Potential Effects (APE)

The area of potential effects (APE) for the proposed construction project includes all portions of the property that will be directly altered by the undertaking. The APE encompasses ~120 acres. The Phase III Project Area is a much smaller 0.85 acre portion of the overall APE encompassing the J. Houck Historic Site including remains of a 19th-century farmhouse, associated well and area shown (by Phase I/II shovel testing) to contain related archeological materials.

2.3 Historic Context

Historic maps indicate that development occurred throughout the region, beginning prior to 1850. Five early-to mid-19th-century archeological sites have been recorded within one mile of the current Project, two located within 500 feet [Farm Complex 2, Fossgate/Houck Farm (The Jacob and Christina Houck House) (05704.000121) and Farm Complex 1, DeForest/Pettengill/Lohmeyer Farm (05704.000120)]. Three other reported farm sites are located north of the Project. All of these farm houses are visible on the 1853 Geil Montgomery Co. map (Geil and Hunter 1853). The property under study was owned by Charles Williams in the years immediately following the Revolutionary War (DeWitt 1802, 1847 [1790]) and was referred to as "Warrensborough" (Sauthier 1779).

The National Register Eligible (NRE) Jacob and Christina Houck House (Hartgen Archeological Associates 2008a, b) was located at the intersection of Hirschfield Road and NY State Highway 5S. The earlier Fossgate designation has been dropped as later research has revealed that the association was an error. Hirschfeld Road, which was once located near the intersection of Broadway and NY Rt. 5S, across the street from the current Project, was removed sometime after 2003. It was replaced by "Nutritious Pl." and the distribution center

complex. The Beech-Nut Relocation Project was located just north of the current Project, on the opposite side of NY-Route 5S.

Maps indicate additional historic developments in the Phase I Project. Late 19th- to mid-20th-century maps, dating between 1895 and 1947, depict a historic road through the APE (Old Route 5S), which appears to follow the current V-shaped tree line containing the features under investigation. On late 19th to early 20th-century maps, two map-documented structures appear along this road (MDS 1 and 2). They were incorrectly labeled "J. Hawke", rather than Houck. Both are first visible on the 1853 map by Geil (Geil and Hunter 1853). It appears that MDS 1, which is located at the southern point of the angle in the highway, is the structure currently being investigated.

Surface survey has not located any structure in the location of MDS 2 as shown on the Geil map, nor have shovel tests produced remains in the vicinity. It is probable that the structure shown actually represents the Jacob and Christina Houck house, which is located farther east along the same roadway and is missing from its correct location on the map despite being a very prominent and well known structure (See Figure 5).

MDS 1 is depicted on maps through 1924 (Century Map Company 1905; Nichols 1868), after which it is absent. It is likely that the house had been demolished prior to 1924, as a series of topo maps from 1895 to 1924 look virtually identical and were apparently not updated. The next available 1931 map (the first to not depict the structure) shows a number of major differences and clearly represents new, updated mapping. However, it appears that the structure was definitely still present as of 1905 (Century Map Company 1905). MDS 2, The Jacob and Christina Houck house, continues to be shown our most recent maps (New York State Department of Transportation (NYSDOT) 1992). It was carefully dismantled in 2008 with plans to re-erect it in another location (Hartgen Archeological Associates 2008a, b). Topo maps indicate that Route 5S was reraligned to its current configuration by 1947 (present-day NYS Bicycle Route 5) (United States Geological Survey (USGS) 1947) and two houses were constructed on lots north of the former roadway. The Old Route 5S ran along the properties' southern boundaries, along or through what is currently a tree line.

Research on the Houck properties is somewhat complicated by the repeated use of certain family names generation after generation. The first Jacob Houck was born between 1770 and 1780 as was his wife Christina. Jacob had a brother by the name of Peter. Jacob and Christina had four children, Isaac, Jacob, Catherine and Christina. Isaac, who was born in 1803, went on to marry a woman who was also called Christina. He inherited his father's house and remained there until his death in 1850. The couple had two sons, Jacob and Peter. Jacob, who was born in 1833, went on to inherit the house and remained there until his death in 1905. This is the "J. Hawke/J. Houck" whose name is associated with the property in the available historic maps. He and his wife Adeline had no children of their own. But, they adopted Jennie Miller (later Houck), his brother Peter's daughter. A forth Jacob, Jacob TenEyck, also shows up in various records. He appears to be the son of Christina, widowed daughter of the original Jacob and Isaac's sister.

Table 1. Summarized Houck family genealogy

Generation	First name	Last name	Birth	Death	Relationship	Children	Residence
1	Jacob (1)	Houck	1770-1780	1839	Husband to Christina (married 1799)	Isaac, Jacob (2), Catherine (1) and Christine (2)	Jacob and Christina House
1	Christina (1)	Entis	1770-1780	1849	Wife of Jacob (1) (married 1799)	Isaac, Jacob (2) 2 daughters	Jacob and Christina House
1	Peter (1)	Houck			Brother of Jacob	?	
2	Isaac	Houck	1803	1850	Son of Jacob (1) and Christina	Jacob, Peter, Maria (?)	Jacob and Christina House (owner as of 1840)
2	Catherine (Katie)		1810-1813	1890	Wife of Isaac	Jacob, Peter, Maria (?)	
2	Jacob (2)	Houck			Son of Jacob (1) and Christina	?	

Generation	First name	Last name	Birth	Death	Relationship	Children	Residence
2	Catherine (1)				Daughters of Jacob (1)		
2	Christina (2)				Daughters of Jacob (1)		
3	Jacob (3)	Houck	1833	1905	Son of Isaac and Catherine/Grandson of Jacob (1)	Adopted Jennie Miller	Jacob and Christina House (owner from 1850-1905)
3	Adeline	Van Horn	1833	1903	Wife of Jacob (3)	Adopted Jennie Miller	
3	Peter (2)	Houck	1839		Son of Isaac and Catherine/Grandson of Jacob (1)	Jennie (Jane) Miller	
3	Jacob	TenEyck			Son of Catherine (1) (?)/Grandson of Jacob (1)		
3	Catherine (2)	TenEyck (?)			Daughter of Catherine		
3	Christina (3)	TenEyck (?)			Daughter of Catherine		
3	Elizabeth	TenEyck (?)			Daughter of Catherine		
4	Jennie (Jane)	Miller	1866		Daughter of Peter (2) adopted by Jacob (3)		

Hartgen conducted deed research to reconstruct the ownership history of the property under study. The first deed found for this property equaling ± 200 acres was between brothers Peter and Jacob Houck, grantees and John Watts, grantor in 1793. This property was described in the deed as follows:

> …as a part of a tract of land called Warrensborough and included within that tract therof which was heretofore sold and conveyed by Henry Gage & Susanna his wife & their trustees to the said party of the first part and is known in a map of the subdivision thereof made by John R. Bleecker Surveyor, in the year 1766, by Lot No. one hundred and forty seven…(Montgomery County Clerk 1793).

This area was referred to as Warrensborough in the eighteenth century (Sauthier 1779). Sometime between 1793 and 1839 Peter Houck granted his portion of this property to his brother Jacob Houck, although no deed has been found describing this transaction.

Jacob Houck married Christina Entis on January 27, 1799 according to a Dutch Reformed Church marriage record (Ancestry.com 2019a). Jacob died in 1839 granting this property to his eldest son, Isaac Houck. This transaction is described in great detail in his will executed on March 7, 1839. Also, in this will, Jacob Houck conveyed another piece of land to his two sons, Jacob and Isaac. The land was described as:

> A certain piece of land situated in Florida which has been for some years past in possession of James Greenman, Esq. containing about eighteen acres of Land, and bounded as follows, north by lands belonging to me, east by the George Servoss farm, south by the highway and west by James Greenmans land, the said Jacob and Isaac or the survivor of them shall whenever they shall deem it desired and proper to do to sell and convey the said land in fee simple, and out of the proceeds of said sale shall educate, support and maintain my grandson, Jacob A. TenEyck and if there be any surplus left pay the same to him when he arrives at the age of twenty one years. I give to my said grandson Jacob my silver watch, and it is my desire and I hereby request that my sons Jacob & Isaac shall take care of and provide of my said

> grandson until he shall arrive to an age when he shall be capable of taking care of himself. I do also order & direct that my son Isaac shall give my grandson Jacob a house when he arrives of age to be worth sixty or seventy dollars…(Ancestry.com 2019b).

This description fits the property under study perfectly when correlated with historic maps identifying the adjacent property owners. While the will specified that the sons can sell the land if wished, the fact that it remains identified as belonging to the Houck's into the 20th century indicates that they did not. It is unclear where the house that Jacob wanted constructed for his grandson Jacob TenEyck was located, or if it was even built. However, it does not appear to be the house being investigated. Indications are that it was built near the time of the property transfer. But, it is not clear if it was before or after. Jacob Ten Eyck does not appear in census records relating to the property.

Isaac Houck and his wife, Catherine had two sons, Jacob and Peter. After the death of Isaac in 1850, this property was transferred to Isaac's son, Jacob Houck, although no deed or will record could be located explaining this transaction (Montgomery County History and Archives n.d.). Given the range of possible dates for the house under study, Jacob may have built it when he received the property. Jacob Houck maintained the ownership of this property from 1850 until his death in 1905. Jacob and his wife, Adeline had no children of their own. But, they are known to have adopted Jennie (Jane) Miller. A will for Jacob Houck was found which was executed on September 8, 1905 (Ancestry.com 2019c). Interestingly, their adopted daughter is not listed as a beneficiary.

The following table lists the chain of ownership for the Project from before 1793 to 1905.

Table 2. Chai of ownership from 1793 to 1905 of the larger Houck property

Date	Rec'd Date	Grantee	Grantor	Book, Page		Acres	$	Notes
Unknown	Unknown	John Watts	Henry and Susanna Gage					This transaction is described in Deed 4: Liber 257 when John Watts sold the property to Peter and Jacob Houck
21 September 1793	17 October-1793	Peter and Jacob Houck	John Watts	4:257		±200	800 pounds	
7 March 1839	7 March 1839	Jacob Houck	Isaac Houck					By will
8 September 1905	8 September 1905	Jacob A. TenEyck, Anna C. Hills, Ira Mann, Sophia Van Vechten, Remelia Young, Chester Lerudrum, Catherine Diety	Jacob Houck					By will, John P. Miller was executor; Isaac Van Vechten was administrator of goods

Census records have been consulted to determine the individuals present in both the Jacob and Christina Houck house. In addition, they provide critical information on tenants that would have occupied the rental properties owned by the Houck family. The first population record for Jacob Houck was in 1810 when he was between 25 and 45 years of age. At this time, he was living in the Jacob and Christina Houck House, east of the J. Houck Historic site. He was listed in the population census as living with one woman of the same age, four children and two slaves (United States Census Bureau 1810). By 1820, the population census listed him as living with one woman, five children/young adults, two slaves (one adult male and one young adult female), and one free African American female under the age of fourteen (United States Census Bureau 1820).

This is the last census that shows the family owning any slaves. However, labor provided by African Americans remained important to the family's income. In 1830, Jacob Houck was between 50 and 60 years of age and

lived with one woman of the same age, two young adult men, one boy, one young adult female, one girl, and one free African American male between 10 and 23 years of age (United States Census Bureau 1830). According to cemetery records, Jacob Houck died in 1839 (Montgomery County History and Archives n.d.).

By 1840, the ownership of the Jacob and Christina Houck House was transferred to Jacob's son Isaac Houck. In the 1840 population census, Isaac Houck was listed as the head of the family between the age of 30 and 40. He lived with one female the same age, four boys, 1 young adult female, three girls, and one female between 50-60 years of age (United States Census Bureau 1840). Christina Houck, the wife of Jacob and the mother of Isaac died in 1847 according to cemetery records (Montgomery County History and Archives n.d.).

In 1850, Isaac Houck was recorded at age 47 and living with his wife, Catherine, age 37. They had two sons, Jacob and Peter. 64 year old Maria Houck was living with them in this year (United States Census Bureau 1850b). Perhaps Maria Houck was Jacob's sister, but no documentation was found to support that assumption. In this year, Isaac Houck's farm was valued at $10,000 and he farmed 170 acres of land. His main crops were oats, rye, and corn. He had 9 horses, 4 milk cows, 9 beef cattle, 2 oxen, 34 sheep and 9 pigs. His livestock was valued at $718 (United States Census Bureau 1850a).

According to cemetery records, Isaac Houck died in 1850 (Montgomery County History and Archives n.d.). His son, Jacob, acquired the property of the Houck estate and was listed as the head of the household in the 1860 population census at the age of 27, living with his wife, Adeline. His brother, Peter, and his mother, Catherine also resided with him. An African American 16-year old boy named James Dennis, most likely a farm laborer also was listed in the household.

After analysis of the 1860 population census record, it was determined that African American John Miller and his wife Jane were living in the house at the J. Houck Historic Site. It is believed that John Miller who was listed as a farm laborer in the population census living directly adjacent positioned west of the Jacob and Christina Houck House, was working for Jacob Houck and living in this house on the Houck estate (United States Census Bureau 1860b). According to the 1860 agricultural census, the amount of land farmed increased to 264 acres, and the value of the farm increased to $16,000. The main crops in this year were oats and corn. The value of livestock increased to $1,400 which included 5 8 horses, milk cows, 20 beef cattle, 4 oxen, 45 sheep, and 5 pigs. John Miller was not listed in the agricultural census of this year considering only landowners appear to be recorded at this time (United States Census Bureau 1860a).

By 1870, James Dennis no longer lived at the household, but Jennie (Jane) Miller, a four-year old girl lived with the family. It is believed that this child, Peter's daughter and later adopted daughter of Jacob, was a relation to John and Jane Miller who lived next door in 1860 (most likely the granddaughter of Jane Miller). John and Jane Miller were listed as living in a different area of the town of Florida according to the population census for that year. After an examination of the 1870 population records, it is thought that farmer, Loronzo Lisdell rented farm land from Jacob Houck as well as the house which stood at the J. Houck Historic Site. He was age 23 in 1870 and lived with his young wife, Anna and their daughter, Minnie. He is not recorded as owning any real estate in the population census, but having $100 for his personal estate. There is another young farmer who lived directly next door. Jay Burt, 25 years old, was also most likely renting farmland from Jacob Houck. It is probable that he lived in what is known as the Houck Tenant Farmhouse which was situated directly west of the Jacob and Christina Houck House.

Jay Burt lived with his young wife, Lydia and their 2-year old daughter, Amy (United States Census Bureau 1870b). Neither Loronzo Lisdell nor Jay Burt were listed in the 1870 agricultural census because they were not property owners. According to the agricultural census of this year, the Houck farm decreased in acreage down to 180 acres, but maintained the same value most likely because Houck was renting out approximately 85 acres of farmland. The main crop continued to be oats, with an increase in their wheat crop. The farm was still heavy with livestock maintaining 10 horses, 6 milk cows, 6 beef cattle, 2 working oxen, 23 sheep, 3 pigs, and 210 chickens (United States Census Bureau 1870a).

After the analysis of an 1875 state census record, it became clear that Jennie (Jane) Miller who was listed in the 1860 population census living with the Houck family was in fact Peter Houck's daughter (New York State

Census Bureau 1875), likely with a daughter of John and Jane Miller. She is listed in the records as Jacob's niece. She was eventually adopted by Jacob and Adeline who had no children of their own, changing her name to Houck and eventually being buried in the family cemetery. By 1880, Peter and Jennie did not live at the Jacob and Christina Houck House. In this year, Jacob Houck and his wife, Adeline continued to live in the main house with Jacob's mother, Catherine. They had a female servant from Prussia living with them and two male farm laborers. It is believed that the two male farm laborers were living in the tenant farmhouse. Living directly next door to Jacob Houck was farmer, Timothy Fero and his family. It is very possible that the Fero family lived in the house which used to stand at the J. Houck Historic Site. In 1880, Timothy Fero was listed at age 44 and his wife, Dorcas, who was recorded as aged 48. The couple had two teenage children (United States Census Bureau 1880b). According to the 1880 agricultural census, Timothy Fero was renting 85 acres of farmland in that year. It is believed that Fero was renting farmland from Jacob Houck while living at the J. Houck Historic Site. The 1880 federal census was the first year recorded if a farmer was the owner or renter.

Jacob Houck's farm increased in value between 1870 and 1880 by $6,000. His main crop was still oats, but did increase his buckwheat and corn crop. His wheat crop diminished from 200 bushels down to 18 bushels in that year. Houck had 6 horses, 5 milk cows, 7 beef cattle, 2 working oxen, 30 sheep, 5 pigs, and 120 chickens. Recorded immediately adjacent to Jacob Houck, was Timothy Fero in the 1880 agricultural census. Fero rented 86 acres of farmland from Houck in that year and his farm was valued at $9,000. His main crop was also oats, with his next largest crop being corn. He had 2 horses, 6 milk cows, 9 beef cattle, and 12 chickens. There are no later agricultural censuses available after 1880 (United States Census Bureau 1880a).

According to the 1892 state census, Jacob Houck and his wife Adeline were both 60 years old in that year, and his mother Catherine was 81. They had a seventeen year old female servant living with them, and an eighteen-year old male laborer possibly living at the tenant farmhouse. It is believed that African American Benjamin Havens and his wife Grace Havens lived at the house at the J. Houck Historic site in this year. The state census does not distinguish between households as the federal census does, so it is unclear if they lived in a separate house from the Houck family (New York State Census Bureau 1892).

Catherine Houck died in 1898 reported by the New York State Death Index (Ancestry.com 2019d). In 1900, Jacob and Adeline Houck continued to occupy the Jacob and Christina Houck House. Living with them in this year was a young female servant and a young male farm laborer. Recorded living next door in the population census was John and Kate Miller. John Miller was listed as a 32-year old farm laborer who rented out the house which he occupied. It is supposed that he and his wife were living in the Houck Tenant Farmhouse at this time. William Sanders and his family was recorded living next to the Miller's. William Sanders was documented as a 40-year old farmer who rented out a house. Living with him was his wife, Amelia and their four sons. It is believed that the Sander family was renting out the house which used to be situated at the J. Houck Historic Site.

According to cemetery records, Adeline Houck, wife of Jacob Houck died in 1903 at the age of 70 and Jacob Houck died in 1905 at the age of 72 (Montgomery County History and Archives n.d.).

After the analysis of historical maps, it has been determined that the house which used to be situated at the J. Houck Historic site was demolished between 1905 and 1931, probably closer to the earlier date (Century Map Company 1905; USGS 1931).

The following table summarizes the known (or suspected) identities of the tenants renting either the Houck Tenant Farmhouse adjacent to the main house or the J. Houck Historic Site home that is the focus of this study between 1860 and 1900. Due to the timing of censuses, it is likely that additional renters were present in the two properties which were not recorded.

Table 3. Summary of occupation of the J. Houck Historic Site home site.

First Name	Last Name	Residence	Age	Census year	Occupation	Note
John	Miller	J. Houck Historic Site	45	1860	Farm laborer	African American
Jane	Miller	J. Houck Historic Site	45	1860		African American
Loronzo	Lisdell	J. Houck Historic Site	23	1870	Farmer	
Anna	Lisdell	J. Houck Historic Site	19	1870	Keeping house	
Minnie	Lisdell	J. Houck Historic Site	2	1870		
Jay	Burt	Houck Tenant Farmhouse	25	1870	Farmer	
Lydia	Loranzo	Houck Tenant Farmhouse	19	1870	Keeping house	
Amy	Burt	Houck Tenant Farmhouse	2	1870		
Benjamin	Haven	Houck Tennant Farmhouse	27	1880	Laborer	Presumably the same as the Benjamin "Havens" identified as an African American laborer in the 1892 census
John	Bickford	Houck Tenant Farmhouse	18	1880	Laborer	
Timothy	Fero	J. Houck Historic Site	44	1880	Farmer	
Dorcas	Fero	J. Houck Historic Site	48	1880	Keeping house	
Frank	Fero	J. Houck Historic Site	14	1880	At home	
Josephine	Fero	J. Houck Historic Site	12	1880	At home	
James	Dence	Houck Tennant Farmhouse	19	1892	Laborer	
Benjamin	Havens	J. Houck Historic Site	41	1892	Laborer	African American
Grace	Havens	J. Houck Historic Site	31	1892	Dress maker	African American
John	Miller	Houck Tenant Farmhouse	32	1900	Farm laborer	
Kate	Miller	Houck Tennant Farmhouse	30	1900		
William	Sanders	J. Houck Historic Site	40	1900	Farmer	
Amelia	Sanders	J. Houck Historic Site	39	1900		
Howard	Sanders	J. Houck Historic Site	14	1900	Farm Laborer	
Seymore	Sanders	J. Houck Historic Site	12	1900	At school	
Morris	Sanders	J. Houck Historic Site	9	1900	At school	
Erving	Sanders	J. Houck Historic Site	2	1900		

2.4 Previous Archeological Study

The J. Houck Historic Site was initially identified during Hartgen's Phase I Archeological Investigation of a 140 acre parcel of land that will be developed as part of the Winstanley Distribution Center project (Hartgen Archeological Associates 2019a). During the Phase IB shovel testing, a total of 1014 tests were excavated at 15 meter (50 foot) intervals. Seven of those tests were positive for historic artifacts. Six of the positives were located in close proximity to a cut stone foundation and well also recorded during the study. The location matched the position of the J. Houck property first identified during the Phase IA study.

These findings resulted in a Phase II Site Evaluation intended to establish the site boundaries and determine National Register eligibility (Hartgen Archeological Associates 2019b). A total of 64 additional shovel tests were excavated during Phase II. Fifty-eight of those were placed at 8 meter (26 foot) intervals surrounding the foundation, well and previous positive tests. Six tests at 2 meter intervals were excavated in a line extending north from the centerline of the stone foundations in hopes of locating a privy or other structure associated with the foundations. A privy was not identified. But, the testing allowed us to establish site boundaries. In addition nine units were excavated revealing a total of 8.5 m^2. Those tests revealed significant data used to establish the dating of the structure and refine our understanding of the architecture present. An effort was also made to core the sediment at the bottom of the well to determine if any artifacts were present. However, discarded field cobbles blocked access to the lower levels.

Table 4. Summary of Phase II field investigations

Field method	Qty/Area	Rationale	Results
Shovel tests	64 tests	Conducted to determine the site boundaries and chronology	Site boundaries were established based in drop-off of archeological materials. TPQ dates had large range from 1780 to 1920 suggesting long term use of the site before and after residence was present.
Units	9/8.5 m^2	Conducted to investigate structure form, function and chronology	Some ambiguity remains about the form of the structure. Excavations suggested the visible foundation and cellar hole were the original structure dating between 1820 and 1853 when it appears on the Geil map. Stone walls and floor slabs suggest that the structure had at least one addition wrapping around the east and south sides added sometime after 1888.

3 Research Questions

The J. Houck Historic Site has the potential to answer a wide range of research questions. These include the following:

- Phase II investigations suggested that the residential structure was expanded decades after the initial construction of the stone foundations and cellar. Can a more detailed construction history and chronology of the residential structure and its possible additions be reconstructed? Are any activity areas evident from the remains of the structure?

- Unit 1 from our Phase II study was terminated after it filled with ground water and did not reach the floor of the cellar. Can the floor be exposed and activity areas defined with the water table lowered through the excavation of a sump?

- Previous work did not reveal the location of a privy, a common feature of 19th-century houses which often provides significant preserved remains that can shed light on a variety of issues. Can a privy or other important features, such as middens, be located?

- If so, can study of the night soils give us data on the health and diet of the home's residents? Can their remains help us reconstruct the socioeconomic status and or ethnicity of the households occupying the site?

- Initial examination of the existing well feature suggests that it has been blocked with deposited field cobbles following abandonment of the residence. Does the well contain archeological remains below the field cobbles which could help us reconstruct life in this rural farmstead?

- Are there remains of the second structure (likely a barn) shown on the 1905 Century map? If so, is there evidence of its function remaining in the archeological record?

- Historical research on the property suggest that it was a rental home occupied by a series of tenant farmers, most working for the Houck family, who owned the residence and surrounding farmland. Previous research at the Jacob and Christina Houck House (Hartgen Archeological Associates 2003, 2008a) provided us information on their lifeways. How do the lives of tenants renting this property differ from those of their Houck Family landlords?

- Historical research revealed that several of these tenant farmers were African Americans living in the decades immediately following manumission of enslaved individuals in New York state. The Houck family is shown to have owned slaves as of the 1820 census (United States Census Bureau 1820). However, they continued to rely on labor provided by free African Americans long after that date. Can we recover information that would illuminate how ethnicity, social class and socioeconomic status were expressed and interrelated in rural New York communities during the 19th century? Can that data help us understand how African American laborers and former slave owners transitioned from enslaved labor to freedom?

It is not guaranteed that this research will provide answers to all of these questions nor will we restrict our investigations to just these questions if others can be answered by the remains discovered during the Data Recovery.

4 Data Collection Methods

To address the above research questions, Hartgen will conduct the following data retrieval excavations:

Method	Quantity	Approach/Rationale
Unit Excavation	8 square meters	• Investigate activities within the cellar hole • Investigate layout of structure and addition. • Investigate deposits around the well. • Sample middens and other artifact bearing deposits.
Mechanical Trenching	Approximately 10 meters	• Expose well in profile to locate any artifact bearing deposits. • Expose stratigraphy within cellar hole, stripping away cobbles and post-abandonment deposits.
Mechanical Stripping	Up to 500 square meters	• Locate privy, middens, trash pits, outbuildings or other features and to expose foundations and cellars.
Feature Excavation	Up to 3 subsurface features (not including foundations)	• Map and photograph all features. • Collect soil samples as warranted.

4.1 Unit Excavation

Units will be rectangular with dimensions of one-by-one or one-by-two meters (3.3 by 3.3. or 3.3 by 6.6 m). Soil levels will be excavated separately, and all excavated soil passed through 0.25-inch hardware mesh and examined for historic artifacts. Soil depths, Munsell colors, textures, artifact content, and other relevant observations were recorded (Munsell Color 2000). Profiles and plan views will be drawn when appropriate. The location of each unit will be mapped with a Trimble Geo7X GPS unit and plotted on the project map. Unit

excavation fieldwork and unit wall stratigraphy will be photographed. Unit excavation and mechanical trenching will be aided through the digging of a sump to lower the current water table.

4.2 Mechanical Trenching

Backhoe trench excavation will be directed by the archeological crew. Trenches will be excavated stratigraphically and soils were piled next to each trench and investigated for artifacts. Selected soils will be screened through 0.25-inch hardware mesh and examined for historic artifacts. Trench walls will be cleaned and examined for artifacts in trenches that were less than four feet deep, and the walls will be profiled and photographed. Trenches greater than four feet deep will be documented from the surface. If artifact bearing deposits are found at the base of the well, the area will be sloped to allow safe access for hand excavation. Trench locations will be mapped with a Trimble Geo7X GPS unit and plotted on the project map.

4.3 Mechanical Stripping

Mechanical excavation equipment with a toothless bucket will be used to removal the plowzone in selected areas as well as more fully expose foundations and cellar holes. An archeologist will direct the excavator to carefully remove the overlying stratum and expose the boundary with in situ subsoil. Archeologists will then hand scrape the uppermost portion of the subsoil stratum while inspecting for the presence of archeological features. The depth of mechanical soil removal will be about 1 foot in the rear of the house, and several feet within the foundation. The limits of the stripped area will be mapped with a Trimble GPS unit and plotted on the project map.

4.4 Feature Excavation

Features encountered during the unit excavations and mechanical stripping will be bisected, recorded, and excavated by stratigraphic levels. All artifacts will be collected. Samples of feature soils and charcoal will be collected. Profiles and plan view will be drawn when appropriate. The location of each feature will be mapped with a Trimble GPS unit and plotted on the project map. Feature excavations will be photographed.

4.5 General Documentation of the Excavations

Documentation of the excavations will include digital photography. General views of the site and the various phases of the investigation including all of the excavations will be recorded for inclusion in the final report.

The fieldwork will be followed by documentation of the excavations, laboratory analysis, curation of the archeological assemblage obtained during the fieldwork, comparative studies with artifact assemblages from other 19th-century historic sites, and report preparation. As part of compliance and in consultation with SHPO staff, other products such as a public information plan, may also be undertaken.

4.6 Treatment of Human Remains

In the event that human remains are identified during the data retrieval excavations, the archeologists will stop work in the vicinity of the find and immediately notify Winstanley Construction Management, LLC. Hartgen will ensure that the appropriate measures are taken in the treatment of the human remains and artifacts associated with the grave. The SHPO human remains protocol is attached

5 Laboratory and Analytical Techniques

5.1 Artifacts and Laboratory

As general procedure, significant historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items will be collected. Coal, ash, cinder, brick, and modern materials will be noted. Artifacts collected will be placed in paper or plastic bags labeled by provenience and inventoried in a bag list. Artifacts

will be cleaned and cataloged in a database or spreadsheet, such as Microsoft Access or Excel. A copy of the complete catalog will be included in the report.

5.2 Specialized Analyses

The data recovery effort will include the use of analytical techniques selected based the potential to produce unique information. The techniques and the quantity of samples selected for each technique will depend on the types of artifacts and deposits recovered during the fieldwork. Examples of the types of analyses that may be conducted are listed below:

- Floral and pollen analysis to identify species present.
- Faunal analysis to identify species, cut, minimum number of individuals, and butchering methods.
- Parasite analysis to identify parasitic infections carried by the site occupants, which can shed light on the nutrition, disease, living conditions and overall health of the individuals.
- Trace element analysis of privy deposits which can shed light on the types of medications that were in use.
- DNA analysis of residue from pipe stems or other potential sources for information on ethnicity.

Samples will be collected from temporally discrete deposits with the potential to contain dietary remnants. Standard techniques will be followed for collecting samples to assure they are not contaminated by soil from strata above or below.

The following estimates serve to demonstrate the level of effort that will be devoted to analytical techniques; the actual techniques employed and the quantity of samples analyzed may differ.

- Floral analysis: 1 sample
- Pollen analysis: 1 sample
- Faunal analysis: 100 specimens

5.3 Curation

The cultural material assemblage from the data recovery study will make an important contribution to the study of New York history. As such, the collection should be placed in a suitable repository where it will be available for archeologists and other scholars to use in comparative analyses and studies. The New York State Museum (NYSM) is considered a suitable final repository for the collection. If the NYSM does not accept the collection, Hartgen will work with SHPO to find a viable alternative repository.

6 Deliverables

6.1 End of Fieldwork Letter

Following completion of the Phase III data retrieval fieldwork, Hartgen will prepare an end-of-field work letter demonstrating that the fieldwork component of this DRP has been completed and summarizing preliminary results of the study. This document will be submitted to SHPO with the recommendation that construction be permitted to proceed within the site area while the Phase III report is prepared.

6.2 Report

Hartgen will author the Phase III report in accordance with this DRP, OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005) and the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994). As appropriate, the report will contain text, tables, color maps and photographs, scale drawings, and an artifact inventory. Hartgen will provide a PDF version of the draft report for the client's review. The client will compile and submit all comments to Hartgen in a single submission. Hartgen will address one round of comments, making revisions

to the report as appropriate. Hartgen will issue a PDF copy of the final report. A copy of the final report will be uploaded to OPRHP via CRIS.

6.3 Public Information Plan

Hartgen will take the following steps to disseminate the results of the Phase III data retrieval study to the public:

- Distribute full-color hard copies and electronic copies of the final Phase III report to the Montgomery County Historical Society and one local library to ensure long-term accessibility of the information to the local community.
- Create a J. Houck Historic Site archeology resource in the Digital Archaeological Record (tDAR), an international digital repository for the digital records of archaeological investigations. tDAR's use, development, and maintenance are governed by Digital Antiquity, an organization dedicated to ensuring the long-term preservation of irreplaceable archaeological data and to broadening the access to these data.

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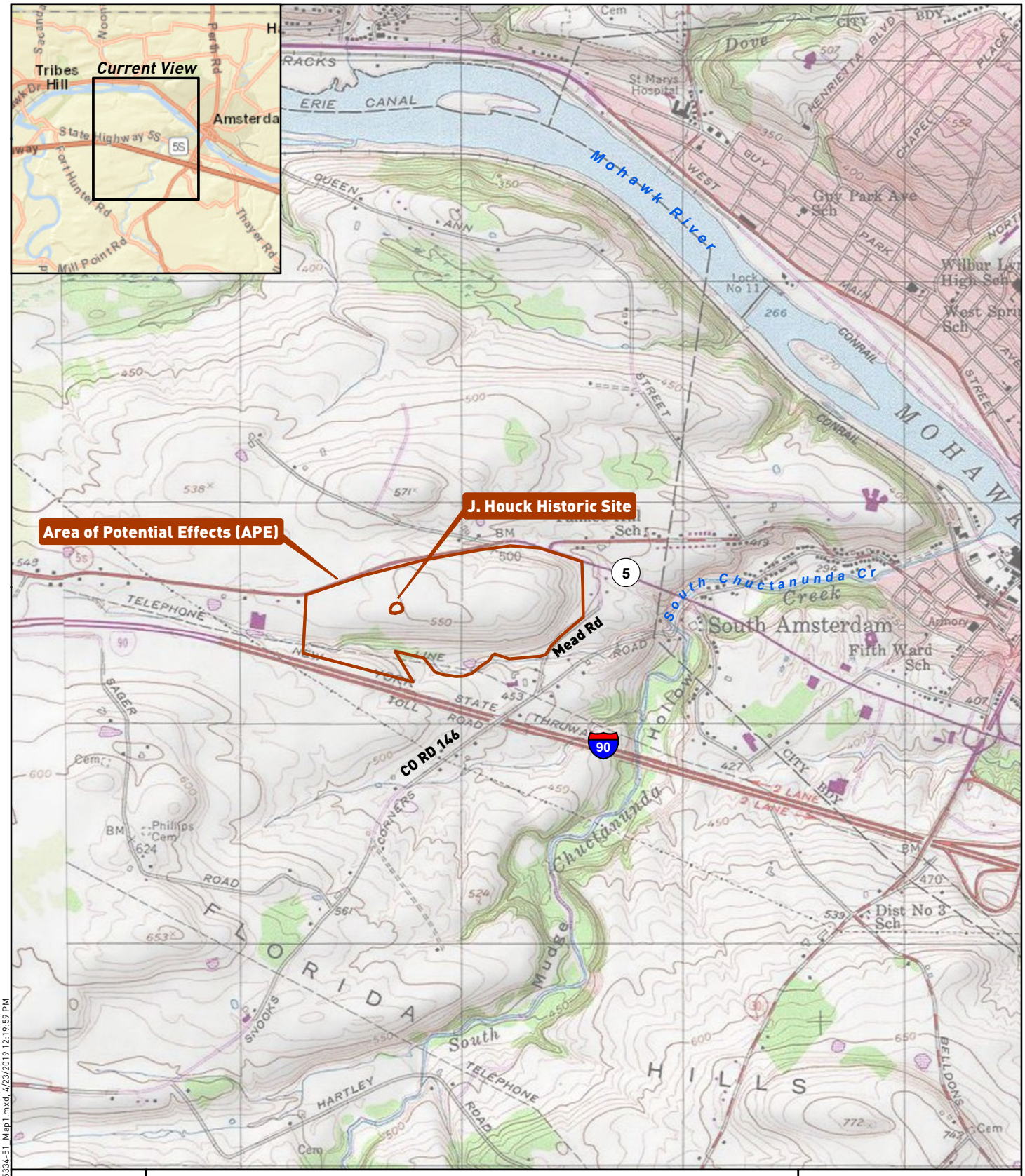
Maps



1,000 0 1,000 2,000 Feet

300 0 300 600 Meters

Note: Contour interval is 20 feet.

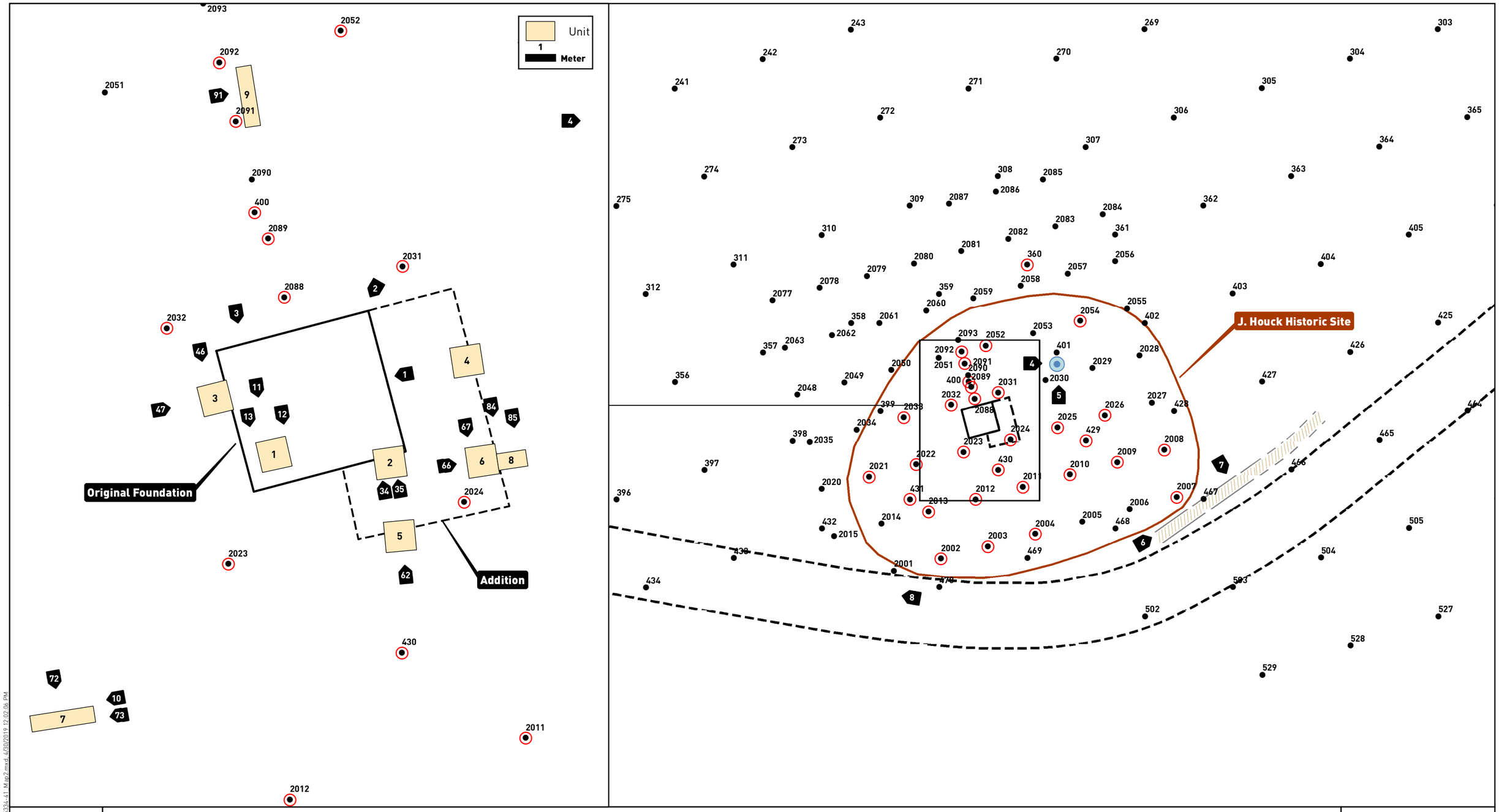
Project Location

GIS Services Accessed 4/23/2019: Environmental Systems Research Institute, Inc., World Street Map; National Geographic Society USA Topo Maps Layer

HARTGEN archeological associates inc

Map 1

G:\5334\GIS\Documents\HAA_5334-51_Map1.mxd, 4/23/2019 12:19:59 PM



N

25 0 25 50 Feet

6 0 6 12 18 Meters

Legend

- Shovel Test (ST)
- Positive ST (historic)
- Photo Angle
- Well
- Stone Wall
- Original Route 55

Project Map

Environmental Systems Research Institute, Inc., World Imagery Accessed 4/30/2019

HARTGEN archeological associates inc

Map 2

G:\533\GIS\Documents\HAA_5334.41_Map2.mxd 4/30/2019 12:02:06 PM

Appendix 1: Protocol for the Unanticipated Discovery of Human Remains

State Historic Preservation Office/
New York State Office of Parks, Recreation and Historic Preservation
Human Remains Discovery Protocol
(August 2018)

If human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends that the following protocol is implemented:

- Human remains must be treated with dignity and respect at all times. Should human remains or suspected human remains be encountered, work in the general area of the discovery will stop immediately and the location will be secured and protected from damage and disturbance.

- If skeletal remains are identified and the archaeologist is not able to conclusively determine whether they are human, the remains and any associated materials must be left in place. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains in situ to help determine if they are human.

- No skeletal remains or associated materials will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

- The SHPO, the appropriate Indian Nations, the involved state and federal agencies, the coroner, and local law enforcement will be notified immediately. Requirements of the corner and local law enforcement will be adhered to. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist will assess the remains in situ to help determine if the remains are Native American or non-Native American.

- If human remains are determined to be Native American, they will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option of the SHPO and the Indian Nations. The involved agency will consult SHPO and the appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance. Photographs of Native American human remains and associated funerary objects should not be taken without consulting with the involved Indian Nations.

- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred option of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

- To protect human remains from possible damage, the SHPO recommends that burial information not be released to the public.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ATTN: CENAN-OP-RU
UPSTATE REGULATORY FIELD OFFICE
1 BUFFINGTON ST., BUILDING 10, 3RD FL. NORTH
WATERVLIET, NEW YORK 12189-4000

CENAN-OP-RU

IMPORTANT

This letter must be completed and mailed to the Upstate New York Section at the above address prior to commencement of any work authorized under the permit.

Permittee: _WE 5S, LLC_____ Permit No. NAN-2019-00679-USH

Date Permit Issued: _January 10, 2022_ Expiration Date: __January 10, 2025_

Waterway: _Mohawk River_____

City & State: _Town of Florida, New York___

Work will commence on or about:_____
Name, Address & Telephone Number of Contractor:

_____ _____
Signature of Permittee Date

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below **or EMAIL TO: cenan.rfo@usace.army.mil.**

_____
_____
_____

Place Stamp
Here

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
ATTN: CENAN-OP-RU
Upstate New York Section
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ATTN: CENAN-OP-RU
UPSTATE REGULATORY FIELD OFFICE
1 BUFFINGTON ST., BUILDING 10, 3RD FL NORTH
WATERVLIET, NEW YORK 12189-4000

CENAN-OP-RU

IMPORTANT

This letter must be completed and mailed to the Upstate New York Section at the above address following completion or cancellation of work authorized under the permit.

Permittee: WE 5S, LLC
Permit No. NAN-2019-00679-USH
Date Permit Issued: January 10, 2022
Expiration Date: January 10, 2025
Waterway: Mohawk River
City & State: Town of Florida, New York

Check and complete applicable item(s) listed below:

____ Work was completed on _____.
____ Work will not be performed on the project.
____ Deviation from work authorized in permit is explained below.
____ Other (explain) _____
_____
____ For dredging projects, list the volume of material dredged, and the amount placed at each disposal location (if more than one).
_____ cubic yards placed at _____
_____ cubic yards placed at _____
_____ cubic yards placed at _____

_____ _____
Signature of Permittee Date

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below **or EMAIL TO: cenan.rfo@usace.army.mil**.

_____
_____
_____

Place Stamp Here

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
ATTN: CENAN-OP-RU
Upstate New York Section
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

Steve Wilson

Subject: FW: Notification of CWA Section 401 WQC Waiver for USACE Application Number NAN-2019-00679-USH

-----Original Message-----
From: Sherwood, Bradley J CIV USARMY CENAN (USA) <Brad.Sherwood@usace.army.mil>
Sent: Friday, June 11, 2021 6:42 AM
To: Adam Winstanley <AWinstanley@winent.com>
Cc: Kornak, Kate F (DEC) <Kate.Kornak@dec.ny.gov>; V. Ferro <val.ferro@goodearthadvisors.com>; Region2_CWA401@epa.gov
Subject: Notification of CWA Section 401 WQC Waiver for USACE Application Number NAN-2019-00679-USH

Good Morning,

In accordance with the U.S. Environmental Protection Agency's (EPA's) current water quality certification regulations at 40 CFR Part 121, the New York District, U.S. Army Corps of Engineers has determined that the Individual 401 Water Quality Certification (WQC) that was required to be obtained from the New York State Department of Environmental Conservation (NYSDEC) for the subject project is waived in accordance with the regulations at 40 CFR 121.9(a)(2)(i). The waiver has occurred as the NYSDEC did not make the WQC decision within a reasonable period of time, which was 360 days (1 year) from the date they received a valid request for a WQC.

This project involves the discharge of fill material into waters of the United States to facilitate the construction of a warehouse and distribution facility, and is located along NYS 5S, in the Town of Florida, Montgomery, New York. The USACE is reviewing this work under an Individual Permit, under USACE Application Number NAN-2019-00679-USH. The need for the CWA Section 401 WQC was triggered by the proposed activities under USACE jurisdiction pursuant to Section 404 of the Clean Water Act.

The USACE draft permit and decision documents are being reviewed, and a decision on this project will be made soon. Please feel free to contact me with any questions concerning this notification.

Thanks,
Brad

Brad Sherwood, Senior Project Manager
NY District, U.S. Army Corps of Engineers Upstate Regulatory Field Office Bldg 10, 3rd Floor
1 Buffington St.
Watervliet, NY 12189-4000
518-266-6355 - office
518-487-0382 - mobile

-----Original Message-----
From: Sherwood, Bradley J CIV USARMY CENAN (USA)
Sent: Wednesday, June 09, 2021 12:26 PM
To: Kornak, Kate F (DEC) <Kate.Kornak@dec.ny.gov>
Subject: 401 Request Reasonable Period of Time for WE 5S, LLC (Interchange 27 Warehouse)

Good afternoon,

In accordance with Clean Water Act (CWA) Section 401 Certification Rule, the Federal agency (the Corps) shall provide, in writing, the following information to the certifying authority (NYSDEC):

1. The date of receipt of 401 Request: 11/19/2019

2. The applicable reasonable period of time to act on the certification: 360 days (1 year)

3. The date upon which waiver will occur if the certifying authority fails or refuses to act on the certification request: November 19, 2020 (reasonable period of time has elapsed)

Let me know if you have any questions and/or concerns.

Thanks,

Brad

Brad Sherwood, Senior Project Manager

NY District, U.S. Army Corps of Engineers

Upstate Regulatory Field Office

Bldg 10, 3rd Floor

1 Buffington St.

Watervliet, NY 12189-4000

518-266-6355 - office

518-487-0382 - mobile

APPENDIX 3

ZONING ANALYSIS TABLE

ZONING DISTRICT	- DISTRICT C-2 - WAREHOUSES REQUIRE A SPECIAL USE PERMIT		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	NOT SPECIFIED	137.2 ACRES	NO CHANGE
MIN. LOT WIDTH	NOT SPECIFIED	3909.0 FT	NO CHANGE
MAX. LOT COVERAGE	30 %	1.4%	40.1% (V)
MAX. BUILDING HEIGHT	NOT SPECIFIED	25 FT ±	25 FT ±
MIN. FRONT YARD SETBACK	50 FT	31.2 FT	89.3 FT
MIN. SIDE YARD SETBACK	20 FT (ONE SIDE) 50 FT (BOTH SIDES)	760.8 FT	436.6 FT (ONE SIDE) 1,503.1 FT (BOTH SIDES)
MIN. REAR YARD SETBACK	30 FT	1136.7 FT	518.3 FT
PARKING SPACES TRAILER SPACES	NOT SPECIFIED	N/A	847 SPACES
CAR SPACES	NOT SPECIFIED	N/A	245 SPACES

(V) - VARIANCE REQUESTED
(NA) - NOT APPLICABLE

N

W E

S

NEW YORK ROUTE 5S

NUTRITIOUS PLACE

TARGET AVE

PROP. OFFICE ACCESS

PROP. TRUCK ACCESS

PROP. WATER STORAGE TANK

PROP. PUMP HOUSE

PROP. STORMWATER MANAGEMENT AREA

PROPOSED WAREHOUSE (1,000,000 SF±)

SITE PLAN A

SITE PLAN B

SITE PLAN C

SITE PLAN D

SITE PLAN E

BUILDING SERVICE AREA

PROP. GUARD HOUSE

J. HAWKE / J.HOUCK HISTORIC SITE TO BE REMOVED

APPROXIMATE PAVEMENT STRIPING

BROADWAY EXT.

MEAD ROAD

LIMIT OF WORK LINE

PROPERTY IS SUBJECT TO AN 50' WIDE EASEMENT GRANTED TO NIAGARA MOHAWK POWER CORPORATION BY EDYTH LOHMEYER AS RECORDED IN DEED BOOK 283 PAGE 371, DATED MAY 1, 1951.

NEW YORK STATE THRUWAY (INTERSTATE 90)

SNOOKS CORNERS ROAD

N/F LOTT HOLDING, CORP. Deed Ref: 2014-56588 Tax ID: 54-1-30

LANCE KRONN (L610 P243) Tax ID: 55-2-1.3

54.-1-32.2 · 54.-1-61 · 54.-1-34.12 · 54.-1-21.1 · 54.-1-29 · 54.-1-38 · 54.-1-39 · 55.-3-25 · 55.-3-24 · 55.-3-23 · 55.-3-10 · 55.-3-09 · 55.-3-17 · 55.-3-91 · 55.-3-18 · 55.-3-92 · 55.-3-16 · 55.-3-6 · 55.-2-18 · 55.-3-1 · 55.-3-2 · 55.-2-14 · 55.-2-2 · 55.-2-4.1 · 55.-2-5 · 55.-1-1.1 · 55.-1-14 · 55.-1-13 · 55.-1-12 · 55.-1-11 · 55.-1-16.1

WETLAND IMPACTS = 6.54 ACRES
POTENTIAL WETLAND MITIGATION AREA = 3.00 ACRES

REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

1" = 150'

811 Know what's below. Call before you dig.

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING LANDSCAPE ARCHITECTURE
LAND DEVELOPMENT PROGRAM MANAGEMENT TRAFFIC ENGINEERING

- UPSTATE NEW YORK
- NEW ENGLAND
- NEW YORK, NY
- NEW JERSEY/NYC METRO
- SOUTHERN NEW JERSEY
- PHILADELPHIA, PA
- LEHIGH VALLEY, PA
- NORTHERN NEW JERSEY
- BALTIMORE, MD
- SOUTHERN MARYLAND
- ATLANTA, GA
- CENTRAL VIRGINIA
- RICHMOND, VA
- CHARLOTTE, NC
- SOUTH FLORIDA
- DALLAS, TX
- WASHINGTON, DC

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REVISIONS

REV	DATE	COMMENT	BY
1	08/30/2019	PER TOWN COMMENTS	SJB
2	10/25/2019	PER TOWN COMMENTS	SG
3	11/20/2019	PER TOWN COMMENTS	SG

PRELIMINARY

PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	4/25/2019
SCALE:	AS NOTED
CAD I.D.:	B180283SS03

PROJECT:

SITE DEVELOPMENT PLAN

FOR

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

BOHLER ENGINEERING
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
www.BohlerEngineering.com

W.D. GOEBEL
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 42644-C
RHODE ISLAND LICENSE No. 7268
CONNECTICUT LICENSE No. 21854
NEW HAMPSHIRE LICENSE No. 10296
MAINE LICENSE No. 9490
NEW YORK LICENSE No. 071054-1
FLORIDA LICENSE NO. 86202

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

4

OF 23

REV 3 - (2019-11-20)

APPENDIX 4

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED

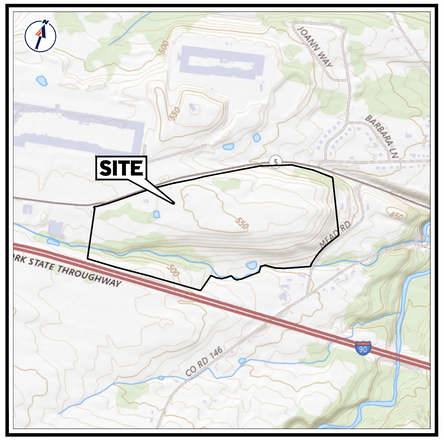
WAREHOUSE DISTRIBUTION FACILITY

LOCATION OF SITE

NYS ROUTE 5S, TOWN OF FLORIDA

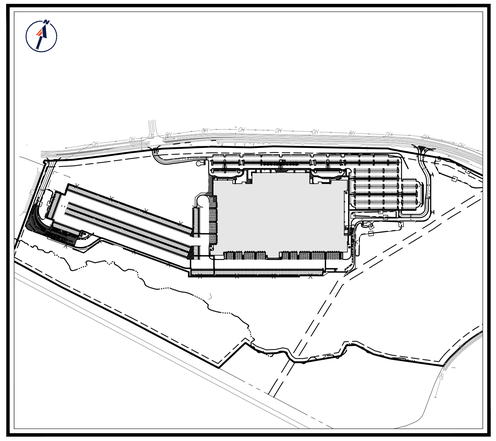
MONTGOMERY COUNTY, NEW YORK

MAP 54., BLOCK 1, LOT 36



USGS MAP

SCALE: 1" = 1,000'
SOURCE: USGS



KEY MAP

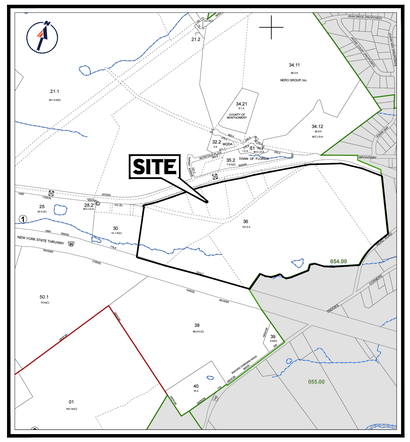
SCALE: 1" = 500'

REFERENCES AND CONTACTS

REFERENCES

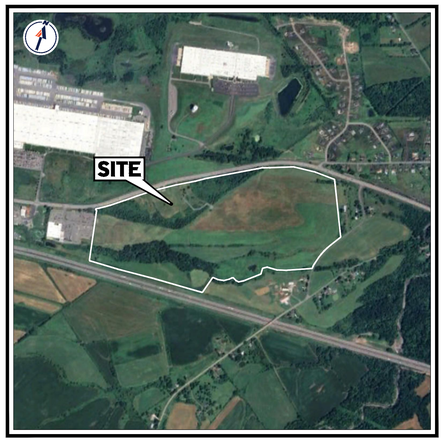
- BOUNDARY & TOPOGRAPHIC SURVEY:
  AUSEFELD & WALDRUFF LAND SURVEYORS, LLP
  323 CLINTON STREET
  SCHENECTADY, NY 12305
  DATED: 12/29/2024 (REV. 3/252025)
  JOB #24-3839
  ELEVATIONS: NAVD 1988
- GEOTECHNICAL INVESTIGATION REPORT:
  SANBORN HEAD ENGINEERING, P.C.
  6 BEDFORD FARMS DRIVE
  BEDFORD, NH 03110
  DATED: 4/07/2025
- ARCHITECTURAL PLAN:
  DLR GROUP
  33 E 33RD STREET SUITE 401
  NEW YORK, NY 10001
  DATED: 1/17/2025
- SITE PHOTOMETRIC PLAN:
  KRAEMER CONSULTING ENGINEERS, PLLC
  2050 WEST WHISPERING WIND DR., SUITE 158
  PHOENIX, ARIZONA 85085
  DATED: 3/25/2025
- TRAFFIC PLAN:
  LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
  1 UNIVERSITY SQUARE DRIVE, SUITE 110
  PRINCETON, NEW JERSEY 08540

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.



TAX MAP

SCALE: 1" = 1,000'



AERIAL MAP

SCALE: 1" = 1,000'
SOURCE: GOOGLE EARTH IMAGERY

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES AND LEGEND	C-102
EXISTING CONDITIONS/DEMOLITION PLAN	C-201
OVERALL SITE PLAN	C-300
SITE PLAN A	C-301
SITE PLAN B	C-302
SITE PLAN C	C-303
SITE PLAN D	C-304
SITE PLAN E	C-305
OVERALL GRADING AND DRAINAGE PLAN	C-400
GRADING AND DRAINAGE PLAN A	C-401
GRADING AND DRAINAGE PLAN B	C-402
GRADING AND DRAINAGE PLAN C	C-403
GRADING AND DRAINAGE PLAN D	C-404
GRADING AND DRAINAGE PLAN E	C-405
OVERALL UTILITY PLAN	C-500
UTILITY PLAN A	C-501
UTILITY PLAN B	C-502
UTILITY PLAN C	C-503
UTILITY PLAN D	C-504
UTILITY PLAN E	C-505
OVERALL EROSION AND SEDIMENT CONTROL PLAN	C-800
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	C-806
SIGNAGE AND STRIPING DETAILS	C-900
CONSTRUCTION DETAILS	C-901
CONSTRUCTION DETAILS	C-902
OVERALL LANDSCAPE PLAN	L-100
LANDSCAPE PLAN A	L-101
LANDSCAPE PLAN B	L-102
LANDSCAPE PLAN C	L-103
LANDSCAPE PLAN D	L-104
LANDSCAPE PLAN E	L-105
LANDSCAPE NOTES AND DETAILS	L-106
SITE PHOTOMETRIC PLANS (BY OTHERS)	5 SHEETS
ALTA/NSPS LAND TITLE BOUNDARY SURVEY OF THE LANDS OF WE 5S LLC, PREPARED BY AUSFELD AND WALDRUFF LAND SURVEYORS, LLP	7 SHEETS

OWNER

WE 5S LLC
150 BAKER AVENUE EXT SUITE 303
CONCORD, MA 01742

APPLICANT

BMG ALBANY, LLC
ONE TOWER BRIDGE,
100 FRONT STREET, SUITE 1225
WEST CONSHOHOCKEN, PA 19428
CONTACT: SEAN BAGGETT
PHONE: (781) 974-3628

PREPARED BY

BOHLER

CONTACT: STEVE WILSON

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PROJECT No.: NYB240176.00-0A - C-102 NOTE
DRAWN BY: VRJ/RSI/AKO/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER™
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C-101

ORG. DATE - 04/21/2025

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I:\BOHLERENG.NET\SHARED\BA-PROJECTS\2024\NYB240176.00\CAD\DRAWINGS\PLAN SET\CIVIL SITE PLANS\P-CIVL-CNDS-NYB240176.00-0A - C-102 NOTE ----> LAYOUT: C-101 COVR

GENERAL NOTES

(Rev. 1/2023)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC (HEREIN "BOHLER") PRIOR TO THE TIME ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER , IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED COPIES OF ALL PERMITS AND APPROVALS, REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT SHOWN AND CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER, ARCHITECT AND PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR SURVEY DATA SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DRAWING DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS SHALL BE FOLLOWED. (A) THE PLANS AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST STRICTLY COMPLY WITH ALL THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. PROFESSIONAL OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
13. THE CONTRACTOR IS RESPONSIBLE FOR DEFINING WHEN AND WHERE SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS, AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER'S REVIEW OF CONTRACTOR'S SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT, ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN PROFESSIONAL OF RECORDS SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO (A) MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES, IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT PROFESSIONAL OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION IS PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE PROFESSIONAL OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

DEMOLITION NOTES

(Rev. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AS GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE INFORMATION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PERFORM WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
   A. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AS ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PREVENT THE DEMOLITION IN SUCH A MANNER AS TO PREVENT ANY AND ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
   B. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS. ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
   C. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR THE COORDINATION WITH SERVICE PROVIDERS REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION OF SERVICES AS REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
   D. PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION.
   E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE DUE DILIGENCE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES.
   F. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
   G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT REMOVAL OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE PROFESSIONAL OF RECORD'S OR BOHLER RESPONSIBILITY AND IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY COMPANY WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
   H. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
   I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY AND IMMEDIATELY NOTIFY THE OWNER, PROFESSIONAL OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND LEGAL REMOVAL OF SAME.
11. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR SLABS WITHIN 24 HOURS OF PREDICTED RAIN EVENTS OF 0.5" OR GREATER WITHIN THE NEXT 24 HOURS, UNLESS IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION
13. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE PROFESSIONAL OF RECORD AND THE OWNER
14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LINE
15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.
16. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND ORGANIZED MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

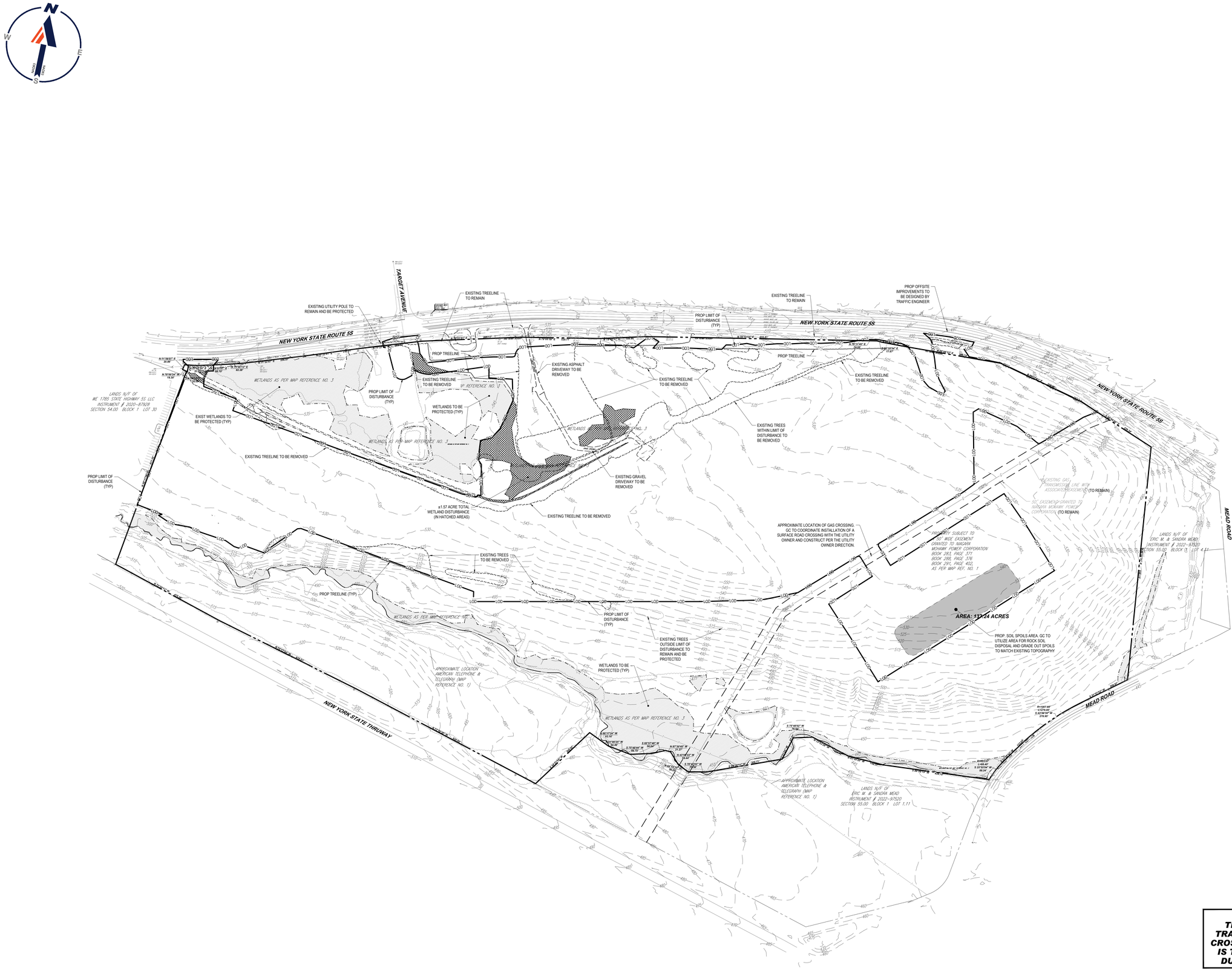
(Rev. 12/2024)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN AND CONTRACTOR MUST REFER TO THEM. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER OR JURISDICTIONAL AGENCY SO REQUIRES, TO PREVENT THE DISCHARGE OF SEDIMENT LADEN RUNOFF FROM EXITING THE SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT STABILIZATION IS ESTABLISHED, UNLESS SPECIFICALLY NOTED OTHERWISE IN LOCAL, STATE AND/OR FEDERAL PROJECT APPROVALS. THE COST OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.

SITE LAYOUT NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN AND CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES AND SPECIFICATIONS. CONTRACTOR MUST INSPECT AND MAINTAIN LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE STREET AS REQUIRED. TO PROMOTE ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LINE
3. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE P



GAS MAIN NOTE:
THERE IS A LARGE GAS TRANSMISSION MAIN THAT CROSSES THE PROPERTY. GC IS TO PROTECT THIS MAIN DURING CONSTRUCTION.

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY

150 75 37.5 0 150

SCALE: 1" = 150'

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PROJECT No.:	NYB240176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-EXDM

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

EXISTING CONDITIONS/ DEMOLITION PLAN

SHEET NUMBER:

C-201

ORG. DATE - 04/21/2025

THE EDUCATION LAW OF THE STATE OF NEW YORK DIRECTS THAT ONLY LICENSED PROFESSIONAL ENGINEERS SHALL BE PERMITTED TO ENGINEER PUBLIC AND PRIVATE WORKS. THIS DRAWING IS NOT VALID UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

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ZONING TABLE

ZONE: C-2 COMMERCIAL/LIGHT INDUSTRIAL
USE: PROPOSED WAREHOUSE DISTRIBUTION FACILITY (SPECIAL USE PERMIT)
SECTION: 54 BLOCK: 1 LOT: 36

APPLICANT/ OWNER INFORMATION

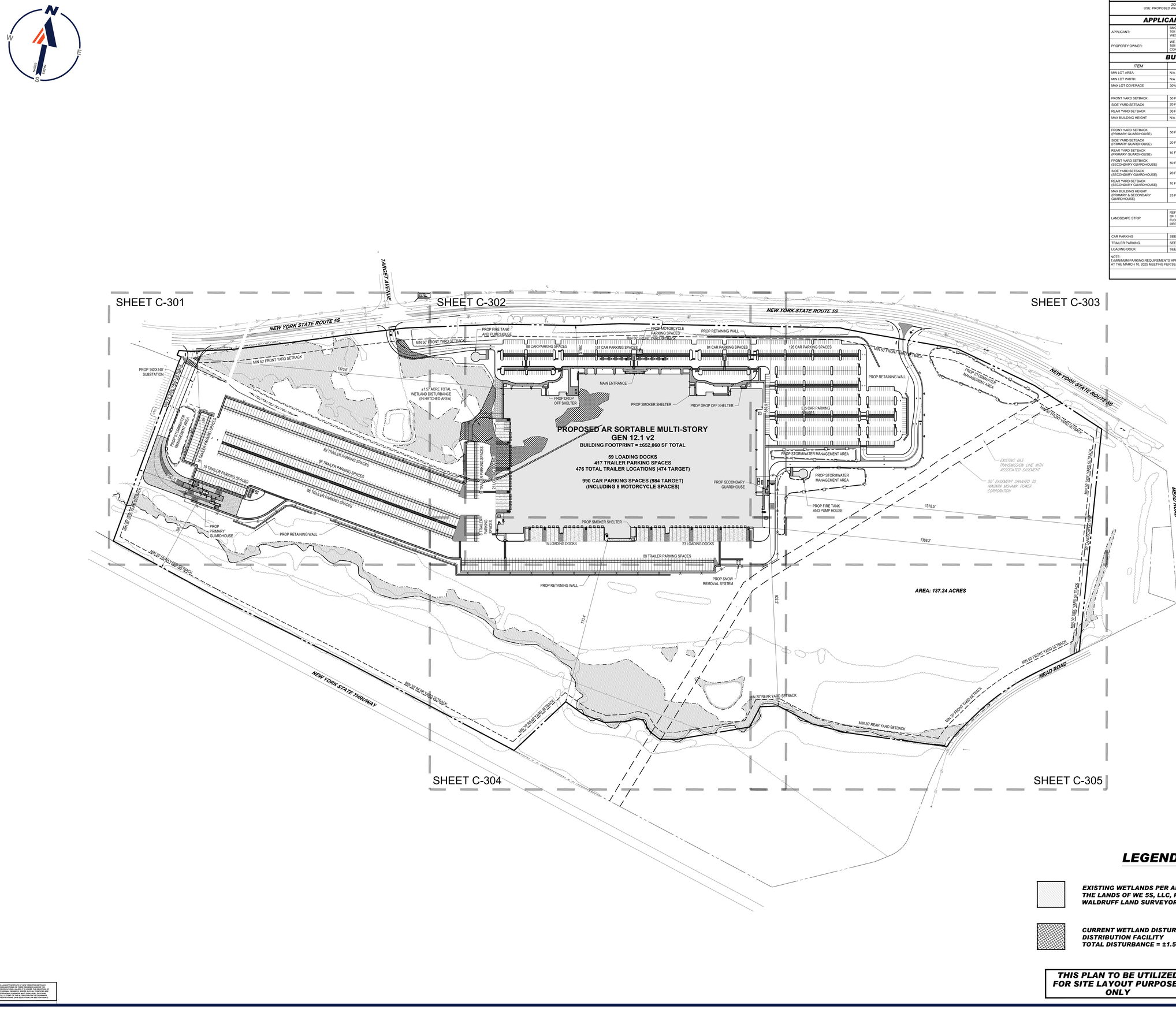
APPLICANT:	BMG ALBANY, LLC 100 FRONT STREET, SUITE 1225 WEST CONSHOHOCKEN, PA 19428
PROPERTY OWNER:	WE 5S LLC 150 BAKER AVENUE EXT SUITE 303 CONCORD, MA 01742

BULK REQUIREMENTS

ITEM	REQUIRED	EXISTING	PROPOSED
MIN LOT AREA	N/A	5,978,128 SF (137.2 AC)	NO CHANGE
MIN LOT WIDTH	N/A	4,010.2 FT	NO CHANGE
MAX LOT COVERAGE	30%	0%	11%
PRINCIPAL BUILDING			
FRONT YARD SETBACK	50 FT	31.2 FT	206.1 FT
SIDE YARD SETBACK	20 FT (TOTAL 50 FT)	760.8 FT	1370.6 FT
REAR YARD SETBACK	30 FT	1136.7 FT	713.4 FT
MAX BUILDING HEIGHT	N/A	±25 FT	103.5 FT
ACCESSORY BUILDING			
FRONT YARD SETBACK (PRIMARY GUARDHOUSE)	50 FT	N/A	561 FT
SIDE YARD SETBACK (PRIMARY GUARDHOUSE)	20 FT	N/A	282.8 FT
REAR YARD SETBACK (PRIMARY GUARDHOUSE)	10 FT	N/A	358.7 FT
FRONT YARD SETBACK (SECONDARY GUARDHOUSE)	50 FT	N/A	689.9 FT
SIDE YARD SETBACK (SECONDARY GUARDHOUSE)	20 FT	N/A	1378.5 FT
REAR YARD SETBACK (SECONDARY GUARDHOUSE)	10 FT	N/A	902.2 FT
MAX BUILDING HEIGHT (PRIMARY & SECONDARY GUARDHOUSE)	25 FT	N/A	14 FT
LANDSCAPE REQUIREMENT			
LANDSCAPE STRIP	REFER TO SECTION 37 OF THE TOWN OF FLORIDA ZONING ORDINANCE	N/A	20 FT
PARKING REQUIREMENTS			
CAR PARKING	SEE NOTE 1	N/A	990 SPACES
TRAILER PARKING	SEE NOTE 1	N/A	417 SPACES
LOADING DOCK	SEE NOTE 1	N/A	59 SPACES

NOTE:
1) MINIMUM PARKING REQUIREMENTS APPROVED BY TOWN OF FLORIDA ZONING BOARD OF APPEALS BY RESOLUTION AT THE MARCH 10, 2025 MEETING PER SECTION 46 AND 47 OF THE TOWN OF FLORIDA ZONING CODE.

(V) = VARIANCE REQUIRED
(W) = WAIVER REQUESTED



SITE INFORMATION

1. APPLICANT:
   BMG ALBANY, LLC
   100 FRONT STREET, SUITE 1225
   WEST CONSHOHOCKEN, PA 19428
2. OWNER:
   WE 5S LLC
   150 BAKER AVENUE EXT SUITE 303
   CONCORD, MA 01742
3. PARCEL:
   MAP: 54.-1-36
   ROUTE 5S/MEAD ROAD
   TOWN OF FLORIDA
   MONTGOMERY COUNTY, NY

LEGEND

EXISTING WETLANDS PER ALTA/NSPS LAND TITLE SURVEY OF THE LANDS OF WE 5S, LLC, PREPARED BY AUSFIELD & WALDRUFF LAND SURVEYORS LLP

***CURRENT WETLAND DISTURBANCE FOR PROPOSED DISTRIBUTION FACILITY
TOTAL DISTURBANCE = ±1.57 ACRES***

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

150 75 37.5 0 150
1"=150'

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PROJECT No.:	NYB240176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-SITE

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

**ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36**

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ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-300

ORG. DATE - 04/21/2025

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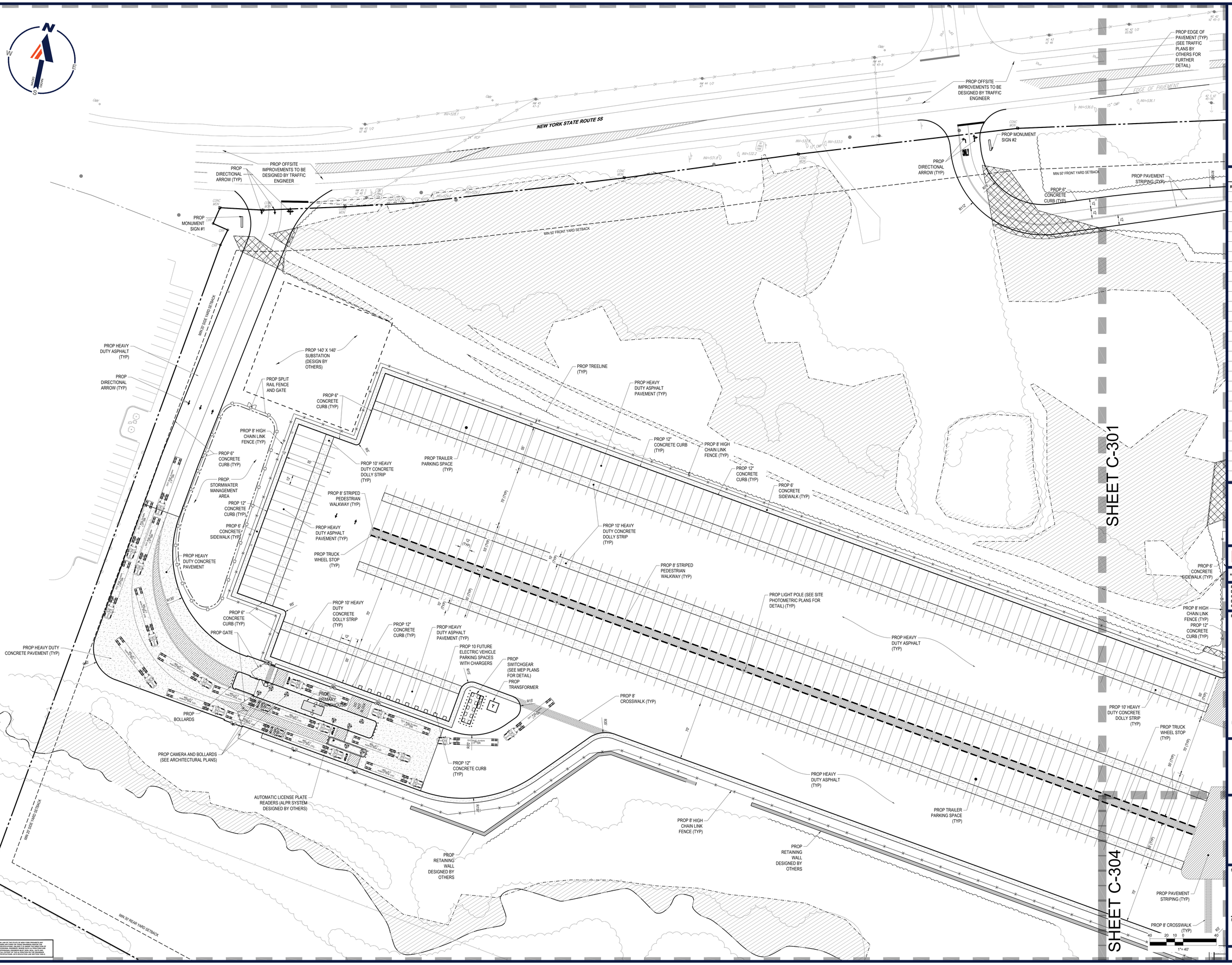

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DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-SITE

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

SITE PLAN A

SHEET NUMBER:

C-301

ORG. DATE - 04/21/2025

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PROP EDGE OF PAVEMENT (TYP) (SEE TRAFFIC PLANS BY OTHERS FOR FURTHER DETAIL)

NEW YORK STATE ROUTE 5S

PROP 360,000 GALLON FIRE TANK AND PUMP HOUSE (DESIGN BY OTHERS)

PROP 6" CONCRETE CURB (TYP)

MIN 50' FRONT YARD SETBACK

PROP TREELINE (TYP)

PROP RETAINING WALL (DESIGN BY OTHERS)

PROP PAVEMENT STRIPING (TYP)

PROP DIRECTIONAL ARROW (TYP)

PROP LIGHT DUTY ASPHALT (TYP)

PROP STOP SIGN (TYP)

PROP 8' STRIPED PEDESTRIAN WALKWAY (TYP)

PROP LIGHT POLE (SEE SITE PHOTOMETRIC PLANS FOR DETAIL) (TYP)

PROP 8 MOTORCYCLE PARKING SPACES

PROP 8' CROSSWALK (TYP)

PROP WHEEL STOP (TYP)

PROP SPEED BUMP (TYP)

PROP STOP BAR (TYP)

PROP 8' CONCRETE SIDEWALK (TYP)

PROP ACCESSIBLE PARKING SPACE (TYP)

PROP ACCESSIBLE AISLE (TYP)

PROP ACCESSIBLE PARKING SIGN (TYP)

PROP NO PARKING SIGN (TYP)

PROP FLAG POLE

PROP GREENSPACE (TYP)

PROP DECORATIVE BOLLARDS (5-FT O.C.) (17 TOTAL)

PROP CANOPY (SEE ARCHITECT PLANS FOR DETAIL)

PROP MAIN ENTRANCE

PROP TRANSFORMER

PROP PICK UP/ DROP OFF AREA

PROP PICKUP/DROP OFF SHELTER

PROP BIKE RACK

PROP SMOKER SHELTER

PROP EMERGENCY GRAVEL ACCESS PATH

±1.57 ACRE TOTAL WETLAND DISTURBANCE (IN HATCHED AREA)

PROP AUGER

PROP COMPACTOR

PROP 6' CONCRETE SIDEWALK (TYP)

PROP TRAILER PARKING SPACE (TYP)

PROP 8' HIGH CHAIN LINK FENCE (TYP)

PROP 12" CONCRETE CURB (TYP)

PROPOSED AR SORTABLE MULTI-STORY
GEN 12.1 v2
BUILDING FOOTPRINT = ±652,060 SF TOTAL

59 LOADING DOCKS
417 TRAILER PARKING SPACES
476 TOTAL TRAILER LOCATIONS (474 TARGET)

990 CAR PARKING SPACES (984 TARGET)
(INCLUDING 8 MOTORCYCLE SPACES)

PROP LOADING DOCK (TYP)

PROP TRAILER LOADING SPACE (TYP)

PROP 10' HEAVY DUTY CONCRETE DOLLY STRIP (TYP)

PROP TRUCK WHEEL STOP (TYP)

PROP 8' CROSSWALK (TYP)

PROP HEAVY DUTY CONCRETE PAVEMENT (TYP)

PROP 10' HEAVY DUTY CONCRETE DOLLY STRIP (TYP)

PROP PEDESTRIAN CROSSING SIGN (TYP)

PROP DEPRESSED CURB (TYP)

PROP MAN DOOR

PROP. DRIVE-IN RAMP AND WALL. WALL DESIGNED BY ARCHITECT

PROP PAVEMENT STRIPING (TYP)

PROP 8' CROSSWALK (TYP)

PROP PEDESTRIAN CROSSING SIGN (TYP)

PROP TRAILER LOADING SPACE (TYP)

PROP HEAVY DUTY CONCRETE PAVEMENT (TYP)

PROP HEAVY DUTY ASPHALT (TYP)

PROP 12" CONCRETE CURB (TYP)

PROP TRAILER PARKING SPACE (TYP)

PROP 10' HEAVY DUTY CONCRETE DOLLY STRIP (TYP)

PROP 8' CROSSWALK (TYP)

PROP TRANSFORMER

PROP SMOKER SHELTER

PROP TRAILER LOADING SPACE (TYP)

PROP HEAVY DUTY CONCRETE PAVEMENT (TYP)

PROP LOADING DOCK (TYP)

PROP MAN DOOR

PROP TRANSFORMER

PROP. DRIVE-IN RAMP AND WALL. WALL DESIGNED BY ARCHITECT

PROP 8' CROSSWALK (TYP)

PROP STOP SIGN (TYP)

PROP SPEED BUMP (TYP)

PROP STOP BAR (TYP)

PROP SPLIT RAIL FENCE AND GATE

PROP 400 KW SECONDARY GENERATOR

PROP 1,000 KW PRIMARY GENERATOR

PROP SECONDARY GUARDHOUSE

PROP GATE

PROP 8' HIGH CHAIN LINK FENCE (TYP)

SHEET C-301

SHEET C-303

SHEET C-304

SHEET C-305

1" = 40'

P:\2024\NYB240176.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-SITE-NYB240176.00-0A-----LAYOUT: C-302 SITE PLAN B

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BOHLER

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PROJECT:

SITE DEVELOPMENT PLANS

FOR

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ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SITE PLAN B

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C-302

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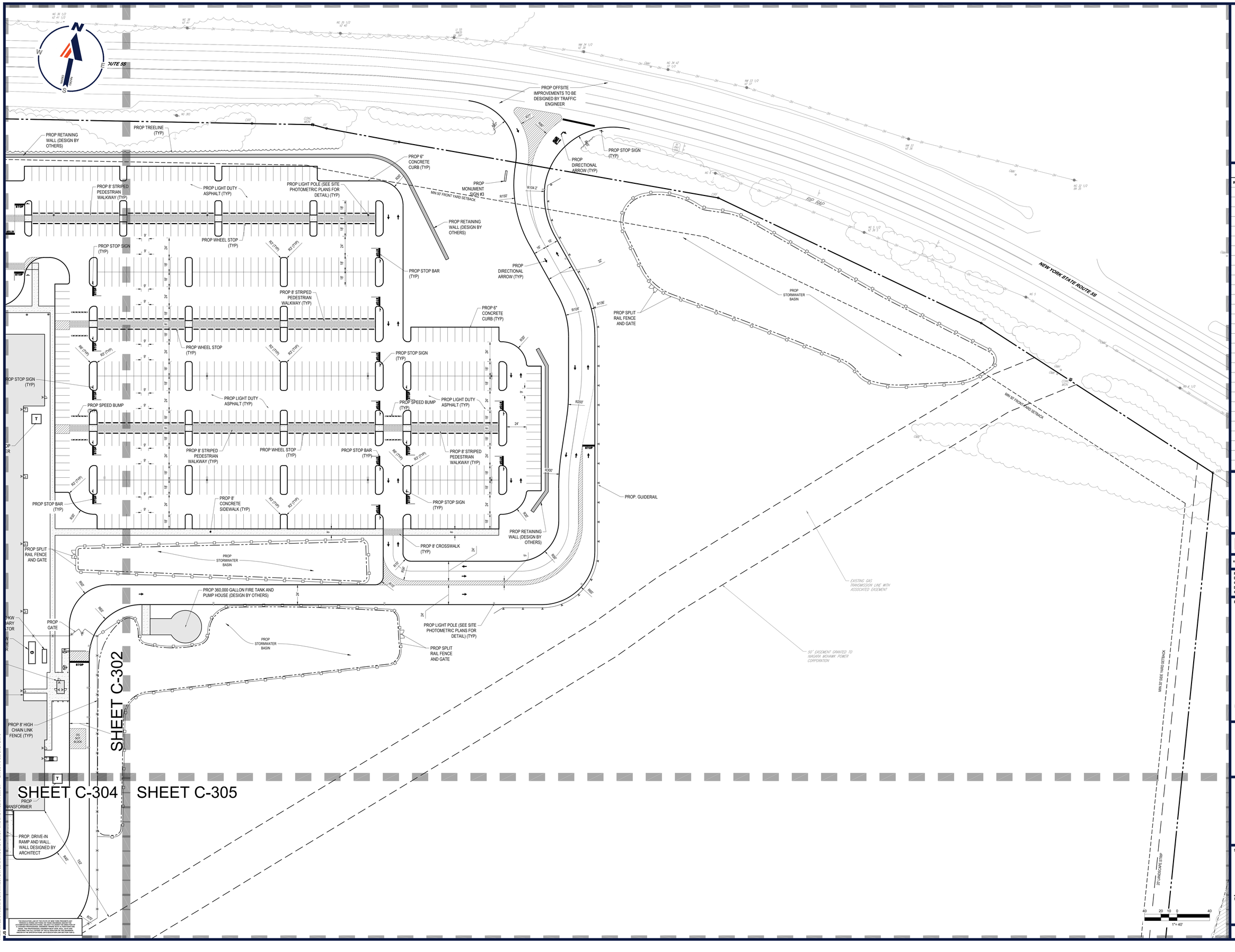

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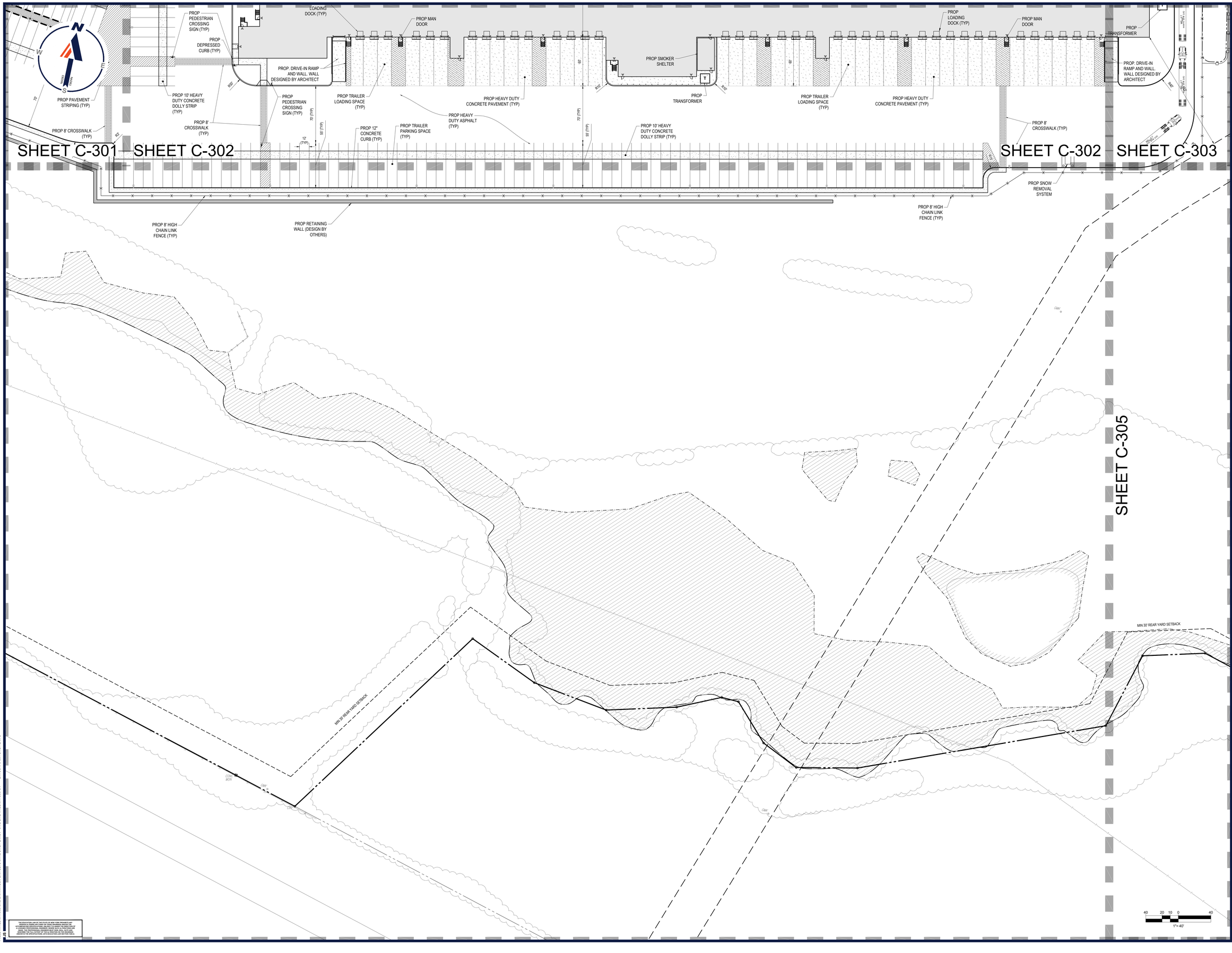

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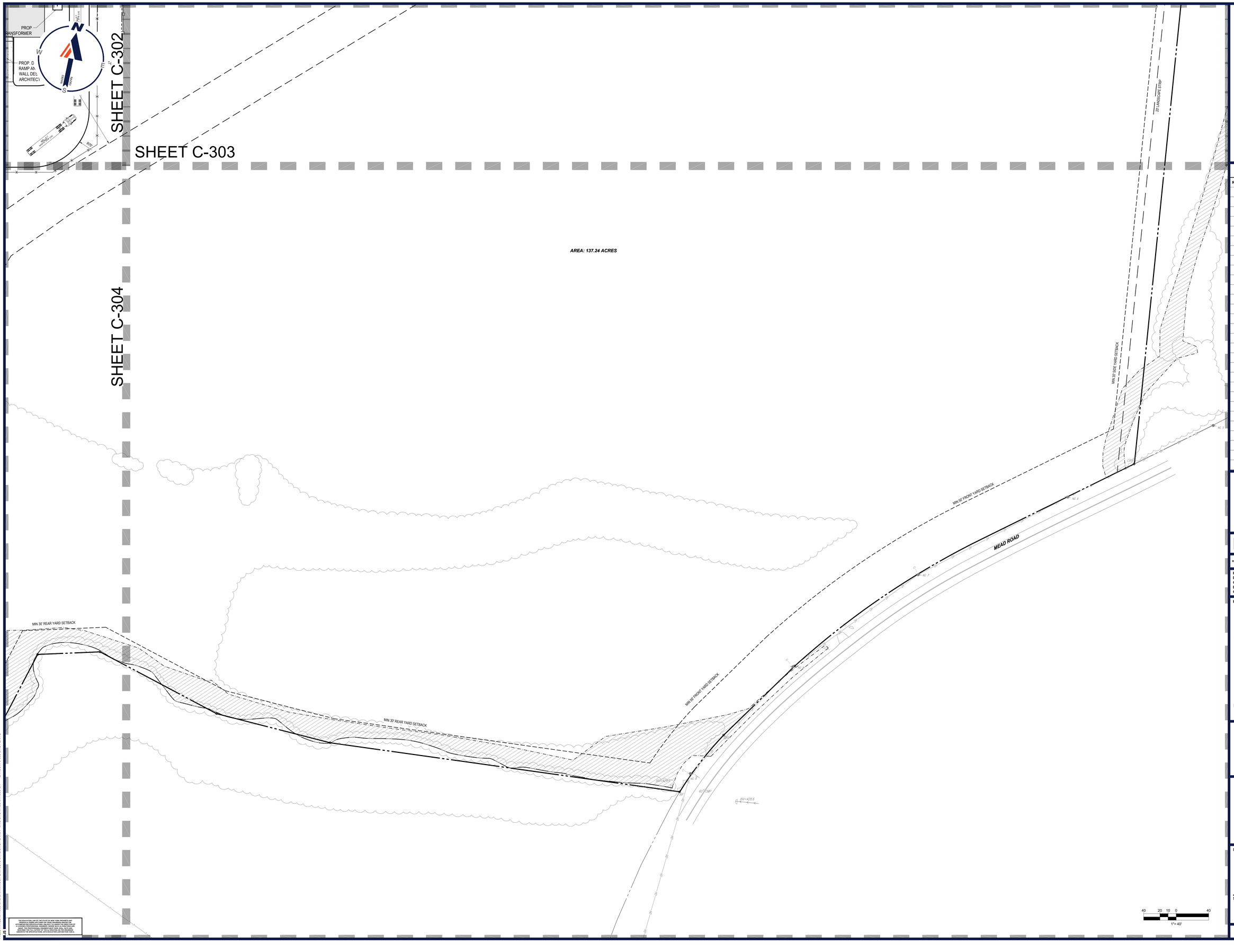

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SITE PLAN E

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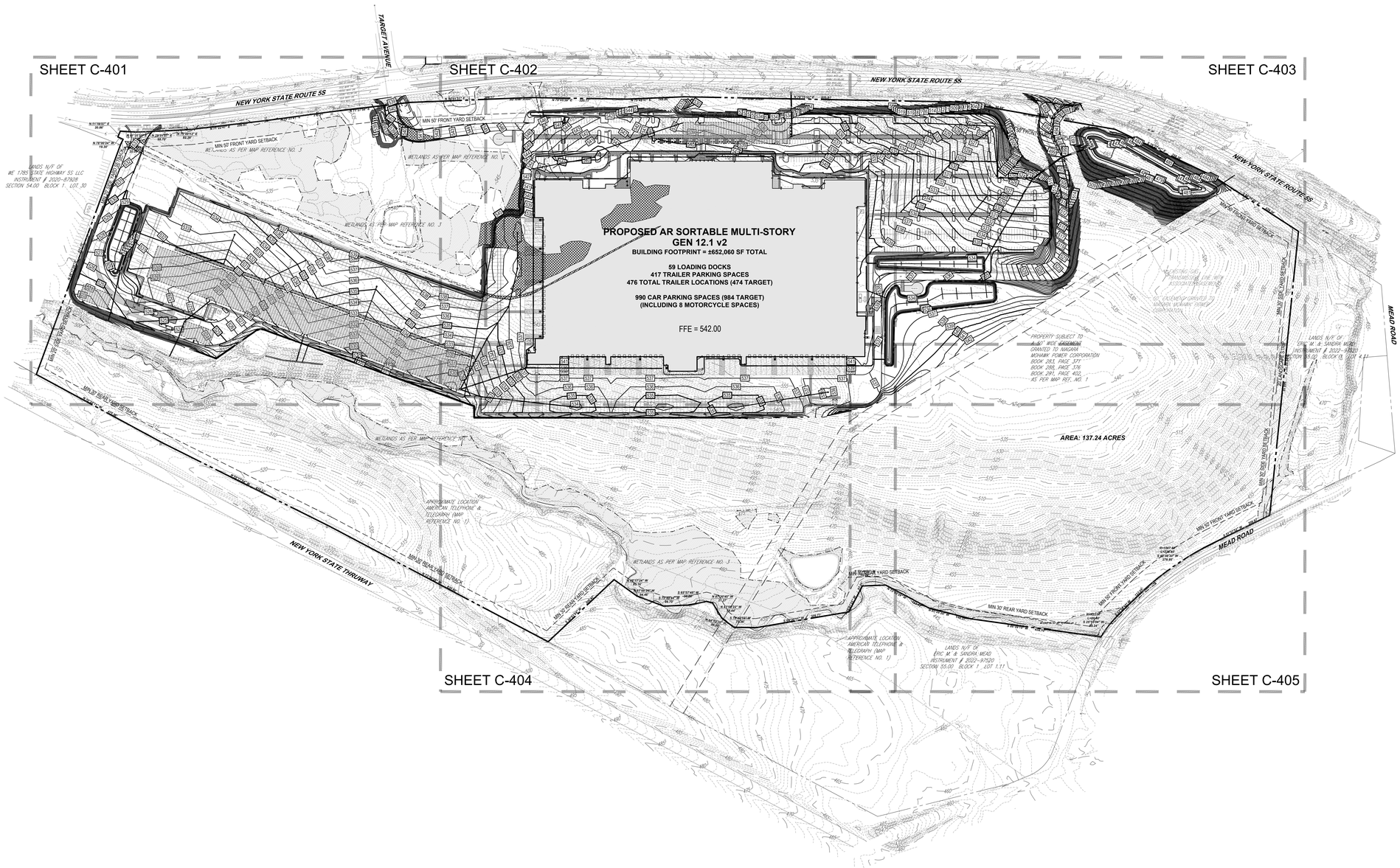

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PROJECT:

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FOR

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SHEET TITLE:

OVERALL GRADING AND DRAINAGE PLAN

SHEET NUMBER:

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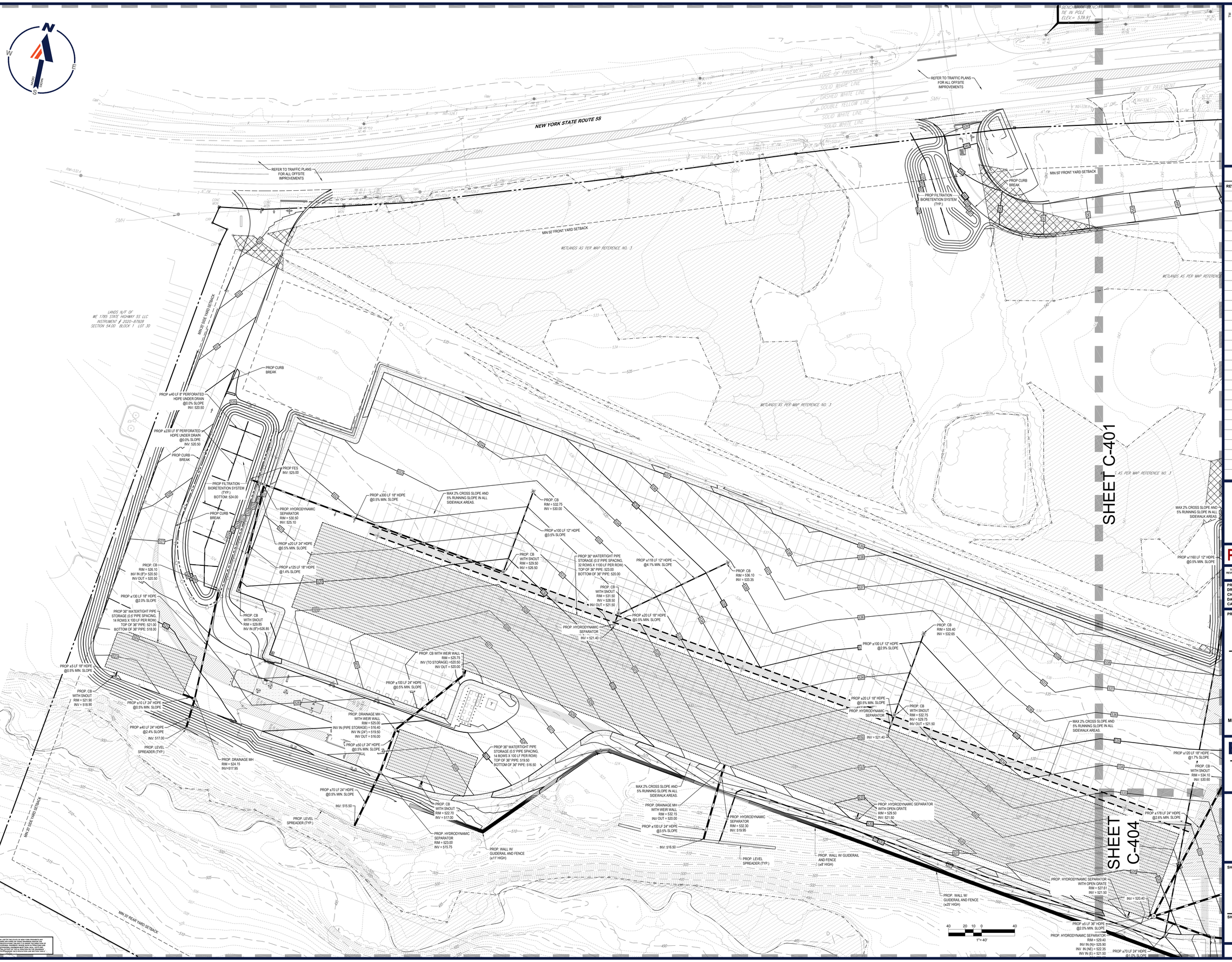

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PROJECT:

SITE DEVELOPMENT PLANS

FOR

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SHEET TITLE:

GRADING AND DRAINAGE PLAN A

SHEET NUMBER:

C-401

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N 75°51'51" E 399.17'

N 79°05'39" E 320.71'

N 75°48'57" E 189.65'

N 79°15'55" E 855.81'

NEW YORK STATE ROUTE 55

2002 HIGHWAY BOUNDARY

2004 HIGHWAY BOUNDARY

EDGE OF PAVEMENT
SOLID WHITE LINE
DASHED WHITE LINE
DOUBLE YELLOW LINE
SOLID WHITE LINE
EDGE OF PAVEMENT

SHEET C-401

SHEET C-403

SHEET C-405

SHEET C-404

FFE=546.00

WETLANDS AS PER MAP REFERENCE NO. 3

PROP ±20 LF 18" HDPE @0.5% MIN SLOPE

PROP. CB
RIM = 539.55
INV = 536.40

PROP ±290 LF 18" HDPE @0.5% MIN SLOPE

MAX 2% CROSS SLOPE (ALL DIRECTION) IN ALL ACCESSIBLE PARKING AREAS.

PROP. DRAINAGE MH
RIM = 538.65
INV IN = 534.95
INV OUT = 530.00

PROP. CB
RIM = 537.90
INV= 529.25

PROP 36" WATERTIGHT PIPE STORAGE (0.5' PIPE SPACING, 20 ROWS X 360 LF PER ROW)
TOP OF 36" PIPE: 532.25
BOTTOM OF 36" PIPE: 529.25

PROP. CB
RIM = 534.75
INV = 529.25

MAX 2% CROSS SLOPE (ALL DIRECTION) IN ALL ACCESSIBLE PARKING AREAS (TYP)

PROP FES
INV: 517.00

PROP ±100 LF 36" HDPE @0.0% SLOPE

PROP ±220 LF 12" HDPE @0.5% MIN SLOPE

PROP. CB
RIM = 533.95
INV = 531.20

PROP. WALL W/ GUIDERAIL AND FENCE (±9 HIGH)

INV = 530.10

PROP. DRAINAGE MH WITH WEIR WALL
RIM = 536.00
INV IN: 529.25
INV OUT = 522.00

PROP ±200 LF 12" HDPE @1.0% SLOPE

PROP. CB
RIM = 539.50
INV = 536.75
INV OUT: 536.50

PROP ±1450 LF 24" HDPE ROOF DRAIN @0.8% MIN SLOPE (TYP)

PROP ±580 LF 24" HDPE ROOF DRAIN @0.5% SLOPE (TYP)

INV = 539.00

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL SIDEWALK AREAS.

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS.

MAX 2% CROSS SLOPE AND 8% RUNNING SLOPE IN ALL ACCESSIBLE RAMPS.

PROP. CB
RIM = 541.50
INV = 536.75
INV = 538.00

PROP ±150 LF ROOF DRAIN @0.5% MIN SLOPE (TYP)

PROP. CB
RIM = 538.25
INV = 535.50

PROP. CB
RIM = 536.60
INV = 533.75

PROP ±115 LF 12" HDPE @0.5% MIN. SLOPE

PROP ±1160 LF 12" HDPE @0.5% MIN. SLOPE

PROP. CB
RIM = 536.70
INV =33.15

INV = 533.65

MAX 1% SLOPE IN CONCRETE AWAY FROM BUILDING (TYP)

PROP ±125 LF 18" HDPE @0.5% MIN SLOPE

PROP ±480 LF 24" HDPE ROOF DRAIN @1.0% SLOPE (TYP)

PROP. CB
RIM = 535.95
INV 532.50

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS

MAX 2% SLOPE N ALL LANDING AREAS (TYP)

PROP ±120 LF 18" HDPE @1.7% SLOPE

PROP. CB WITH SNOUT
RIM = 534.10
INV: 530.60

PROP ±178 LF 24" HDPE @2.6% MIN. SLOPE

INV = 528.80

PROP WALL DESIGNED BY OTHERS

INV = 533.30

INV = 534.50

MAX 2% SLOPE N ALL LANDING AREAS (TYP)

PROP WALL DESIGNED BY OTHERS

PROP ±580 LF 24" HDPE ROOF DRAIN @0.3% MIN SLOPE (TYP)

PROP FES
INV: 533.00

PROP ±450 LF 24" HDPE ROOF DRAIN @1.0% SLOPE (TYP)

PROP ±215 LF 24" HDPE @3.0% SLOPE

INV = 520.40

PROP ±310 LF 24" HDPE @0.5% MIN. SLOPE

PROP ±70 LF 24" HDPE @1.0% SLOPE

MAX 1% SLOPE IN CONCRETE AWAY FROM BUILDING (TYP)

PROP ±280 LF 24" HDPE 1.0% SLOPE

PROP. CB
RIM = 533.70
INV= 525.30

PROP. CB
RIM = 533.50
INV = 527.35

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL SIDEWALK AREAS

PROP ±235 LF 18" HDPE @1.0% SLOPE

PROP. CB
RIM = 533.70
INV = 529.70

PROP ±305 LF 12" HDPE @1.0% SLOPE

MAX 1% SLOPE IN CONCRETE AWAY FROM BUILDING (TYP)

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS

PROP. CB
RIM = 535.55
INV = 532.80

PROP ±315 LF 24" HDPE @0.8% SLOPE

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL SIDEWALK AREAS.

PROP FES
INV: 533.50

PROPOSED AR SORTABLE MULTI-STORY
GEN 12.1 v2
BUILDING FOOTPRINT = ±652,060 SF TOTAL

59 LOADING DOCKS
417 TRAILER PARKING SPACES
476 TOTAL TRAILER LOCATIONS (474 TARGET)

990 CAR PARKING SPACES (984 TARGET)
(INCLUDING 8 MOTORCYCLE SPACES)

FFE = 542.00

40 20 10 0 40
1"= 40'

P:\2024\NYB240176.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVIL-GRDR-NYB240176.00-AA----LAYOUT_C-402 GRDR B

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GRADING AND DRAINAGE PLAN B

SHEET NUMBER:

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ORG. DATE - 04/21/2025

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PROP. WALL W/ GUIDERAIL AND FENCE (±9 HIGH)

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS.

PROP ±115 LF 18" HDPE @2.2% SLOPE

PROP ±215 LF 18" HDPE @2.0% SLOPE

PROP. CB
RIM = 531.30
INV = 528.30

PROP. CB
RIM = 528.76
INV = 525.75

PROP. WALL W/ GUIDERAIL AND FENCE (±12 HIGH)

REFER TO TRAFFIC PLANS FOR ALL OFFSITE IMPROVEMENTS

PROP. DOUBLE INLET CB
RIM = 524.50
INV = 521.25

PROP ±75 LF 18" HDPE @3.1% SLOPE

PROP ±110 LF 18" HDPE @0.5% MIN SLOPE

PROP. CB
RIM = 526.80
INV = 523.55

PROP SWALE WITH CHECK DAMS MAXIMUM EFFECTIVE SLOPE = 4%

TO OF BERM
ELEV = 485.25

PROP HEADWALL
INV: 494.00

PROP ±85 LF 48" HDPE @5.0% SLOPE

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS.

PROP. DOUBLE INLET CB
RIM = 528.60
INV: 521.65

PROP ±110 LF 24" HDPE @3.9% SLOPE

PROP OVERFLOW
ELEV = 494.00

PROP ±115 LF 48" HDPE @5.0% SLOPE

PROP. DOUBLE INLET CB
RIM = 524.60
INV IN (24") = 519.30
INV IN (36") = 518.50
INV OUT = 499.75

PROP. CB
RIM = 524.94
INV = 520.15

PROP ±50 LF 36" HDPE @1.0% SLOPE

PROP ±115 LF 24" HDPE @1.0% SLOPE

PROP EXTENDED DETENTION POND WITH FOREBAY AND MICROPOOL
BOTTOM ELEVATION: 478.00

NEW YORK STATE ROUTE 5S

PROP. DOUBLE INLET CB
RIM = 529.80
INV = 526.00

PROP ±80 LF 18" HDPE @3.4% SLOPE

PROP ±30 LF 24" HDPE @5.0% SLOPE

PROP. DOUBLE INLET CB
RIM = 500.10
INV IN (18") = 497.00
INV IN (48") = 494.00
INV OUT = 488.25

PROP ±100 LF 18" HDPE @6.1% SLOPE

INV = 536.10

PROP. CB
RIM = 532.00
INV = 528.75

PROP. DOUBLE INLET CB
RIM = 534.30
INV = 531.00

PROP. DOUBLE INLET CB
RIM = 529.00
INV = 525.25

PROP. DRAINAGE MH
RIM = 526.00
INV = 519.65

PROP ±65 LF 36" HDPE @5.0% SLOPE

PROP. WALL W/ GUIDERAIL AND FENCE (±9 HIGH)

PROP. DOUBLE INLET CB
RIM = 506.80
INV = 503.80
INV OUT = 503.00

PROP ±70 LF 18" HDPE @3.1% SLOPE

PROP ±100 LF 18" HDPE @4.5% SLOPE

PROP ±230 LF 18" HDPE @2.5% SLOPE

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS.

PROP. CB
RIM = 527.20
INV IN = 523.70
INV OUT = 522.50

PROP ±110 LF 24" HDPE @1.4% SLOPE

PROP ±110 LF 12" HDPE @6.1% SLOPE

PROP. CB
RIM = 536.40
INV = 533.15

PROP. CB
RIM = 532.80
INV = 529.80

PROP. DOUBLE INLET CB
RIM = 513.60
INV = 510.60

PROP ±250 LF 24" HDPE @1.5% SLOPE

PROP ±105 LF 12" HDPE @6.1% SLOPE

PROP. WALL W/ GUIDERAIL AND FENCE (±9 HIGH)

MAX 2% CROSS SLOPE AND 5% RUNNING SLOPE IN ALL CROSSWALK AREAS.

PROP ±340 LF 8" PERFORATED HDPE UNDER DRAIN @0.0% SLOPE INV: 529.50

PROP. DOUBLE INLET CB
RIM = 520.20
INV = 517.20

PROP FILTRATION BIORETENTION SYSTEM (TYP.) BOTTOM: 533.00

PROP FES
INV: 533.50

PROP ±60 LF 18" HDPE @0.5% MIN SLOPE

EXISTING GAS TRANSMISSION LINE WITH ASSOCIATED EASEMENT

APPROXIMATE LOCATION ONLY

PROP. CB
RIM = 534.00
INV IN (8")= 529.50
INV IN (18") = 529.20
INV OUT = 529.20

FFE=537.00

PROP. CB
RIM = 534.00
INV IN (8")= 529.50
INV OUT = 529.50

PROP FILTRATION BIORETENTION SYSTEM (TYP.) BOTTOM: 533.00

"60' EASEMENT GRANTED TO NIAGARA MOHAWK POWER CORPORATION"

PROP ±520 LF 8" PERFORATED HDPE UNDER DRAIN @0.0% SLOPE INV: 529.50

SHEET C-402

SHEET C-404

SHEET C-405

PROP FES
INV: 533.00

40 20 10 0 40
1"= 40'

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CAD I.D.:	P-CIVIL-GRDR

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

GRADING AND DRAINAGE PLAN C

SHEET NUMBER:

C-403

ORG. DATE - 04/21/2025

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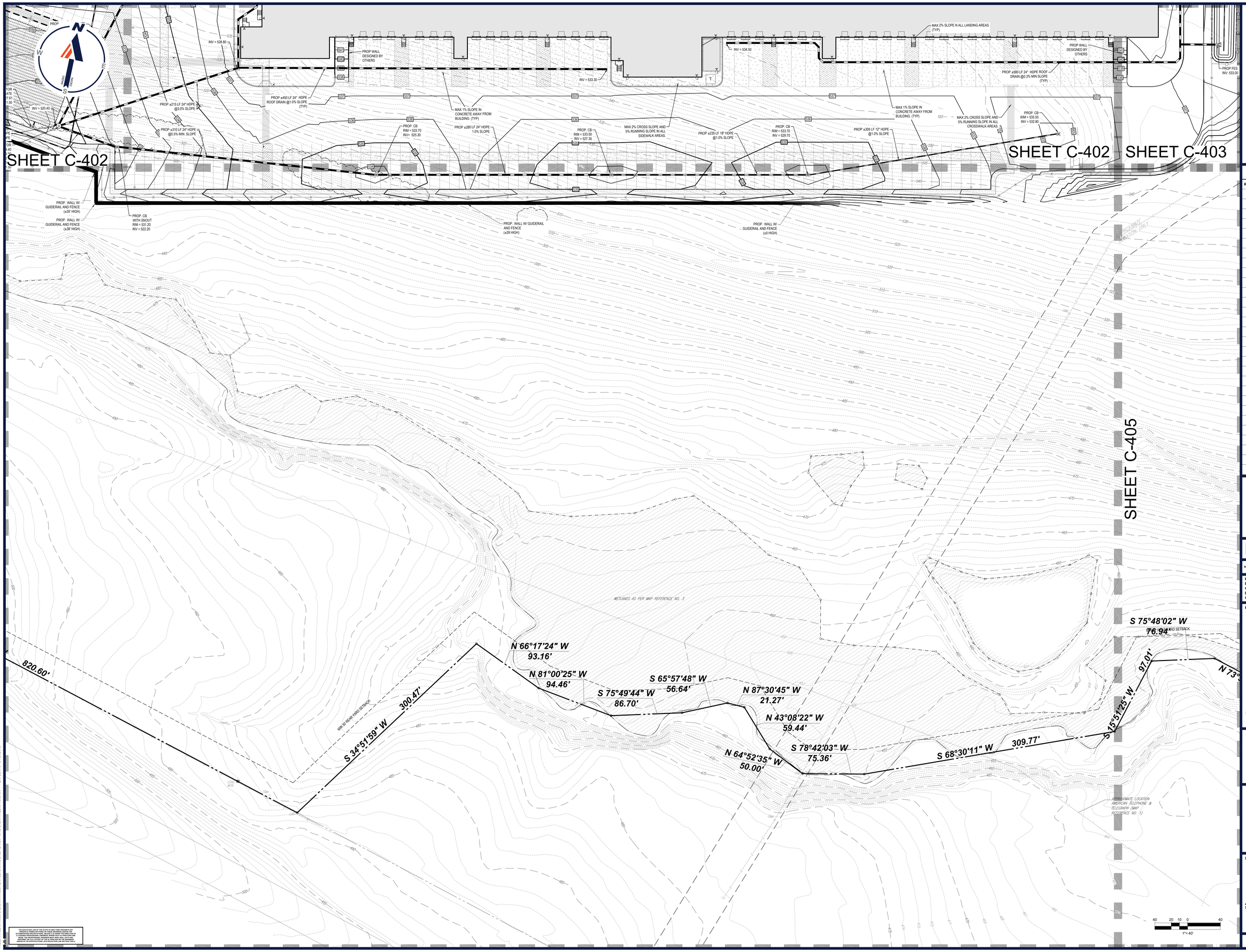

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PROJECT:

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BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

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TOWN OF FLORIDA
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SHEET TITLE:

GRADING AND DRAINAGE PLAN D

SHEET NUMBER:

C-404

ORG. DATE - 04/21/2025

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PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
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SHEET TITLE:

GRADING AND DRAINAGE PLAN E

SHEET NUMBER:

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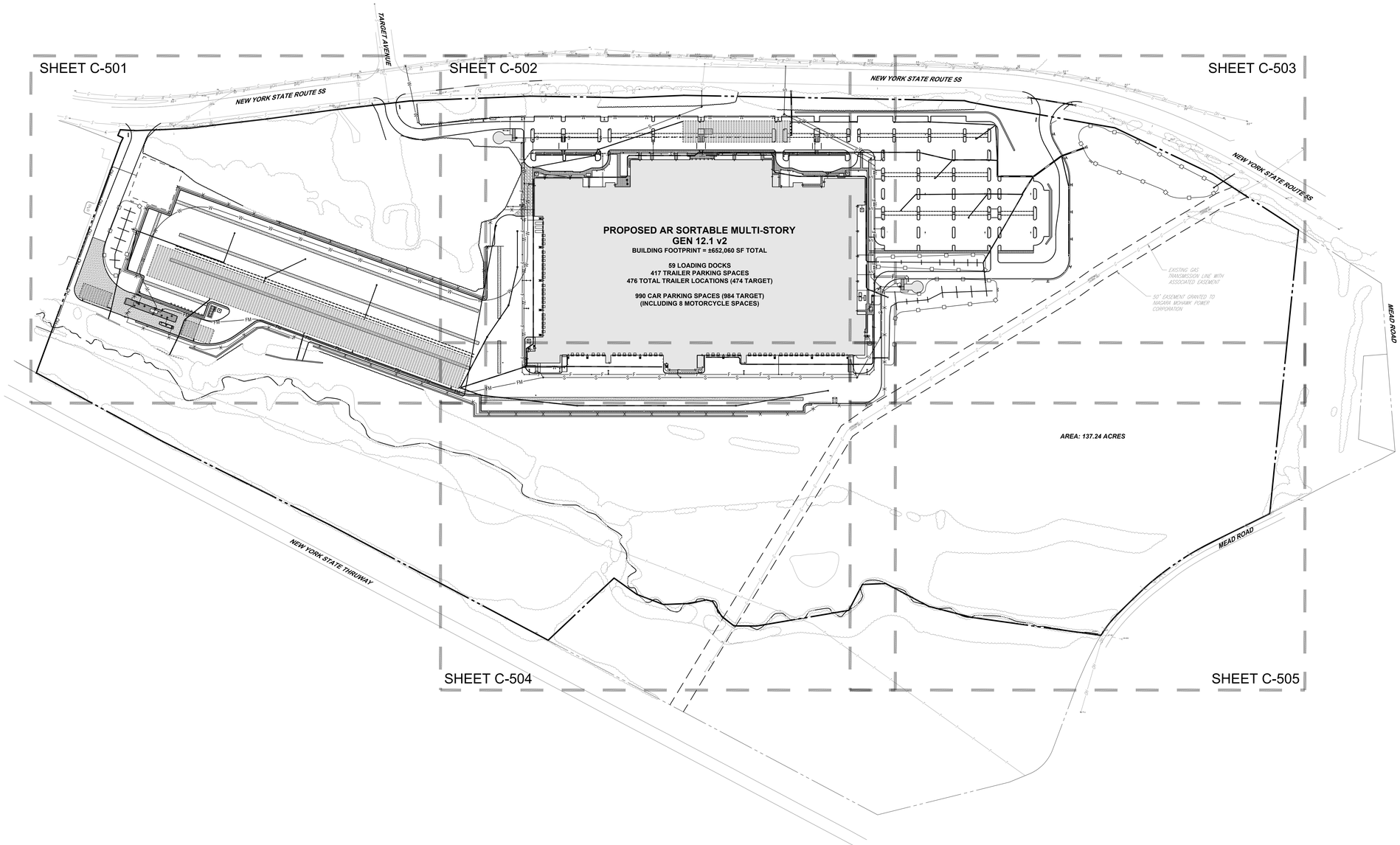

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150 75 37.5 0 150

1"=150'

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JS

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PROJECT:

SITE DEVELOPMENT PLANS

FOR

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PROPOSED WAREHOUSE DISTRIBUTION FACILITY
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SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

C-500

ORG. DATE - 04/21/2025

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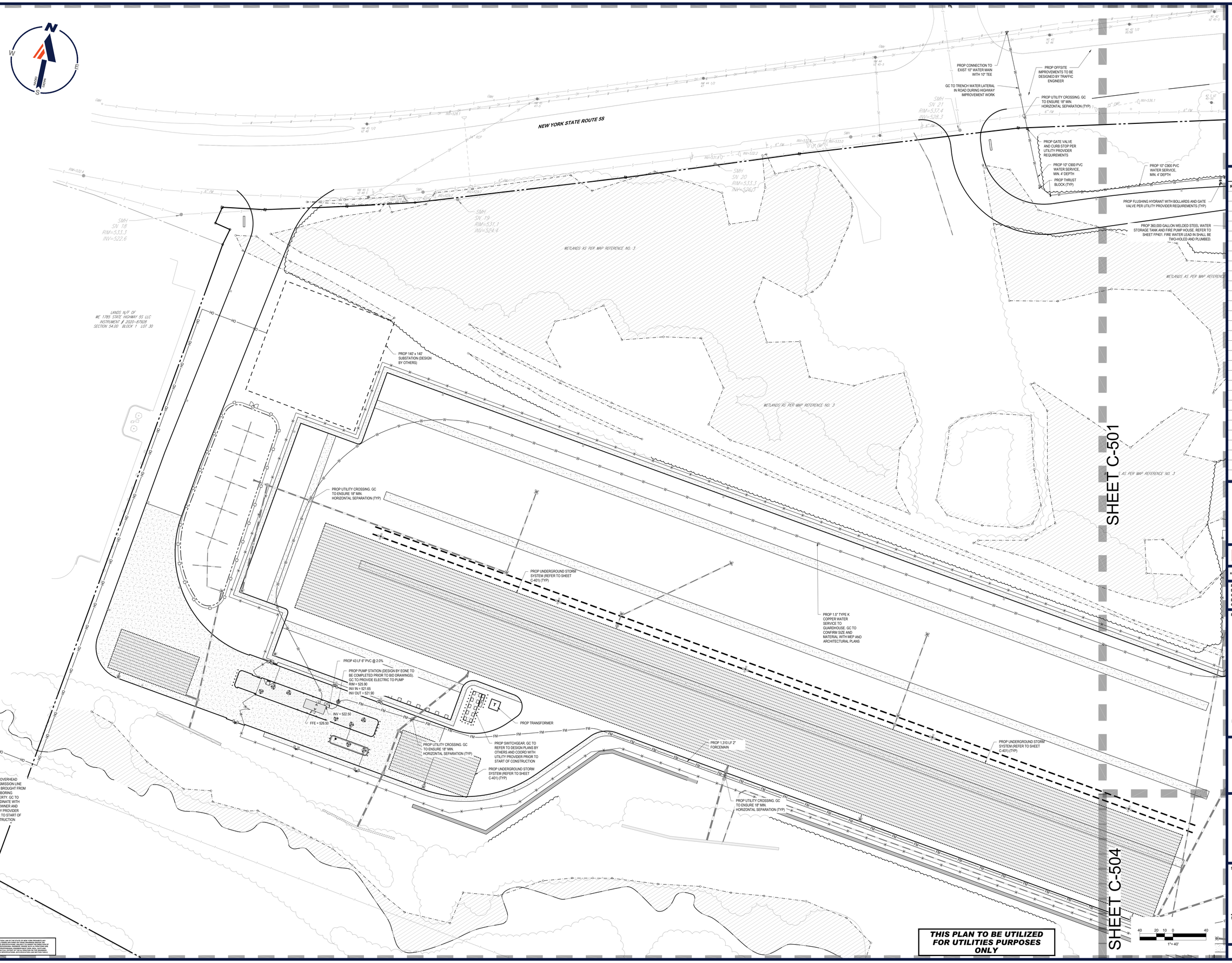

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PROJECT:

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FOR

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SHEET TITLE:

UTILITY PLAN A

SHEET NUMBER:

C-501

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PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

NEW YORK STATE ROUTE 5S

ASSUMED INV = 511.90. GC TO VERIFY IN THE FIELD AND NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION

GC TO TRENCH SEWER LATERAL IN ROAD DURING HIGHWAY IMPROVEMENT WORK

PROP 155 LF 8" PVC @ 2.4%

GC TO ENSURE MIN. 4' COVER ON SANITARY LATERALS UNDER EXISTING GRADE DITCH (TYP)

PROP CONNECTION TO EXIST SMH INV = 517.75

PROP 53 LF 6" PVC @ 2.0%

PROP DROP SMH 02
RIM = 530.85
INV IN = 526.35
INV OUT = 518.80

PROP SMH 06
RIM = 534.00
INV IN = 515.65
INV OUT = 515.55

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 74 LF 6" PVC @ 9.5%

PROP SMH 08
RIM = 538.00
INV IN = 533.50
INV OUT = 533.40

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 206 LF 6" PVC @ 1.6%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 320 LF 8" PVC @ 0.75%

PROP 8" TANK FILL LINE TO FIRE PUMP HOUSE

PROP 10" TO 8" SERVICE REDUCER

PROP HEATED ENCLOSURE FOR BACKFLOW PREVENTER AND WATER METER

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 10" TO 6" SERVICE REDUCER

PROP CITY PRESSURE HYDRANT WITH BOLLARDS (TYP)

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP 6" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 4" WALL-MOUNTED STORZ FDC

INV = 541.50

PROP 360,000 GALLON WELDED STEEL WATER STORAGE TANK AND FIRE PUMP HOUSE. REFER TO SHEET FP401. FIRE WATER LEAD IN SHALL BE TWO HOLED AND PLUMBED.

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 345 LF 6" PVC @ 1.2%

PROP 12 LF 6" PVC @ 0.75%

PROP OIL WATER SEPARATOR
RIM = 547.80
INV IN = 541.40
INV OUT = 541.15

10" C900 WATER LATERAL FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" WATER C900 LATERAL FEED TO EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP THRUST BLOCK (TYP)

PROP GATE VALVE (TYP)

PROP 10" CONNECTION TEE (TYP)

PROP SMH 07
RIM = 541.45
INV IN = 536.95
INV OUT = 536.85

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UNDERGROUND STORM SYSTEM (REFER TO SHEET C-402) (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP SMH 05
RIM = 538.55
INV IN = 518.15
INV OUT = 518.05

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP TRANSFORMER

PROP 6" C900 PVC WATER SERVICE TO BUILDING (REFER TO MEP AND ARCH PLANS FOR SIZE AND CONNECTION LOCATION AT BUILDINGS)

PROP 1.5" TYPE K COPPER WATER SERVICE TO PRIMARY GUARDHOUSE (REFER TO MEP AND ARCH PLANS FOR SIZE AND CONNECTION LOCATION AT BUILDINGS)

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP THRUST BLOCK (TYP)

PROP GATE VALVE (TYP)

PROP THRUST BLOCK (TYP)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP.

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP CONNECTION TEE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 1.5" TYPE K COPPER WATER SERVICE TO GUARDHOUSE. GC TO CONFIRM SIZE AND MATERIAL WITH MEP AND ARCHITECTURAL PLANS

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 1,310 LF 2" FORCEMAIN

PROP 455 LF 8" PVC @ 0.75%

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

INV = 534.05

PROP TRANSFORMER

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP WALL HYDRANT

PROP 78.5 LF 8" PVC @ 6.0%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN =
INV IN =

PROP 585 LF 8" PVC @ 0.75%

PROP 8" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 10" C900 WATER SERVICE TO PUMPHOUSE (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 434 LF 8" PVC @ 0.75%

PROP 10" C900 FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 10" CONNECTION TEE (TYP)

PROP 10" LEAD-IN FOR RISER BANK #5 (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SMH 06
RIM = 537.90
INV IN = 521.51
INV OUT = 521.41

PROP GATE VALVE (TYP)

PROP 53 LF 4" PVC @ 1.0%

INV = 521.90

INV = 525.05

PROP 165 LF 8" PVC @ 0.75%

PROP 2" TYPE K COPPER WATER SERVICE TO GUARDHOUSE (REFER TO MEP AND ARCH PLANS FOR SIZE AND CONNECTION LOCATIONS)

PROP ELECTRIC SERVICE CONNECTION AT BUILDING (REFER TO ARCH PLANS)

PROP SMH 03
RIM = 536.90
INV IN = 522.85
INV OUT = 522.75

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

WETLANDS AS PER MAP REFERENCE NO. 3

WETLANDS AS PER MAP REFERENCE NO. 3

WETLANDS AS PER MAP REFERENCE NO. 3

SHEET C-501

SHEET C-503

SHEET C-504

SHEET C-505

PROPOSED AR SORTABLE MULTI-STORY
GEN 12.1 v2
BUILDING FOOTPRINT = ±652,060 SF TOTAL

59 LOADING DOCKS
417 TRAILER PARKING SPACES
476 TOTAL TRAILER LOCATIONS (474 TARGET)

990 CAR PARKING SPACES (984 TARGET)
(INCLUDING 8 MOTORCYCLE SPACES)

FFE = 542

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40 20 10 0 40
1"= 40'

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PROJECT No.:	NYB240176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

UTILITY PLAN B

SHEET NUMBER:

C-502

ORG. DATE - 04/21/2025

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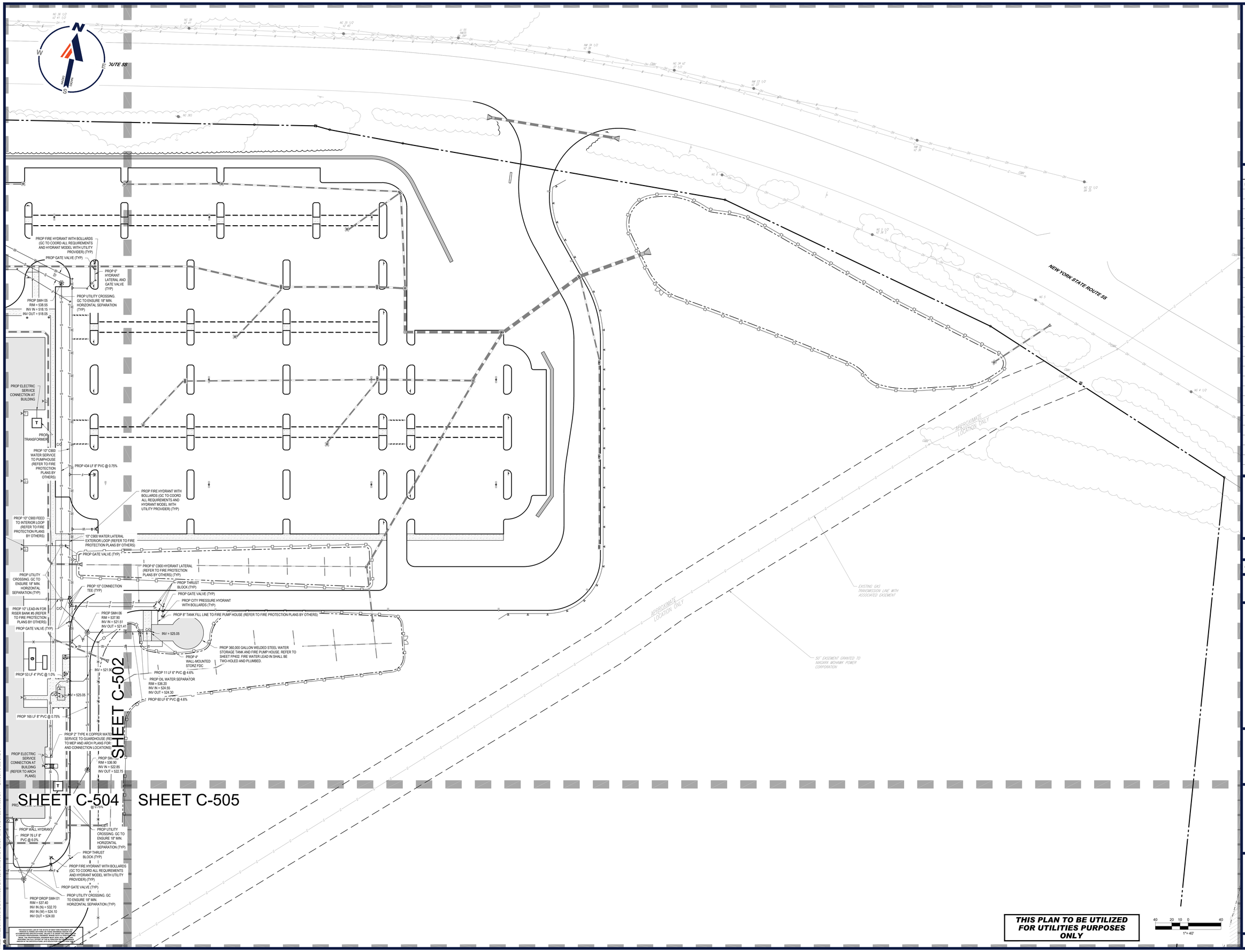

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DRAWN BY:	VRJ/RS/AKD/SJR
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DATE:	04/21/2025
CAD I.D.:	P-CIVIL-UTIL

PROJECT:

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FOR

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SHEET TITLE:

UTILITY PLAN C

SHEET NUMBER:

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PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

C/O

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP 1,310 LF 2" FORCEMAIN

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" C900 HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 455 LF 8" PVC @ 0.75%

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

FFE = 542

INV = 534.05

PROP TRANSFORMER

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP CONNECTION TEE (TYP)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP 585 LF 8" PVC @ 0.75%

PROP 152 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP WALL HYDRANT

PROP 76 LF 8" PVC @ 6.0%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN (N) = 532.70
INV IN (W) = 524.10
INV OUT = 524.00

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

SHEET C-501

SHEET C-502

SHEET C-502

SHEET C-503

SHEET C-305

APPROXIMATE LOCATION ONLY

WETLANDS AS PER MAP REFERENCE NO. 3

CMP

CMP

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PROJECT No.: NYB240176.00-0A
DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

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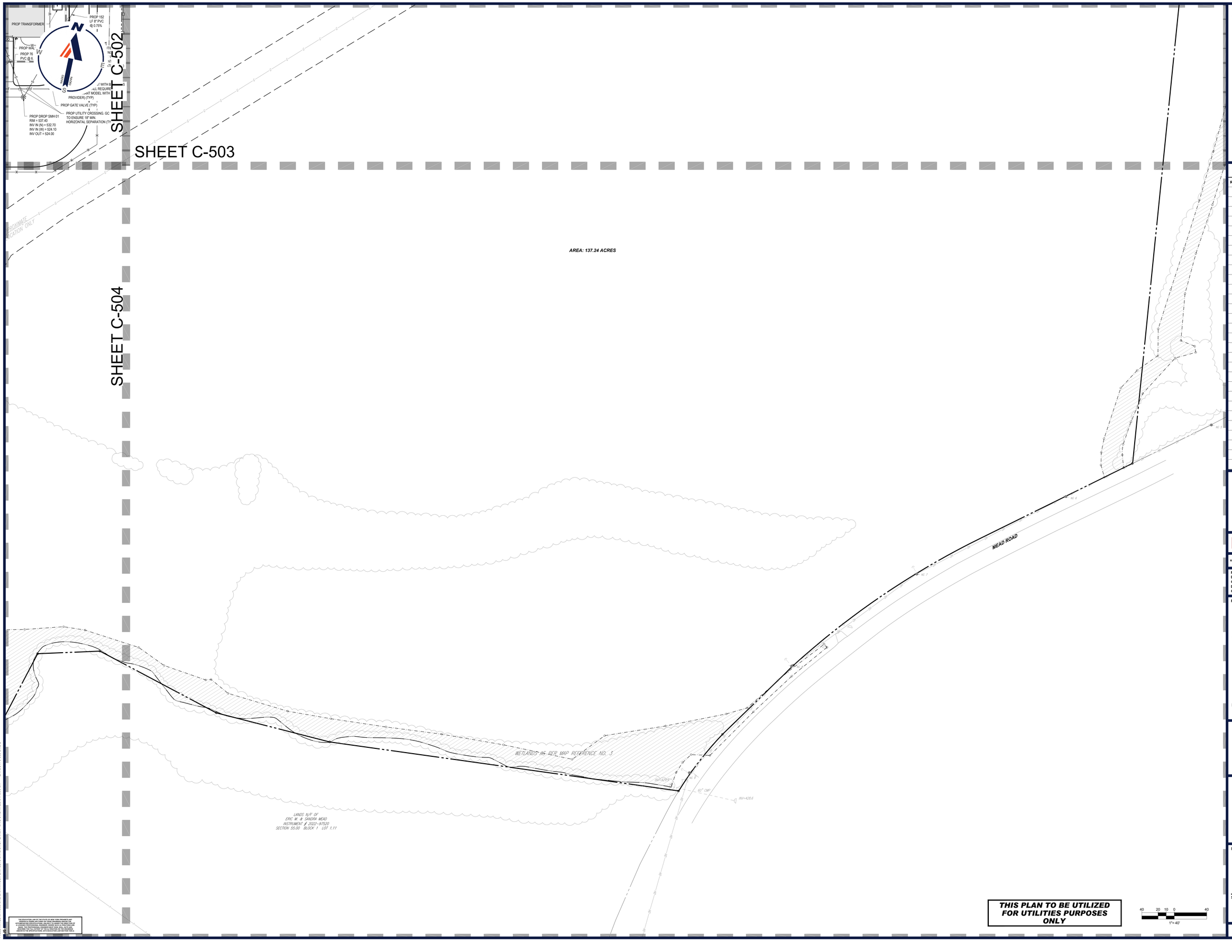
SHEET TITLE:

UTILITY PLAN D

SHEET NUMBER:

C-504

ORG. DATE - 04/21/2025



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40 20 10 0 40
1"= 40'

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SHEET TITLE:

UTILITY PLAN E

SHEET NUMBER:

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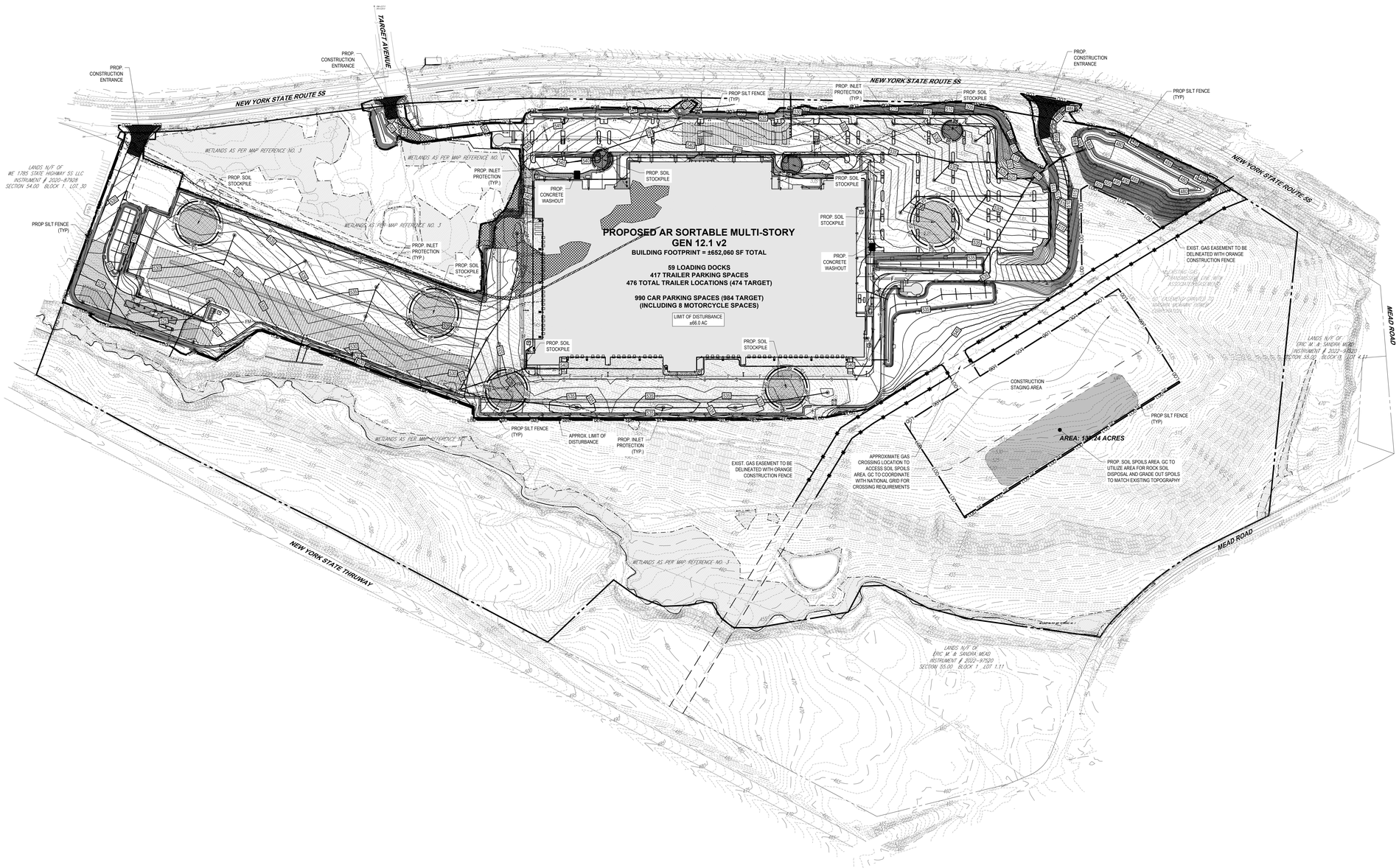

0 75 150 300

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DATE:	04/21/2025
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PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

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SHEET TITLE:

OVERALL EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER:

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THE EDUCATION LAW OF THE STATE OF NEW YORK (SECTION 7209) PROHIBITS ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE REQUIRED, FROM ALTERING ANY ITEM ON THIS DRAWING/DOCUMENT. IF ANY ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE DRAWING/DOCUMENT THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION.

UPSTATE NEW YORK EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. AT A MINIMUM, AREAS SHALL BE PERMANENTLY STABILIZED ACCORDING TO THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (REFERRED TO AS THE "BLUE BOOK"), OR IN THE ABSENCE OF THE BLUE BOOK, THEY SHALL BE PERMANENTLY STABILIZED WITHIN 14 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
3. SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 8%.
4. INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER NOTE #5. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE SUCH AS:
   4.1. AMEND LIST AS NEEDED
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT, THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED ON THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER.
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
    a) SIX INCHES, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    b) APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER1,000 SF).
    c) FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUE-GRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS; SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN. QUALITY SOD MAY BE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1, SOD ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.
    d) STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
12. WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED:

LOCATION	MULCH	MULCH RATE (1000 SF)
PROTECTED AREA	STRAW	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)*	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCELSIOR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

* A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHALL BE USED TO ADDITIONAL WIND CONTROL.
MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

15. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
16. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.
17. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.
18. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATE PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONSE EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE ON-SITE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES.
19. EROSION CONTROL NOTES DURING WINTER CONSTRUCTION
20. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
21. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE EMPLOYED TO CONTROL STORMWATER RUNOFF.
22. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
23. AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
24. FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED. IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND IS SMOOTH, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200-300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED AS APPLICABLE. SLOPES SHALL NOT BE LEFT UNSTABILIZED OVER THE WINTER OR IN AREAS WHERE WORK HAS CEASED FOR MORE THAN 14 DAYS UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF SEDIMENT BARRIERS OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
25. MULCHING REQUIREMENTS:
    a) BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
    b) MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
    c) MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
26. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.
27. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFICATIONS.
2. EROSION CONTROL MEASURES MUST CONFORM TO THE STATE, LOCAL, AND FEDERAL GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR UNLESS THE PROFESSIONAL OF RECORD CLEARLY AND SPECIFICALLY, IN WRITING, DIRECTS OTHERWISE. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY XXX.XX ACRES.
4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:
   a) STABILIZED CONSTRUCTION ENTRANCE/ EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION SHOWN ON THE PLAN. THIS AREA MUST BE GRADED SO THAT RUNOFF WATER WILL BE RETAINED ON-SITE.
   b) SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE, TEMPORARY FILL AND SOIL STOCKPILES.
   c) INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED TO REDUCE THE QUANTITY OF SEDIMENT. INSTALL TEMPORARY INLET PROTECTION ON INLETS DOWNSLOPE FROM DISTURBANCE, WHICH MAY BE BEYOND THE LIMITS OF DISTURBED AREA.
5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY. THE CONTRACTOR MUST REMOVE ANY SILT DEPOSITS GREATER THAN 6 INCHES OR HALF THE EROSION CONTROL BARRIER'S HEIGHT COLLECTED ON THE FILTER FABRIC AND/OR SILT SOCK BARRIERS AND EXCAVATE AND REMOVE ANY SILT FROM DROP INLET PROTECTION.
7. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINISHED GRADE AND VEGETATED WITHIN 7 DAYS. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, THE CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
8. THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF THE PROFESSIONAL OF RECORD SO REQUIRES, TO PREVENT ANY, INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
9. THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION.
11. THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER INSTALLING A DIFFERENT, SPECIFIED METHOD OF STABILIZATION.
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL, DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROLS.
17. THE CONTRACTOR MUST IDENTIFY, ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.

SOIL RESTORATION PROCEDURE, PER NYSDEC "BLUE BOOK":

DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:
1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL.
2. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUBSOILS.
3. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4. APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
5. VEGETATE AS REQUIRED BY APPROVED PLAN.

AT THE END OF THE PROJECT AN INSPECTOR SHOULD BE ABLE TO PUSH A 3/8" METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT. TILLING (STEP 2 ABOVE) SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.

COMPOST SPECIFICATIONS:

COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS WITH NO OBJECTIONABLE ODORS.

MAINTENANCE:

A SIMPLE MAINTENANCE AGREEMENT SHOULD IDENTIFY WHERE SOIL RESTORATION IS APPLIED, WHERE NEWLY RESTORED AREAS ARE/CANNOT BE CLEARED, WHO THE RESPONSIBLE PARTIES ARE TO ENSURE THAT ROUTINE VEGETATION IMPROVEMENTS ARE MADE (I.E., THINNING, INVASIVE PLANT REMOVAL, ETC.). SOIL COMPOST AMENDMENTS WITHIN A FILTER STRIP OR GRASS CHANNEL SHOULD BE LOCATED IN PUBLIC RIGHT OF WAY, OR WITHIN A DEDICATED STORMWATER OR DRAINAGE EASEMENT.

FIRST YEAR MAINTENANCE OPERATIONS INCLUDES:
- INITIAL INSPECTIONS FOR THE FIRST SIX MONTHS (ONCE AFTER EACH STORM GREATER THAN HALF-INCH).
- RESEEDING TO REPAIR BARE OR ERODING AREAS TO ASSURE GRASS STABILIZATION
- WATER ONCE EVERY THREE DAYS FOR FIRST MONTH, AND THEN PROVIDE A HALF INCH OF WATER PER WEEK DURING FIRST YEAR. IRRIGATION PLAN MAY BE ADJUSTED ACCORDING TO THE RAIN EVENT.
- FERTILIZATION MAY BE NEEDED IN THE FALL AFTER THE FIRST GROWING SEASON TO INCREASE PLANT VIGOR.

ONGOING MAINTENANCE:

TWO POINTS HELP ENSURE LASTING RESULTS OF DECOMPACTION:
1. PLANTING THE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN SOIL STRUCTURE.
2. KEEPING THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS. CONSIDER PEDESTRIAN FOOTPATHS. (SOMETIMES IT MAY BE NECESSARY TO DE-THATCH THE TURF EVERY FEW YEARS).

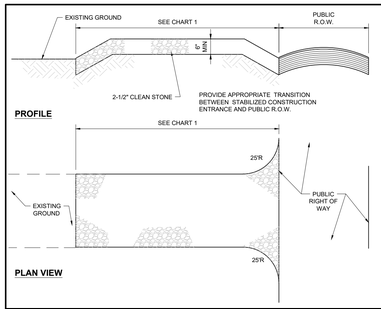
SOIL RESTORATION REQUIREMENTS

TYPE OF DISTURBANCE	SOIL RESTORATION REQUIREMENT
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED
MINIMAL SOIL DISTURBANCE	RESTORATION NOT REQUIRED
AREAS WHERE TOPSOIL IS STRIPPED ONLY - NO CHANGE IN GRADE	HSG A&B: APPLY 6" OF TOPSOIL HSG C&D: AERATE AND APPLY 6" OF TOPSOIL
AREAS OF CUT OR FILL	HSG A&B: AERATE AND APPLY 6" OF TOPSOIL HSG C&D: APPLY FULL SOIL RESTORATION (SEE NOTES ON SHEET C-602)
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN A ZONE 5-25 FEET AROUND BUILDINGS BUT NOT WITHIN 5 FOOT PERIMETER AROUND FOUNDATION WALLS)	APPLY FULL SOIL RESTORATION (DE-COMPACTION AND COMPOST ENHANCEMENT, PER CURRENT VERSION OF NYS DEC DEEP RIPPING AND DECOMPACTION)
AREAS WHERE RUNOFF REDUCTION AND OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION NOT REQUIRED, BUT MAY BE APPLIED TO ENHANCE THE REDUCTION SPECIFIED FOR APPROPRIATE PRACTICES.
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREA WILL BE CONVERTED TO PERVIOUS AREA.

THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
- INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT (AS SHOWN)
- INSTALLATION OF EROSION CONTROL BARRIER (STRAW BALES AND SILT FENCE) (AS SHOWN)
- INSTALLATION OF INLET PROTECTION IN STREET (AS SHOWN)
- DEMOLITION OF EXISTING SITE STRUCTURES (SEE DEMOLITION PLAN)
- DEMOLITION OF EXISTING SITE PAVEMENT AND AMENITIES (SEE DEMOLITION PLAN)
- CLEARING AND GRUBBING
- INSTALLATION OF TEMPORARY SWALES AND SEDIMENT BASINS
- EARTHWORK AND EXCAVATION/FILLING AS NECESSARY
- CONSTRUCTION OF UTILITIES
- STABILIZE PERMANENT LAWN AREAS AND SLOPES WITH TEMPORARY SEEDING
- INSTALLATION OF INLET PROTECTION OF ON-SITE UTILITIES (AS SHOWN)
- CONSTRUCTION OF BUILDINGS
- CONSTRUCTION OF ALL CURBING AND LANDSCAPE ISLANDS AS INDICATED ON THE PLANS
- SPREAD TOPSOIL ON SLOPED AREAS AND SEED AND MULCH
- FINAL GRADING OF ALL SLOPED AREAS
- PLACE 6" TOPSOIL ON SLOPES AFTER FINAL GRADING COMPLETED. FERTILIZE, SEED, AND MULCH SEED MIXTURE TO BE INSTALLED AS REQUIRED.
- REMOVAL OF THE TEMPORARY SEDIMENT BASINS
- PAVE PARKING LOT
- LANDSCAPING PER LANDSCAPING PLAN
- REMOVE EROSION CONTROLS AS DISTURBED AREAS BECOME STABILIZED TO 70% STABILIZATION OR GREATER

RECOMMENDED CONSTRUCTION SEQUENCE

NOT TO SCALE (NE-0990101 - 09/2023)



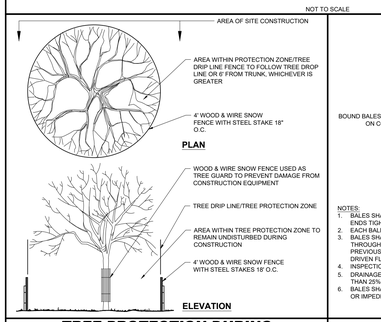
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2% TO 5%	100 FT	200FT
>5%	ENTIRE ENTRANCE STABILIZED WITH FABC BASE COURSE (1)	

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

CHART 1

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE (NE-0020101 - 09/2023)



TREE PROTECTION DURING SITE CONSTRUCTION

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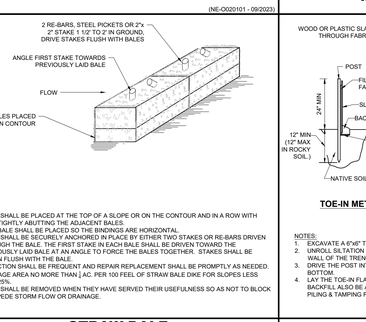


NOTES:
1. BALES SHALL BE PLACED AT THE TOP OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
5. DRAINAGE AREA NO MORE THAN ¼ AC. PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.
6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE BARRIER

NOT TO SCALE (NE-0030302 - 09/2023)



NOTES:
1. ALL MATERIAL TO MEET MANUFACTURER SPECIFICATIONS
2. COMPOST FILTER SOCK FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE AT COMPLETION OF CONSTRUCTION OR AS DIRECTED BY OWNER AFTER STABILIZATION IS ACHIEVED.

OR APPROVED EQUIVALENT

COMPOST FILTER SOCK

NOT TO SCALE (NE-0040201 - 09/2023)

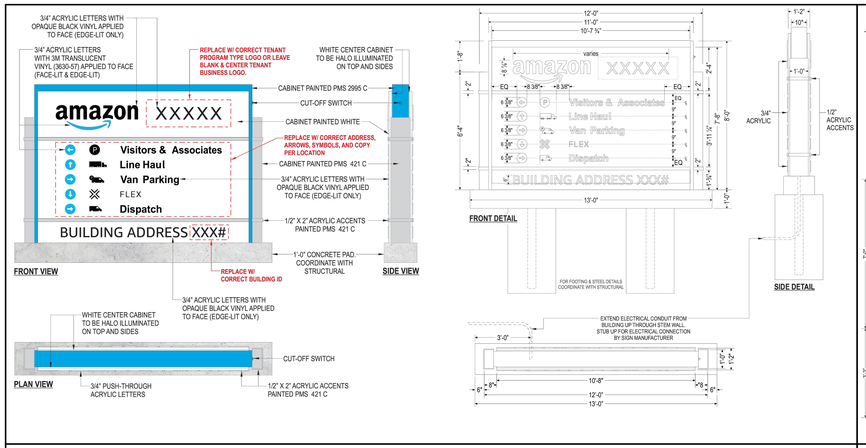


NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH AS SHOWN IN DETAIL 2. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.
7. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET STEEP SLOPE PROTECTION

NOT TO SCALE (NE-0049901 - 09/2023)

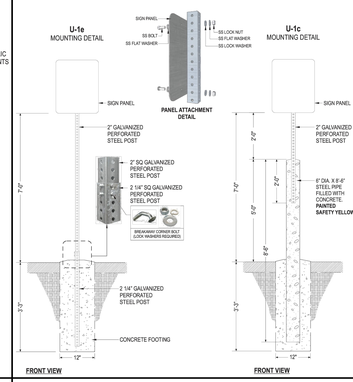
CIR-TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RAT



MONUMENT SIGN

SINGLE POST MOUNTING DETAILS
FOR SIGNS LESS THAN OR EQUAL TO 30 INCHES WIDE: U-1e & U-1c

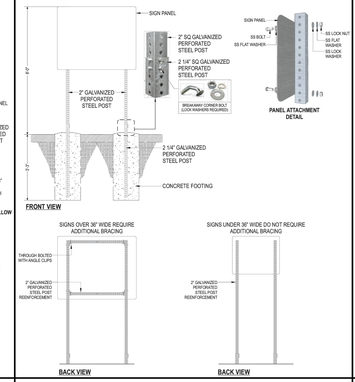
Note: All mounting, footings, attachments, etc. to be coordinated with Project Team and AHJ.



SINGLE POST SIGN MOUNTING

DOUBLE POST MOUNTING DETAILS
FOR SIGNS GREATER THAN 30 INCHES WIDE: U-2

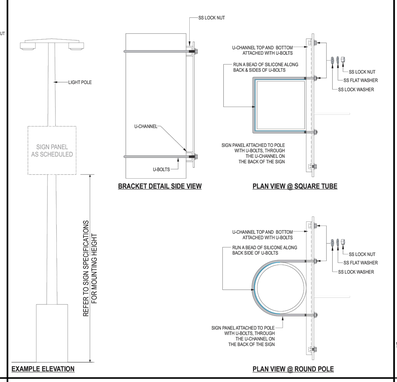
Note: All mounting, footings, attachments, etc. to be coordinated with Project Team and AHJ.



DOUBLE POST SIGN MOUNTING

LIGHT POLE MOUNTING DETAILS

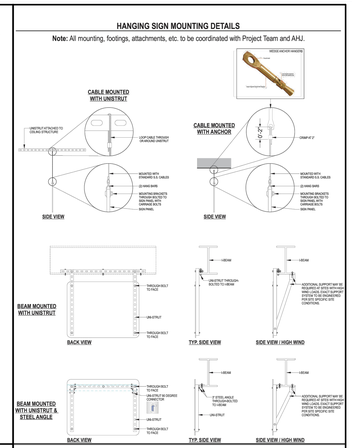
Note: All mounting, footings, attachments, etc. to be coordinated with Project Team and AHJ.



LIGHT POLE SIGN MOUNTING

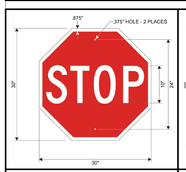
HANGING SIGN MOUNTING DETAILS

Note: All mounting, footings, attachments, etc. to be coordinated with Project Team and AHJ.



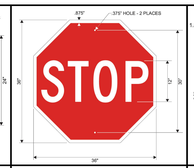
HANGING SIGN MOUNTING

NOT TO SCALE



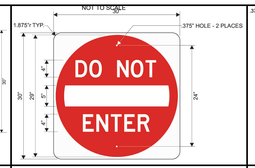
STOP SIGN

NOT TO SCALE



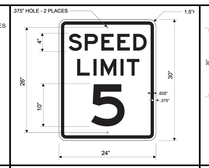
PARKING LOT STOP SIGN

NOT TO SCALE



DO NOT ENTER SIGN

NOT TO SCALE



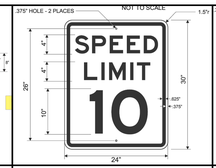
5 MPH SPEED LIMIT SIGN

NOT TO SCALE



SPEED BUMP SIGN

NOT TO SCALE



10 MPH SPEED LIMIT SIGN

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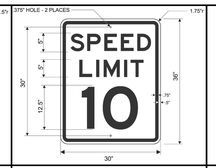
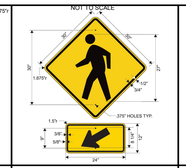


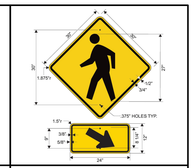
SPEED LIMIT SIGN

NOT TO SCALE



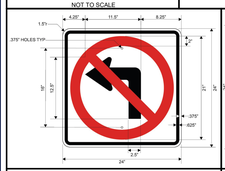
PEDESTRIAN WALKING LEFT SIGN

NOT TO SCALE



PEDESTRIAN WALKING RIGHT SIGN

NOT TO SCALE



NO LEFT TURN SIGN

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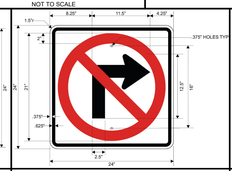
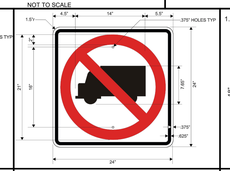


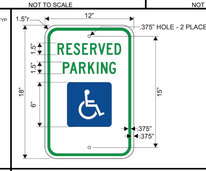
NO RIGHT TURN SIGN

NOT TO SCALE



TRUCKS PROHIBITED SIGN

NOT TO SCALE



ACCESSIBLE CAR PARKING SIGN

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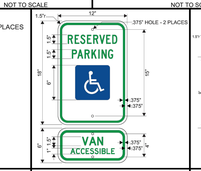
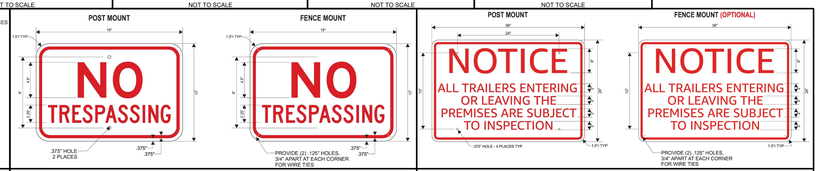


ACCESSIBLE VAN PARKING SIGN

NOT TO SCALE



NO TRESPASSING SIGN

NOT TO SCALE

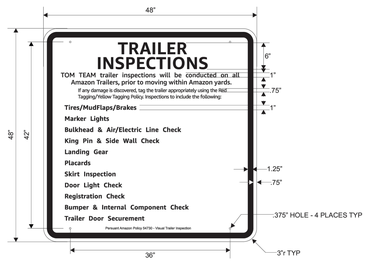
NOTICE SIGN

NOT TO SCALE

SITE SIGNAGE



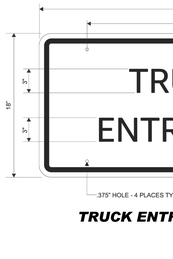
BUILDING ADDRESS SIGN



TRAILER INSPECTIONS SIGN



YARD RULES SIGN



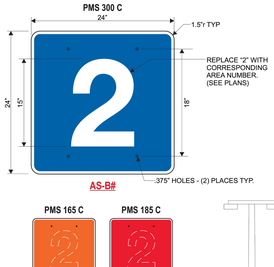
TRUCK ENTRANCE SIGN



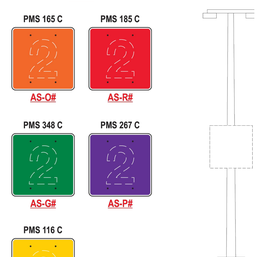
SITE WAYFINDING SIGN



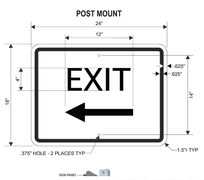
DROP-OFF AND PICK-UP SIGN



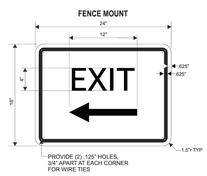
AS-B#

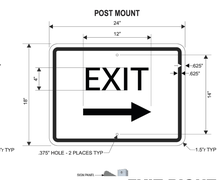


ASSOCIATE PARKING LOT AREA SIGN

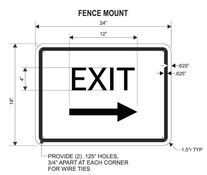


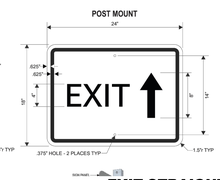
EXIT LEFT ARROW SIGN



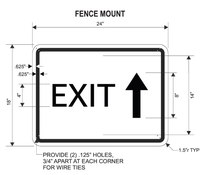


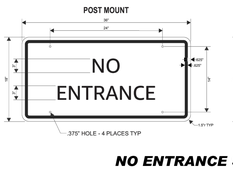
EXIT RIGHT ARROW SIGN

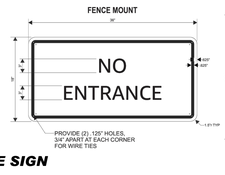




EXIT STRAIGHT ARROW SIGN



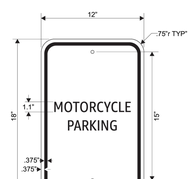




NO ENTRANCE SIGN



MUSTER AREA SIGN



MOTORCYCLE PARKING SIGN

DROP-OFF AND PICK-UP LEFT SIGN

DROP-OFF AND PICK-UP RIGHT SIGN

DROP-OFF AND PICK-UP STRAIGHT SIGN

NO EXIT SIGN

TENANT SPECIFIC SIGNAGE

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PROJECT No.:	NYB240176.00-0A - C-102 NOTE
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-CNDS

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 55/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

SIGNAGE AND STRIPING DETAILS

SHEET NUMBER:

C-900

ORG. DATE - 04/21/2025

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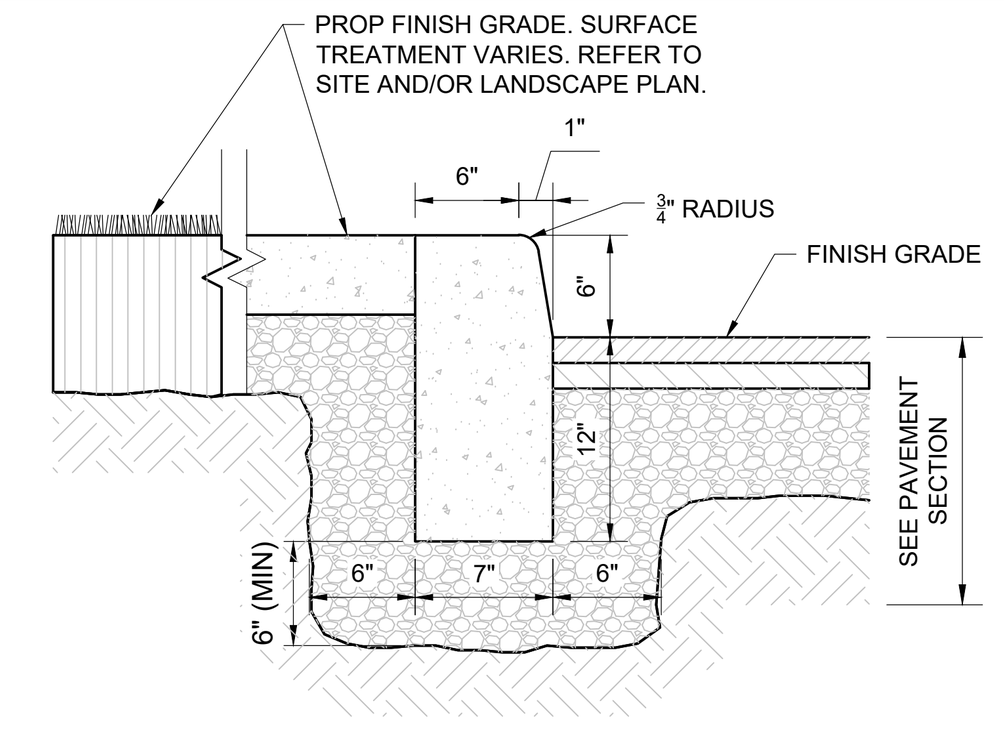
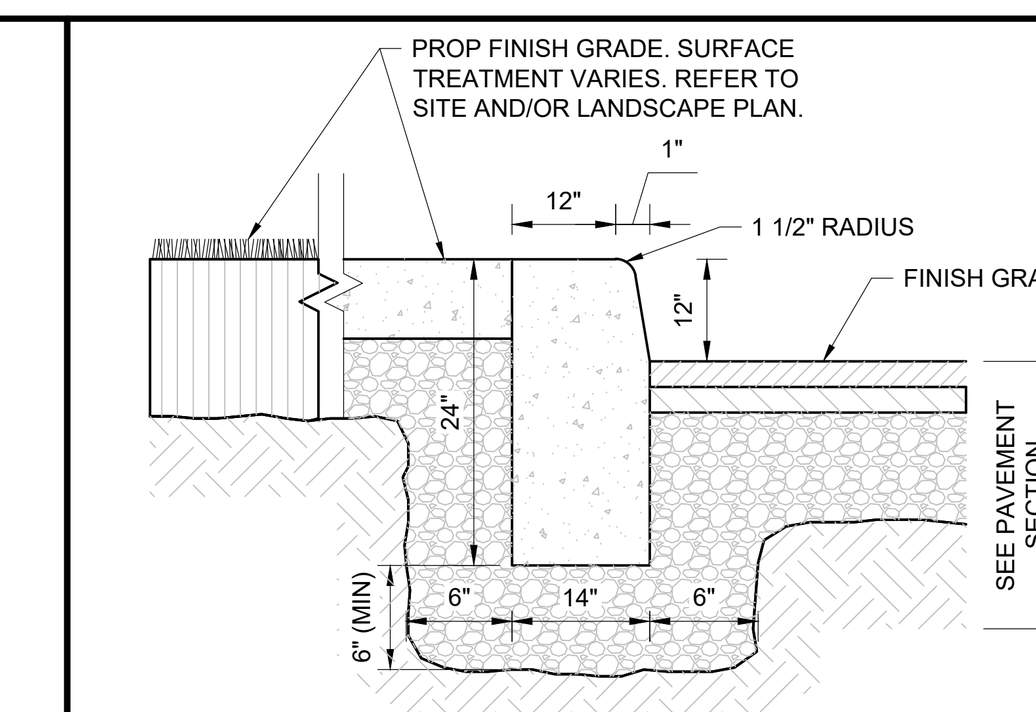
I:\BOHLERENG\NET\SHARES\MIA-PROJECTS\2024\NYB240176.00\CAD\DRAWINGS\SITE PLAN\SIP-CIVIL-CNDS-NYB240176.00-0A - C-102 NOTE——>LAYOUT: C-900 DETAIL



NOTES:
1. CURB SHALL CONSIST OF 4,000 PSI AIR ENTRAINED CONCRETE, EXPOSED EDGES TO HAVE RUBBED FINISH, AND SURFACE SHALL BE TREATED WITH A CONCRETE PENETRANT/SEALER.
2. THE ENDS OF CURB SECTIONS SHALL BE CHAMFERED 1/4 INCH.
3. THE CORNERS OF CURB SECTIONS SHALL MATCH THE ADJACENT CURB IN SIZE, COLOR AND FINISH.
4. CURBS, CURB CORNERS OR EDGING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE.
5. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM OF TWENTY FEET (20') ON CENTER USING PREFORMED EXPANSION JOINT FILLER HAVING A THICKNESS OF ½ INCH.
6. PAVEMENT SECTION DEPTHS, MATERIAL, AND SPECIFICATIONS PER PAVEMENT SECTION DETAIL.
7. STRAIGHT CURB SECTIONS CAN BE USED FOR RADII 25' OR GREATER. OTHERWISE, CURVED CURB LENGTHS SHALL BE INSTALLED AT THE SPECIFIED RADIUS PER THE SITE PLAN.

PRECAST 6" CONCRETE CURB

NOT TO SCALE (NE-S020201 - 10/2024)



NOTES:
1. CURB SHALL CONSIST OF 4,000 PSI AIR ENTRAINED CONCRETE, EXPOSED EDGES TO HAVE RUBBED FINISH, AND SURFACE SHALL BE TREATED WITH A CONCRETE PENETRANT/SEALER.
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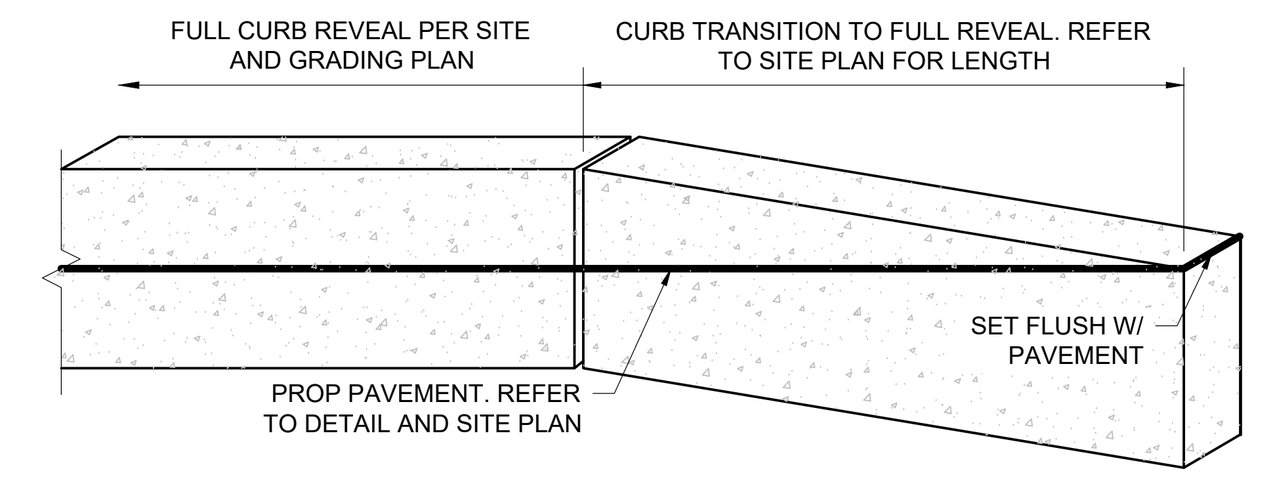
4. CURBS, CURB CORNERS OR EDGING SHALL BE FITTED TOGETHER AS CLOSELY AS POSSIBLE.
5. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM OF TWENTY FEET (20') ON CENTER USING PREFORMED EXPANSION JOINT FILLER HAVING A THICKNESS OF ½ INCH.
6. PAVEMENT SECTION DEPTHS, MATERIAL, AND SPECIFICATIONS PER PAVEMENT SECTION DETAIL.
7. STRAIGHT CURB SECTIONS CAN BE USED FOR RADII 25' OR GREATER. OTHERWISE, CURVED CURB LENGTHS SHALL BE INSTALLED AT THE SPECIFIED RADIUS PER THE SITE PLAN.

PRECAST 12" CONCRETE CURB

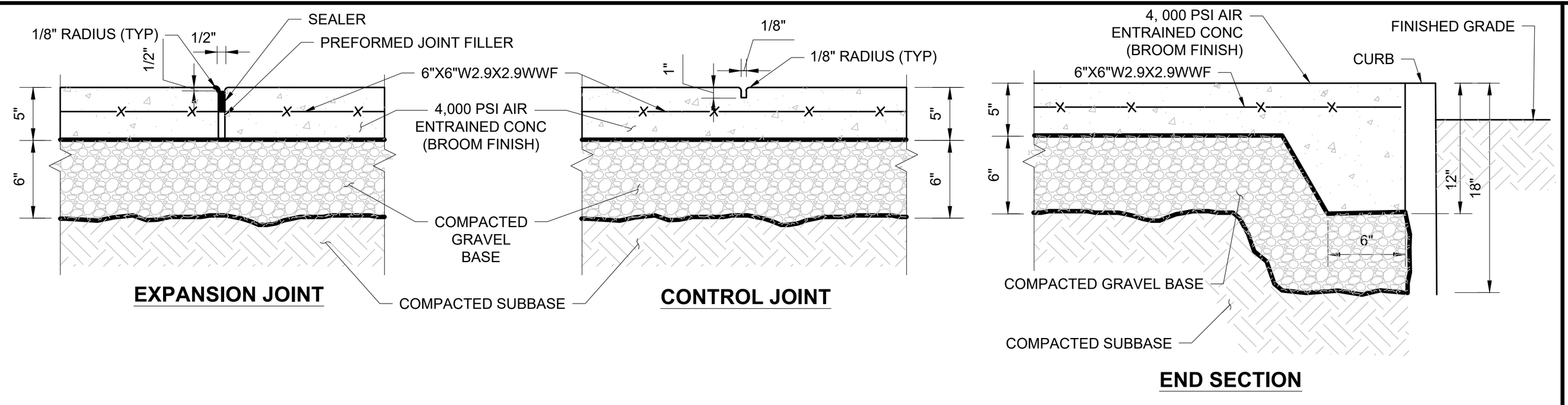
NOT TO SCALE (NE-S020201 - 10/2024)

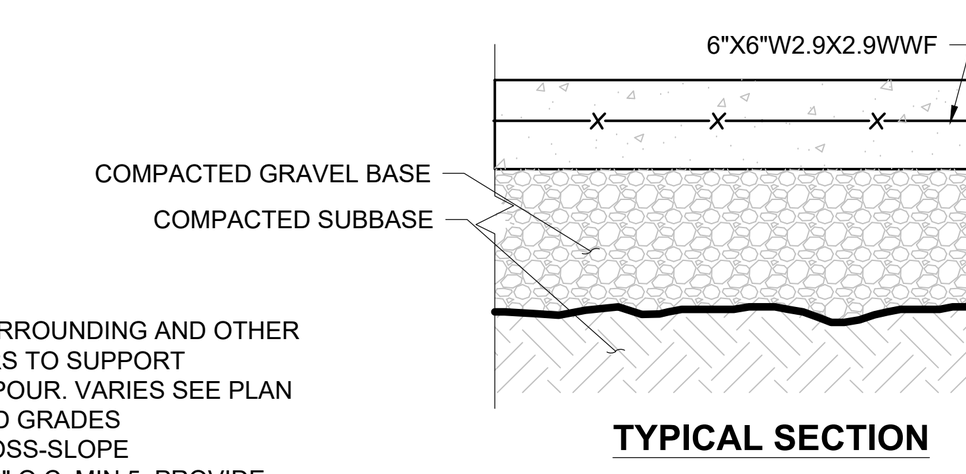


NOTES:
1. SEE TYPICAL CURB DETAIL AND SITE PLAN FOR CURB TYPE AND TRANSITION CURB LOCATIONS

PRECAST CONCRETE TRANSITION CURB

NOT TO SCALE (NE-S020206 - 09/2023)

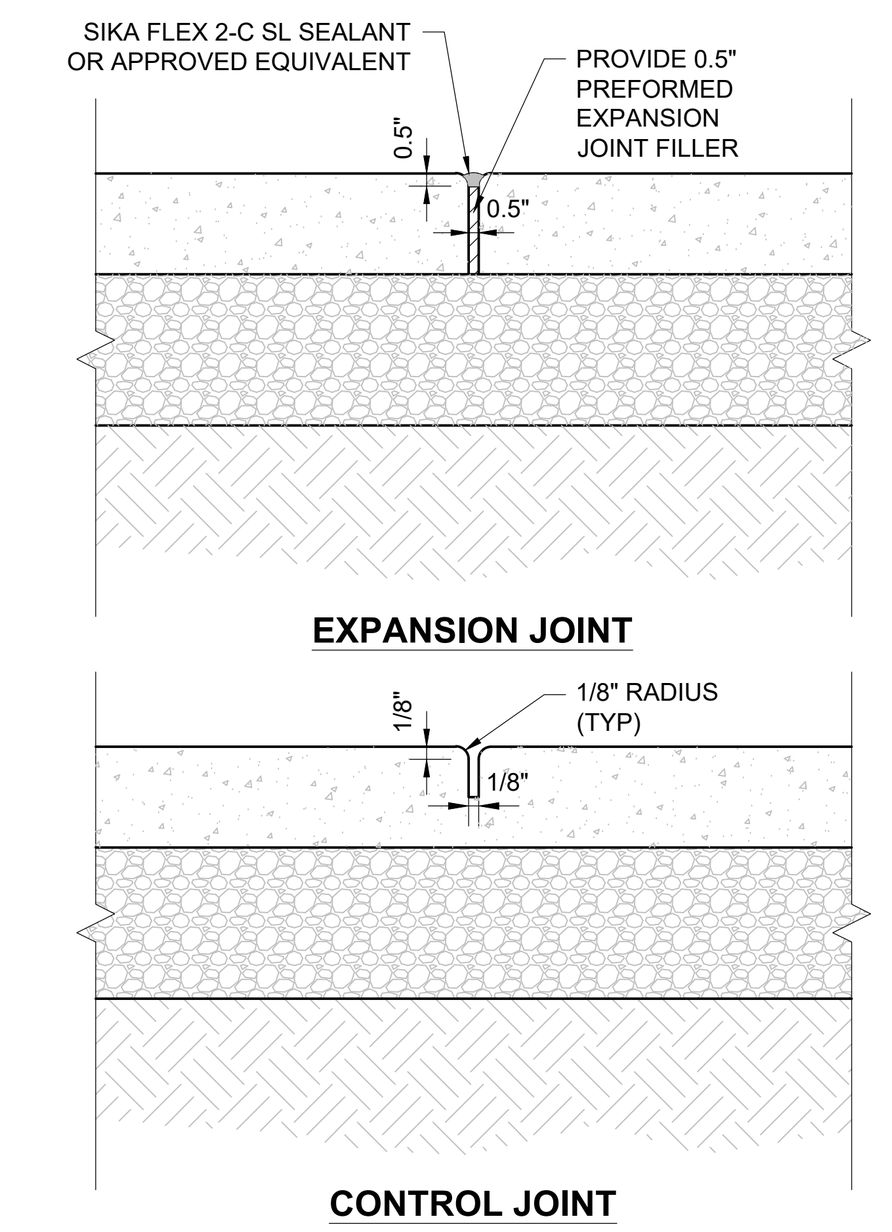




NOTES:
1. TO BE USED FOR BUILDING SURROUNDING AND OTHER CONCRETE WALKS. USE CHAIRS TO SUPPORT REINFORCING STEEL DURING POUR. VARIES SEE PLAN
2. SEE SITE PLAN FOR WIDTH AND GRADES
3. PROVIDE MINIMUM 1/8"/FT. CROSS-SLOPE
4. PROVIDE CONTROL JOINTS 5'-0" O.C. MIN 5. PROVIDE EXPANSION JOINTS 20'-0" O.C. MIN AT EXPANSION JOINTS, PROVIDE DOWELS @ 24" O.C.

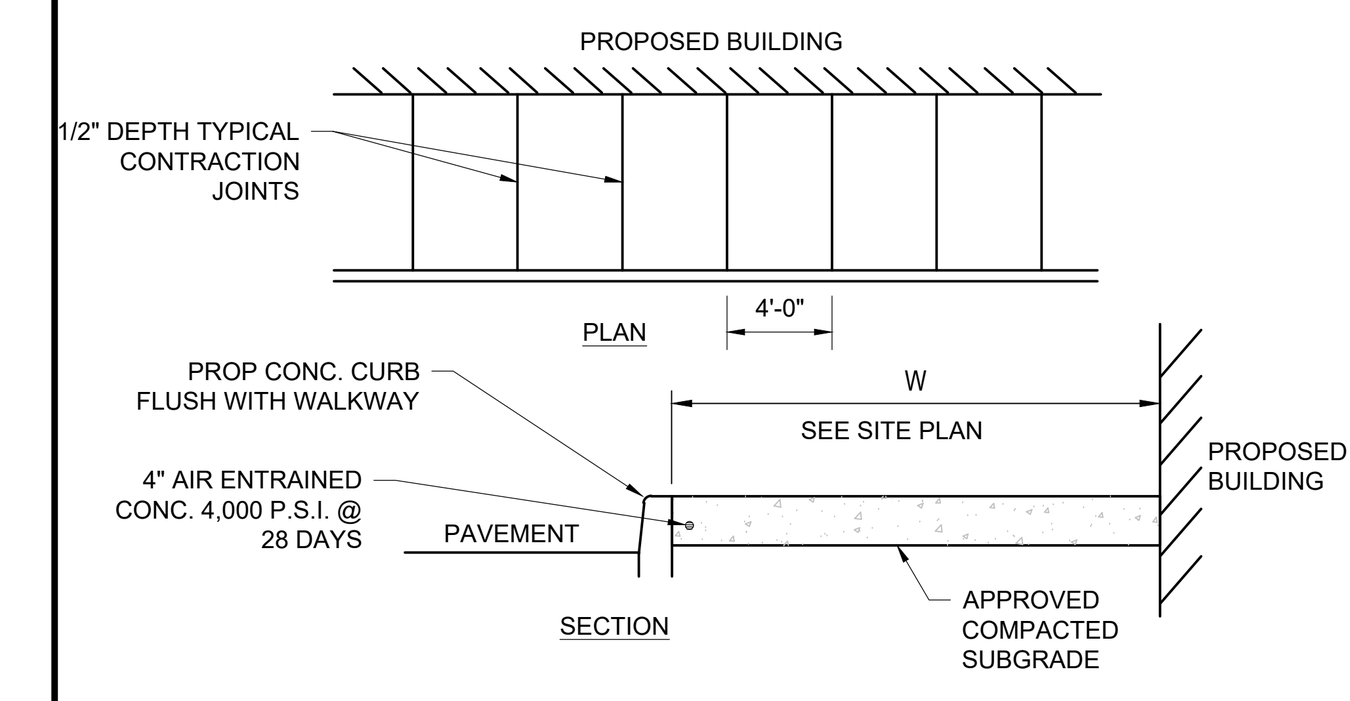
CONCRETE SIDEWALK

NOT TO SCALE (NE-S030201 - 10/2024)



SIDEWALK CONSTRUCTION JOINTS

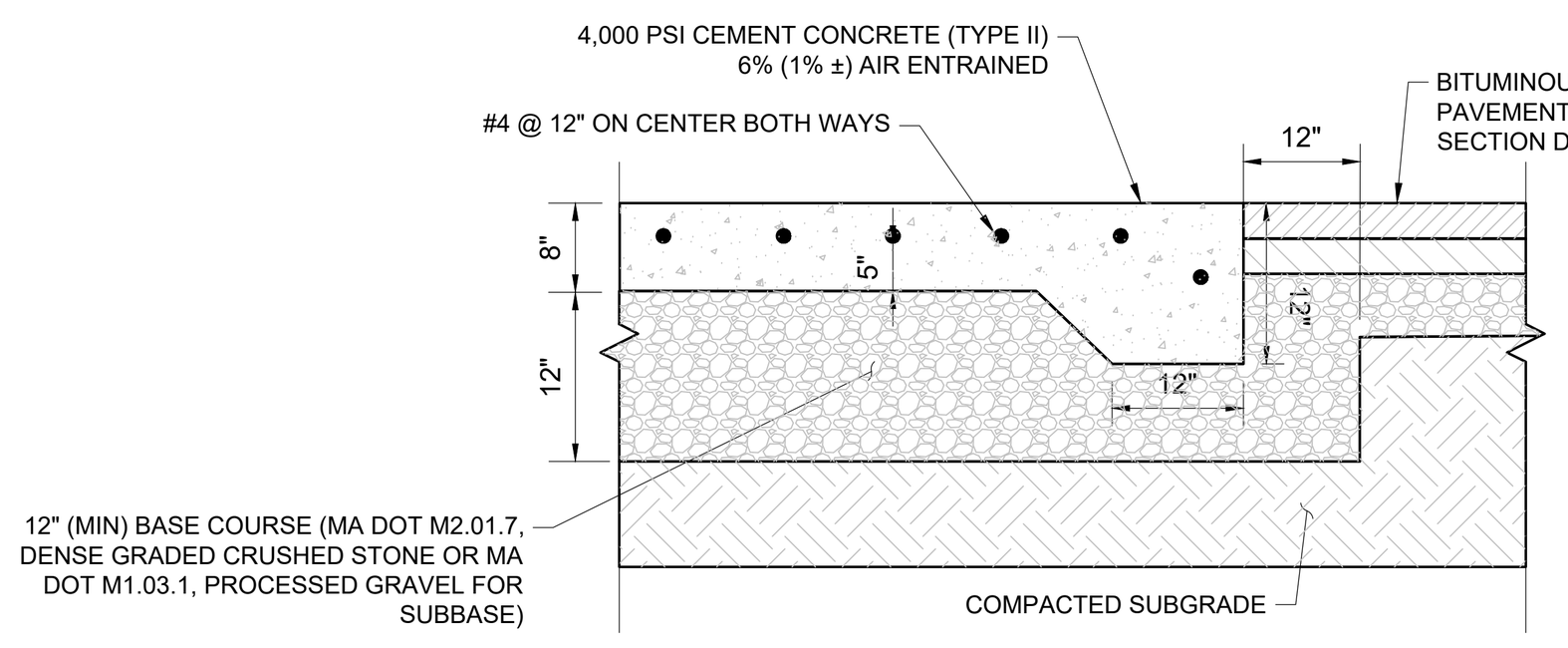
NOT TO SCALE (BE-S030401 - 08/2023)



NOTES:
1. MIN CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
2. PROVIDE 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT AT 12' INTERVALS.

SIDEWALK ALONG BUILDING

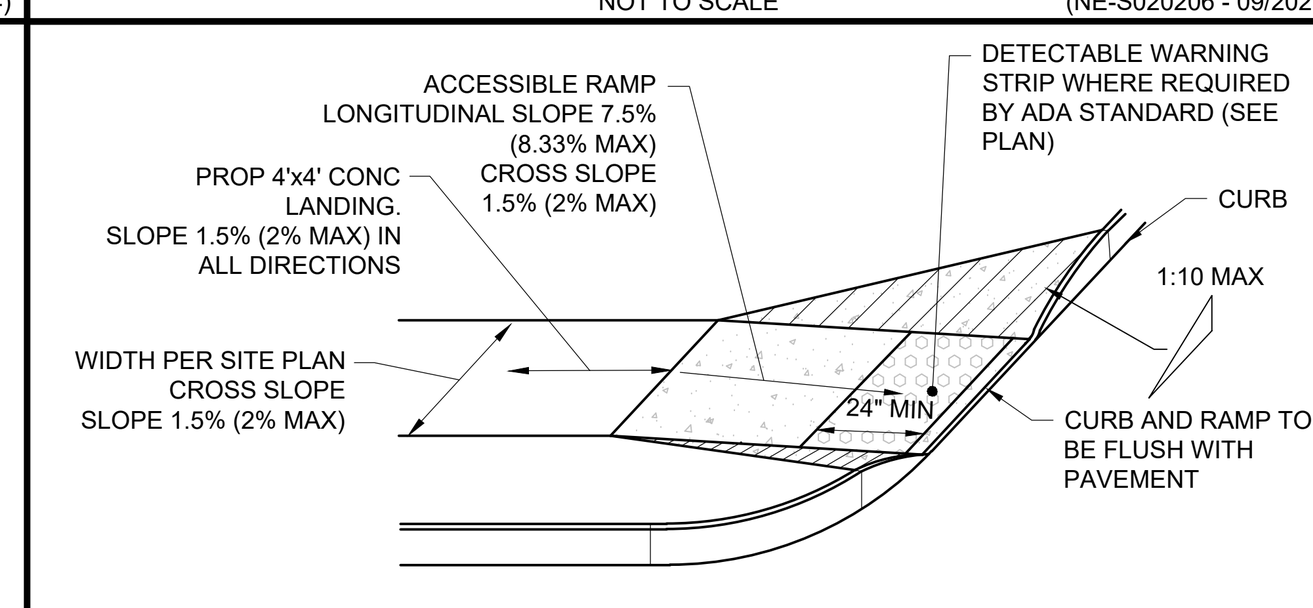
NOT TO SCALE (NE-S030209 - 09/2023)



NOTES:
1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. THIS TYPICAL DETAIL IS NOT FOR CONSTRUCTION AND IS PRELIMINARY AND CONCEPTUAL IN NATURE. DESIGN OF THE PROPOSED CONCRETE SHALL BE PREPARED BY THE APPROPRIATE PROFESSIONAL. GC TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE GEOTECHNICAL REPORT, THE REPORT SHALL GOVERN.
3. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30' ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD. ADDITIONAL EXPANSION JOINTS SHALL BE PLACED ALONG BUILDING EDGES AND AT CORNERS. CONSTRUCTION JOINTS SHALL BE JOINED WITH A MINIMUM 1/2" BITUMINOUS EXPANSION JOINT MATERIAL AND 12" LONG, 1/2" DIA SMOOTH DOWELS PLACED EVERY 15" ACROSS THE CONSTRUCTION JOINT WITHIN THE CENTER OF THE SLAB SECTION. ONE HALF OF EACH DOWEL ON THE SAME SIDE OF THE CONSTRUCTION JOINT SHALL BE GREASED.
4. FOR CONCRETE PAVING, SAW CUT CONTROL JOINTS SHALL HAVE A MINIMUM DEPTH OF 1.25" AND SHALL BE PLACED IN A GRID PATTERN OF NOT MORE THAN 11' SPACING WITH A MINIMUM SEPARATION OF 5' FROM THE BUILDING. ADDITIONAL SAW CUTS SHALL BE PLACED AT CORNERS, RESTRAINED LOCATIONS, OR WHERE NEEDED TO HELP REDUCE CRACKING.
5. FOR DOLLY PADS, SAW CUT CONTROL JOINTS SHALL HAVE A MINIMUM DEPTH OF 1.25" AND SHALL BE SPACED NOT MORE THAN 10' APART. ADDITIONAL SAW CUTS SHALL BE PLACED AT CORNERS, RESTRAINED LOCATIONS, OR WHERE NEEDED TO HELP REDUCE CRACKING.
6. TYPICAL EXPANSION JOINT SPACING SHALL BE 64' FOR CONCRETE PAVING AND 60' FOR DOLLY PADS.

CONCRETE PAVING FOR LOADING DOCK APRON, COMPACTOR PAD, AND/OR DOLLY PAD

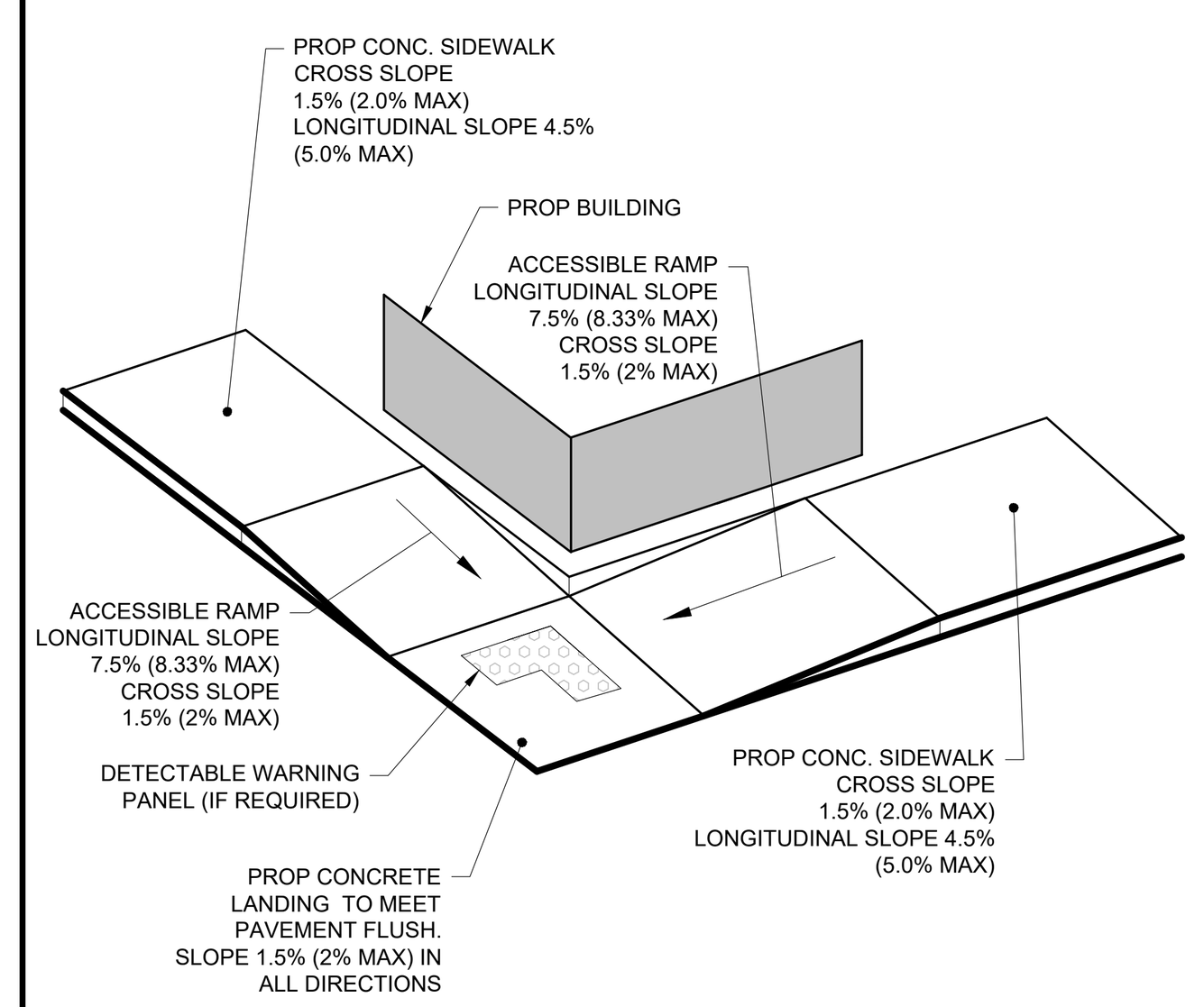
NOT TO SCALE (NE-S010201 - 10/2024)



NOTES:
1. ADA RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA STANDARDS.
2. CONTRACTOR TO CONSTRUCT DETECTABLE WARNINGS WHEN SIDEWALK IS WITHIN PUBLIC ROW AND WHERE SHOWN ON PLANS.
3. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BOTTOM DIAMETER OF NOMINAL 0.9 INCH, A TOP DIAMETER OF 0.4 INCH, A HEIGHT OF NOMINAL 0.2 INCH, A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCH, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT. (SEE DETAIL)
4. TOP OF CURB TO HAVE SAME SLOPE AS ADJACENT CURB RAMP.

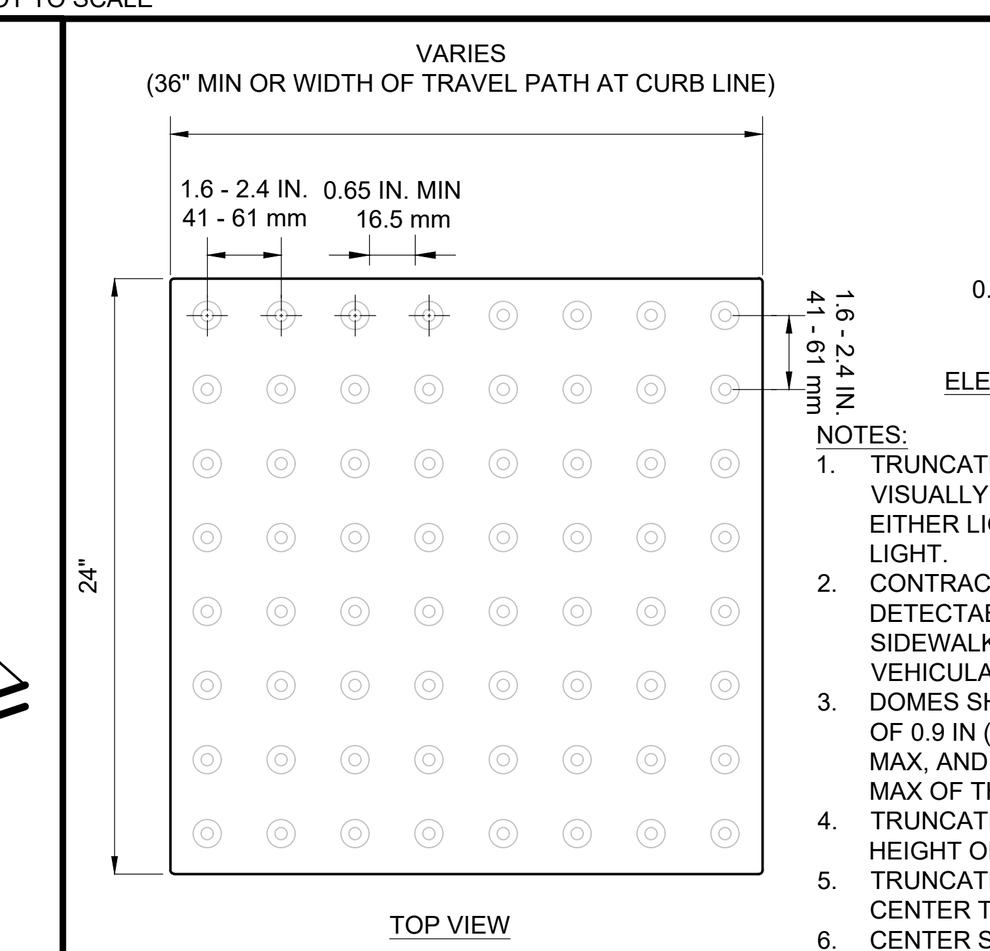
ACCESSIBLE RAMP TYPE C

NOT TO SCALE (NE-S030206 - 10/2024)



ACCESSIBLE RAMP TYPE D

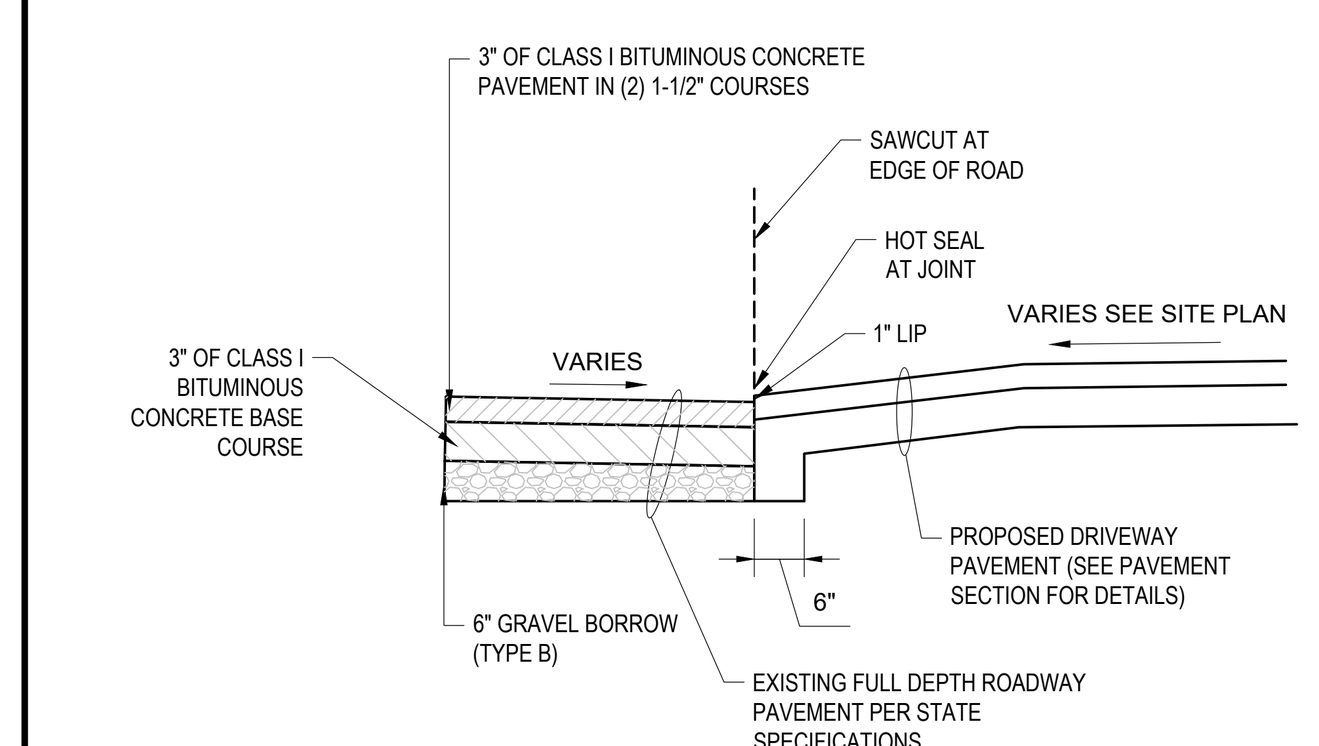
NOT TO SCALE (NE-S030207 - 09/2023)



NOTES:
1. TRUNCATED DOME SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT.
2. CONTRACTOR TO INSTALL DETECTABLE WARNINGS WHEN SIDEWALK INTERSECTS A HAZARDOUS VEHICULAR AREA.
3. DOMES SHALL HAVE A BASE DIAMETER OF 0.9 IN (23 mm) MIN TO 1.4 IN (36 mm) MAX, AND A TOP DIA. OF 50% TO 65% MAX OF THE BASE DIA.
4. TRUNCATED DOMES SHALL HAVE A HEIGHT OF 0.2" (5.1 mm).
5. TRUNCATED DOMES SHALL HAVE A CENTER TO
6. CENTER SPACING OF 1.6 IN (41 MM) MIN AND 2.4 (61 mm) MAX AND A BASE TO BASE SPACING OF 0.65 IN. (16.5 mm) MIN, MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID.

DETECTABLE WARNING STRIP

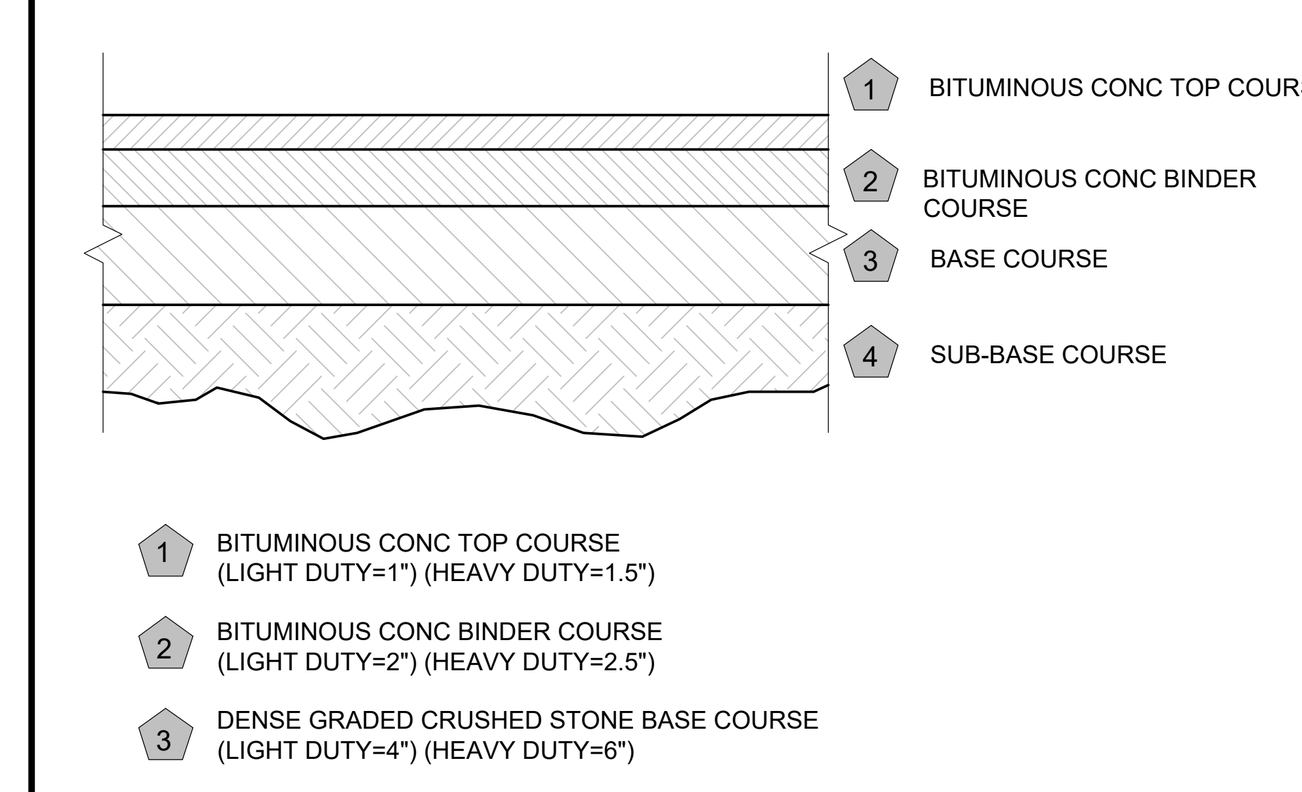
NOT TO SCALE (NE-S030501 - 09/2023)



NOTES.
1. TACK COAT RECOMMENDED IF TIMING BETWEEN BINDER AND TOP COURSE INSTALLATION IS GREATER THAN 48 HOURS.
2. SWEEP BINDER COURSE CLEAN OF ALL DEBRIS PRIOR TO PLACING OF TACK COAT AND ASPHALT.
3. REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS AND OTHER REQUIREMENTS, OTHERWISE PAVEMENT BASE AND SUBBASE COURSE SHALL CONFORM TO ALL STATE HIGHWAY DIVISION SPECIFICATIONS.

DRIVEWAY CONSTRUCTION

NOT TO SCALE (NE-S040101 - 10/2024)

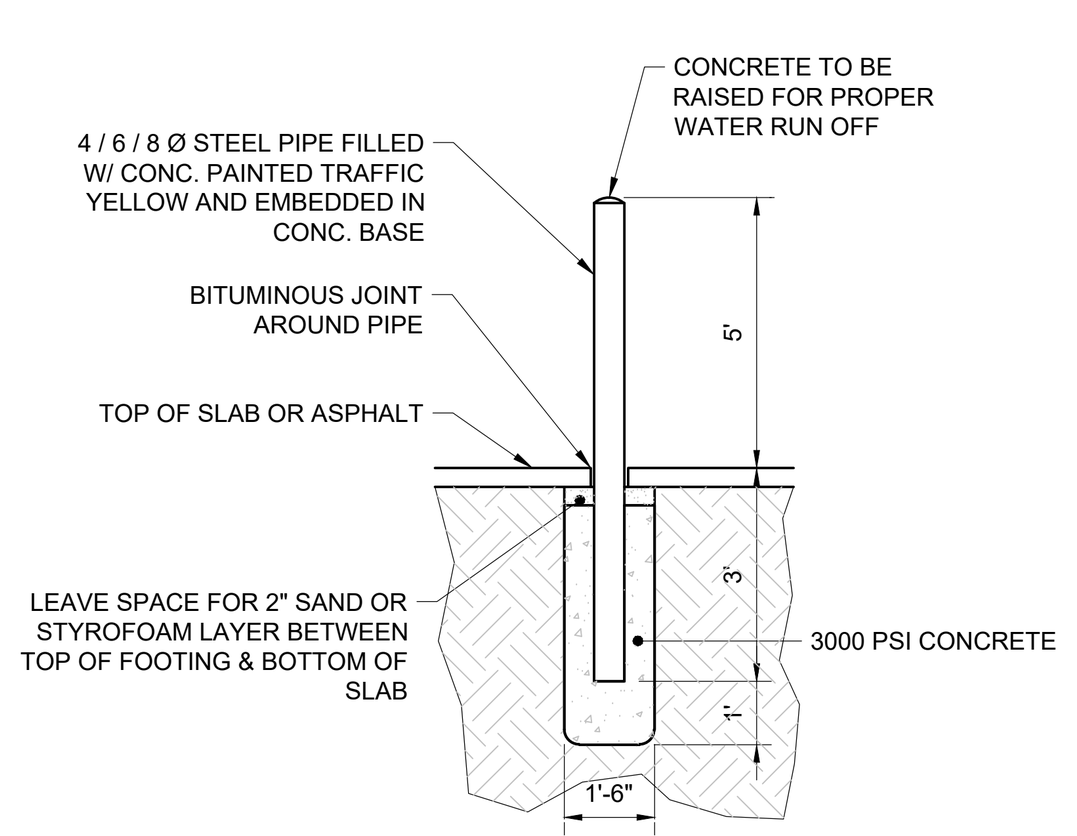


1. BITUMINOUS CONC TOP COURSE (LIGHT DUTY=1") (HEAVY DUTY=1.5")
2. BITUMINOUS CONC BINDER COURSE (LIGHT DUTY=2") (HEAVY DUTY=2.5")
3. DENSE GRADED CRUSHED STONE BASE COURSE (LIGHT DUTY=4") (HEAVY DUTY=6")
4. GRAVEL BORROW SUB-BASE COURSE (LIGHT DUTY=8") (HEAVY DUTY=8")

NOTES:
1. PAVEMENT BASE AND SUBBASE COURSES TO CONFORM TO STATE DEPARTMENT OF TRANSPORTATION
2. GC TO REFER TO GEOTECHNICAL REPORT FOR PAVEMENT SPECIFICATIONS.

PAVEMENT SECTION

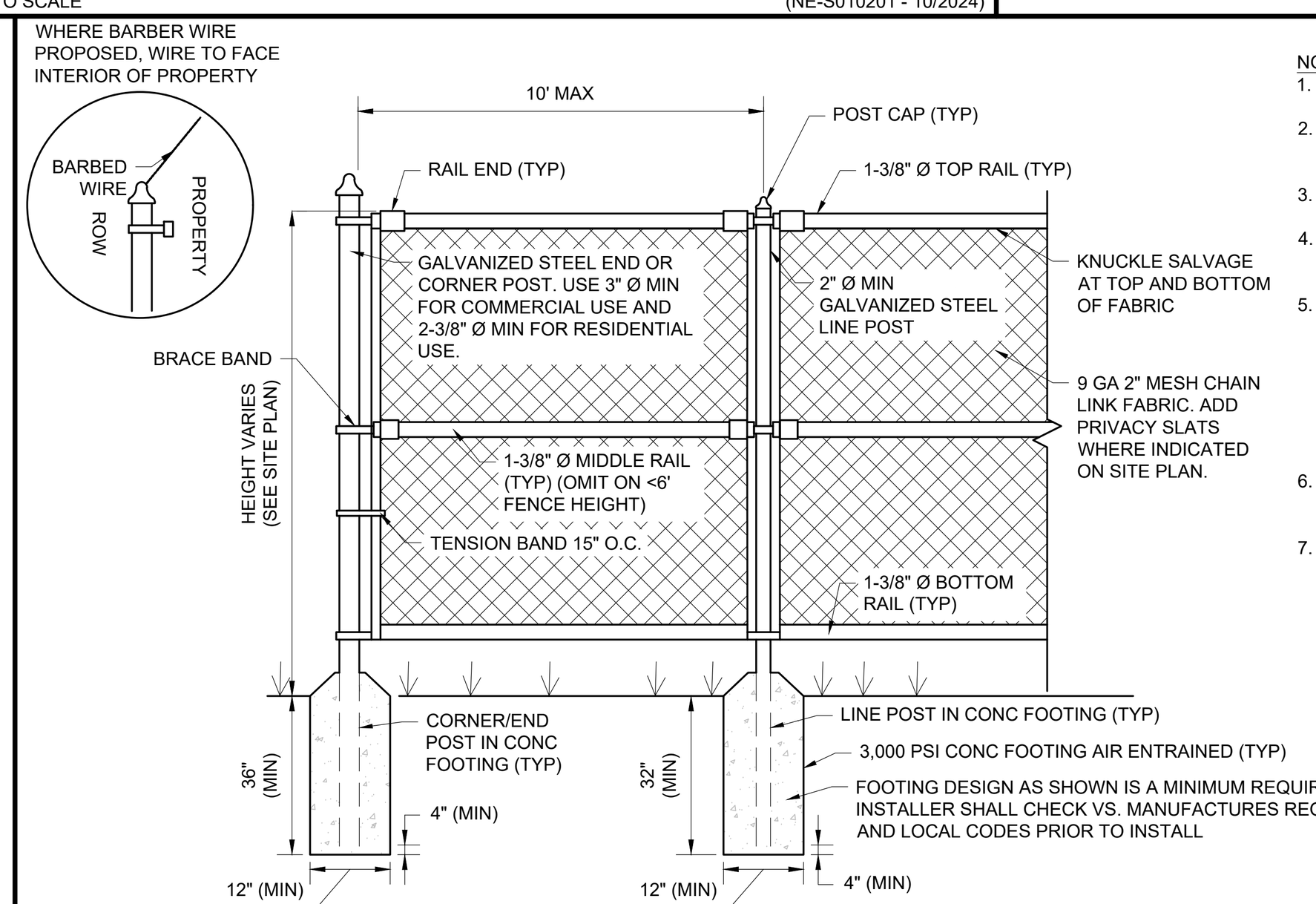
NOT TO SCALE (NE-S010101 - 10/2024)



NOTES:
1. BOLLARDS REQUIRED AT BUILDING CORNERS, FIRE HYDRANTS, WATER METER, GAS METER, SPRINKLER RISER, SHOWN TRANSFORMER & ALL UTILITIES AT LOCATIONS SHOWN ON THESE DRAWINGS INTERIOR & EXTERIOR.

BOLLARD

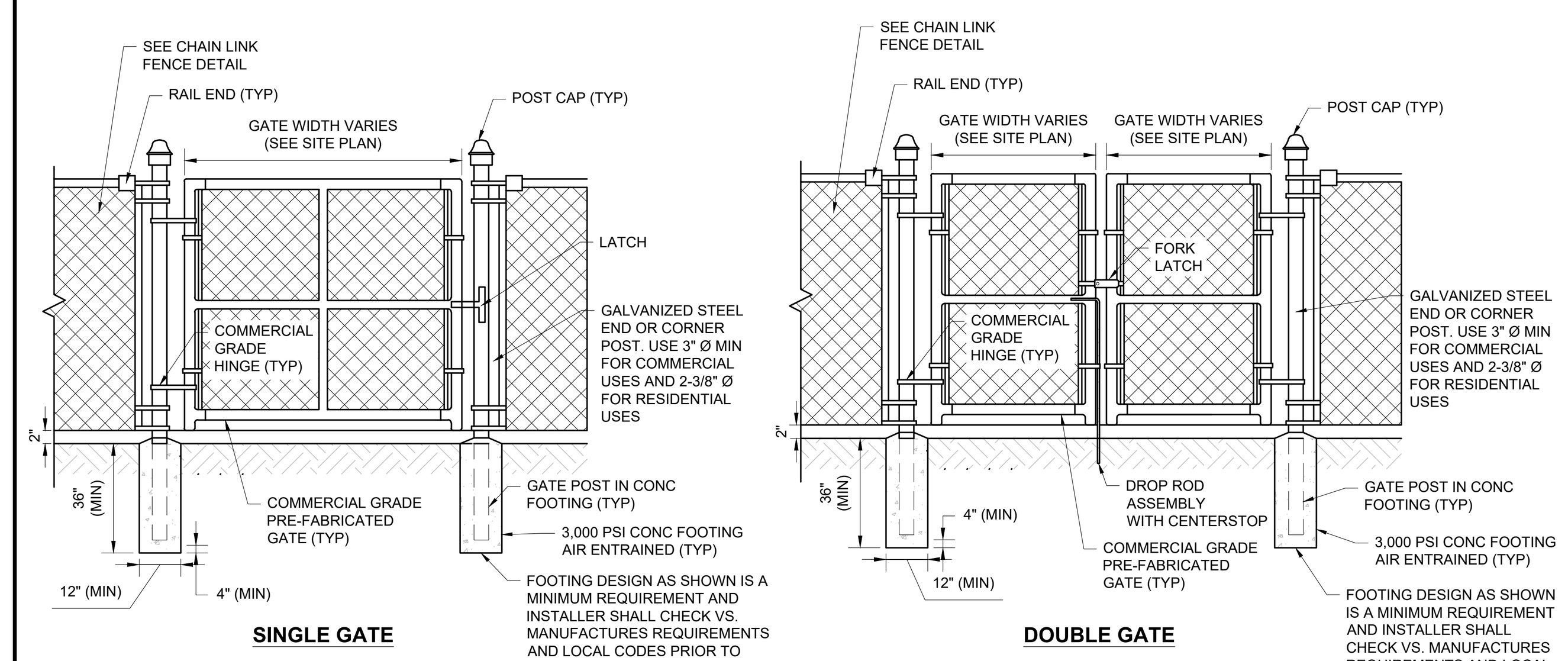
NOT TO SCALE (NE-S070101 - 09/2023)



NOTES:
1. WHERE SITE PLAN INDICATES VINYL SLATS, COLOR TO BE COORD WITH DEVELOPER PRIOR TO ORDERING OF MATERIALS.
2. WHERE SITE PLAN INDICATES VINYL COATED FENCE, ALL POSTS AND HARDWARE TO BE BLACK AND 2" MESH TO BE BLACK VINYL COATED
3. WHERE SITE PLAN INDICATES BARBED WIRE FENCE, SEE INSET VIEW FOR WIRE FACING INTERIOR PROPERTY
4. WHERE FENCE WILL BE FOUNDED ON COMPETENT ROCK, CORE DRILL ROCK TO POST DIAMETER PLUS 2" MINIMUM 24" IN DEPTH, INSTALL FENCE POST AND BACKFILL WITH NON-SHRINK GROUT.
5. ALL FENCE FABRIC, POSTS, MATERIALS, COATINGS, GATES AND HARDWARE SHALL BE CONFIRMED BY THE PROJECT ARCHITECT AND OWNER PRIOR TO ORDERING UNLESS OTHERWISE NOTED ON THE DRAWINGS. FENCE POST DIAMETERS SHOWN ARE PLACEHOLDERS FOR BID ONLY AND NOT PART OF THE CIVIL ENGINEER SCOPE. FINAL POST SIZE/SCHEDULE SHALL BE VERIFIED BY CONTRACTOR BASED ON SITE CONDITIONS AS PART OF THE BID PROCESS.
6. WHEN FENCE IS TO BE USED AS A GUARD IT SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE STATE AND FEDERAL CODES
7. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL

CHAIN LINK FENCE

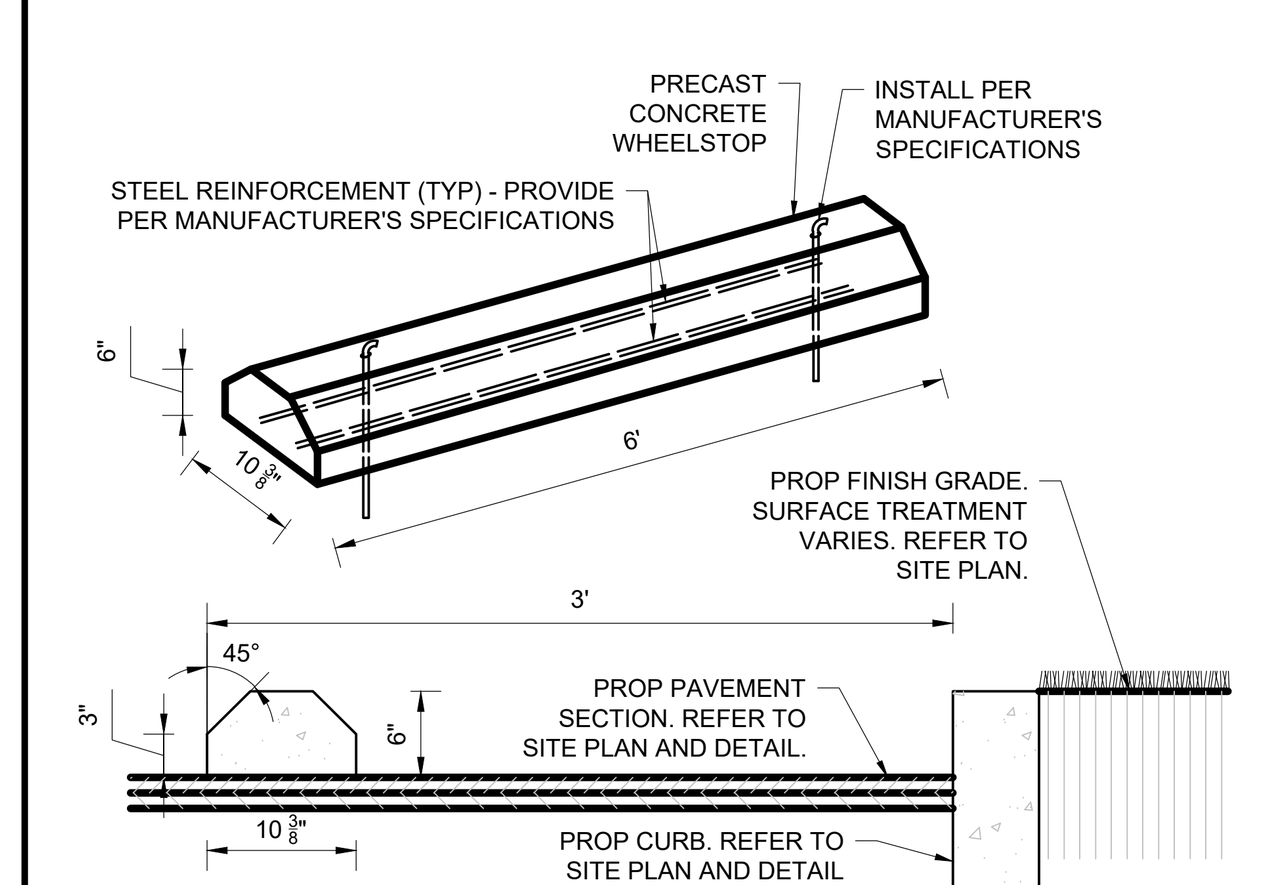
NOT TO SCALE (NE-S080204 - 10/2024)



NOTE:
SEE CHAIN LINK FENCE DETAIL FOR ADDITIONAL GUIDANCE AND NOTES.

CHAIN LINK FENCE GATES

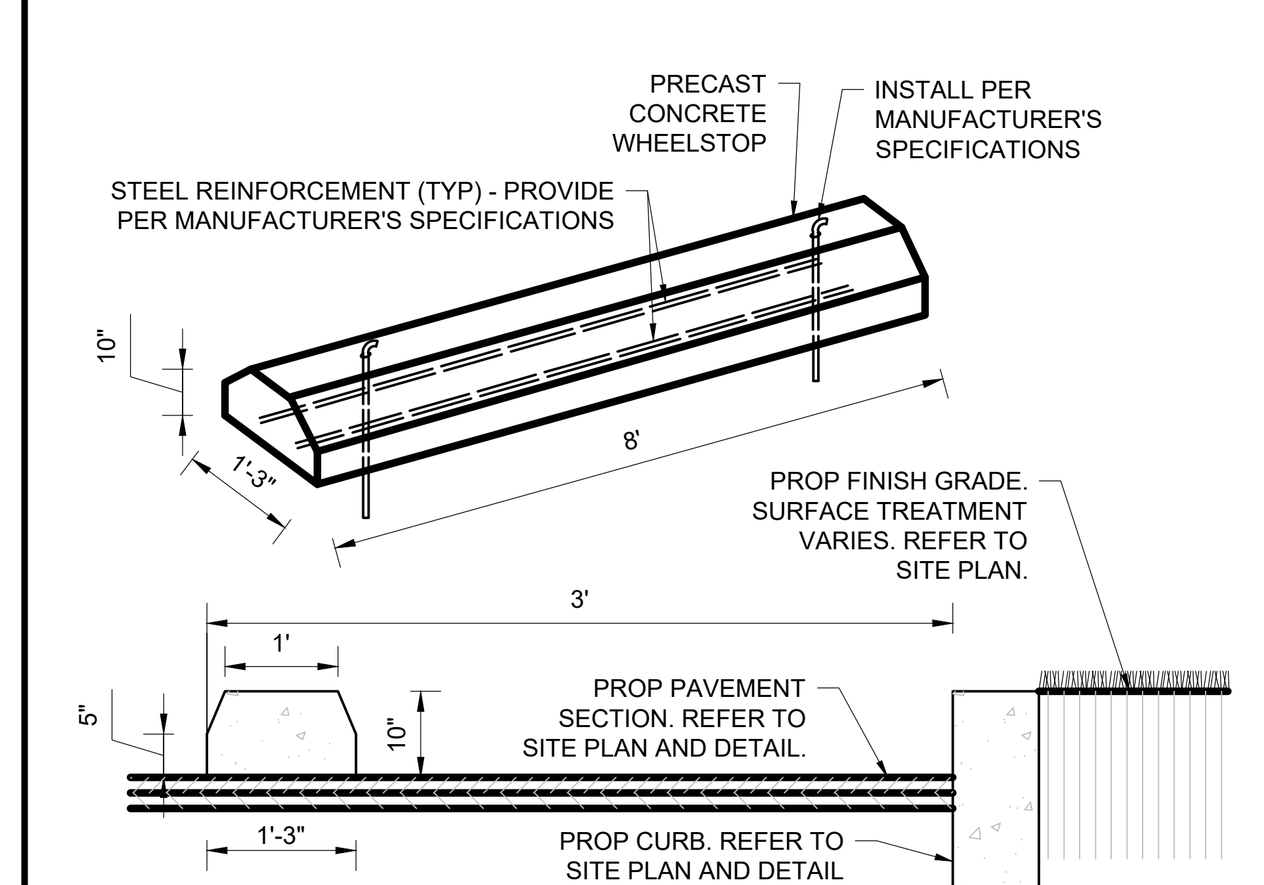
NOT TO SCALE (NE-S080203 - 02/2025)



NOTES:
1. WHEELSTOP TO BE CENTERED ON PARKING STALL.
2. INSTALLED WHEELSTOPS SHALL BE FREE OF DAMAGE INCLUDING CHIPPING.
3. MINIMUM 3,000 PSI CONCRETE.
4. CONTRACTOR SHALL PROVIDE WHEELSTOP AS SHOWN OR APPROVED EQUIVALENT.

CONCRETE AUTO WHEELSTOP

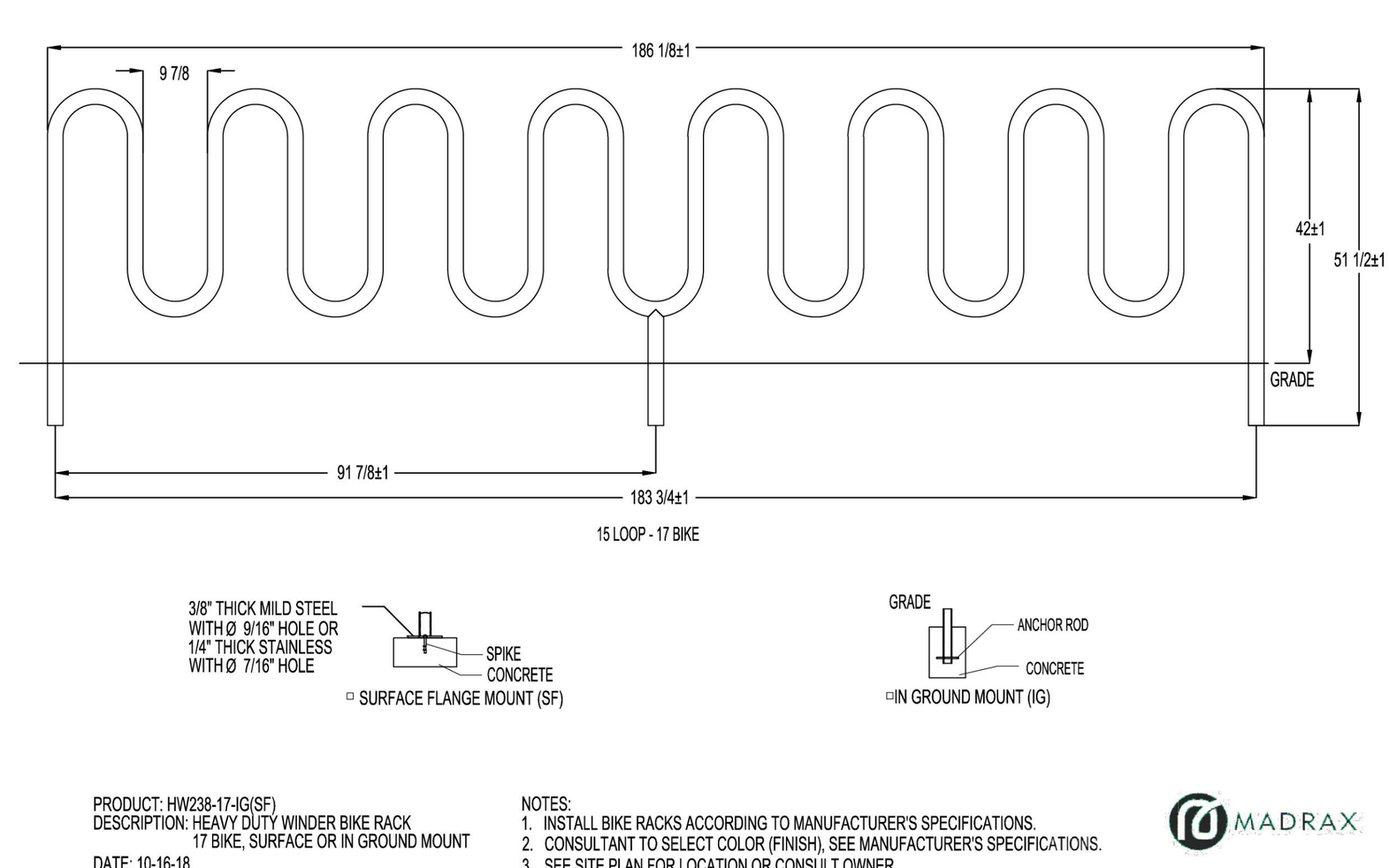
NOT TO SCALE (NE-S029902 - 12/2024)



NOTES:
1. WHEELSTOP TO BE CENTERED ON PARKING STALL.
2. INSTALLED WHEELSTOPS SHALL BE FREE OF DAMAGE INCLUDING CHIPPING.
3. MINIMUM 3,000 PSI CONCRETE.
4. CONTRACTOR SHALL PROVIDE WHEELSTOP AS SHOWN OR APPROVED EQUIVALENT.
5. CONCRETE WHEELSTOPS TO BE PAINTED SAFETY YELLOW.

CONCRETE TRUCK WHEELSTOP

NOT TO SCALE (NE-S029902 - 12/2024)

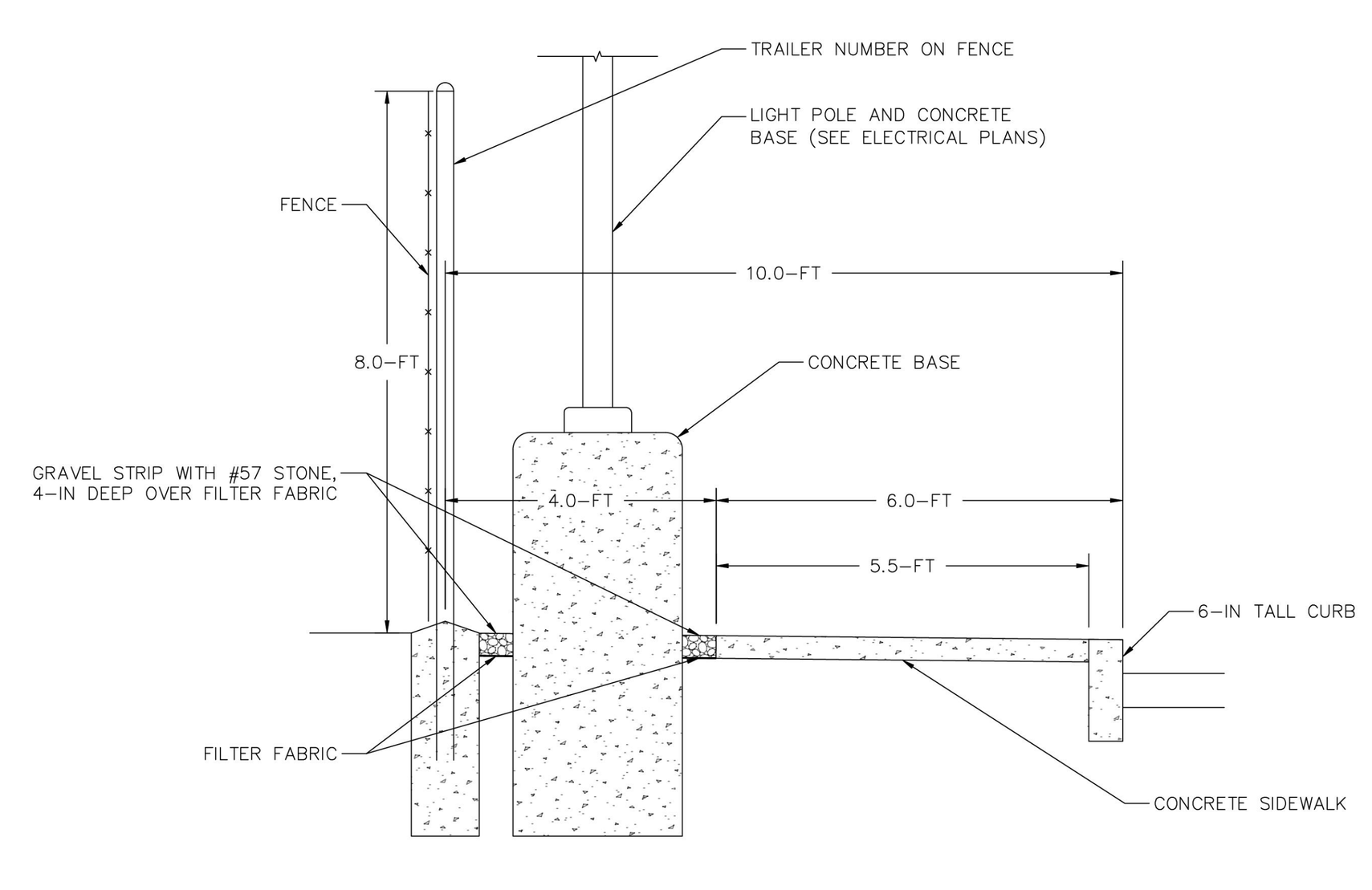


PRODUCT: HW238-17-IG(SF)
DESCRIPTION: HEAVY DUTY WINDER BIKE RACK 17 BIKE, SURFACE OR IN GROUND MOUNT
DATE: 10-16-18
ENG: SMC

NOTES:
1. INSTALL BIKE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. CONSULTANT TO SELECT COLOR (FINISH), SEE MANUFACTURER'S SPECIFICATIONS.
3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.
4. BIKE RACKS SHALL BE POWDER COATED BLACK.

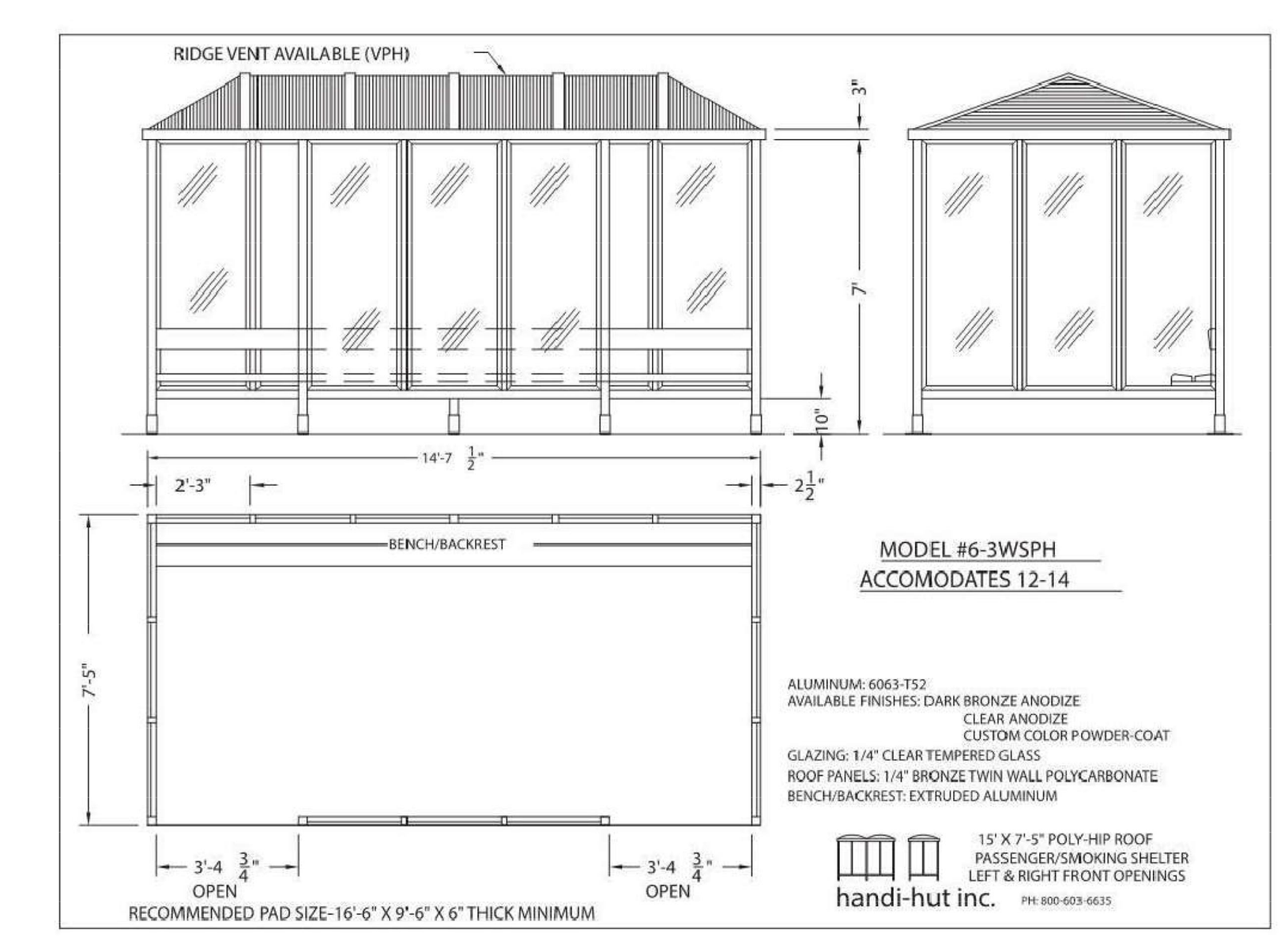
BIKE RACK (MODEL HW238-17-IG)

NOT TO SCALE



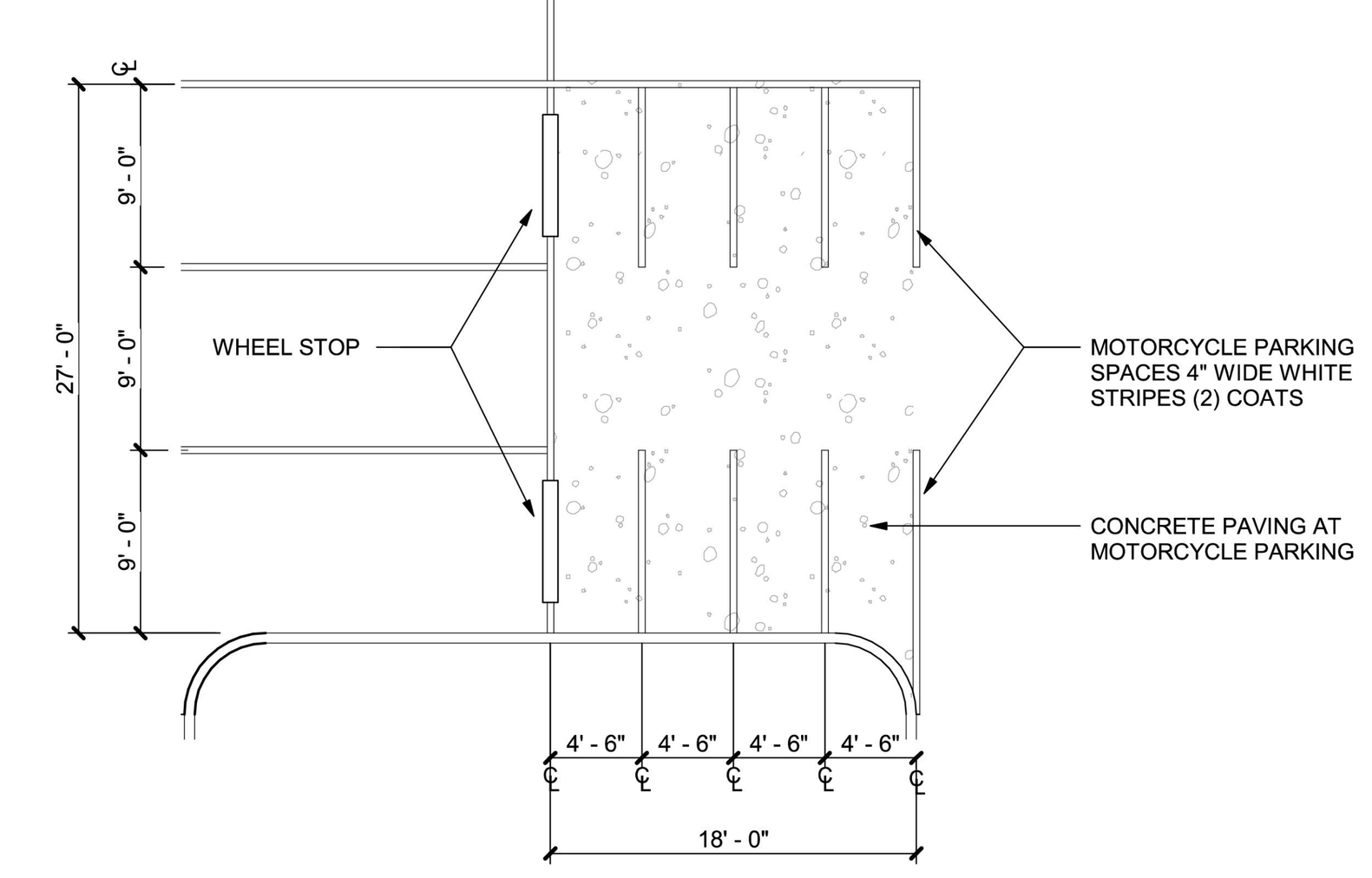
FENCE AT TRAILER PARKING

NOT TO SCALE



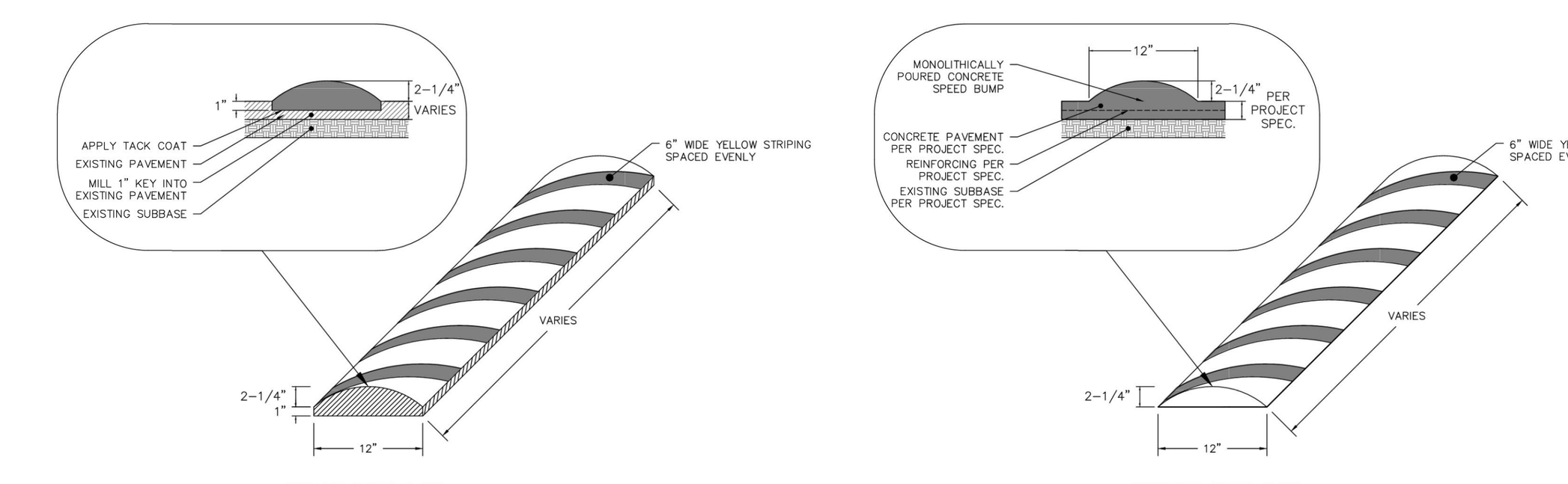
PICK-UP/DROP-OFF SHELTER

NOT TO SCALE



MOTORCYCLE PARKING

NOT TO SCALE



SPEED BUMP

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JS

BOHLER
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PERMITTING SERVICES
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PROJECT No.: NYB240176.00-0A - C-102 NOTE
DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVL-CNDS

PROJECT:
SITE DEVELOPMENT PLANS
FOR
BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY
ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
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SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
C-901

ORG. DATE - 04/21/2025

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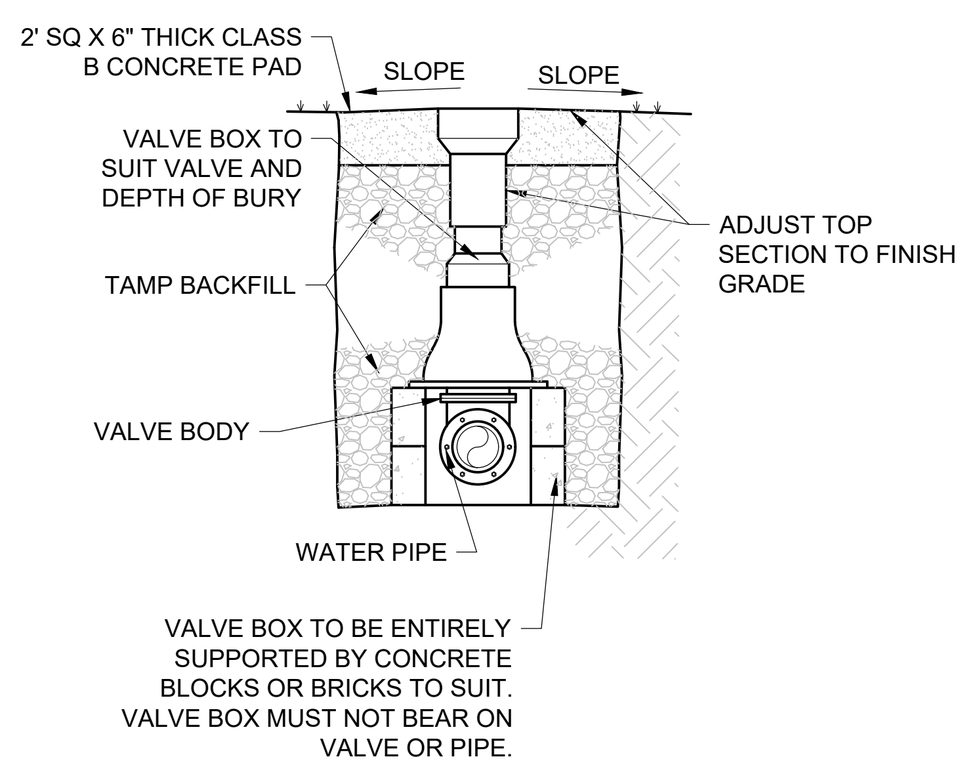
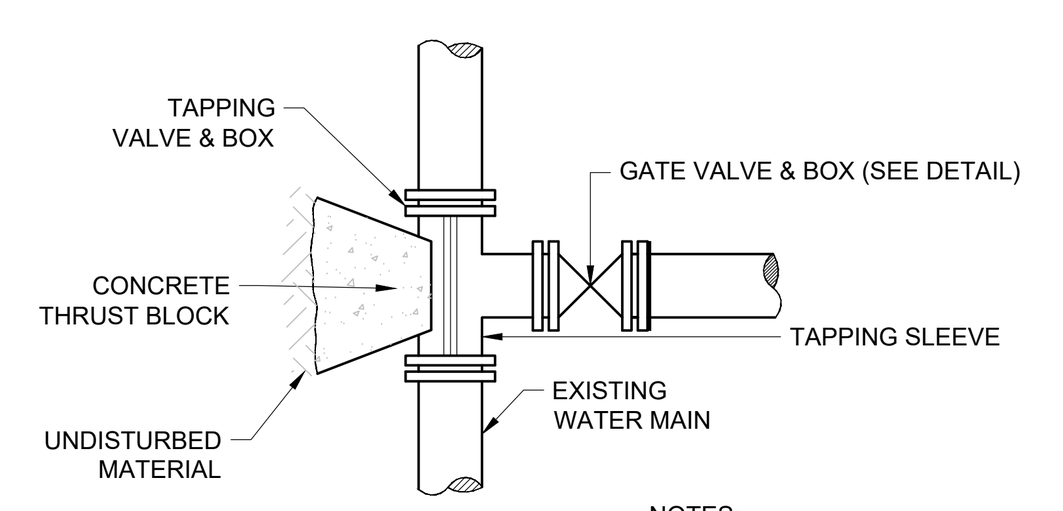


GATE VALVE

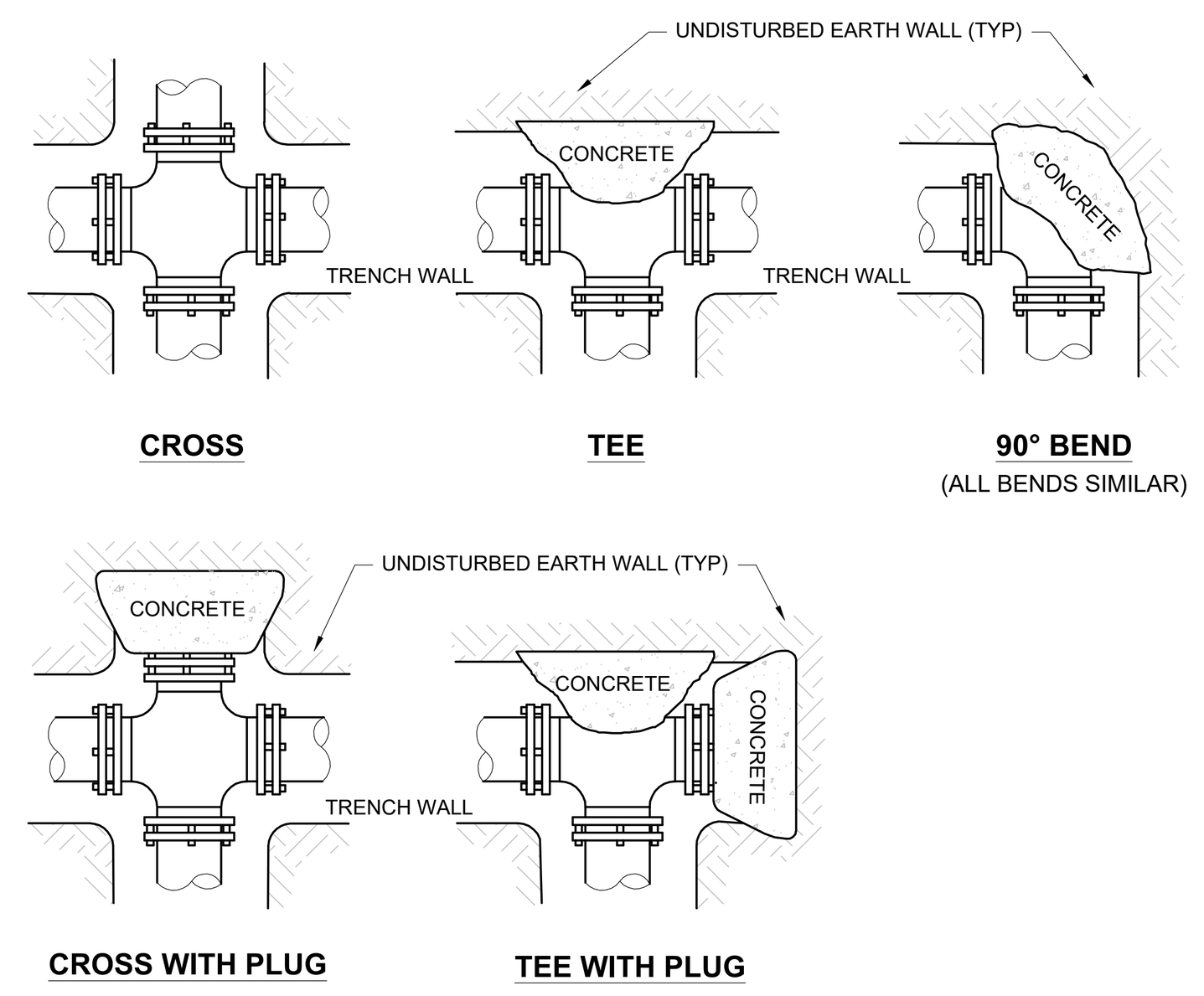
NOT TO SCALE (NE-U030201 - 09/2023)



NOTES:
1. DETAIL FOR GENERAL PURPOSES. GC TO COORDINATE CONNECTION WITH UTILITY COMPANY.

TAPPING SLEEVE AND GATE VALVE

NOT TO SCALE (NE-U030401 - 11/2024)

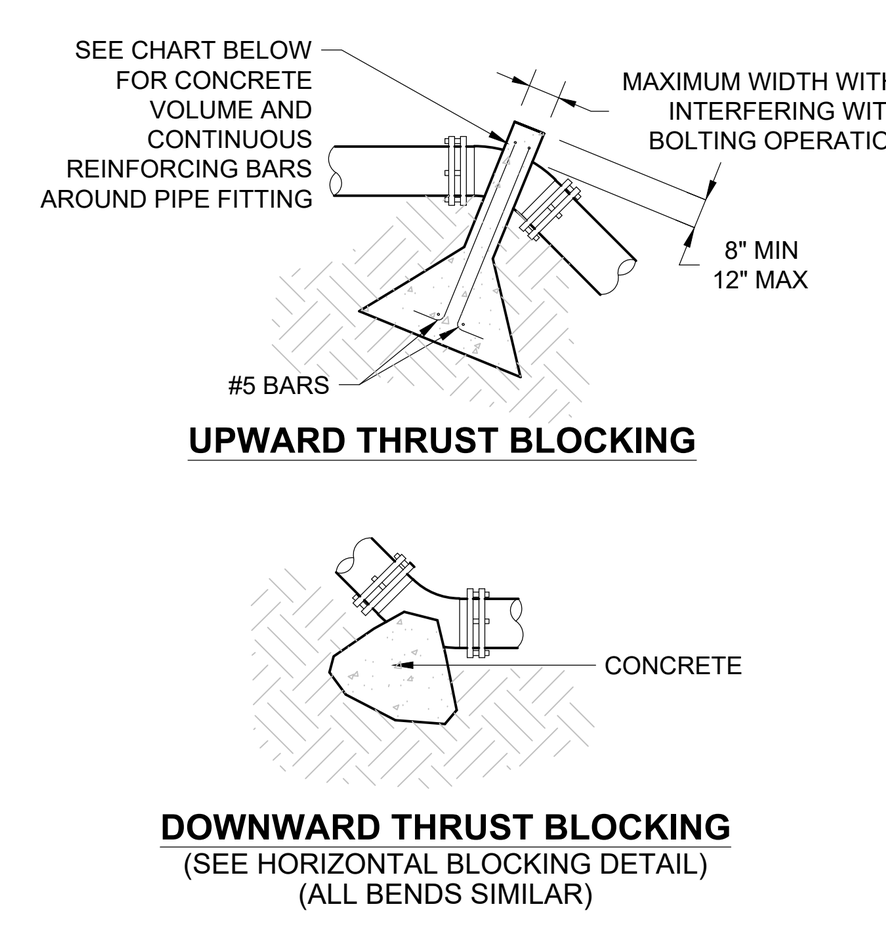


HORIZONTAL THRUST BLOCKING					
(BLOCKING HEIGHT GREATER THAN PIPE OD) (BLOCKING WIDTH BETWEEN 1 & 2 TIMES HEIGHT)					
REQUIRED SF OF UNDISTURBED EARTH WALL FOR REACTION BACKING					
TYPE OF FITTINGS					
PIPE SIZE	TEE & PLUG	BENDS			
		90°	45°	$22\frac{1}{2}$°	$11\frac{1}{4}$°
3"	1.0	1.0	1.0	1.0	1.0
4"	1.0	1.0	1.0	1.0	1.0
6"	1.5	2.0	1.0	1.0	1.0
8"	2.5	3.5	1.8	1.0	1.0
10"	4.0	5.5	2.8	1.5	1.0
12"	6.0	8.0	4.0	2.0	1.5

NOTES:
1. DO NOT COVER BELLS OR FLANGES WITH CONCRETE
2. WRAP ALL FITTINGS WITH VISQUEEN.
3. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
4. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
5. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL SHALL BE BACKED.
6. REACTION BACKING TABLE IS BASED ON 100 PSI AND SOIL BEARING PRESSURE OF 2,000 LBS/SF ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEERS.
7. ALL CONCRETE SHALL BE 2500 PSI
8. 18" AND LARGER REQUIRES SPECIFIC ANTI-THRUST DESIGN.

HORIZONTAL THRUST BLOCKING

NOT TO SCALE (NE-U030501 - 11/2024)

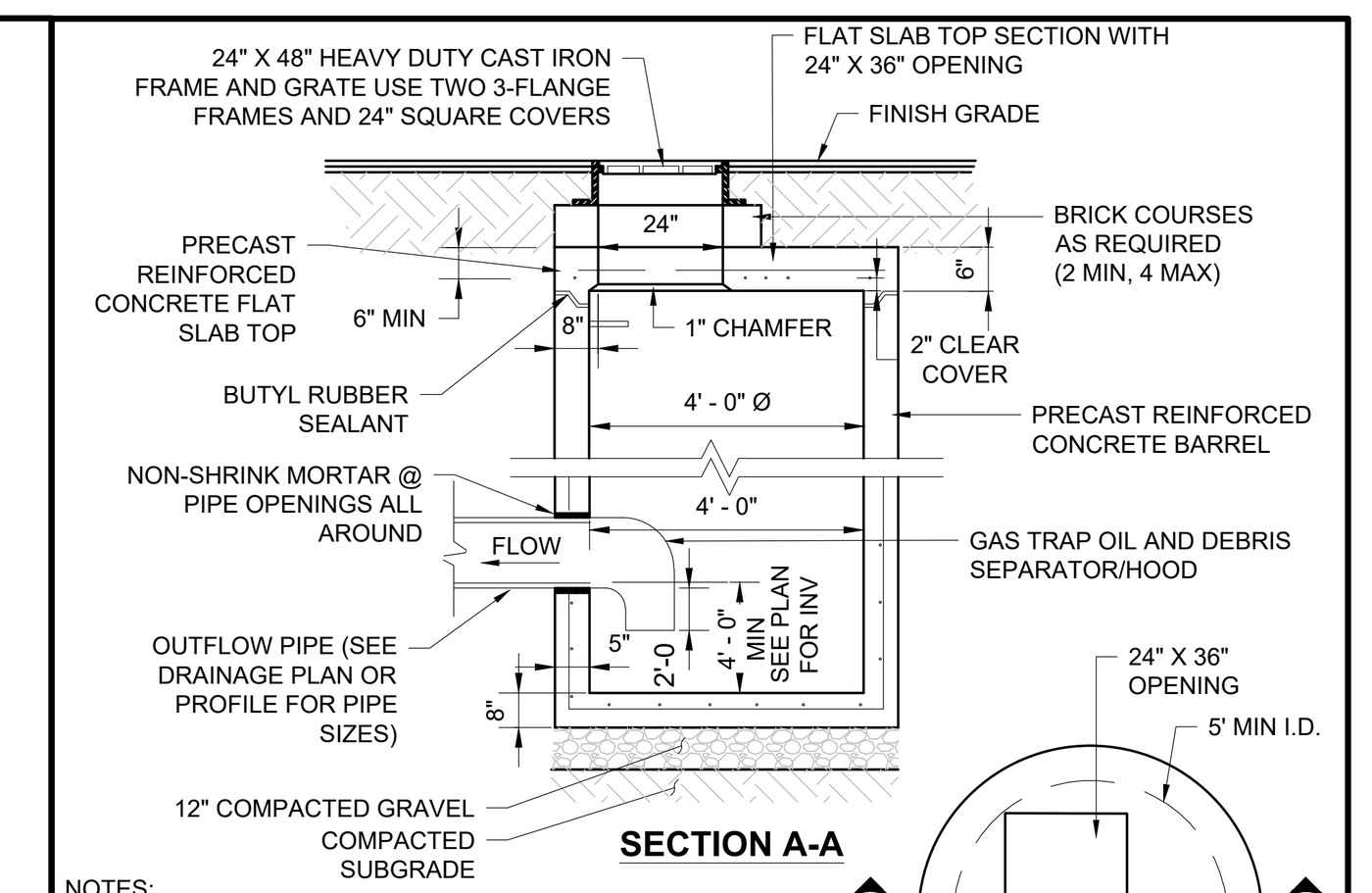


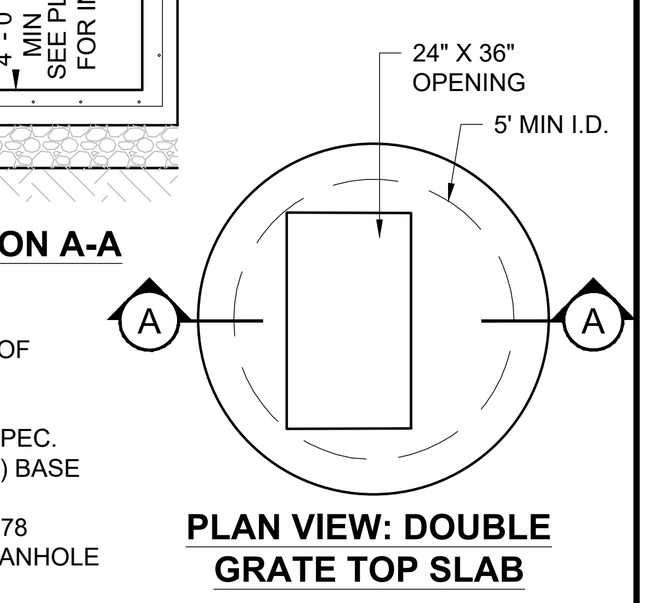
UPWARD THRUST BLOCKING												
(REQUIRED REINFORCING BARS & CUBIC YARDS OF P.C. CONCRETE												
PIPE SIZE	90° BEND			45° BEND			$22\frac{1}{2}$° BEND			$11\frac{1}{4}$° BEND		
	CONC CY	REINF QTY	REINF SIZE	CONC CY	REINF QTY	REINF SIZE	CONC CY	REINF QTY	REINF SIZE	CONC CY	REINF QTY	REINF SIZE
6"	1.5	3	5	1.5	3	5	1.25	2	5	1.25	2	5
8"	2	3	5	2	3	5	1.5	2	5	1.5	2	5
10"	2.5	3	5	2.5	3	5	2	3	5	2	3	5
12"	3	3	5	3	3	5	2.5	3	5	2.5	3	5

NOTES:
1. DO NOT COVER BELLS OR FLANGES WITH CONCRETE
2. WRAP ALL FITTINGS WITH VISQUEEN.
3. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
4. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
5. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL SHALL BE BACKED.
6. REACTION BACKING TABLE IS BASED ON 100 PSI AND SOIL BEARING PRESSURE OF 2,000 LBS/SF ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEERS.
7. ALL CONCRETE SHALL BE 2500 PSI
8. 18" AND LARGER REQUIRES SPECIFIC ANTI-THRUST DESIGN.

VERTICAL THRUST BLOCKING

NOT TO SCALE (NE-U030502 - 11/2024)

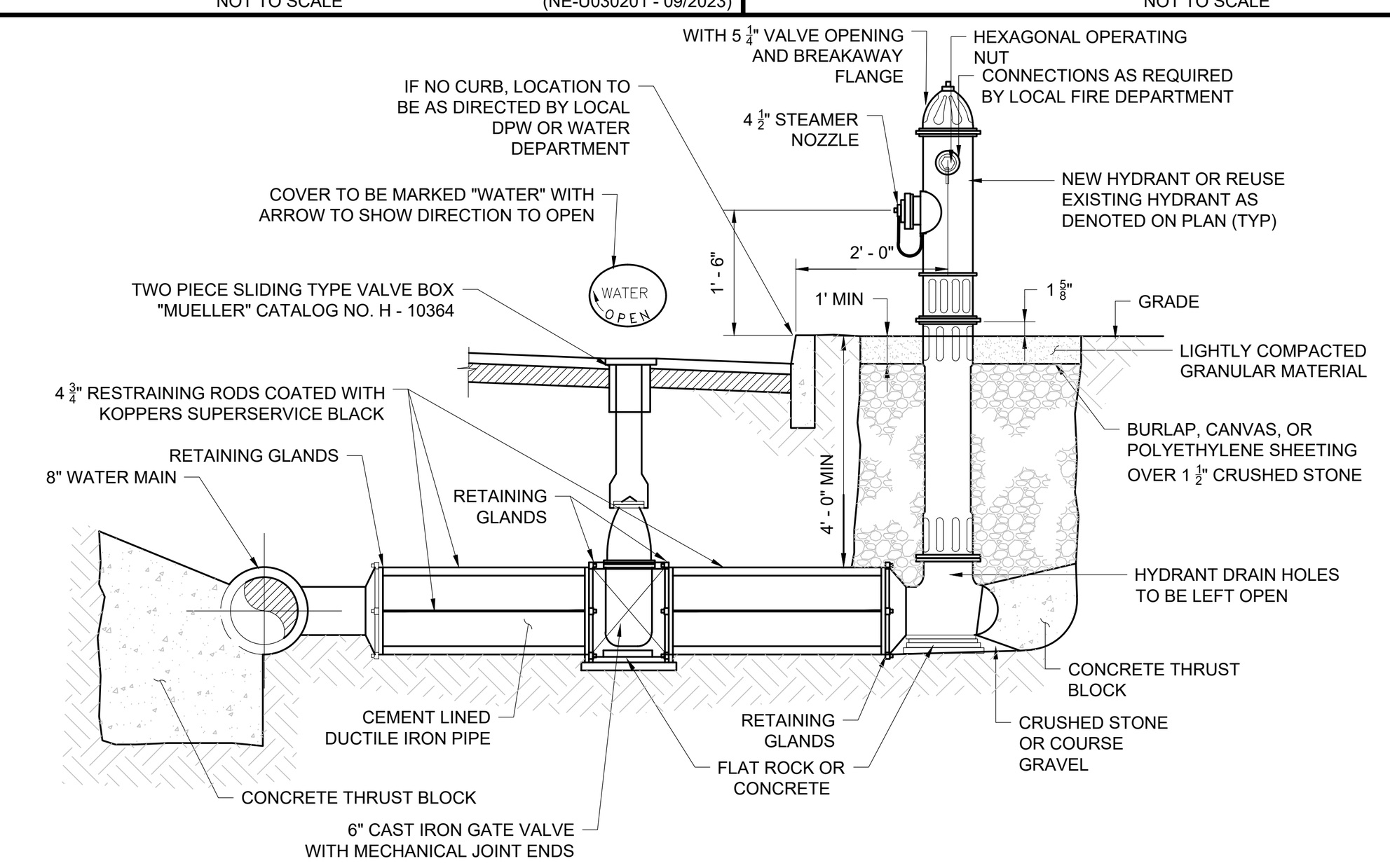




NOTES:
1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
2. CONCRETE SHALL BE 4,000 PSI AFTER 28 DAYS
3. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.12 SQ IN/LINEAL FT AND 0.12 SQ IN (BOTH WAYS) BASE BOTTOM.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS"

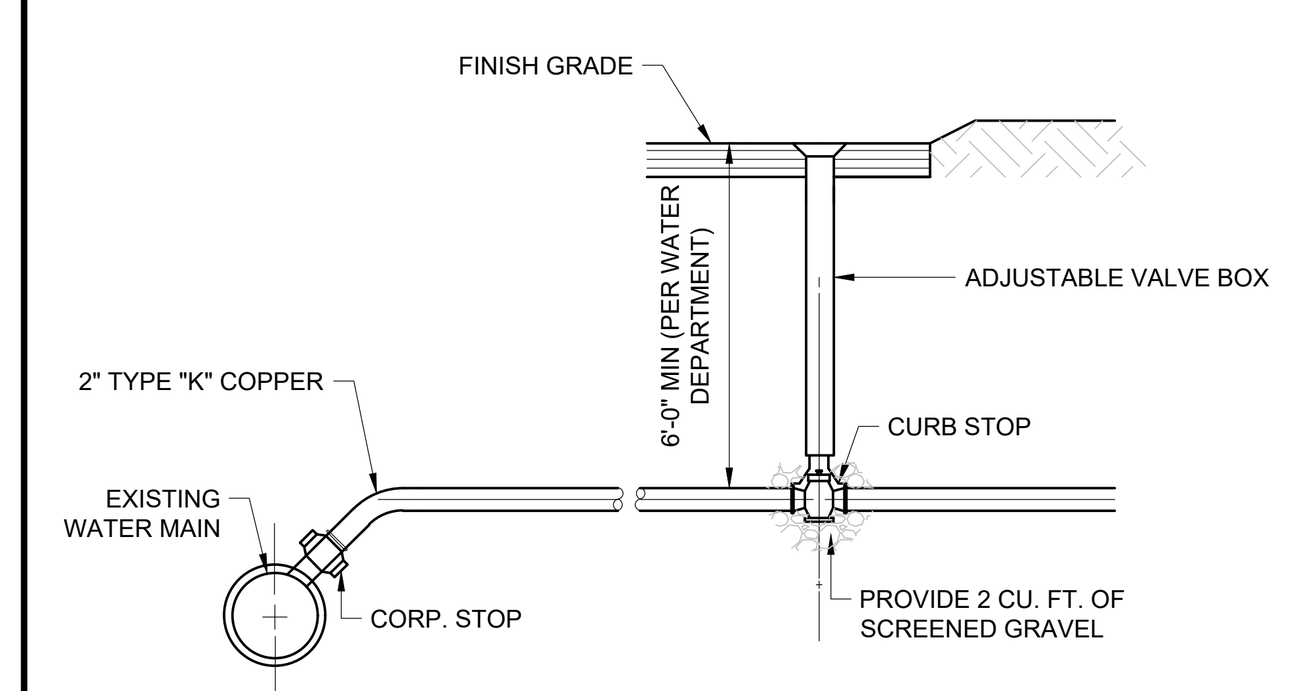
PRECAST CONCRETE CATCH BASIN WITH DOUBLE GRATE

NOT TO SCALE (NE-U010202 - 11/2024)



HYDRANT AND VALVE INSTALLATION

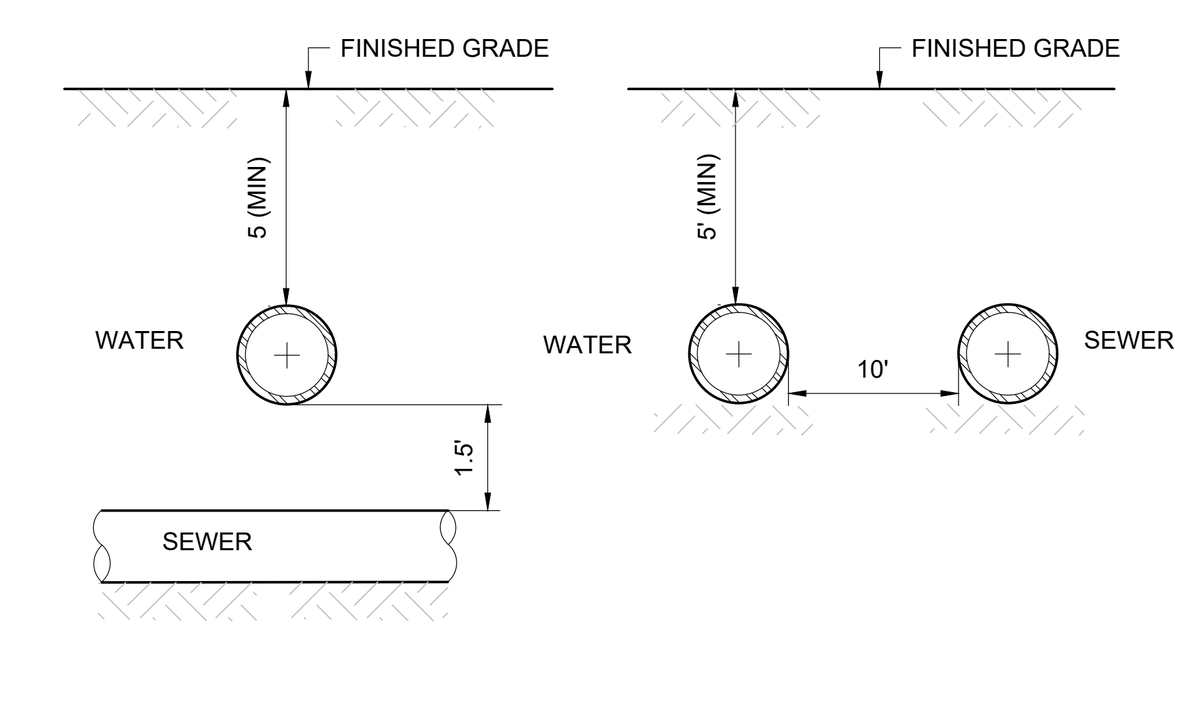
NOT TO SCALE (NE-U030101 - 11/2024)



NOTES:
1. DETAIL FOR GENERAL PURPOSES. GC TO COORDINATE CONNECTION WITH UTILITY PROVIDER.

TYPE K COPPER WATER SERVICE CONNECTION

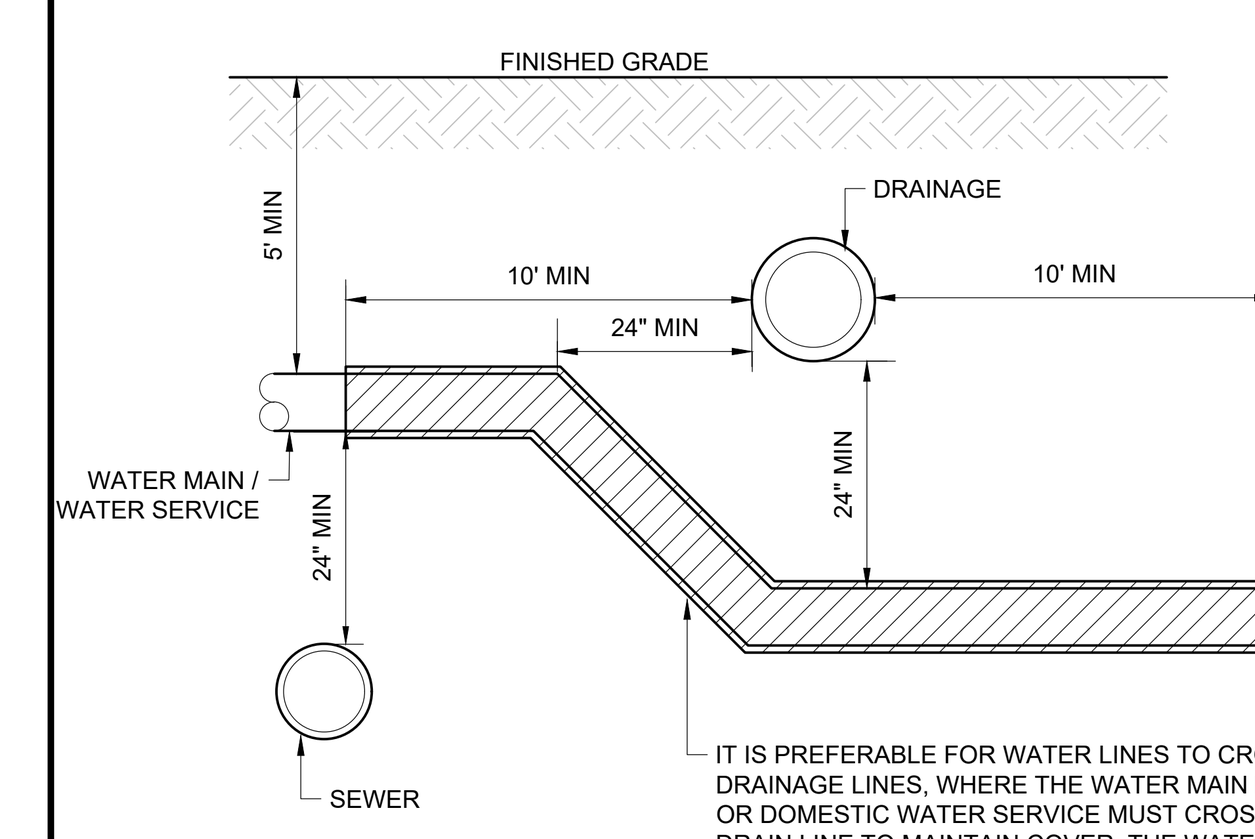
NOT TO SCALE (NE-U030402 - 09/2023)

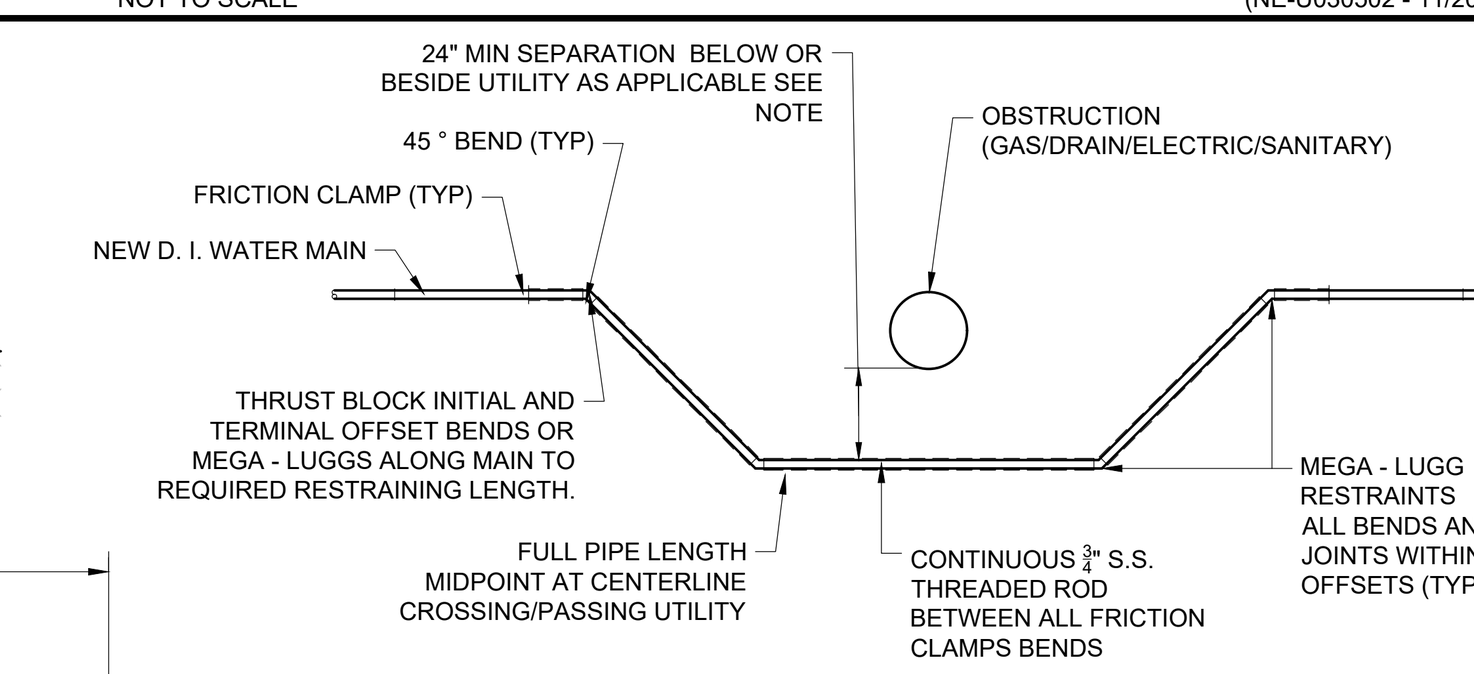


NOTES:
1. 10' HORIZONTAL SEPARATION AND 1.5' VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER AND SEWER AS DEPICTED IN THIS DETAIL OR SEWER SHALL BE ENCASED IN CONCRETE (SEE CONCRETE ENCASEMENT DETAIL) IN SECTIONS WHERE SEPARATIONS SHALL NOT BE ACHIEVED.

WATER AND SEWER UTILITY CROSSING

NOT TO SCALE (NE-U050101 - 09/2023)

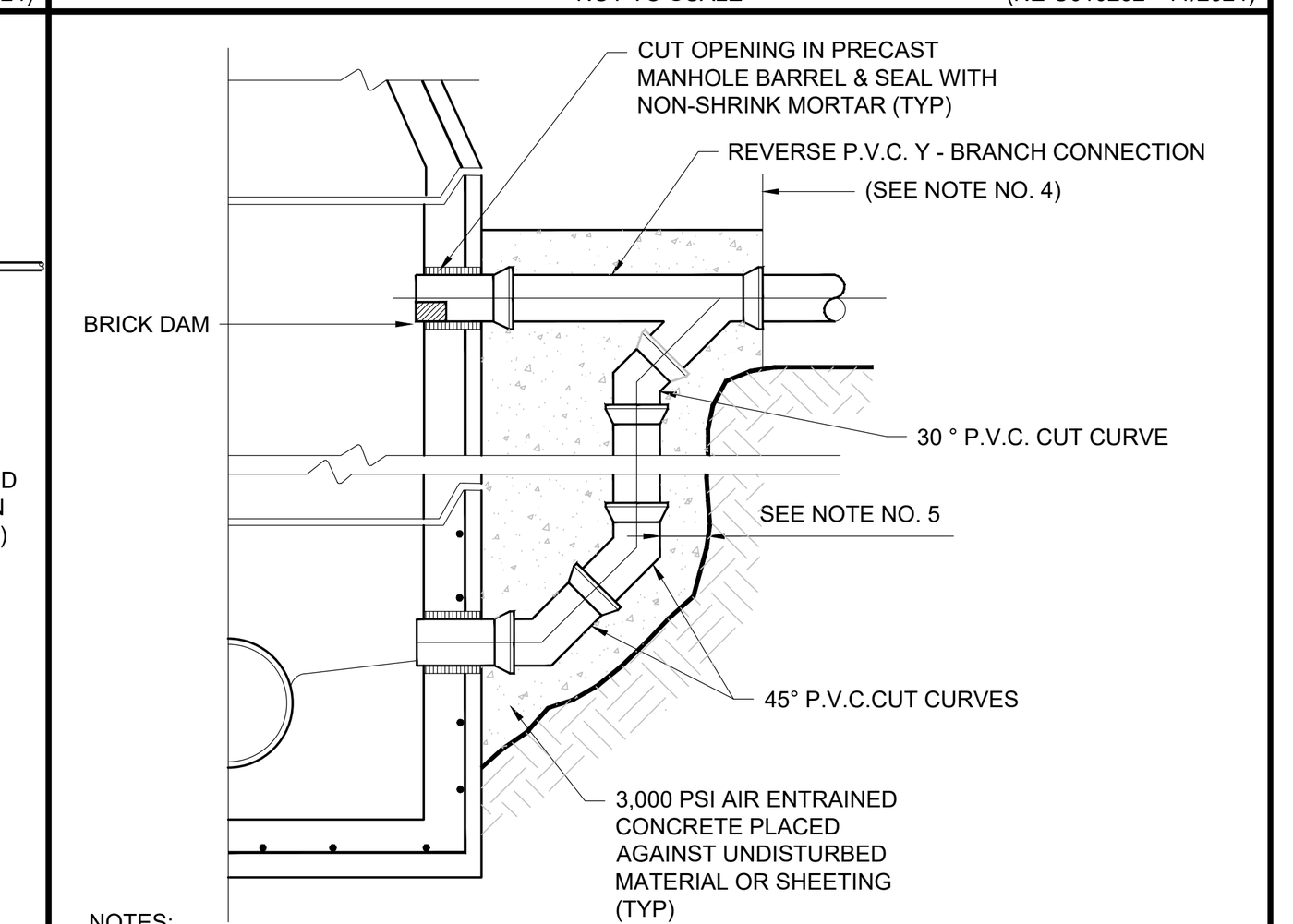




NOTES:
1. INSTALL OFFSET TO MAINTAIN 5'-0" MIN COVER OVER NEW MAIN

WATER SERVICE OR MAIN AT UTILITY CROSSING

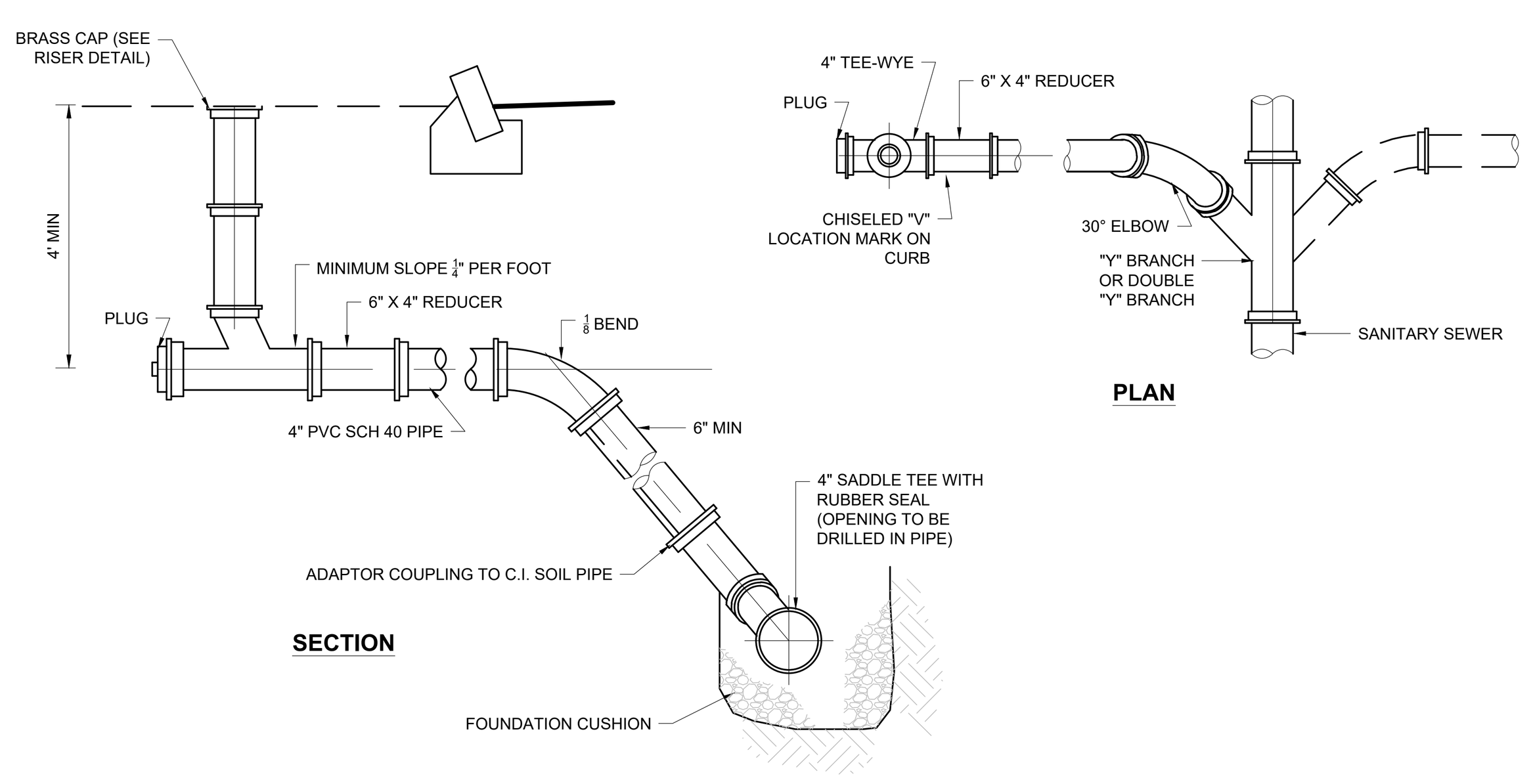
NOT TO SCALE (NE-U050102 - 09/2023)



NOTES:
1. DIMENSIONS & CONSTRUCTION OF DROP MANHOLE TO BE SIMILAR TO TYPICAL PRECAST CONCRETE MANHOLE, (SHEET #), EXCEPT AS SHOWN.
2. DROP PIPE TO BE SAME DIAMETER AS SEWER DISCHARGING INTO MANHOLE.
3. DEEPER DROP MAY BE CONSTRUCTED WITH STRAIGHT PIPE BETWEEN Y - BRANCH AND ELBOW.
4. EXTEND CONCRETE ENCASEMENT TO FIRST JOINT BEYOND EXCAVATION FOR DROP CONNECTION.
5. ALL DROP PIPING TO HAVE A MIN 6" CONCRETE ENCASEMENT, AS SHOWN.

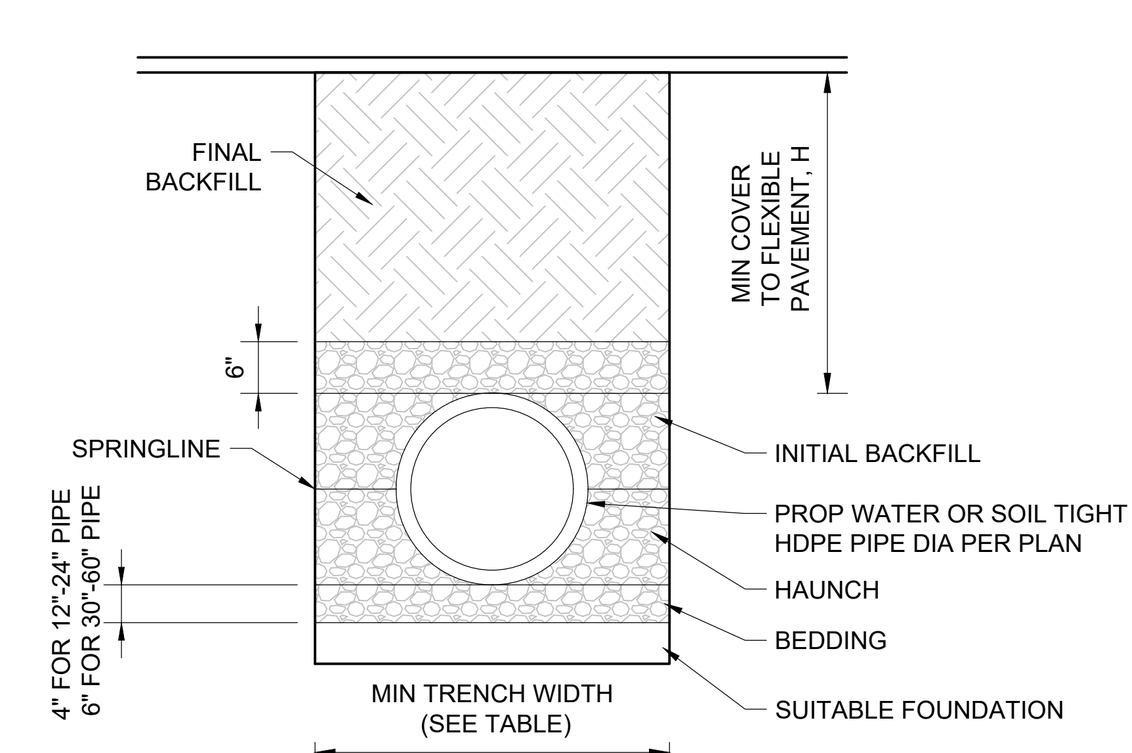
EXTERNAL SANITARY DROP INLET

NOT TO SCALE (NE-U020103 - 09/2023)



SANITARY MAIN CONNECTION WITH RISER

NOT TO SCALE (NE-U020402 - 09/2023)

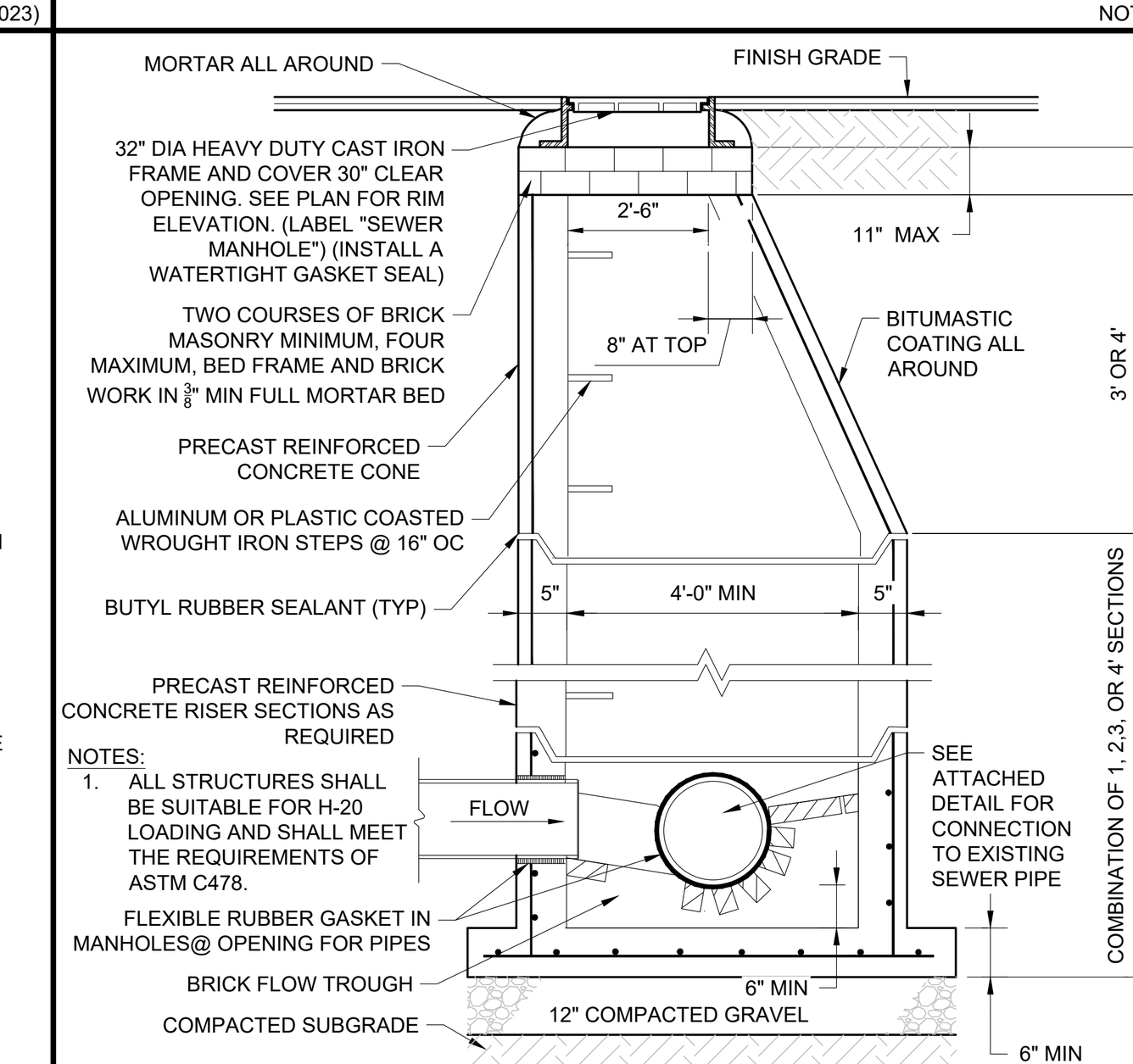


RECOMMENDED MINIMUM TRENCH WIDTH	
PIPE DIA	MIN TRENCH WIDTH
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
48"	80"
60"	96"

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321 , "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE STORM PIPE TRENCH

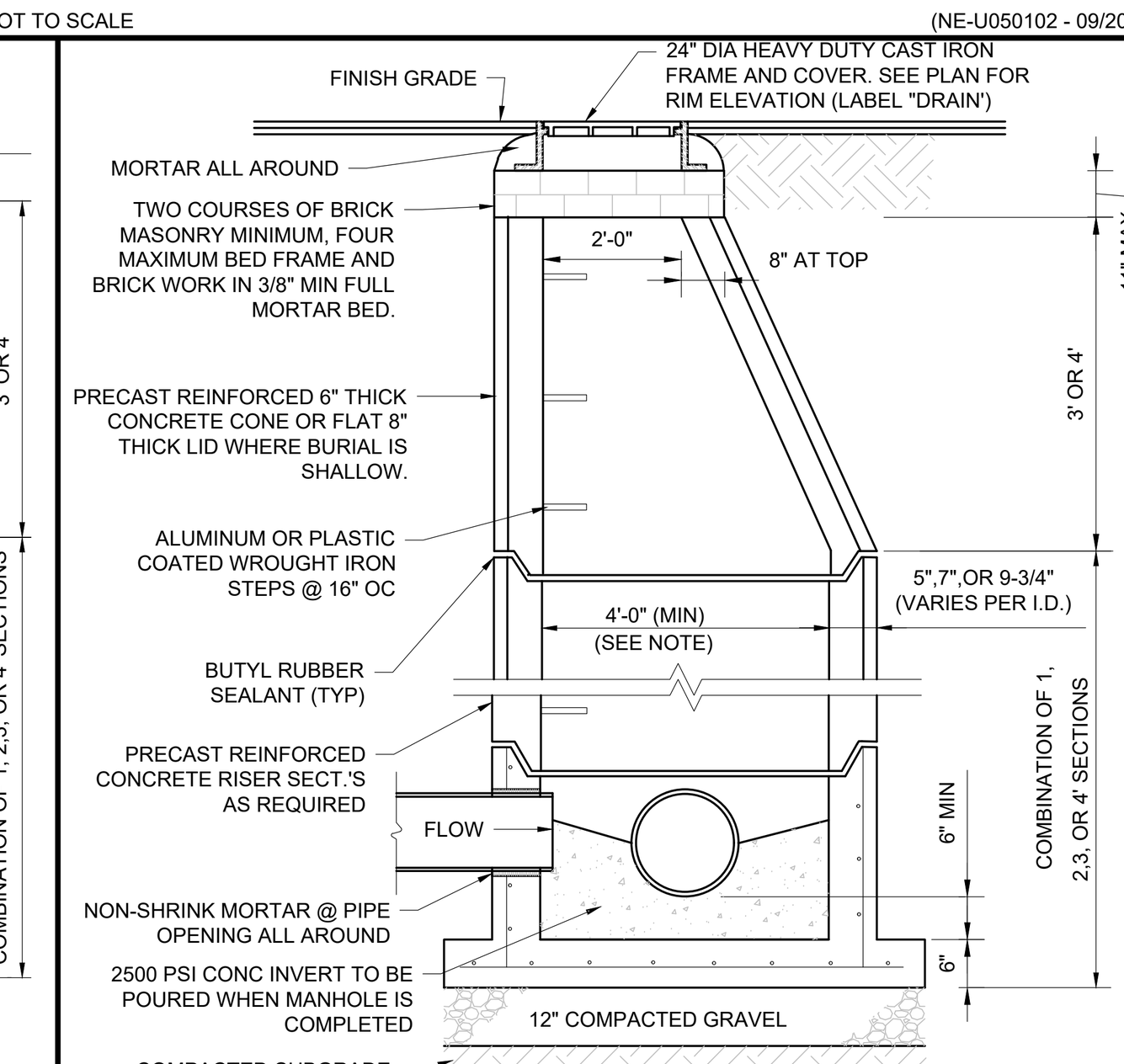
NOT TO SCALE (NE-U019812 - 11/2024)



NOTES:
1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.

PRECAST CONCRETE SANITARY MANHOLE

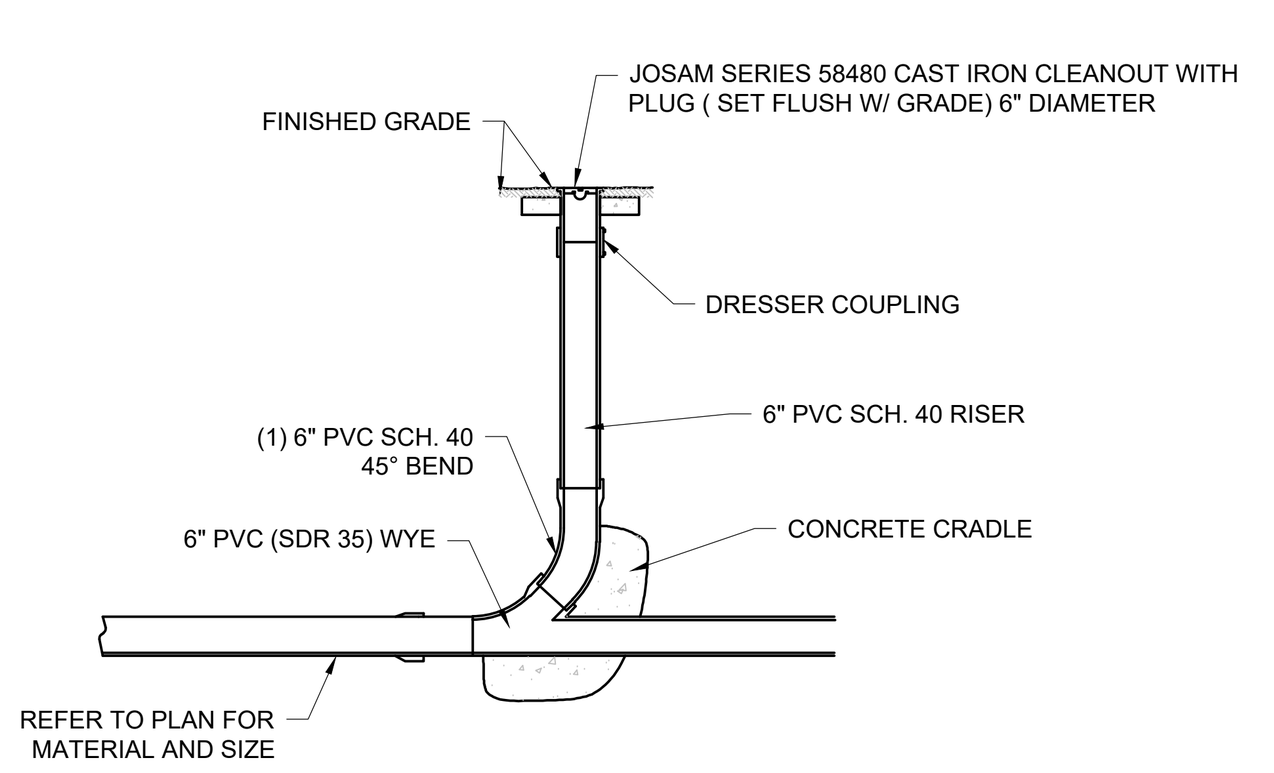
NOT TO SCALE (NE-U020101 - 11/2024)



NOTES:
1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
2. CONTRACTOR SHALL SIZE MANHOLE AS NECESSARY TO ACCOMMODATE THE PIPE SIZING AND ORIENTATION USING THE GEOMETRY SHOWN ON THE GRADING AND DRAINAGE PLANS.
3. CONCRETE SHALL BE 4,000 PSI AFTER 28 DAYS
4. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.12 SQ IN/LINEAL FT AND 0.12 SQ IN (BOTH WAYS) BASE BOTTOM.
5. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS"

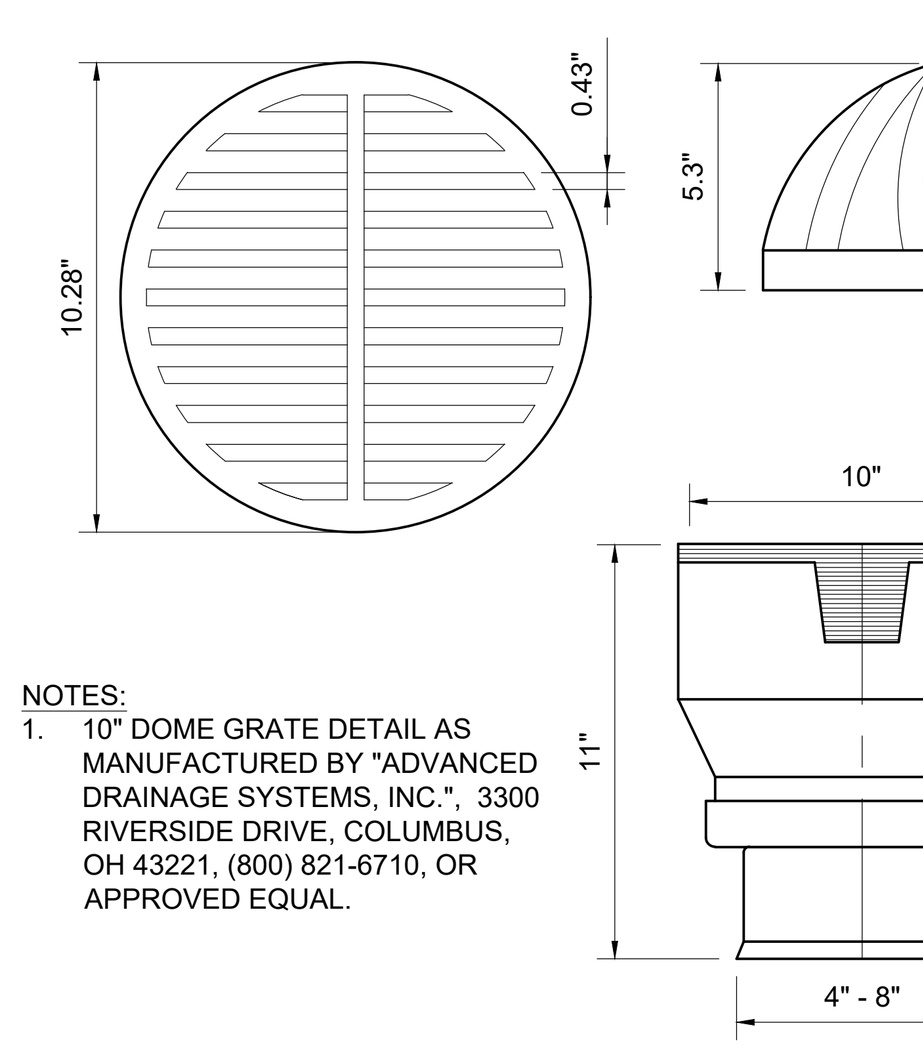
PRECAST CONCRETE STORM DRAIN MANHOLE

NOT TO SCALE (NE-U010101 - 11/2024)



CLEANOUT (IN-LINE)

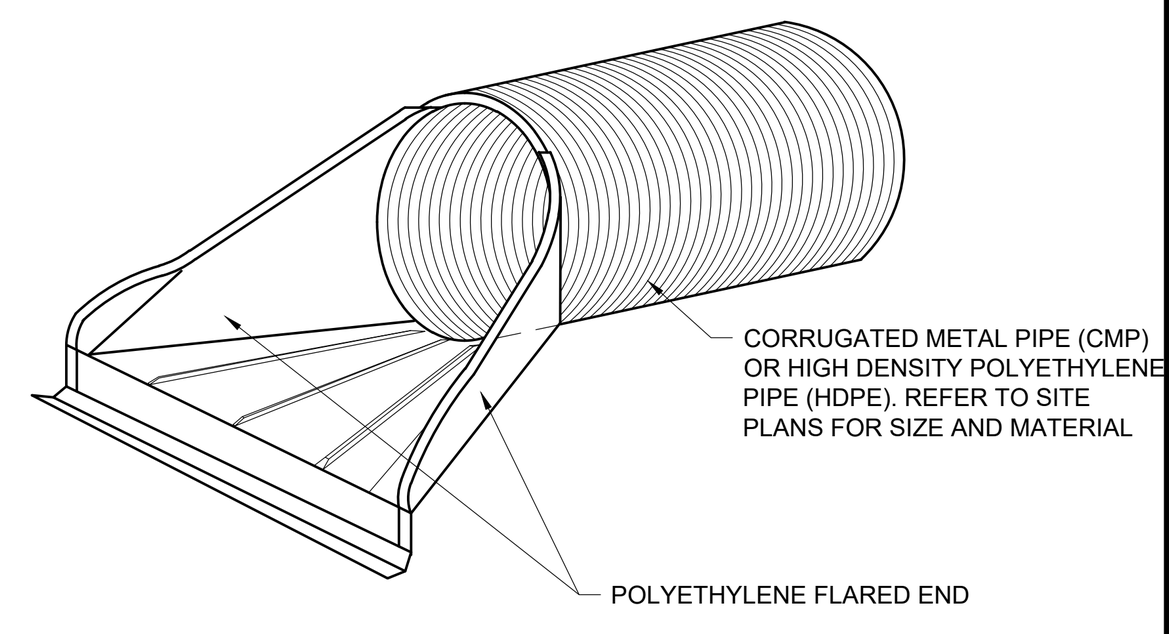
NOT TO SCALE (NE-U010302 - 11/2024)



NOTES:
1. 10" DOME GRATE DETAIL AS MANUFACTURED BY "ADVANCED DRAINAGE SYSTEMS, INC.", 3300 RIVERSIDE DRIVE, COLUMBUS, OH 43221, (800) 821-6710, OR APPROVED EQUAL.

YARD DRAIN

NOT TO SCALE (NE-U010210 - 09/2023)



NOTES:
1. 12" MINIMUM COVER OVER THE TOP OF THE PIPE, COMPACTED TO A DENSITY OF 90% AS PER AASHTO T-99.

POLYETHYLENE FLARED END SECTION

NOT TO SCALE (NE-U010401 - 09/2023)

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PROJECT No.:	NYB240176.00-0A - C-102 NOTE
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVL-CNDS

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:

C-902

ORG. DATE - 04/21/2025

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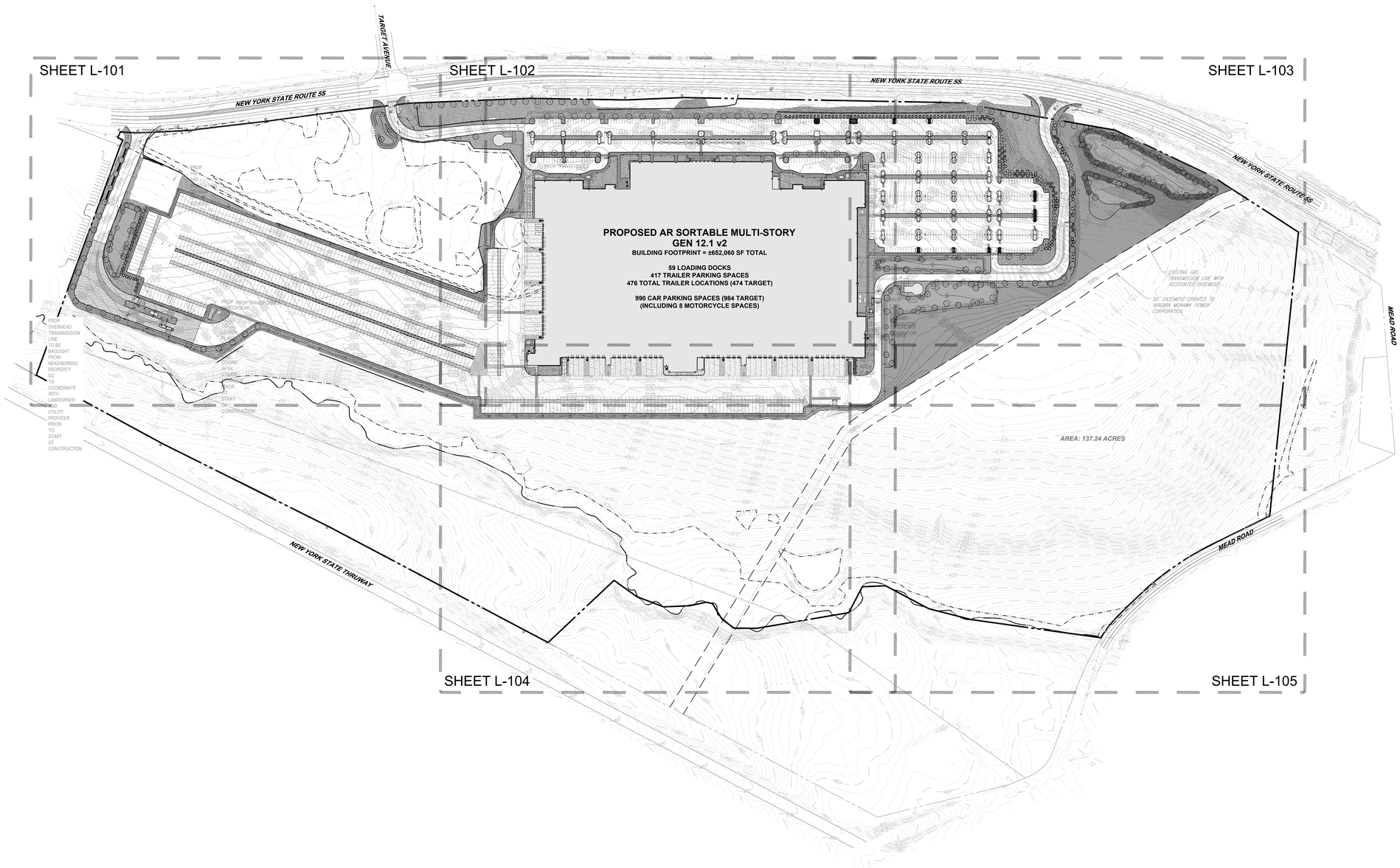
JS

TOWN OF FLORIDA, NEW YORK
LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENT	PROPOSED
§SECTION 15 - WALLS, FENCES AND HEDGES	D. YARD REQUIREMENTS 1. A FENCE, WALL OR HEDGE SHALL BE NO CLOSER THAN TWO (2) FEET FROM THE FRONT LOT LINE, AND SHALL PROVIDE NECESSARY VISIBILITY ON CORNER LOTS. 2. A FENCE, WALL OR HEDGE SHALL BE NO CLOSER THAN TWO (2) FEET FROM ANY SIDE OR REAR YARD PROPERTY LINE, PROVIDING A STRIP OF LAND ON EACH SIDE OF THE PROPERTY LINE FOR ABUTTING PROPERTY OWNERS TO MAINTAIN THEIR FENCE WITHOUT TRESPASSING ON THE LANDS OF THE ABUTTING PROPERTY OWNER.	PROVIDED.
§SECTION 37 - LANDSCAPING REQUIREMENTS	A. WHERE ANY PERMITTED NON-RESIDENTIAL LAND USE, MULTIPLE-FAMILY DEVELOPMENT OR MOBILE HOME PARK ABUTS AN EXISTING RESIDENTIAL PARCEL OR VACANT PARCEL WHERE RESIDENTIAL DEVELOPMENT COULD OCCUR, A STRIP OF LAND AT LEAST 20 FEET WIDE SHALL BE MAINTAINED AS A LANDSCAPED AREA IN THE FRONT, SIDE AND/OR REAR YARD WHICH ADJOIN THESE USES. B. REQUIRED LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN A HEALTHY GROWING CONDITION AND SHALL TAKE THE FORM OF ANY OR ALL OF THE FOLLOWING: SHADE TREES, DECIDUOUS SHRUBS, EVERGREENS, WELL-KEPT GRASSED AREAS OR GROUND COVER. IN ANY CASE, ALL SUCH LANDSCAPING SHALL BE A MINIMUM OF FOUR (4) FEET IN HEIGHT.	PROVIDED. MIN. 20 FEET LANDSCAPE STRIP WITHIN FRONT YARD

CANOPY TREES					
ARF	53	ACER RUBRUM 'FRANK JR.'	REDPOINTE® MAPLE	2-2.5" CAL.	B&B
CCA	18	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL.	B&B
GTI	19	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2-2.5" CAL.	B&B
LSM	26	LIQUIDAMBAR STYRACIFLUA 'MORAINE'	MORAINE SWEET GUM	2-2.5" CAL.	B&B
PAM	28	PLATANUS X ACERIFOLIA 'MORTON CIRCLE'	EXCLAMATION!™ LONDON PLANE TREE	2-2.5" CAL.	B&B
QPO	11	QUERCUS PALUSTRIS	PIN OAK	2-2.5" CAL.	B&B
QRO	15	QUERCUS RUBRA	RED OAK	2.5" CAL.	B&B
TCG	12	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2.5" CAL.	B&B
EVERGREEN TREES					
PGL	55	PICEA GLAUCA	WHITE SPRUCE	6-7'	B&B
PPG	51	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	6-7'	B&B
PSP	50	PINUS STROBUS	WHITE PINE	6-7'	B&B
TN	32	THUJA OCCIDENTALIS 'NIGRA'	BLACK ARBORVITAE	6-8'	B&B
TOG	50	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-7'	B&B
ORNAMENTAL TREES					
PXO	15	PRUNUS X 'OKAME'	OKAME FLOWERING CHERRY	8-10'	B&B
STORMWATER BASIN TREES					
BND	56	BETULA NIGRA 'BMITF'	MULTI-STEM DURA HEAT RIVER BIRCH	2-2.5" CAL.	B&B
NSG	33	NYSSA SYLVATICA	SOUR GUM	2-2.5" CAL.	B&B
QBC	30	QUERCUS BICOLOR	SWAMP WHITE OAK	2-2.5" CAL.	B&B
STORMWATER BASIN SHRUBS					
CAD	50	CORNUS AMOMUM	SILKY DOGWOOD	24-30"	CONTAINER
IVJ	17	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
IVR	85	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	18-24"	CONTAINER
MPB	53	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	30-36"	CONTAINER
VDA	55	VIBURNUM DENTATUM 'ARROWWOOD'	ARROWWOOD VIBURNUM	24-30"	CONTAINER
GROUND COVERS					
HHR	50	HEMEROCALLIS X 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL.	CONTAINER



150 75 37.5 0 150
1"=150'

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DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVIL-LSCP

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

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SHEET TITLE:

OVERALL LANDSCAPE PLAN

SHEET NUMBER:

L-100

ORG. DATE - 04/21/2025

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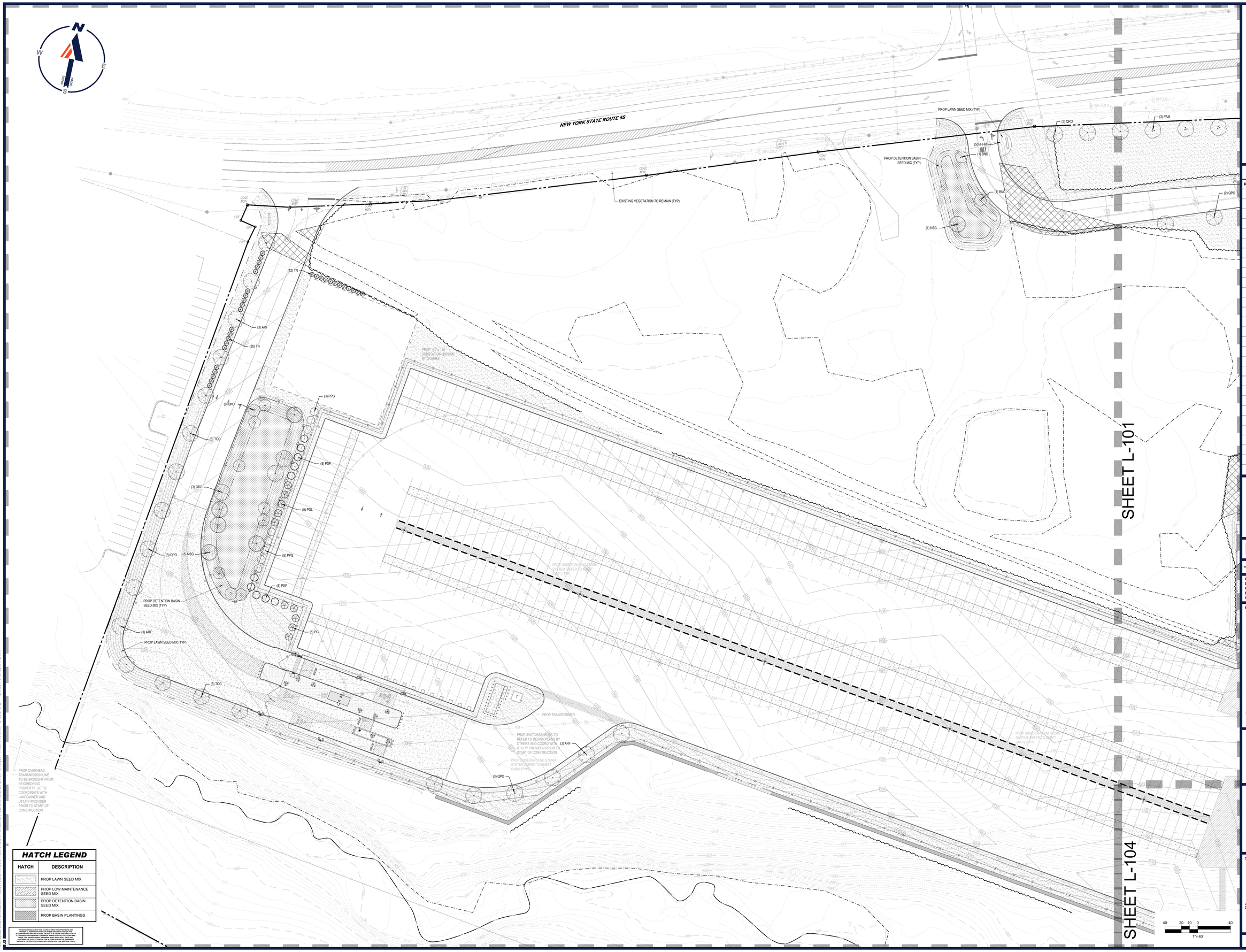

HATCH LEGEND

HATCH	DESCRIPTION
	PROP LAWN SEED MIX
	PROP LOW MAINTENANCE SEED MIX
	PROP DETENTION BASIN SEED MIX
	PROP BASIN PLANTINGS

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CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVIL-LSCP

PROJECT:

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FOR

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SHEET TITLE:

LANDSCAPE PLAN A

SHEET NUMBER:

L-101

ORG. DATE - 04/21/2025

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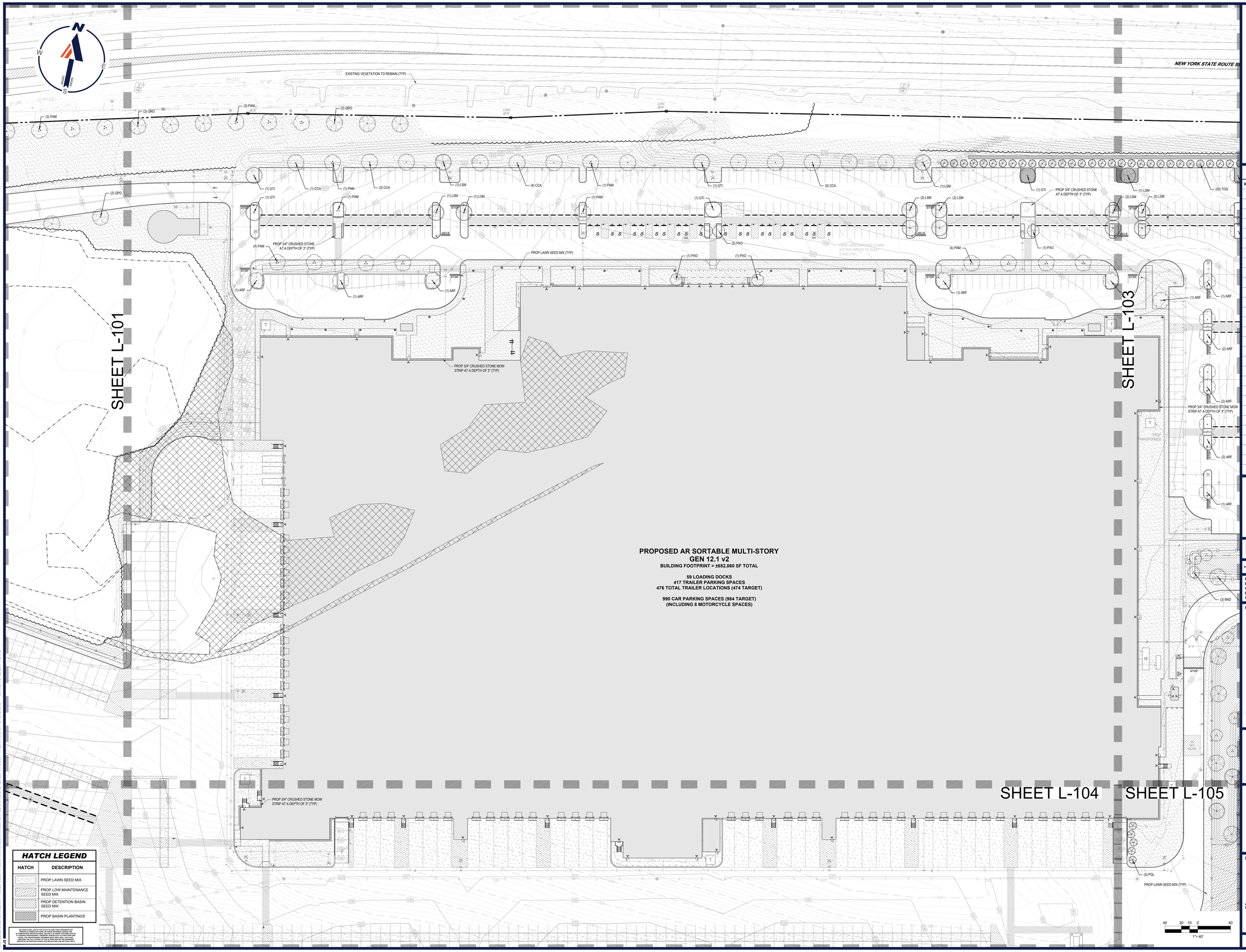

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PROJECT No.: NYB240176.00-0A - L-106 LNOTE
DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVIL-LSCP

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

LANDSCAPE PLAN B

SHEET NUMBER:

L-102

ORG. DATE - 04/21/2025

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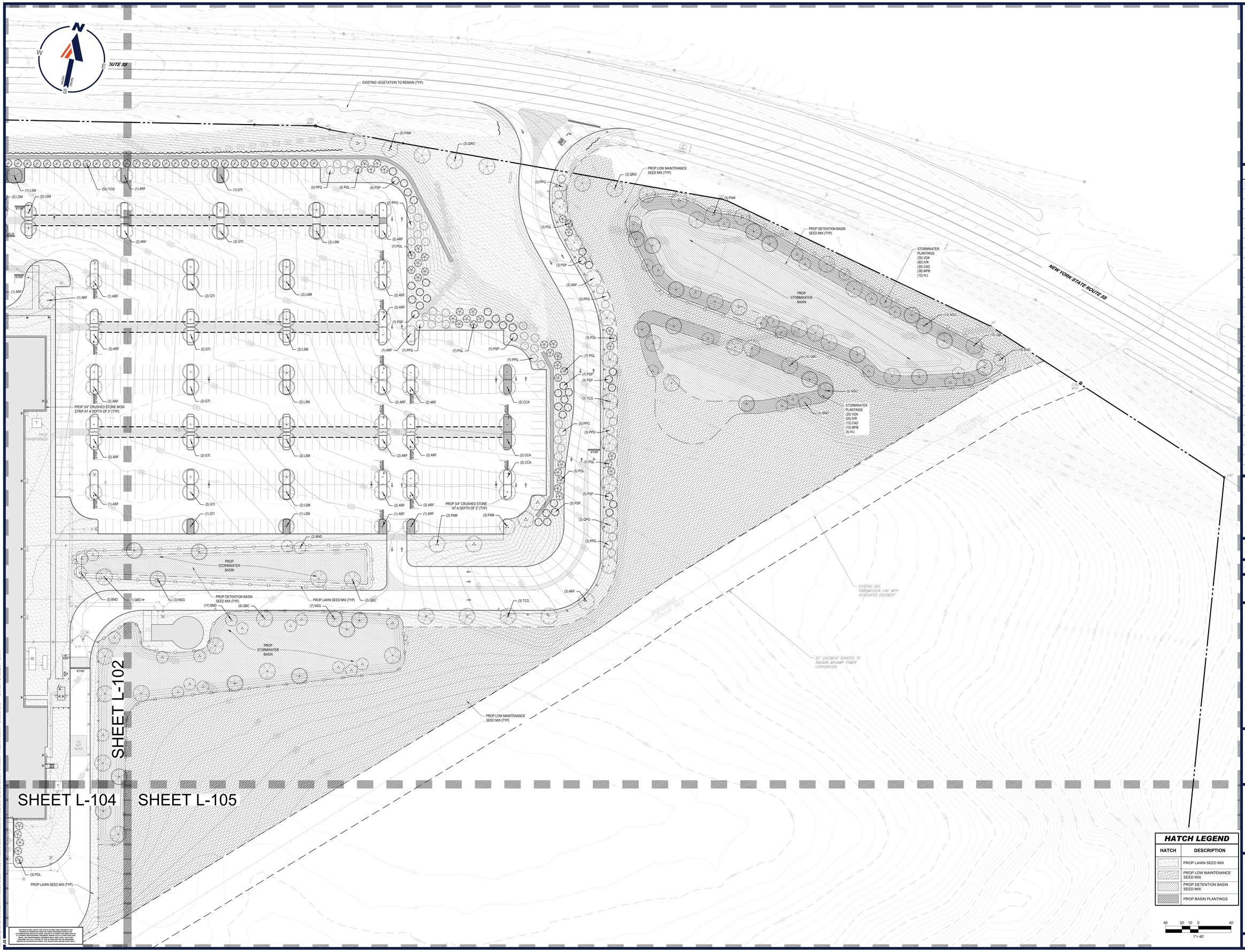

HATCH LEGEND	
HATCH	DESCRIPTION
	PROP LAWN SEED MIX
	PROP LOW MAINTENANCE SEED MIX
	PROP DETENTION BASIN SEED MIX
	PROP BASIN PLANTINGS

40 20 10 0 40
1"= 40'

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SHEET TITLE:

LANDSCAPE PLAN C

SHEET NUMBER:

L-103

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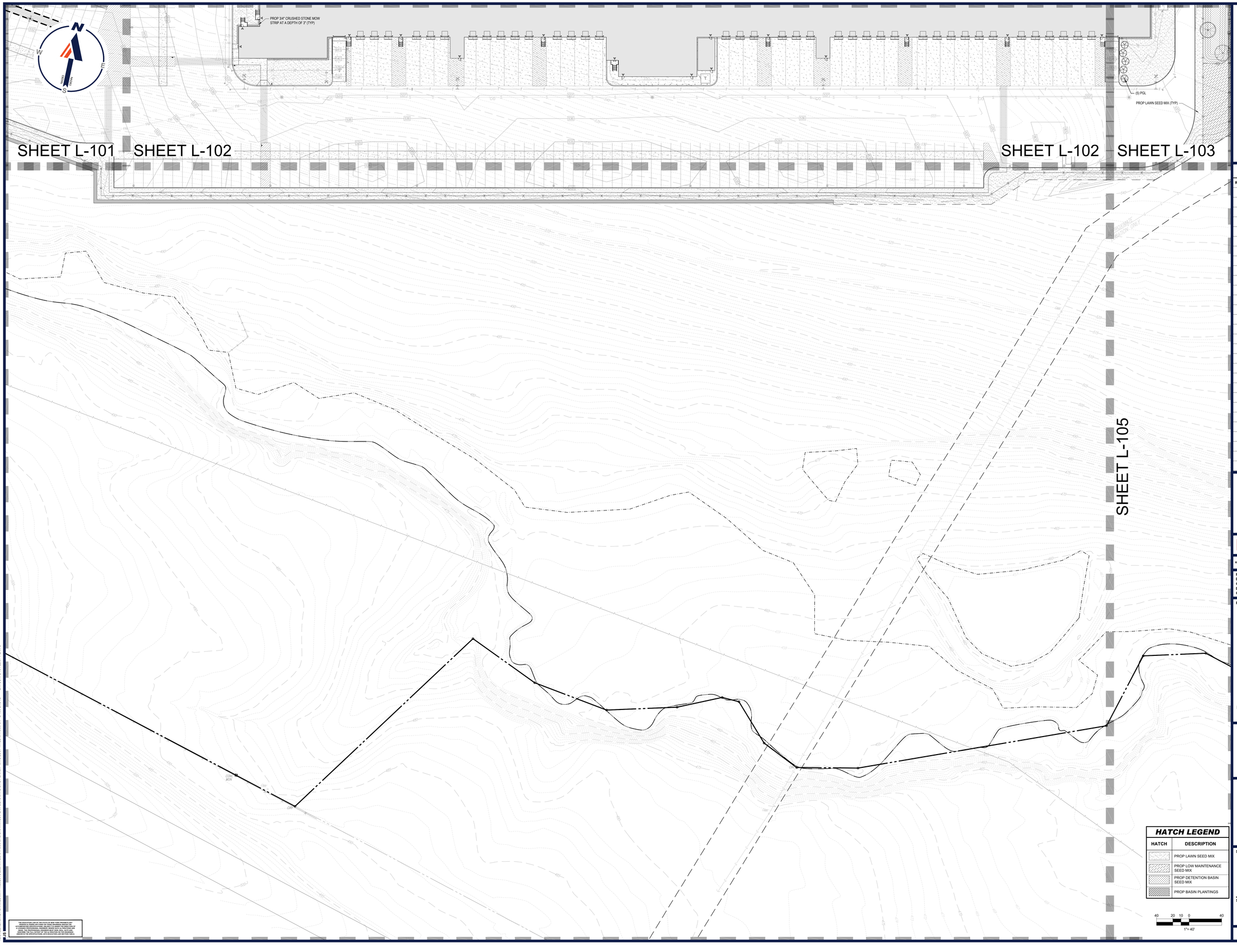

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	PROP LOW MAINTENANCE SEED MIX
	PROP DETENTION BASIN SEED MIX
	PROP BASIN PLANTINGS

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1"= 40'

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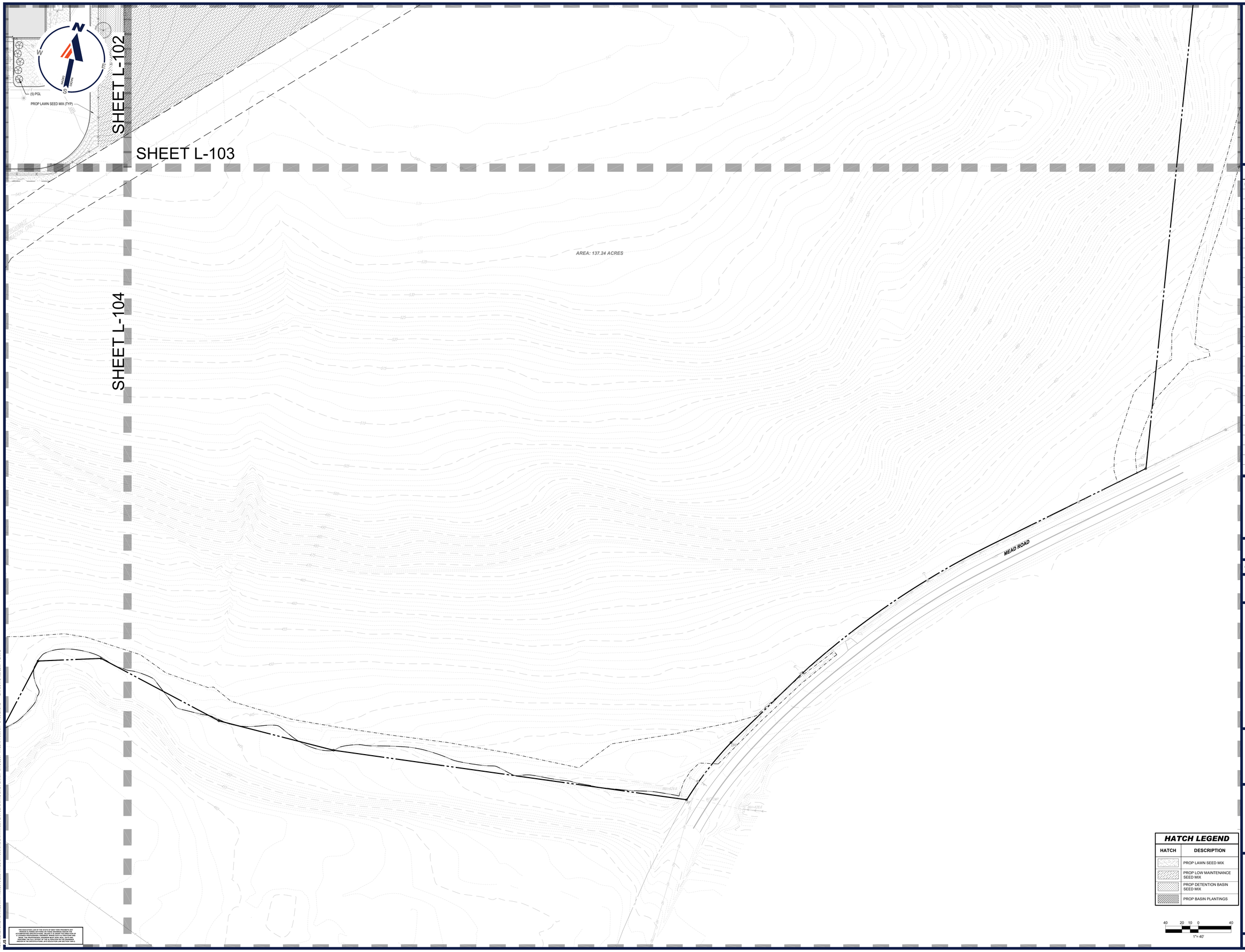

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NEW YORK LANDSCAPE SPECIFICATION

1. SCOPE OF WORK:
   a) THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.
2. MATERIALS
   a) GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
   b) TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0, IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
   c) LAWN:
      c)a) ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN.
      c)b) LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
      c)c) SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
      c)d) MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES / DETAILS.
   d) FERTILIZER:
      d)a) FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
      d)b) FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY. CONTRACTOR TO ADHERE TO STATE REGULATIONS REGARDING APPLICATION OF FERTILIZERS.
   e) PLANT MATERIAL:
      e)a) ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1). LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
      e)b) IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
      e)c) PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
      e)d) TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1½", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
      e)e) ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
      e)f) CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
      e)g) SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
      e)h) TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.
3. GENERAL WORK PROCEDURES
   a) CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
   b) WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.
4. SITE PREPARATIONS
   a) BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
   b) ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
   c) CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.
5. TREE PROTECTION
   a) CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
   b) A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
   c) WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
   d) AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.
6. SOIL MODIFICATIONS
   a) CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
   b) LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
   c) THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
   d) TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
      d)a) TO INCREASE DRAINAGE: MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
      d)b) MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
7. FINISHED GRADING
   a) UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
   b) LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1").
   c) ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
   d) ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.
8. TOPSOILING
   a) CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
   b) ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
   c) CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
   d) ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]):
      d)a) 20 POUNDS 'GRO-POWER' OR APPROVED SOIL CONDITIONER/FERTILIZER
      d)b) 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER
   e) THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.
9. PLANTING
   a) INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
   b) PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
   c) ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
   d) ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
   e) POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
   f) PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
      f)a) PLANTS: MARCH 15 TO DECEMBER 15
      f)b) LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1
      f)c) PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.
   g) FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY. THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

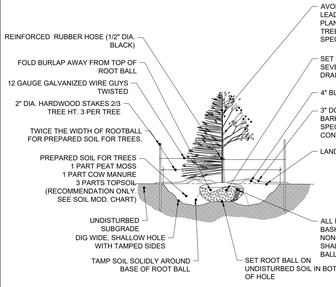
ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELREUTERIA	QUERCUS VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES

   h) PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      h)a) 1 PART PEAT MOSS
      h)b) 1 PART COMPOSTED COW MANURE BY VOLUME
      h)c) 3 PARTS TOPSOIL BY VOLUME
      h)d) 21 GRAMS AGRIFORM PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
         h)d)a) 2 TABLETS PER 1 GALLON PLANT
         h)d)b) 3 TABLETS PER 5 GALLON PLANT
         h)d)c) 4 TABLETS PER 15 GALLON PLANT
         h)d)d) LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK.
   i) FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
   j) ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
   k) ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.
   l) GROUND COVER AREAS SHALL RECEIVE A ½" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.
   m) NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.
   n) ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
   o) ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.
10. TRANSPLANTING (WHEN REQUIRED)
   a) ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.
   b) IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
   c) PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.
   d) UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
   e) TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
   f) IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.
11. WATERING
   a) NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.
   b) SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
   c) IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.
12. GUARANTEE
   a) THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
   b) ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.
   c) TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.
   d) LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. CLEANUP
   a) UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
   b) THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.
14. MAINTENANCE (ALTERNATIVE BID):
   a) A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON AS TERMS ANYTHING ON THESE DRAWINGS UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED PROFESSIONAL ENGINEER, UNDER SUCH ALTERATIONS AND SHALL AFFIX TO ANY ALTERED DOCUMENT THE SEAL OF THE ENGINEER DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209).

TREE PLANTING

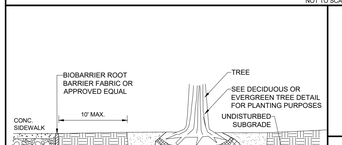
NOT TO SCALE



NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.

SHRUB PLANTING

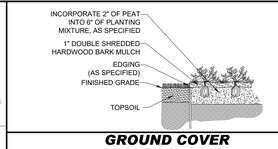
NOT TO SCALE

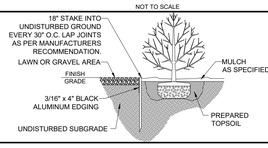


NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

GROUND COVER PLANTING

NOT TO SCALE





BIOBARRIER ROOT BARRIER

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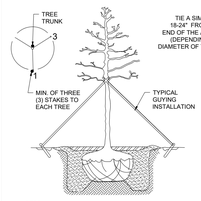
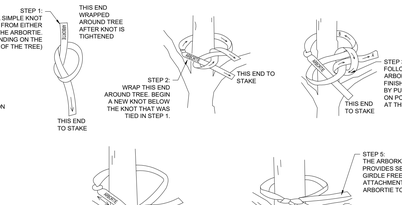


NOTES:
1. SPECIFIED ARBORTIE GREEN (OR WHITE) STAKING AND GUYING MATERIAL IS TO BE FLAT WOVEN POLYPROPYLENE MATERIAL, 3/4" WIDE, 600 LB. BREAK STRENGTH. ARBORTIE SHALL BE FASTENED TO STAKES IN A MANNER WHICH PERMITS TREE MOVEMENT AND SUPPORTS THE TREE.

BLACK ALUMINUM EDGING

NOT TO SCALE

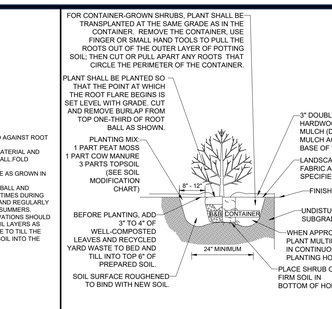


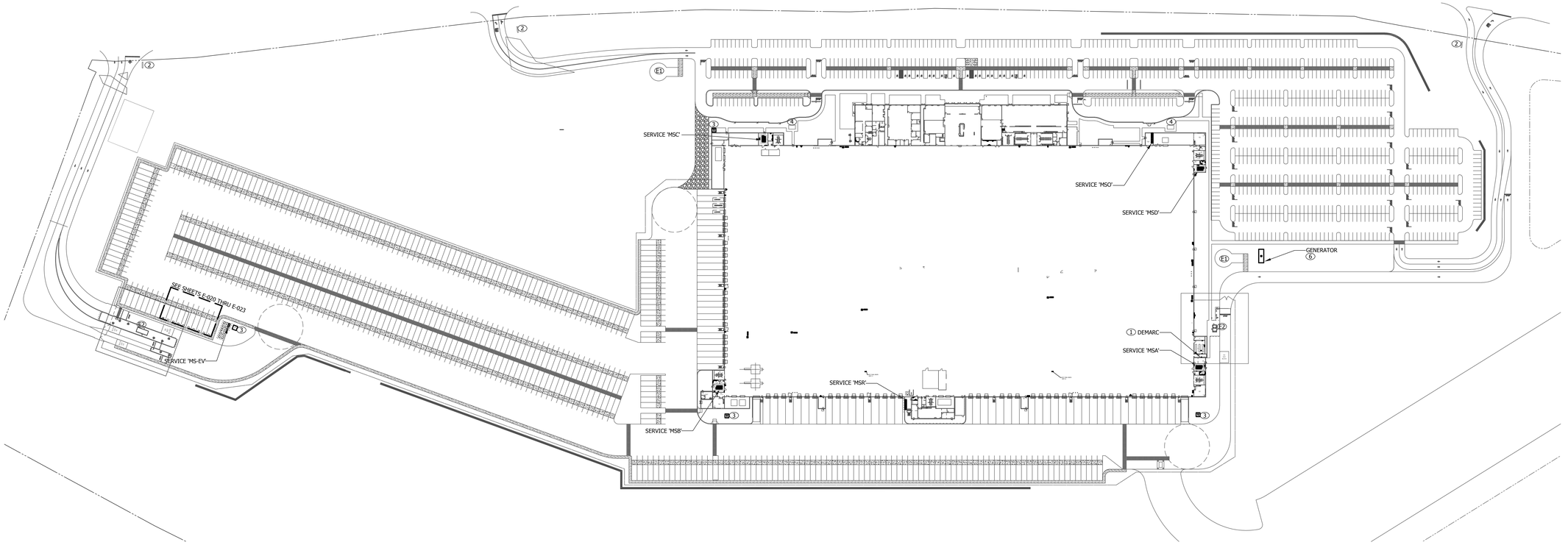
ARBORTIE STAKING

NOT TO SCALE

TREE PLANTING ON SLOPE

NOT TO SCALE


FOR CONTAINER-GROWN SHRUBS, PLANT SHALL BE TRANSPLANTED AT THE SAME GRADE AS IN THE CONTAINER. REMOVE THE CONTAINER, USE FINGER OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS THAT CIRCLE THE PERIMETER OF THE CONTAINER.
PLANT SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SET LEVEL WITH GRADE. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF ROOT BALL AS SHOWN.
PLANTING MIX
1 PART PEAT MOSS
1 PART COW MANURE
3 PARTS TOPSOIL
(SEE SOIL MODIFICATION CHART)
6" - 12"
MIN. CONTAINER
BEFORE PLANTING, ADD 3" TO 4" OF WELL-COMPOSTED LEAVES AND RECYCLED YARD WASTE TO BED AND TILL INTO TOP 6" OF PREPARED SOIL.
SOIL SURFACE ROUGHENED TO BIND WITH NEW SOIL.
24" MINIMUM
3" DOUBLE-S



SITE POWER PLAN

1"=100'-0"

NOTES:

1. CURRENT SCOPE RELATED TO THE TRUCK YARD ELECTRIC VEHICLE AREA IS TO PROVIDE A COMPLETE ELECTRICAL INSTALLATION FOR THE TRUCK YARD ELECTRIC VEHICLE CHARGING EQUIPMENT INCLUDING ELECTRICAL DISTRIBUTION EQUIPMENT, POWER AND AUXILIARY CABLING TO EACH TRUCK YARD EV PARKING SPACE, AND EV CHARGING EQUIPMENT.

A. PROVIDE ALL UNDERGROUND RACEWAYS, POWER AND AUXILIARY WIRING, ELECTRICAL DISTRIBUTION EQUIPMENT, COMMUNICATIONS HUB, EV CHARGING EQUIPMENT AND UTILITY OR BUILDING POWER AS DEFINED IN THESE DOCUMENTS.

B. PROVIDE ALL EV CHARGING EQUIPMENT. FOR THE TRUCK SPACES TO BE PART OF THE INITIAL INSTALLATION. COORDINATE PROCUREMENT OF CHARGING EQUIPMENT WITH EV FLEET TEAM. CURRENT APPROVED MANUFACTURERS ARE:
   1. BTC POWER MODEL EVPC-150-2-480V-3-65
   2. ABB HVC-150C

2. ONLY A SELECT QUANTITY OF TRUCK YARD PARKING SPACES ARE TO BE FITTED FOR FUTURE EV CHARGING. THESE ARE INTENDED TO BE FOR EV YARD HOSTLER (EYH), EV BOX TRUCK (EBT) AND EV DAY CAB (EDC) . INITIAL INSTALLATION IS TO INCLUDE A MINIMUM OF TWO (2) EV CHARGERS WITH PROVISIONS TO SUPPORT UP TO EIGHT (8) ADDITIONAL CHARGERS IN THE FUTURE (10 TOTAL).
   1. THE MINIMUM OF TWO INITIAL CHARGER LOCATIONS SHALL HAVE ALL UNDERGROUND RACEWAYS, WIRING AND EV EQUIPMENT INSTALLED.
   2. THE UP TO EIGHT (8) FUTURE CHARGER LOCATIONS SHALL HAVE ONLY THE UNDERGROUND 480V , 120V AND AUXILIARY RACEWAYS (WITH PULL WIRE) INSTALLED CAPPED FLUSH WITH GRADE (SEE FUTURE CHARGER STATION CONDUIT TERMINATION DETAIL).

3. REFER TO EV DISTRIBUTION DIAGRAM DETAIL FOR TYPICAL RACEWAY SIZING REQUIREMENTS.

4. ALL PULLBOXES ARE TO BE LOCATED IN LANDSCAPED AREAS OR CONCRETE STRIP BEHIND TRUCK STALLS. INTENT IS FOR THESE NOT TO HAVE TO BE RATED FOR TRAFFIC DUTY. IF THE PULLBOXES MUST BE LOCATED IN TRAFFIC AREAS, TRAFFIC RATED PULLBOXES AND COVERS ARE REQUIRED.

5. LOW VOLTAGE SWITCHBOARD AND UTILITY PAD MOUNTED TRANSFORMER ARE TO BE LOCATED IN LANDSCAPED AREAS. THIS EQUIPMENT IS TO BE LOCATED IN ISLAND AREAS SURROUNDED BY A 12" TALL CONCRETE CURB (FROM TRUCK COURT PAVING). COORDINATE ALL REQUIREMENTS RELATED TO UTILITY PAD MOUNTED TRANSFORMER WITH UTILITY PROVIDER.

6. PROPOSED CONDUIT INFRASTRUCTURE DESIGN IS BASED ON ELECTRICAL EQUIPMENT TO SUPPORT A MAXIMUM OF 150KW PER TRUCK YARD EV PARKING SPACE. INTENT IS FOR ACTUAL INSTALLED TRUCK YARD EV CHARGING EQUIPMENT TO HAVE LOAD MANAGEMENT CAPABILITIES TO REDUCE LOAD AND LIMIT LOAD PROFILE. REFER TO UTILITY COORDINATION NOTE D.

7. COORDINATE UTILITY SERVICE REQUIREMENTS WITH UTILITY PROVIDER. PROVIDE ALL REQUIRED UNDERGROUND PRIMARY SERVICE RACEWAYS UNDER THIS SCOPE SO THAT CURRENT OR FUTURE DEPLOYMENT OF TRUCK YARD EV CHARGING EQUIPMENT CAN BE ACCOMPLISHED WITHOUT THE NEED TO DIG ANY TRENCHES OR DISRUPT TRUCK YARD OPERATIONS.

8. DO NOT LOCATE TRUCK YARD ELECTRIC VEHICLE CHARGING STATIONS SUCH THAT THEY BLOCK PEDESTRIAN WALKWAYS BEHIND TRUCK TRAILERS.

9. PROVIDE RACEWAY SYSTEM AND WIRING FOR TRUCK YARD EV CHARGING AUXILIARY/COMMUNICATIONS TO BE RUN TO CENTRALLY LOCATED HUB AND THEN TO THE BUILDING DEMARC ROOM.

10. INSTALLATION SHALL BE IN CONFORMANCE WITH ALL LOCALLY ADOPTED CODES, ORDINANCES AND REQUIREMENTS.

ELECTRICAL BOX NOTES:

BOX SHALL BE RATED TIER8 (ANSI/SCTE 77) FOR USE IN LANDSCAPE AREAS NOT SUBJECT TO VEHICULAR TRAFFIC, OR RATED TIER22 FOR USE IN SIDEWALKS. DO NOT LOCATE IN TRUCK COURT PAVING AREAS SUBJECT TO HEAVY VEHICLE TRAFFIC.

BOXES TO BE USED IN ROADWAYS OR AREAS FREQUENTLY SUBJECT TO HEAVY VEHICLE TRAFFIC SHALL MEET A MINIMUM RATING OF AASHTO H25 AND SHALL NOT BE PLACE IN THE CONCRETE SECTION OF THE TRAILER SLIPS IDENTIFIED FOR TRAILER LANDING GEAR.

MINIMUM COVER REQUIREMENTS
0 to 600 Volts, Nominal, Burial in Inches
Type of Wiring Method or Circuit

Location of Wiring Method or Circuit	Direct Burial Cables or Conductors	Rigid Metal Conduit or Intermediate Metal Conduit	Nonmetallic Raceways Listed for Direct Burial without Concrete Encasement or Other Approved Raceways	Residential Branch Circuits Rated 120 Volts or Less with GFCI Protection and Maximum Overcurrent Protections of 20 Amperes	Circuits for Control of Irrigation and Landscape Lighting Limited to Not More than 30 Volts and Installed with Type UF or in other Identified Cable or Raceway
All locations not specified below	24	6	18	12	6
In trench below 2-inch thick concrete or equivalent	18	6	12	6	6
Under minimum of 4-inch thick concrete exterior slab with no vehicular traffic and the slab extending not less than 6 inches beyond the underground installation	18	4	4	6 (direct burial) 4 (in raceway)	6
Under streets, highways, roads, alleys, driveways, and parking lots	24	24	24	24	24
One- and two-family dwelling driveways and outdoor parking areas that are used only for dwelling-related purposes	18	18	18	12	18
Under Building	0 (In raceway or type MC or MI cable listed for direct burial)	0	0	0 (In raceway or type MC or MI cable listed for direct burial)	0 (In raceway or type MC or MI cable listed for direct burial)

Note: This table was developed from Table 300.5 of the Code where information for other Wiring Methods not listed above can be found. All conductors installed in these raceways must be approved for wet locations as listed in 310.8(C) of the Code.

1. Cover is defined as the shortest distant in inches measured between a point on the top surface of any direct-buried conductor, cable, conduit or other raceway and the top surface of finished grade, concrete, or similar cover.
2. Raceways approved for burial only where concrete encased shall require concrete envelope not less than 2 inches thick.
3. Lesser depths shall be permitted where cables and conductors rise for terminations or splices or where access is otherwise required.
4. Where one of the wiring methods listed in Columns 1-3 is used for the circuit types in Columns 4 & 5, the shallowest depth of burial shall be permitted.
5. Where solid rock prevents compliance with the cover depths specified in this table, the wiring shall be installed in metal or non-metallic raceway permitted for direct burial. The raceways shall be covered by a minimum of 2 inches of concrete extending down to rock.

KEYED NOTES

(E1) PROVIDE (2) 1" CONDUIT FROM MAIN BUILDING FOR COMMUNICATIONS. SEE ONE-LINE DIAGRAMS FOR POWER NEEDS.

(E2) PROVIDE (3) 2" TO GUARD HOUSE. PROVIDE (2) 2", WITH PULL STRING, FOR TELE/DATA AND (1) 2", FOR 3#1/0, 1 #6 GND. PROVIDE ALL NECESSARY CONDUIT TO SECURITY DESK AS DEFINED BY TELCOM DRAWINGS. COORDINATE INSTALLATION OF ALL CONDUIT AND CONNECTION TO GUARD HOUSE.

KEY VALUE	KEYNOTE DESCRIPTION (THIS SHEET)
1	TELEPHONE/DATA SERVICE ENTRANCE CONDUIT. (4) 4" WITH PULL STRINGS. TERMINATE 6" ABOVE FINISHED SLAB IN DEMARC ROOM. EXTEND TO PROPERTY LINE AND TERMINATE AS DIRECTED BY UTILITY COMPANY. LOCATION SHOWN IN PLAN IS APPROXIMATE; CONFIRM WITH PROVIDER. PROVIDE PULL BOXES EVERY 300' AND AS REQUIRED. PULL BOXES SHALL BE LOCATED WITHIN LANDSCAPING AREAS.
2	PROVIDE CONNECTION TO LIGHTED MONUMENT SIGN. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH INSTALLER PRIOR TO BEGINNING WORK. PROVIDE NEMA 3R DISCONNECT SWITCH AS REQUIRED.
3	UNDERGROUND SERVICE ENTRANCE FEEDER, EXTENDED FROM UTILITY COMPANY PAD MOUNTED TRANSFORMER TO SERVICE ENTRANCE SWITCHBOARD MAIN SWITCH. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR CONDUIT AND CONDUCTOR SIZES AND QUANTITIES.
4	EXTEND (2) 1" EMPTY CONDUITS FROM FUTURE SHELTER LOCATION TO NEAREST ACCESSIBLE POINT IN WAREHOUSE AND TERMINATE IN 6"x6" JUNCTION BOX FOR FUTURE USE.
5	PROVIDE LIGHTING FOR BUS SHELTER. (2) TYPE L1 FIXTURES SURFACE MOUNTED TO ROOF STRUCTURE. COORDINATE MOUNTING DETAIL WITH ARCHITECT IN FIELD. ALL EXPOSED CONDUITS TO BE PAINTED TO MATCH ADJACENT SURFACES. ROUTE CIRCUIT SHOWN THROUGH LIGHTING RELAY PANEL AND CONTROL WITH REMAINING SITE LIGHTING. CONTRACTOR TO UTILIZE ONE OF THE 1" CONDUITS SPECIFIED IN KEY NOTE 4 ABOVE. EXTEND CONDUIT AND CONDUCTORS TO CIRCUIT SHOWN.
6	UNDERGROUND FEEDER FROM GENERATOR TO WIREWAY. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR CONDUIT AND CONDUCTOR SIZES AND QUANTITIES.
7	TRANSFORMER AND PRIMARY CABLES PROVIDED AND INSTALLED BY UTILITY. CONTRACTOR TO PROVIDE CONCRETE TRANSFORMER PAD PER UTILITY COMPANY SPECIFICATIONS. COORDINATE FINAL PAD LOCATIONS AND INSTALLATION REQUIREMENTS WITH GENERAL CONTRACTOR AND UTILITY REQUIREMENTS.

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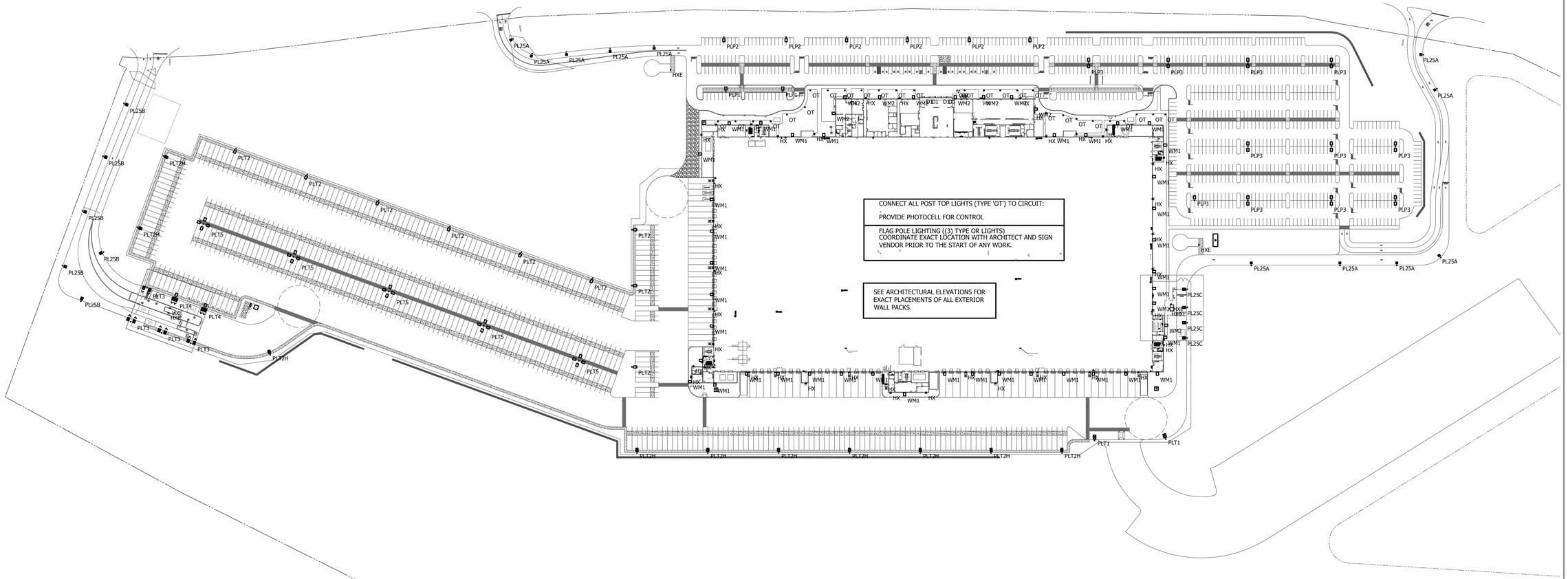
60% DESIGN DEVELOPMENT
3.25.2025
REVISIONS

57-25115-00

SITE POWER PLAN

E-010



SITE LIGHTING PLAN

1"=100'-0"

COORDINATE LOCATION OF ANY POLE LIGHTS WITH ANY FIRE LINES. PROVIDE A MINIMUM OF 60" SEPARATION FROM FIRE LINE AND POLE BASES.

VOLTAGE DROP

For 3% maximum voltage drop on 20A and 30A single phase home-run circuits, utilize the following table. L is length of home run.

Wire Guage	20A 277V 1-phase	20A 480V 1-phase
#12cu.	L<150'	L<250'
#10cu.	150'<L<250'	250'<L<450'
#8cu.	250'<L<350'	450'<L<650'
#6cu.	350'<L<500'	650'<L<950'
#4cu.	500'<L<700'	650'<L<950'

SITE GENERAL NOTES:

G-1 ALL UNDERGROUND CONDUITS SHALL BE MINIMUM 1" SCHEDULE 40 PVC AND SHALL INCLUDE A GROUND WIRE SIZED FOR THE CIRCUIT, UNLESS OTHERWISE NOTED.

G-2 ALL POLE LOCATIONS SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT AND CIVIL ENGINEER PRIOR TO BEGINNING WORK.

G-3 ALL CIRCUITS SHALL BE ROUTED THROUGH LIGHTING RELAY PANELS AND CONTROLLED VIA PHOTOSENSOR AND TIMECLOCK. PROVIDE ROOF MOUNTED PHOTOSENSOR, FACE SENSOR TOWARDS TRUE NORTH. PHOTOSENSOR AND PHOTOSENSOR CONTROL CARD SHALL BE LIGHTING CONTROL & DESIGN MODEL #GR2400-PCC1 2WO-SMNE4 WITH MOUNTING BOX.

G-4 ALL CONDUCTORS SHALL BE #10 AWG CU, UNLESS OTHERWISE NOTED.

G-5 SITE LIGHTING ALTERNATE FIXTURES SHALL BE OF SIMILAR QUALITY TO THAT SPECIFIED. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING STATED ILLUMINANCE CRITERIA WITH ALTERNATE FIXTURES. PHOTOMETRIC PLANS SHALL BE SUBMITTED WITH ALTERNATE FIXTURES FOR APPROVAL

G-6 BUILDING MOUNTED LIGHT FIXTURES ARE MOUNTED AT VARIABLE HEIGHTS ABOVE THE FINISHED GRADE. REFER TO EXTERIOR LIGHTING FIXTURE SCHEDULE FOR MOUNTING HEIGHTS. REFER TO ARCHITECT'S ELEVATIONS FOR EXACT LOCATIONS.

G7 REFER TO ENLARGED GUARDHOUSE PLANS FOR UNDERGROUND TELECOM/SECURITY CONDUIT REQUIREMENTS.

GENERAL NOTES

1. ALL EXTERIOR LIGHTING CIRCUITS TO BE ROUTED THRU LOW VOLTAGE, FULLY PROGRAMMABLE LIGHTING RELAY PANEL.
2. WHEN INSTALLED BEHIND THE CURB, POLE BASES SHALL HAVE 3-FT CLEARANCE TO ROADWAYS AND CAR PARKING AND 12-FT CLEARANCE TO TRAILER PARKING. IN GENERAL, LIGHT POLES SHALL BE ALIGNED WITH PARKING STRIPES WHEN INSTALLED ADJACENT TO PARKING AREAS.
3. MINIMUM CONDUIT FOR SITE LIGHTING CIRCUITS SHALL BE 1" UNLESS NOTED OTHERWISE. MINIMUM WIRING SHALL BE #8 CU UNLESS NOTED OTHERWISE. (SEE VOLTAGE DROP TABLE FOR REQUIRED ADJUSTMENTS AS NEEDED)

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JOB # 25-002

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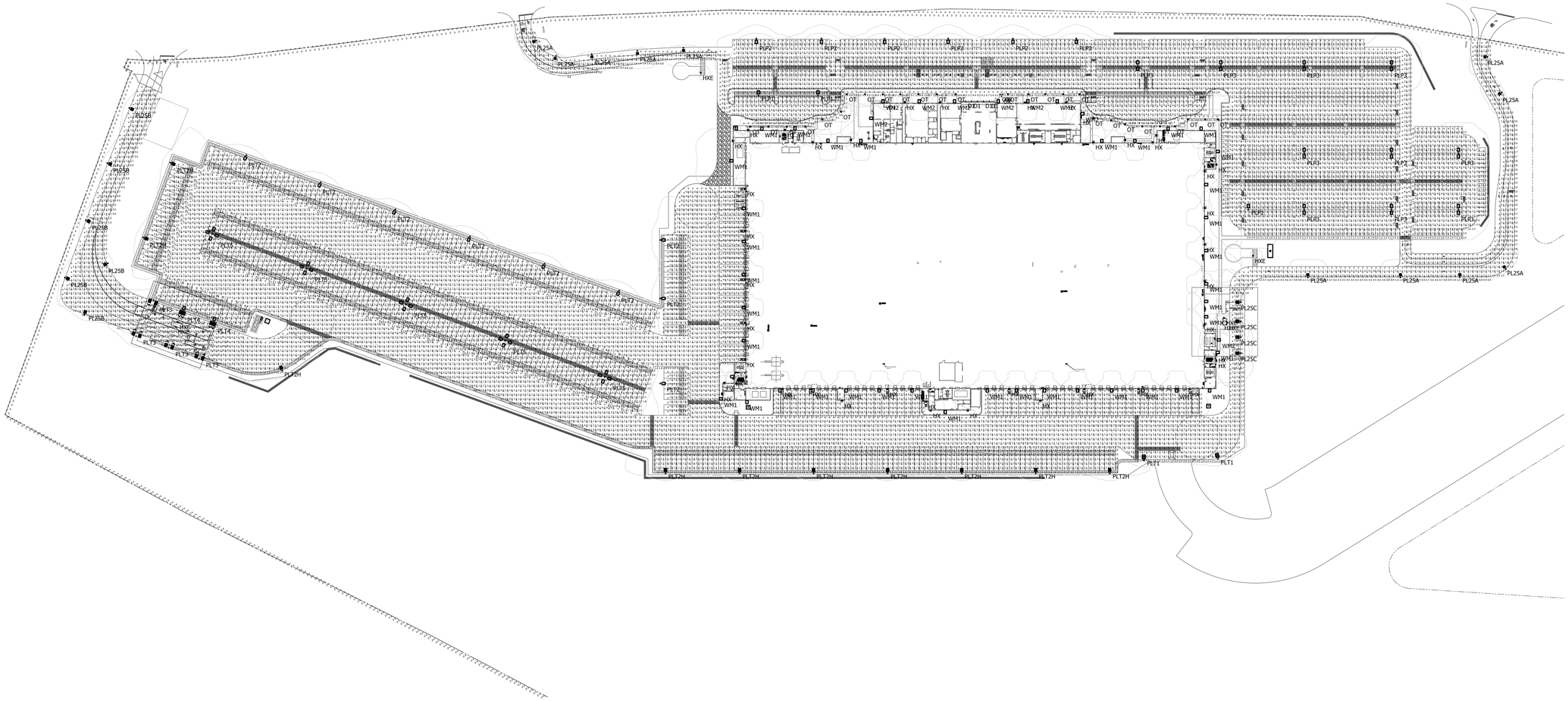
MSV1
BLUEWATER PROPERTY GROUP
LANDS SOUTH OF NYS ROUTE 5S
TOWN OF FLORIDA, NY 12010

60% DESIGN DEVELOPMENT
3.25.2025
REVISIONS

57-25115-00

SITE LIGHTING PLAN

E-011



SITE PHOTOMETRIC PLAN

1"=100'-0"

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DOCK APRON	+	6.0 fc	23.4 fc	1.8 fc	13.0:1	3.3:1
DRIVE	+	1.1 fc	1.7 fc	0.5 fc	3.4:1	2.2:1
DRIVE-TRUCK COURT	+	2.1 fc	16.3 fc	0.5 fc	32.6:1	4.2:1
EMPLOYEE PARKING	+	3.1 fc	11.6 fc	1.4 fc	8.3:1	2.2:1
FRONT WALKWAY	+	10.0 fc	13.8 fc	4.2 fc	3.3:1	2.4:1
PRIMARY GH - 70' OUT	+	15.7 fc	29.6 fc	10.6 fc	2.8:1	1.5:1
PROPERTY LINE	+	0 fc	0 fc	0 fc	N/A	N/A
SECONDARY GH - 70' OUT	+	18.1 fc	25.0 fc	10.7 fc	2.3:1	1.7:1
TRAILER STORAGE	+	2.9 fc	13.4 fc	1.0 fc	13.4:1	2.9:1

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SITE PHOTOMETRIC PLAN

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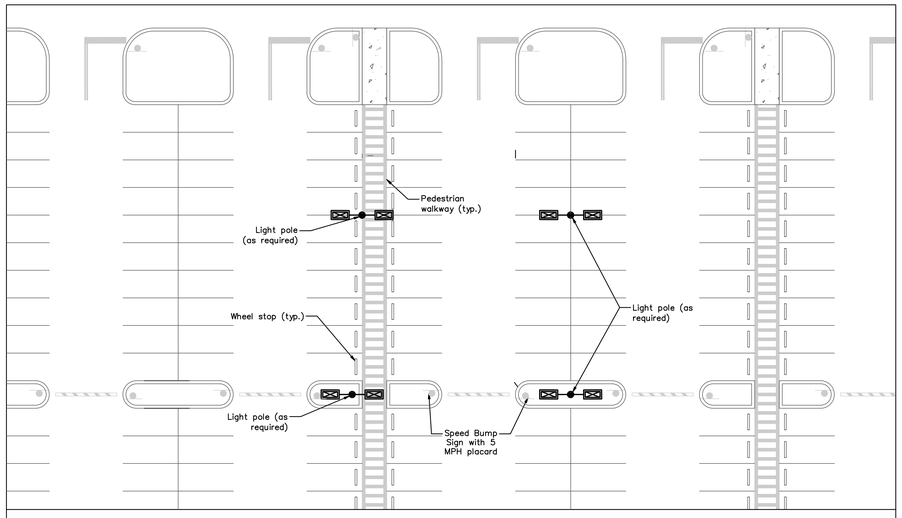
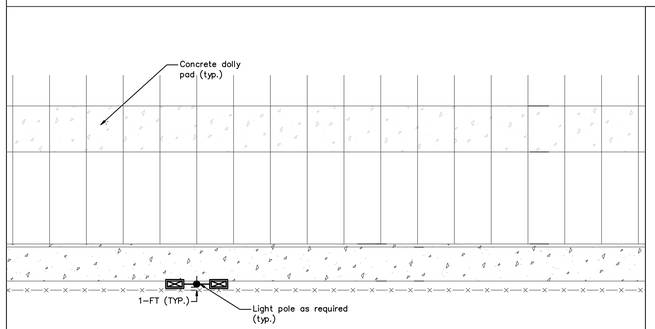
E-012



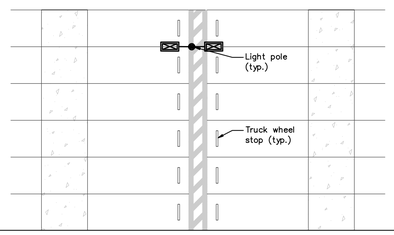
TYPICAL LIGHT FIXTURE PLACEMENT WITHIN PARKING FIELD INSET

SEE CIVIL PLANS FOR ALL REQUIRED DIMENSIONS



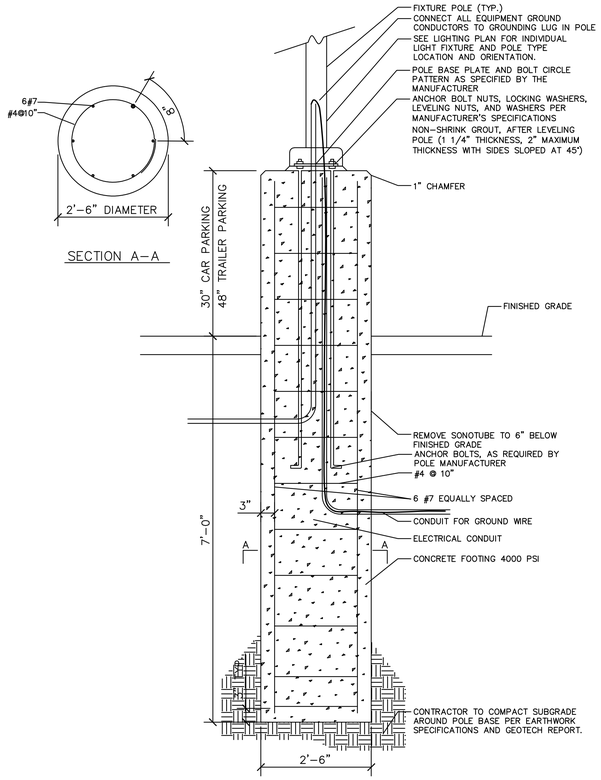
TYPICAL LIGHT FIXTURE PLACEMENT WITHIN TRUCK COURT INSET

SEE CIVIL PLANS FOR ALL REQUIRED DIMENSIONS



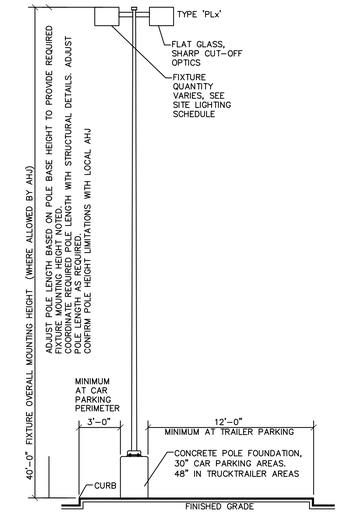
TYPICAL LIGHT FIXTURE PLACEMENT WITHIN BACK-TO-BACK TRAILERPARKING INSET

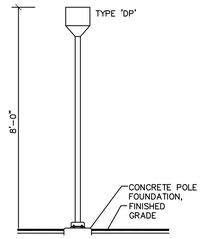
SEE CIVIL PLANS FOR ALL REQUIRED DIMENSIONS



LIGHT POLE DETAIL

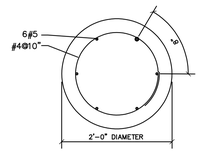
NTS





POLE FIXTURE ELEVATIONS

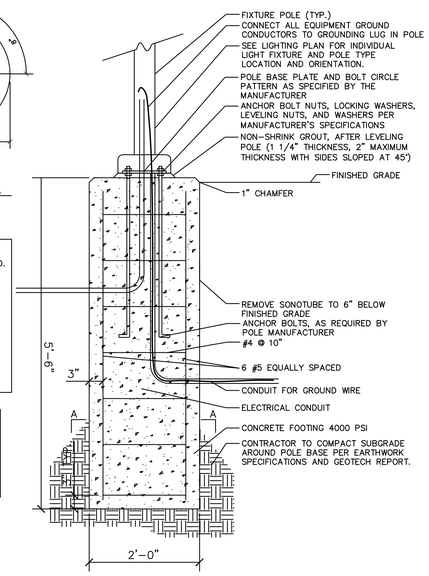
NTS



NOTES:

1. VERTICAL AND HORIZONTAL BARS SHALL BE FIELD TIED. WELDING IS NOT PERMITTED. THE CONTRACTOR SHALL SUPPORT REINFORCEMENT IN ITS PROPER LOCATION FROM THE FORMWORK DURING CONCRETE OPERATION.
2. THE CONTRACTOR SHALL REMOVE WATER PRESENT IN HOLE PRIOR TO POURING CONCRETE.
3. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO THE POLE AND FIXTURE INSTALLATION WITH THE MANUFACTURER. THE ENGINEER AND/ OR OWNER TO BE NOTIFIED OF ANY DISCREPANCIES.
4. INSTALLATION OF POLE FOOTING IN CONCRETE PAVING REQUIRES 1/2" EXPANSION JOINT FILLER SEALED WITH JOINT SEALANT.

NOTE: THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.



LIGHT POLE DETAIL

NTS

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BLUEWATER PROPERTY GROUP
LANDS SOUTH OF NYS ROUTE 6S
TOWN OF FLORIDA, NY 12010

60% DESIGN DEVELOPMENT
3.25.2025
REVISIONS

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SITE DETAILS

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JOB # 25-002

E-013

A B C D E F

1 2 3 4 5

EXTERIOR LIGHTING SCHEDULE

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lumens per Lamp	LLF	Wattage
	D1	6	Lithonia Lighting	LDN6 40/50 LO6AR LD	LED DOWNLIGHT	4458	0.9	57.68
	OT	27	Lithonia Lighting	MRP LED 42C 530 40K SR5 MVOLT (277/1)	POST TOP LED ON 8' POLE WITH FLUSH-WITH-GRADE BASE	6959	0.9	75
	OR	3	Hydrel	M9720C P4 80 MFL 40K (277/1)	IN-GRADE FLAD POLE LIGHT. PROVIDE (3) AT FLAG POLE. COORDINATE LOCATION	5412	0.9	54.8078
	HX	42	Lithonia Lighting	WST LED P2 40K VW MVOLT PE DDBXD (277/1)	WALL LIGHT ABOVE DOOR AT 10' WITH INTEGRAL PHOTOCELL	3511	0.9	25
	HXE	7	Lithonia Lighting	WST LED P2 40K VF MVOLT PE E7WC DDBXD EM (277/1 AT PUMP HOUSE, 120/1 AT GUARD HOUSE)	WALL LIGHT ABOVE DOOR AT 10' WITH INTEGRAL PHOTOCELL AND 90MIN EM BATTERY	3469	0.9	25
	WM1	39	Lithonia Lighting	DSX2 LED P8 40K TFTM (480/1)	WALL LIGHT AT 30'	49183	0.9	431
	WM2	9	Lithonia Lighting	DSX2 LED P6 40K TFTM (480/1)	WALL LIGHT AT 24'	40787	0.9	343
	PLT1	2	Lithonia Lighting	DSX2 LED P3 40K 80CRI TFTM HS 480/1	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	23136	0.9	219.4011
	PLT2	9	Lithonia Lighting	DSX2 LED P3 40K T3M 480/1	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER)	27446	0.9	217
	PLT2 H	10	Lithonia Lighting	DSX2 LED P3 40K T3M 480/1 HS	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	22240	0.9	217
	PLT3	4	Lithonia Lighting	DSX2 LED P8 40K TFTM 480/1 HS	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	38401	0.9	862
	PLT4	2	Lithonia Lighting				0.9	1132
			Lithonia Lighting	DSX2 LED P8 40K TFTM 480/1 HS	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	38401	0.9	431
			Lithonia Lighting	DSX2 LED P4 40K T3M (480/1)	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER)	32433	0.9	270
			Lithonia Lighting	DSX2 LED P8 40K TFTM 480/1 HS	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	38401	0.9	431
	PLT5	5	Lithonia Lighting	DSX2 LED P8 40K TFTM 480/1	48" BASE, 36' POLE (WITH FACTORY INSALLED VIBRATION DAMPER)	49183	0.9	1724
	PL25 A	11	Lithonia Lighting	DSX1 LED P1 40K BLC 480/1	30" BASE, 21.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH BACK LIGHT CONTROL	5709	0.9	54
	PL25 B	6	Lithonia Lighting	DSX1 LED P4 40K T3M 480/1 HS	30" BASE, 21.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	11404	0.9	125
	PL25 C	4	Lithonia Lighting	DSX2 LED P3 40K BLC 480/1	30" BASE, 21.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH BACK LIGHT CONTROL	23165	0.9	217
	PLP1	3	Lithonia Lighting	DSX2 LED P8 40K T5W 480/1	30" BASE, 37.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER)	50729	0.9	431
	PLP2	6	Lithonia Lighting	DSX2 LED P8 40K TFTM 480/1HS	30" BASE, 37.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER) WITH HOUSE SIDE SHIELD	38401	0.9	431
	PLP3	10	Lithonia Lighting	DSX2 LED P8 40K T5W 480/1	30" BASE, 37.5' POLE (WITH FACTORY INSALLED VIBRATION DAMPER)	50729	0.9	862



D-Series Size 2

LED Area Luminaire

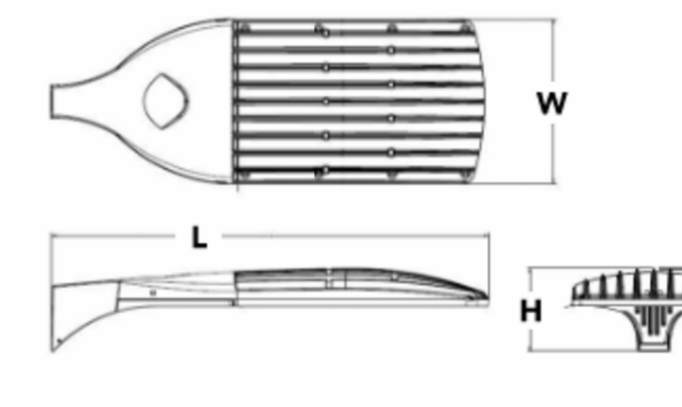
Buy American

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA: 1.1 ft² (0.10 m²)
Length: 40" (101.6 cm)
Width: 15" (38.1 cm)
Height 1: 7-1/4" (18.4 cm)
Height 2 (max): 3.5"
Weight: 36lbs



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	Forward optics: P1, P2, P3, P4, P5, P6, P7, P8; Rotated optics: P10, P11, P12, P13, P14	30K 3000 K; 40K 4000 K; 50K 5000 K	T1S Type I Short (Automotive); T2S Type II Short; T2M Type II Medium; T3S Type III Short; T3M Type III Medium; T4M Type IV Medium; TFTM Forward Throw Medium; T5VS Type V Very Short; T5S Type V Short; T5M Type V Medium; T5W Type V Wide; BLC Backlight control; LCCO Left corner cutoff; RCCO Right corner cutoff	MVOLT; XVOLT (277V–480V); 120; 208; 240; 277; 347; 480	Shipped included: SPA Square pole mounting; RPA Round pole mounting; WBA Wall bracket; SPUMBA Square pole universal mounting adaptor; RPUMBA Round pole universal mounting adaptor. Shipped separately: KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)

Control options	Other options	Finish (required)
Shipped installed: NLTAIR2 nLight AIR generation 2 enabled; PIRHN Network, Bi-Level motion/ambient sensor; PER NEMA twist-lock receptacle only (no controls); PERS Five-wire receptacle only (no controls); PER7 Seven-wire receptacle only (no controls); DMG 0-10V dimming extend out back of housing for external control (no controls); DS Dual switching; PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enable at 5fc; PIRH1FC3V High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc; FAO Field Adjustable Output	Shipped installed: HS House-side shield; SF Single fuse (120, 277, 347V); DF Double fuse (208, 240, 480V); L90 Left rotated optics; R90 Right rotated optics; HA 50°C ambient operations; BAA Buy America(n) Act Compliant. Shipped separately: BS Bird spikes; EGS External glare shield	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

LITHONIA LIGHTING COMMERCIAL OUTDOOR

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MRP LED

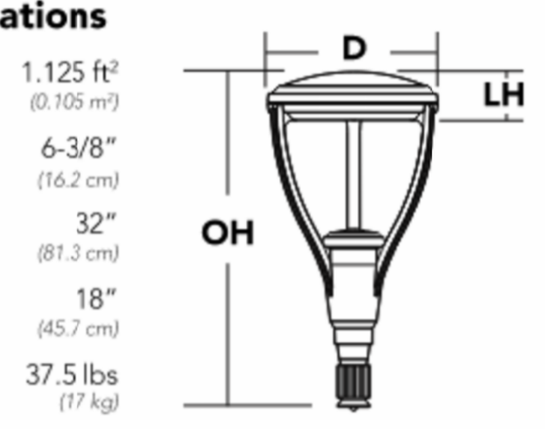
LED Area Luminaire

Buy American

Catalog Number
Notes
Type

Specifications

EPA: 1.125 ft² (0.105 m²)
Luminaire Height: 6-3/8" (16.2 cm)
Overall Height: 32" (81.3 cm)
Diameter: 18" (45.7 cm)
Weight (max): 37.5 lbs (17 kg)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: MRP LED 42C 700 40K SR5 MVOLT DDBXD

MRP LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
MRP LED	42C 42 LEDs (one engine)	350 350mA; 530 530mA; 700 700mA; 1000 1000mA (1A)	30K 3000K; 40K 4000K; 50K 5000K	SR2 Type II; SR3 Type III; SR4 Type IV; SR5 Type V	MVOLT; 120; 208; 240; 277; 347; 480	Shipped included: (blank) Fits 4" OD round pole. Shipped separately: MRPT20 2-3/8" tenon slipfitter; MRPT25 2-7/8" tenon slipfitter; MRPT30 3-1/2" tenon slipfitter; MRPT35 4" tenon slipfitter; MRPF3 3" OD round pole adapter; MRPF5 5" OD round pole adapter

Control options	Other options	Finish (required)
Shipped installed: PER NEMA twist-lock receptacle only (control ordered separate); PERS Five-wire receptacle only (control ordered separate); PER7 Seven-wire receptacle only (control ordered separate); PNMTDD3 Part night, dim till dawn; PNMT5D3 Part night, dim 5 hrs; PNMT6D3 Part night, dim 6 hrs; PNMT7D3 Part night, dim 7 hrs	SF Single fuse (120, 277, 347V); DF Double fuse (208, 240, 480V)	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

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LITHONIA LIGHTING

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.
CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs.
Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment.
Two combination ½"-3/4" and four ½" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.
Accommodates 12"-24" joist spacing.
Passive cooling thermal management for 25°C standard; high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.
Max ceiling thickness 1-1/2".
OPTICS — LEDs are binned to a 3-step SDCM; 80 CRI minimum. 90 CRI optional.
LED light source concealed with diffusing optical lens.
General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.
Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.
ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.
0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.
70% lumen maintenance at 60,000 hours.
LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated. ENERGY STAR® certified product.
BUY AMERICAN — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.
WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions
Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.



LDN6

6" Open and WallWash LED
Non-IC
New Construction Downlight

Buy American

A+ Capable options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6 35/15 LO6AR LSS MVOLT EZ10

LDN6

Series	Color temperature	Lumens¹	Aperture/Trim Color	Finish	Voltage
LDN6 6" round	27/ 2700K; 30/ 3000K; 35/ 3500K; 40/ 4000K; 50/ 5000K	05 500 lumens; 07 750 lumens; 10 1000 lumens; 15 1500 lumens; 20 2000 lumens; 25 2500 lumens; 30 3000 lumens; 40 4000 lumens; 50 5000 lumens	L06 Downlight; LW6 Wallwash; AR Clear; WR² White; BR² Black	LSS Semi-specular; LD Matte diffuse; LS Specular	MVOLT Multi-volt; 120 120V; 277 277V; 347³ 347V

Driver	Options
GZ10 0-10V driver dims to 10%; GZ1 0-10V driver dims to 1%; D10 Minimum dimming 10% driver for use with JOT; D1 Minimum dimming 1% driver for use with JOT; EZ10 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 10%; EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%; EDAB eldoLED DALI SOLDRIVE dim to dark	SF⁴ Single fuse; TRW⁵ White painted flange; TRBL⁵ Black painted flange; EL⁶ Emergency battery pack with integral test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS; ELR⁶ Emergency battery pack with remote test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS; ELSD⁶ Emergency battery pack with self-diagnostics, integral test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS; ELRSD⁶ Emergency battery pack with self-diagnostics, remote test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS; E10WCP⁶ Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB; E10WCPR⁶ Emergency battery pack, 10W Constant Power with remote test switch. Certified in CA Title 20 MAEDB; NPP16D⁷ nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1); NPP16DER⁷ nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit; N80⁸ nLight™ Lumen Compensation; JOT¹³ Wireless room control with "Just One Touch" pairing; NPS80EZ⁷ nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1); NPS80EZER⁷ nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency circuit; HAO¹¹ High ambient option; CP¹² Chicago Plenum; RRL__ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Available only in RRLA, RRLB, RRLAE, and RRLC12S. Refer to RRL spec sheet on www.acuitybrands.com for the RELOC product specifications; NLTAIR2⁹·¹⁰ nLight® Air enabled; NLTAIRER2⁹·¹⁰ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit, not available with battery pack options; NLTAIREM2⁹·¹⁰ nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection. Available with battery pack options; BAA Buy America(n) Act Compliant; 90CRI High CRI (90+)

Accessories: *Order as separate catalog number.*	
PS1055CP	FMC Power Sentry batterypack, T20 compliant, field installable, 10w constant power
EAC ISSM 375	Compact interruptible emergency AC power system
EAC ISSM 125	Compact interruptible emergency AC power system
GRA68 JZ	Oversized trim ring with 8" outside diameter¹

Notes
1. Overall height varies based on lumen package; refer to dimensional chart on page 3.
2. Not available with finishes.
3. Not available with emergency options.
4. Must specify voltage 120V or 277V.
5. Available with clear (AR) reflector only.
6. 12.5" of plenum depth or top access required for battery pack maintenance.
7. Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
8. Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ10 and EZ1 drivers.
9. Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options.
10. NLTAIR2, NLTAIRER2 and NLTAIREM2 not recommended for metal ceiling installations.
11. Fixture height is 6.5" for all lumen packages with HAO.
12. Must specify voltage for 3000lm and above. 5000lm with marked spacing 24 L x 24 W x 14 H. Not available with emergency battery pack option.
13. Must specify D10 or D1 driver. Not available with nLight options. Not available with CP. Not recommended for metal ceiling installation. Not for use with emergency backup power systems other than battery packs.



WST LED

Architectural Wall Sconce

Buy American

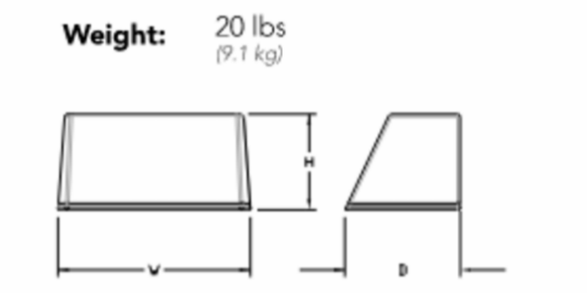
Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

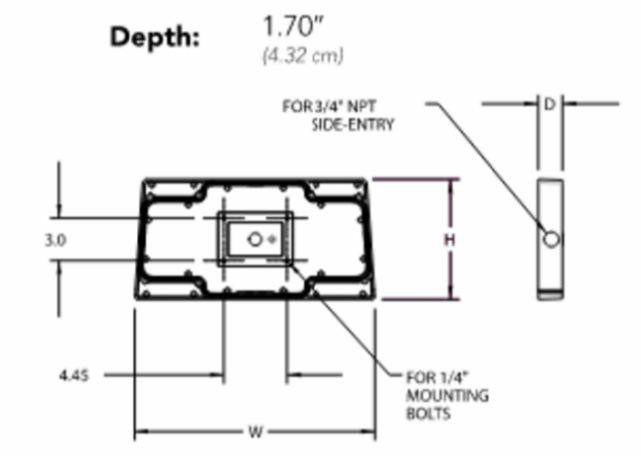
Luminaire

Height: 8-1/2" (21.59 cm)
Width: 17" (43.18 cm)
Depth: 10-3/16" (25.9 cm)
Weight: 20 lbs (9.1 kg)



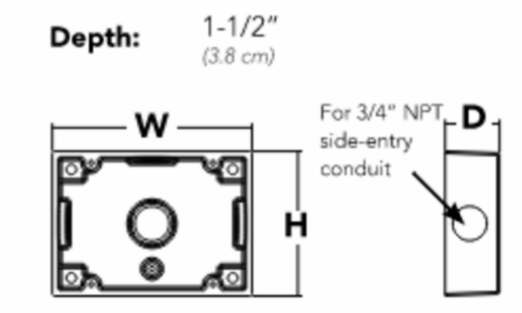
Optional Back Box (PBBW)

Height: 8.49" (21.56 cm)
Width: 17.01" (43.21 cm)
Depth: 1.70" (4.32 cm)



Optional Back Box (BBW)

Height: 4" (10.2 cm)
Width: 5-1/2" (14.0 cm)
Depth: 1-1/2" (3.8 cm)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

LITHONIA LIGHTING COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800-705-SERV (7378) • www.lithonia.com

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HYDREL

CATALOG NUMBER
NOTES
TYPE



M9700C

In-Grade Luminaire

Specifications	SINGLE LENS	DOUBLE LENS
Length:	12" 305 mm	12" 305 mm
Width:	12" 305 mm	12" 305 mm
Height:	16" 407 mm	16" 407 mm
Weight:	25lbs	27lbs

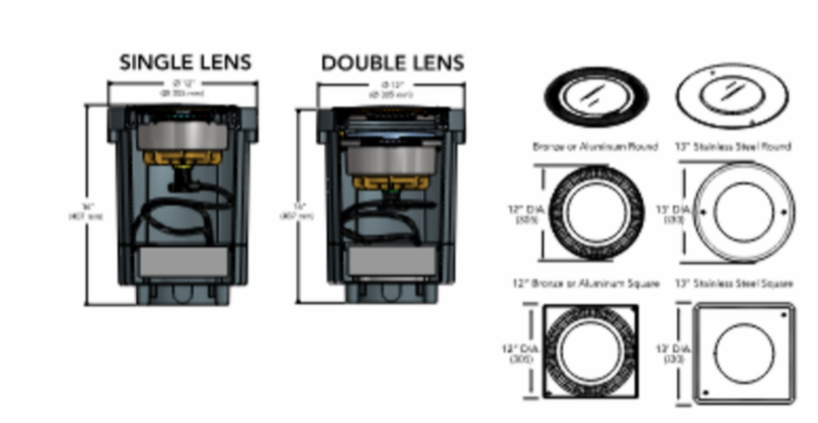
Weight is based on aluminum material. For B and SS material add 2lbs.

HIGHLIGHTS

- Factory-sealed LED lamp module and encapsulated power module
- Optical and mechanical aiming with an optional double lens
- Optimal efficiency through photometric improvements
- Color temperature: 27K - 50K
- In-line & 0-10V Dimming
- Flow-through technology

5 YEAR warranty
IP68
Buy American

DIMENSIONS

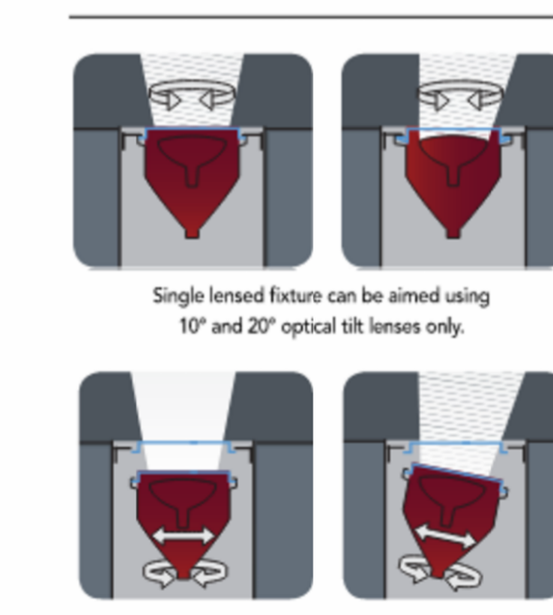


LUMEN PACKAGES

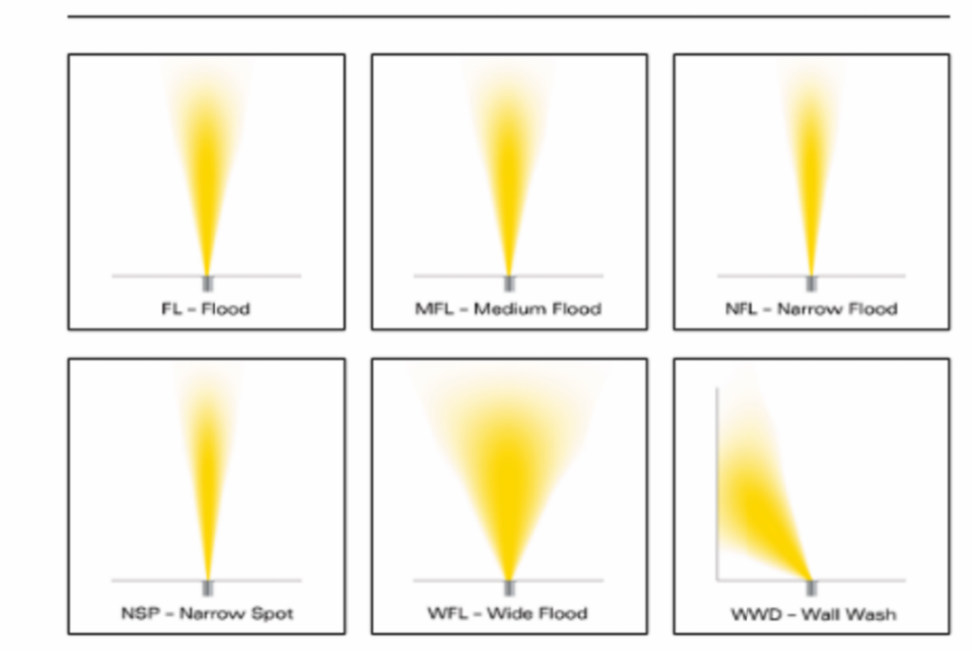
	NSP	NFL	MFL	FL	WFL	WWD
Delivered Lumens	4,205	3,786	3,537	3,576	3,320	2,871
Watts	35	35	35	35	35	35
LPW	120	110	108	101	95	82
Peak Candela	40,082	10,183	5,440	3,417	2,225	2,649

Note: Information based on 4000K @ P2 Performance Package - Single lens (M9710C and M9730C)

AIMING DETAILS



STANDARD DISTRIBUTION



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DLRGROUP
© DLR Group

MSV1
BLUEWATER PROPERTY GROUP
LANDS SOUTH OF NYS ROUTE 5S
TOWN OF FLORIDA, NY 12010

60% DESIGN DEVELOPMENT
3.25.2025
REVISIONS

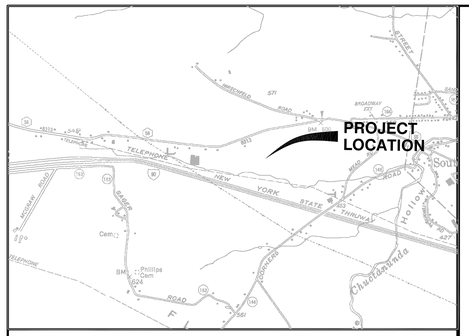
57-25115-00

SITE LIGHTING CUT-SHEETS

N

Kraemer Consulting Engineers, PLLC.
Mechanical and Electrical Engineers
2050 West Whispering Wind Dr., Suite 158
Phoenix, Arizona 85085-2864
(602) 285-1669
(602) 285-9450 - fax
JOB # 25-002

E-014



SITE LOCATION PLAN: 1"=2000'

LEGAL DESCRIPTION OF RECORD:

A CERTAIN PIECE OR PARCEL OF LAND DEPICTED CONTAINING 137.35 ACRES, ON A MAP ENTITLED "MAP SHOWING OVERALL MERGED PARCEL, PREPARED FOR WE ACQUISITIONS, L.L.C., STATE ROUTES 5S, MEAD ROAD & SNOOKS COMERS ROAD, TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK," DATED APRIL 22, 2019 AND LAST REVISED JULY 15, 2021, SCALE 1"=150', PREPARED BY THE LRC GROUP, 85 CIVIC CENTER PLAZA, SUITE 103 POUGHKEEPSIE, NY 12601 BEING FURTHER BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN SET ON THE SOUTHERLY 1955 HIGHWAY LAYOUT LINE OF NEW YORK STATE ROUTE 5S, SAID POINT BEING N68°56'20"W 327.17 FEET FROM A N.Y.S.D.O.T MONUMENT FOUND AT THE INTERSECTION OF THE SAID SOUTHERLY 1955 HIGHWAY LAYOUT LINE OF ROUTE 5S WITH THE 1955 HIGHWAY LAYOUT LINE OF MEAD ROAD, SAID POINT ALSO BEING THE NORTHWESTERLY COMER OF LAND NOW OR FORMERLY OF MEAD BROTHERS PROPERTIES, LLC AS DESCRIBED IN LIBER 2016 PAGE 67487 AND THE NORTHEASTERLY COMER OF THE HEREIN DESCRIBED PARCEL; THENCE RUNNING ALONG THE DIVISION LINE OF THE HEREIN DESCRIBED PARCEL AND SAID LANDS OF MEAD BROTHERS PROPERTIES, LLC, S06°02'31"E 946.15 FEET TO A POINT ON THE ASSUMED NORTHERLY HIGHWAY LINE OF MEAD ROAD; THENCE RUNNING SOUTHWESTERLY THE FOLLOWING FOUR (4) COURSES AND DISTANCES ALONG THE SAID ASSUMED NORTHERLY HIGHWAY LINE OF MEAD ROAD, S51°57'52"W 208.97 FEET, SOUTHWESTERLY ON A CURVE TO THE LEFT HAVING A RADIUS OF 1,007.65 FEET, AN ARC LENGTH OF 279.85 FEET, AND A CHORD BEARING S43°59'30"W 278.95 FEET, S33°58'11"W 122.09 FEET, AND SOUTHERLY ON A CURVE TO THE LEFT HAVING A RADIUS OF 423.07 FEET, AN ARC LENGTH OF 88.40 FEET, AND A CHORD BEARING S25°55'04"W 88.24 FEET TO A POINT MARKING THE MOST NORTHEASTERLY COMER OF OTHER LAND NOW OR FORMERLY OF MEAD BROTHERS PROPERTIES, LLC, AS DESCRIBED IN LIBER 2016 PAGE 67485, SAID POINT BEING THE SOUTHEASTERLY COMER OF THE HEREIN DESCRIBED PARCEL; THENCE RUNNING WESTERLY, SOUTHERLY, SOUTHWESTERLY, NORTHWESTERLY, WESTERLY AGAIN AND SOUTHWESTERLY AGAIN THE FOLLOWING FIFTEEN (15) COURSES AND DISTANCES GENERALLY ALONG THE CENTERLINE OF A TRIBUTARY OF CHUCTANUNDA CREEK AS IT WINDS AND BENDS, IN PART, AND ALONG SAID OTHER LANDS OF MEAD BROTHERS PROPERTIES LLC, S86°09'19"W 434.70 FEET, N87°26'20"W 144.37 FEET, N73°53'29"W 162.42 FEET, S75°48'02"W 76.94 FEET, S15°51'25"W 97.01 FEET, S68°30'11"W 309.77 FEET, S78°42'03"W 75.36 FEET, N64°52'35"W 50.00 FEET, N43°08'22"W 59.44 FEET, N87°30'45"W 21.27 FEET, S65°57'48"W 56.64 FEET, S75°49'44"W 86.70 FEET,N81°00'25"W 94.46 FEET, N66°17'24"W 93.16 FEET, AND S34°51'59"W 300.47 TO A POINT IN THE NORTHERLY RIGHT OF WAY LINE OF THE NEW YORK STATE THRUWAY; THENCE RUNNING GENERALLY WESTERLY THE FOLLOWING FOUR (4) COURSES AND DISTANCES ALONG THE SAID NORTHERLY RIGHT OF WAY LINE OF THE NEW YORK STATE THRUWAY; N73°53'51"W 81.79 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N73°58'57"W 738.81 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N75°17'54"W 618.57 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, AND N73°20'11"W 475.56 FEET TO AN IRON PIN FOUND AT THE SOUTHEASTERLY COMER OF LAND NOW OR FORMERLY OF WE 1785 STATE HIGHWAY 5S LLC, AS DESCRIBED IN DEED DOCUMENT NUMBER 2020-87412, SAID POINT BEING THE SOUTHWESTERLY COMER OF THE HEREIN DESCRIBED PARCEL; THENCE RUNNING NORTHERLY, AND WESTERLY THE FOLLOWING THREE (3) COURSES AND DISTANCES ALONG SAID LANDS NOW OR FORMERLY OF WE 1785 STATE HIGHWAY 5S LLC, IN PART, OTHER LANDS NOW OR FORMERLY OF WE 1785 STATE HIGHWAY 5S LLC, AS DESCRIBED IN DEED DOCUMENT NUMBER 2020-87409, IN PART, AND LANDS OF SOPRAMCO III REO, LLC, AS DESCRIBED IN LIBER 1664 PAGE 151, IN PART, N08°17'09"E 811.10 FEET, N80°43'46"W 166.69 FEET TO AN IRON PIN WITH CAP FOUND, AND N85°08'22"W 82.94 FEET TO A POINT ON THE 2002 HIGHWAY LAYOUT LINE OF NEW YORK STATE ROUTE 5S, SAID POINT BEING THE WESTERLY-MOST COMER OF THE HEREIN DESCRIBED PARCEL; THENCE RUNNING EASTERLY, SOUTHERLY, EASTERLY AGAIN, AND SOUTHEASTERLY ALONG THE SOUTHERLY 2002 HIGHWAY LAYOUT LINE, THE SOUTHERLY 2004 HIGHWAY LAYOUT LINE, AND THE SOUTHERLY 1955 HIGHWAY LAYOUT LINE, ALL IN PART, ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 1465.00 FEET, AN ARC LENGTH OF 217.28 FEET, AND A CHORD BEARING N85°57'03"E 217.08 FEET, S75°46'43"E 21.66 FEET TO AN IRON PIN FOUND, N8R25'20"E 51.65 FEET TO AN IRON PIN FOUND, N75°51'07"E 98.70 FEET TO AN IRON PIN FOUND, N75°00'13"E 82.28 FEET TO AN IRON PIN FOUND, N71°22'47"E 256.07 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N70°23'41"E 211.01 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N71°27'58"E 265.61 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N75°51'51"E 399.17 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N79°05'39"E 320.71 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N75°48'57"E 189.65 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, N79°15'55"E 855.81 FEET TO AN IRON PIN WITH CAP FOUND, N79° 11 '45"E 74.56 FEET TO A N.Y.S.D.O.T. MONUMENT FOUND, S86°28'54"E 17.67 FEET, N88°45'08"E 90.84 FEET, N88°06'08"E 398.74 FEET, S76°21'41"E 158.38 FEET, S68°56'20"E 339.34 FEET TO THE POINT OR PLACE OF BEGINNING.

FLOOD ZONE NOTE:

PROPERTY SHOWN HEREON LIES OUTSIDE A SPECIAL FLOOD HAZARD AREA ("SFHA") AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; AS PER FEMA OFFICIALS, THE PROPERTY LIES WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP IDENTIFIED AS COMMUNITY MAP NO. 36057C0215E, PANEL 215 OF 385, OF THE TOWN OF FLORIDA, MONTGOMERY COUNTY BEARING AN EFFECTIVE DATE OF JANUARY 19, 2018.

GENERAL NOTES:

HORIZONTAL DATUM IS NEW YORK STATE PLANE EAST ZONE, ESTABLISHED FROM GPS OBSERVATIONS AT THE TIME OF SURVEY

VERTICAL DATUM IS NAVD88, ESTABLISHED FROM GPS OBSERVATIONS AT THE TIME OF SURVEY

WETLANDS SHOWN HEREON AS PER MAP REFERENCE NO. 2.

CONTOURS AS SHOWN HEREON ARE AS PER MAP REFERENCE NO. 2.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

SURVEYED FROM RECORD DESCRIPTION AND AS IN POSSESSION.

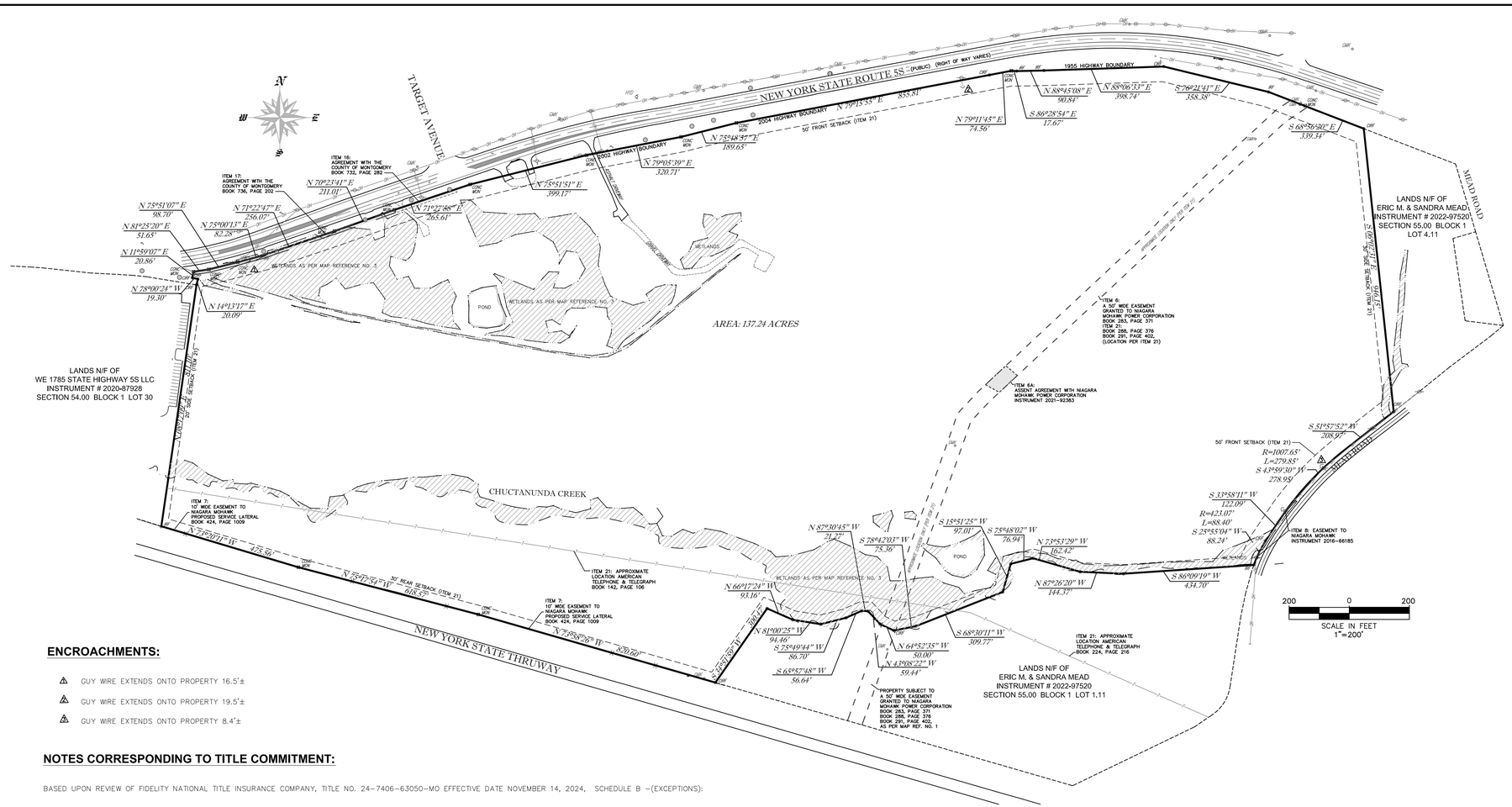
SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.

SURVEY SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.

SURVEY SHOWN IS SUBJECT TO ANY SUBSURFACE CONDITIONS THAT MAY EXIST, IF ANY.

UNDERGROUND FACILITIES AND STRUCTURES SHOWN HEREON WERE TAKEN FROM DATA OBTAINED FROM PREVIOUS MAPS AND RECORD DRAWINGS. ALL ABOVE GROUND STRUCTURES AND SURFACE FEATURES SHOWN HEREON ARE THE RESULT OF A FIELD SURVEY UNLESS OTHERWISE NOTED. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOWN OR CERTIFIED BY THE UNDERSIGNED. THE SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES. THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION MUST BE NOTIFIED PRIOR TO CONDUCTING TEST BORINGS, EXCAVATION AND CONSTRUCTION.

SEE SHEETS 1 THROUGH 7 FOR SITE DETAILS.



LEGEND:

- CB — CATCH BASIN
- HYD — HYDRANT
- LP — LIGHT POLE
- SMH — SANITARY MANHOLE
- DMH — STORM MANHOLE
- EMH — ELECTRIC MANHOLE
- WV — WATER VALVE
- TEL PED — TELEPHONE PEDESTAL
- EMH — ELECTRIC BOX
- ELEC. TRANS. — ELECTRIC TRANSFORMER
- UTILITY POLE
- TMH — TELEPHONE MANHOLE
- TCB — TRAFFIC CONTROL BOX
- TSP — TRAFFIC SIGNAL POLE
- G — GAS LINE
- S — SANITARY LINE
- ST — STORM LINE
- W — WATER LINE
- T — TELEPHONE LINE
- OH — OVERHEAD WIRES
- 357.82 — SPOT ELEVATION
- CMF — CAPPED IRON ROD FOUND
- IRF — IRON ROD FOUND
- IPF — IRON PIPE FOUND
- LA — LANDSCAPED AREA
- RD — ROOF DRAIN
- SB — SOIL BORING
- MW — MONITORING WELL
- GMK — GAS MARKER POST
- EM — ELECTRIC METER
- GM — GAS METER

ENCROACHMENTS:

⚠ GUY WIRE EXTENDS ONTO PROPERTY 16.5'±

⚠ GUY WIRE EXTENDS ONTO PROPERTY 19.5'±

⚠ GUY WIRE EXTENDS ONTO PROPERTY 8.4'±

NOTES CORRESPONDING TO TITLE COMMITMENT:

BASED UPON REVIEW OF FIDELITY NATIONAL TITLE INSURANCE COMPANY, TITLE NO. 24-7406-63050-MO EFFECTIVE DATE NOVEMBER 14, 2024, SCHEDULE B -(EXCEPTIONS):

ITEM 5: EASEMENT GRANTED TO THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY RECORDED IN DEED BOOK 215, PAGE 144 IS NOT PLOTTABLE AS DESCRIBED, NO METES AND BOUNDS. EASEMENT ALONG ROUTE 5S IN 1925.

ITEM 6: EASEMENT GRANT MADE BY EDYTH LOHMEYER TO NIAGARA MOHAWK POWER CORPORATION, DATED MAY 1, 1951 AND RECORDED IN BOOK 283 PAGE 371., AFFECTS THE PREMISES AND IS SHOWN HEREON. LOCATION AS PER ITEM 21.
WITH REGARD THERETO:
A. ASSENT AGREEMENT MADE BY AND BETWEEN NIAGARA MOHAWK POWER CORPORATION AND MEAD BROTHERS PROPERTIES LLC, DATED DECEMBER 31, 2020 AND RECORDED APRIL 13, 2021 AS INSTRUMENT NO. 2021- 92383, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 7: EASEMENT GRANT MADE BY JAMES M. MEAD, JEAN MEAD AND EMILY M. MEAD TO NIAGARA MOHAWK POWER CORPORATION, DATED SEPTEMBER 27, 1979 AND RECORDED MARCH 7, 1980 IN BOOK 424 OF DEEDS AT PAGE 1009, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 8: GRANT OF EASEMENT MADE BY MEAD FAMILY PARTNERSHIP TO NIAGARA MOHAWK POWER CORPORATION AND VERIZON NEW YORK INC., DATED OCTOBER 11, 2014 AND RECORDED MARCH 1,2016 AS INSTRUMENT NO. 2016-66185, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 9: EASEMENT GRANT MADE BY ANNA YUNKER TO THE NEW YORK TELEPHONE COMPANY, DATED JANUARY 8, 1969 AND RECORDED JANUARY 22, 1969 IN LIBER 378 PAGE 646, IS NOT PLOTTABLE AS DESCRIBED. FOR TELEPHONE CABLE THAT WILL BE RELOCATED FOR FUTURE DEVELOPMENT BUT AFFECTS THE PREMISES.

ITEM 10: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO BRIAN YACUR AND DIANE YACUR, DATED DECEMBER 19, 1988 AND RECORDED JANUARY 6, 1989 IN LIBER 500 PAGE 207 AS REPEATED IN LIBER 522 PAGE 134. LIBER 652 PAGE 238 AND AS INSTRUMENT NO. 2021-93986, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY..

ITEM 11: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO ERNEST J. DAVIERO, JR. AND LOREEN DAVIERO, DATED JANUARY 13, 1989 AND RECORDED JANUARY 23, 1989 IN LIBER 501 PAGE 112, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 12: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO MARK JOHNSON AND GINA M. JOHNSON, DATED JANUARY 27, 1989 AND RECORDED FEBRUARY 7, 1989 IN LIBER 501 PAGE 333 AS REPEATED IN INSTRUMENT NO. 2021-94000, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 13: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO DOMINICK J. MEGNA AND MARY S. MEGNA, DATED JANUARY 27, 1989 AND RECORDED FEBRUARY 7, 1989 IN LIBER 501 PAGE 335 AS REPEATED IN INSTRUMENT NO. 2021-93999, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 14: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO DEAN W. SERFIS AND JOANNE FORMOSA, DATED APRIL 24, 1989 AND RECORDED MAY 17, 1989 IN LIBER 506 PAGE 53 AS REPEATED IN LIBER 558 PAGE 209, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 15: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO VINCENT J. MONTAGNINO AND PAMELA J. MONTAGNINO, DATED JUNE 9, 1989 AND RECORDED JUNE 19, 1989 IN LIBER 507 PAGE 189, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 16: GRANT OF PERMANENT CONSTRUCTION EASEMENT AND RIGHT-OF-WAY SET FORTH IN AGREEMENT MADE BETWEEN DEAN W. SERFIS AND THE COUNTY OF MONTGOMERY, DATED OCTOBER 22, 2002 AND RECORDED FEBRUARY 23, 2004 IN LIBER 732 PAGE 282, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 17: GRANT OF PERMANENT CONSTRUCTION EASEMENT AND RIGHT-OF-WAY SET FORTH IN AGREEMENT MADE BETWEEN VINCENT J. MONTAGNINO AND THE COUNTY OF MONTGOMERY, DATED AUGUST 20, 2002 AND RECORDED MAY 3, 2004 IN LIBER 736 PAGE 202, AFFECTS THE PREMISES AND IS SHOWN HEREON..

ITEM 18: EASEMENT GRANT MADE BY EDWIN LISDELL AND ELIZABETH LISDELL TO POSTAL TELEGRAPH CABLE COMPANY, DATED AUGUST 19, 1935 AND RECORDED APRIL 2, 1936 IN VOLUME 234 AT PAGE 136 IS NOT PLOTTABLE AS DESCRIBED. EASEMENT FOR TRIMMING RIGHTS ALONG ROUTE 5S IN 1935..

ITEM 19: DRIVEWAY ENCROACHMENT AGREEMENT MADE BETWEEN ARLENE C. KNOWLES AND M.C. 1 DEVELOPMENT CORP., DATED NOVEMBER 1, 1995 AND RECORDED NOVEMBER 3, 1995 IN LIBER 599 PAGE 191, DOES NOT AFFECT THE PREMISES.

ITEM 20: GRANT OF EASEMENT MADE BY 1767 ROUTE 5S HOLDINGS, LLC TO NIAGARA MOHAWK POWER CORPORATION AND VERIZON NEW YORK INC., DATED JANUARY 13, 2012 AND RECORDED JULY 16, 2012 AS INSTRUMENT NO. 2012-47875, DOES NOT AFFECT THE PREMISES.

ITEM 21: MATTERS SET FORTH IN MAP FILED JUNE 14, 2022 AS INSTRUMENT NO. 014623 ARE SHOWN HEREON.

ITEM 22: UNRECORDED RIGHTS, IF ANY, IN FAVOR OF ANY ELECTRIC LIGHT OR TELEPHONE COMPANY TO MAINTAIN GUY WIRES EXTENDING FROM THE DESCRIBED PREMISES TO POLES LOCATED ON THE ROADS ON WHICH THE DESCRIBED PREMISES ABUT. SEVERAL GUY WIRES ARE LOCATED WITHIN THE PREMISES AND ARE DIPICTED AS ENCROACHMENTS AND SHOWN HEREON.

SURVEY NOTES:

1. THE SUBJECT PROPERTY HAS ACCESS TO PUBLIC UTILITIES FROM THE PUBLIC STREETS ADJACENT TO THE SUBJECT PROPERTY.

2. THE SUBJECT PROPERTY ABUTS, WITHOUT GAPS GORES OR STRIPS, AND HAS VEHICULAR AND PEDESTRIAN INGRESS TO AND EGRESS FROM NEW YORK STATE ROUTE 5S AND MEAD ROAD , WHICH IS/ARE COMPLETED, DEDICATED AND ACCEPTED PUBLIC RIGHT OF WAY.

3: EXCEPT AS SHOWN AND NOTED ON THIS SURVEY, BASED ON A CAREFUL PHYSICAL INSPECTION OF THE SUBJECT PROPERTY AND MATTERS OF RECORD OR PROVIDED BY THE TITLE COMPANY OR CLIENT, THERE ARE NO VISIBLE:HEIGHT OR BULK RESTRICTIONS, SETBACK LINES, PARKING REQUIREMENTS, PARTY WALLS, ENCROACHMENTS OR OVERHANGS OF ANY IMPROVEMENTS UPON ANY EASEMENT, RIGHT-OF-WAY OR ADJACENT LAND OR ENCROACHMENT OF THE IMPROVEMENTS LOCATED ON ADJACENT LAND ONTO THE SUBJECT PROPERTY, OTHER THAN AS NOTED ON THE ENCROACHMENT TABLE; OR IMPROVEMENTS, CONFLICTS, OFFICIALLY DESIGNATED 100 YEAR FLOOD PLAINS OR FLOOD PRONE AREAS, SPRINGS, STREAMS, CREEKS, RIVERS, PONDS, LAKES, CEMETERIES OR BURIAL GROUNDS OTHER THAN THOSE SHOWN HEREON.

4: EXCEPT AS SHOWN ON THE SURVEY, THE SUBJECT PROPERTY DOES NOT SERVE ANY ADJOINING PROPERTY FOR UTILITIES, DRAINAGE, STRUCTURAL SUPPORT OR INGRESS OR EGRESS, TO THE BEST OF THE UNDERSIGNED KNOWLEDGE.

5: THE LEGAL DESCRIPTION ON AND DEPICTION OF THE SUBJECT PROPERTY CONTAINED IN THE SURVEY DESCRIBE AND DEPICT THE SAME PROPERTY DESCRIBED IN THE LEGAL DESCRIPTION CONTAINED IN THAT CERTAIN TITLE COMMITMENT REPORT ISSUED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY ON NOVEMBER 14, 2024 UNDER TITLE NO. 24-7406-63050-MO

6: THE RECORD DESCRIPTION OF THE SUBJECT PROPERTY FORMS A MATHEMATICALLY CLOSED FIGURE.

7: THERE IS NO OBSERVED EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

8: THE SURVEY REFLECTS THE LOCATION OF WETLANDS ON THE SUBJECT PROPERTY BASED ON THE WETLAND DELINEATION PROVIDED BY THE CLIENT.

MAP REFERENCES:

1. "MAP SHOWING OVERALL MERGED PARCEL PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD & SNOOKS CORNERS RD., PREPARED BY LRC GROUP, DRAWING LM-2 AND FILED IN THE MONTGOMERY COUNTY CLERKS OFFICE AS MAP 014623.

2. PROPOSED MINOR SUBDIVISION PLAN OF MEAD BROTHER PROPERTIES LLC", PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD & SNOOKS CORNERS ROAD, PREPARED BY THE LRC GROUP AND FILED IN THE MONTGOMERY COUNTY CLERKS OFFICE ON MAY 13, 2021 AS MAP NO. 014553.

3. ALTA/NSPS LAND TITLE SURVEY PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD AND SNOOKS CORNERS ROAD, DATED DECEMBER 11, 2018, PREPARED BY THE LRC GROUP BEING SHEET NUMBERS, EX 1 THROUGH 5.

DEED REFERENCES:

1. WE 5S LLC TO WE 5S LLC, DATED APRIL 20, 2022 AND RECORDED IN THE MONTGOMERY COUNTY CLERKS OFFICE IN DEED INSTR. 2022-99216.

TAX PARCEL NUMBER:

TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK SEC. 54.00 - BLK. 1 - PARCEL 36

CERTIFICATION:

THIS IS TO CERTIFY TO AMAZON.COM SERVICES LLC, AMAZON.COM, INC. AND THEIR RESPECTIVE AFFILIATES, SUCCESSORS AND ASSIGNS AND FIDELITY NATIONAL TITLE INSURANCE COMPANY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND ALSO ITEMS 1, 2, 3, 4, 6)a), 6)b), 7(a), 7(b), 8, 9, 11, 13, 16, 17, 18, 19, 20 AND 21 AND 21. THE FIELD WORK WAS WAS COMPLETED IN DECEMBER, 2024.

SIGNED: _____ DATE: MARCH 25, 2025

N.Y.S. REGISTRATION NO. 049597

ALTA SHEET 1 (OVERALL)

REVISED PER COMMENTS	3-25-25

NEW YORK STATE ROUTE 5S

ALTA/NSPS LAND TITLE BOUNDARY SURVEY OF THE LANDS OF WE 5S LLC

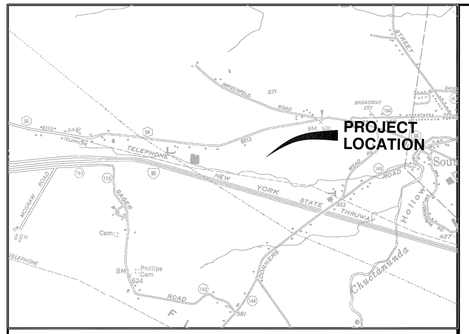
TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=200'	FEBRUARY 17, 2025
DRAWN BY: VPA	PROJECT NO: 24-3839

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
Phone: (518) 346-1595 Fax: 518-770-1655

STATE OF NEW YORK — VINCENT P. AUSFELD — 049597 — LICENSED PROFESSIONAL SURVEYOR

VINCENT P. AUSFELD P.L.S.
LICENSE #049597
www.awlsllp.com

Drawing Name: Z:\PROJECTS\2024\24-3839\dwg\24-3839-ALTA.dwg
Xref's Attached: WETLAND
Date Printed: Mar 25, 2025, 10:32am



SITE LOCATION PLAN: 1"=2000'

GENERAL NOTES:

HORIZONTAL DATUM IS NEW YORK STATE PLANE EAST ZONE, ESTABLISHED FROM GPS OBSERVATIONS AT THE TIME OF SURVEY

VERTICAL DATUM IS NAVD88, ESTABLISHED FROM GPS OBSERVATIONS AT THE TIME OF SURVEY

WETLANDS SHOWN HEREON AS PER MAP REFERENCE NO. 2.

CONTOURS AS SHOWN HEREON ARE AS PER MAP REFERENCE NO. 2.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

SURVEYED FROM RECORD DESCRIPTION AND AS IN POSSESSION.

SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.

SURVEY SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.

SURVEY SHOWN IS SUBJECT TO ANY SUBSURFACE CONDITIONS THAT MAY EXIST, IF ANY.

UNDERGROUND FACILITIES AND STRUCTURES SHOWN HEREON WERE TAKEN FROM DATA OBTAINED FROM PREVIOUS MAPS AND RECORD DRAWINGS. ALL ABOVE GROUND STRUCTURES AND SURFACE FEATURES SHOWN HEREON ARE THE RESULT OF A FIELD SURVEY UNLESS OTHERWISE NOTED. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOWN OR CERTIFIED BY THE UNDERSIGNED. THE SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES. THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION MUST BE NOTIFIED PRIOR TO CONDUCTING TEST BORINGS, EXCAVATION AND CONSTRUCTION.

SEE SHEETS 1 THROUGH 7 FOR SITE DETAILS.

DEED REFERENCES:

1. WE 5S LLC TO WE 5S LLC, DATED APRIL 20, 2022 AND RECORDED IN THE MONTGOMERY COUNTY CLERKS OFFICE IN DEED INSTR. 2022-99216.

TAX PARCEL NUMBER:

TOWN OF FLORIDA, MONTGOMERY COUNTY, NEW YORK SEC. 54.00 – BLK. 1 – PARCEL 36

NOTES CORRESPONDING TO TITLE COMMITMENT:

ITEM 5: EASEMENT GRANTED TO THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY RECORDED IN DEED BOOK 215, PAGE 144 IS NOT PLOTTABLE AS DESCRIBED, NO METES AND BOUNDS. EASEMENT ALONG ROUTE 5S IN 1925.

ITEM 6: EASEMENT GRANT MADE BY EDYTH LOHMEYER TO NIAGARA MOHAWK POWER CORPORATION, DATED MAY 1, 1951 AND RECORDED IN BOOK 283 PAGE 371., AFFECTS THE PREMISES AND IS SHOWN HEREON. LOCATION AS PER ITEM 21.
WITH REGARD THERETO:
A. ASSENT AGREEMENT MADE BY AND BETWEEN NIAGARA MOHAWK POWER CORPORATION AND MEAD BROTHERS PROPERTIES LLC, DATED DECEMBER 31, 2020 AND RECORDED APRIL 13, 2021 AS INSTRUMENT NO. 2021– 92383, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 7: EASEMENT GRANT MADE BY JAMES M. MEAD, JEAN MEAD AND EMILY M. MEAD TO NIAGARA MOHAWK POWER CORPORATION, DATED SEPTEMBER 27, 1979 AND RECORDED MARCH 7, 1980 IN BOOK 424 OF DEEDS AT PAGE 1009, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 8: GRANT OF EASEMENT MADE BY MEAD FAMILY PARTNERSHIP TO NIAGARA MOHAWK POWER CORPORATION AND VERIZON NEW YORK INC., DATED OCTOBER 11, 2014 AND RECORDED MARCH 1,2016 AS INSTRUMENT NO. 2016–66185, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 9: EASEMENT GRANT MADE BY ANNA YUNKER TO THE NEW YORK TELEPHONE COMPANY, DATED JANUARY 8, 1969 AND RECORDED JANUARY 22, 1969 IN LIBER 378 PAGE 646, IS NOT PLOTTABLE AS DESCRIBED. FOR TELEPHONE CABLE THAT WILL BE RELOCATED FOR FUTURE DEVELOPMENT BUT AFFECTS THE PREMISES.

ITEM 10: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO BRIAN YACUR AND DIANE YACUR, DATED DECEMBER 19, 1988 AND RECORDED JANUARY 6, 1989 IN LIBER 500 PAGE 207 AS REPEATED IN LIBER 522 PAGE 134. LIBER 652 PAGE 238 AND AS INSTRUMENT NO. 2021–93986, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY..

ITEM 11: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO ERNEST J. DAVIERO, JR. AND LOREEN DAVIERO, DATED JANUARY 13, 1989 AND RECORDED JANUARY 23, 1989 IN LIBER 501 PAGE 112, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 12: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO MARK JOHNSON AND GINA M. JOHNSON, DATED JANUARY 27, 1989 AND RECORDED FEBRUARY 7, 1989 IN LIBER 501 PAGE 333 AS REPEATED IN INSTRUMENT NO. 2021–94000, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 13: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO DOMINICK J. MEGNA AND MARY S. MEGNA, DATED JANUARY 27, 1989 AND RECORDED FEBRUARY 7, 1989 IN LIBER 501 PAGE 335 AS REPEATED IN INSTRUMENT NO. 2021–93999, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 14: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO DEAN W. SERFIS AND JOANNE FORMOSA, DATED APRIL 24, 1989 AND RECORDED MAY 17, 1989 IN LIBER 506 PAGE 53 AS REPEATED IN LIBER 558 PAGE 209, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 15: COVENANTS AND RESTRICTIONS CONTAINED IN DEED MADE BY WILLIAM J. PALUMBO, JR. TO VINCENT J. MONTAGNINO AND PAMELA J. MONTAGNINO, DATED JUNE 9, 1989 AND RECORDED JUNE 19, 1989 IN LIBER 507 PAGE 189, ASSUMED EXTINGUISHED DUE TO THE FACT WE 5S LLC NOW OWNS THE PROPERTY.

ITEM 16: GRANT OF PERMANENT CONSTRUCTION EASEMENT AND RIGHT–OF–WAY SET FORTH IN AGREEMENT MADE BETWEEN DEAN W. SERFIS AND THE COUNTY OF MONTGOMERY, DATED OCTOBER 22, 2002 AND RECORDED FEBRUARY 23, 2004 IN LIBER 732 PAGE 282, AFFECTS THE PREMISES AND IS SHOWN HEREON.

ITEM 17: GRANT OF PERMANENT CONSTRUCTION EASEMENT AND RIGHT–OF–WAY SET FORTH IN AGREEMENT MADE BETWEEN VINCENT J. MONTAGNINO AND THE COUNTY OF MONTGOMERY, DATED AUGUST 20, 2002 AND RECORDED MAY 3, 2004 IN LIBER 736 PAGE 202, AFFECTS THE PREMISES AND IS SHOWN HEREON..

ITEM 18: EASEMENT GRANT MADE BY EDWIN LISDELL AND ELIZABETH LISDELL TO POSTAL TELEGRAPH CABLE COMPANY, DATED AUGUST 19, 1935 AND RECORDED APRIL 2, 1936 IN VOLUME 234 AT PAGE 136 IS NOT PLOTTABLE AS DESCRIBED. EASEMENT FOR TRIMMING RIGHTS ALONG ROUTE 5S IN 1935..

ITEM 19: DRIVEWAY ENCROACHMENT AGREEMENT MADE BETWEEN ARLENE C. KNOWLES AND M.C. 1 DEVELOPMENT CORP., DATED NOVEMBER 1, 1995 AND RECORDED NOVEMBER 3, 1995 IN LIBER 599 PAGE 191, DOES NOT AFFECT THE PREMISES.

ITEM 20: GRANT OF EASEMENT MADE BY 1767 ROUTE 5S HOLDINGS, LLC TO NIAGARA MOHAWK POWER CORPORATION AND VERIZON NEW YORK INC., DATED JANUARY 13, 2012 AND RECORDED JULY 16, 2012 AS INSTRUMENT NO. 2012–47875, DOES NOT AFFECT THE PREMISES.

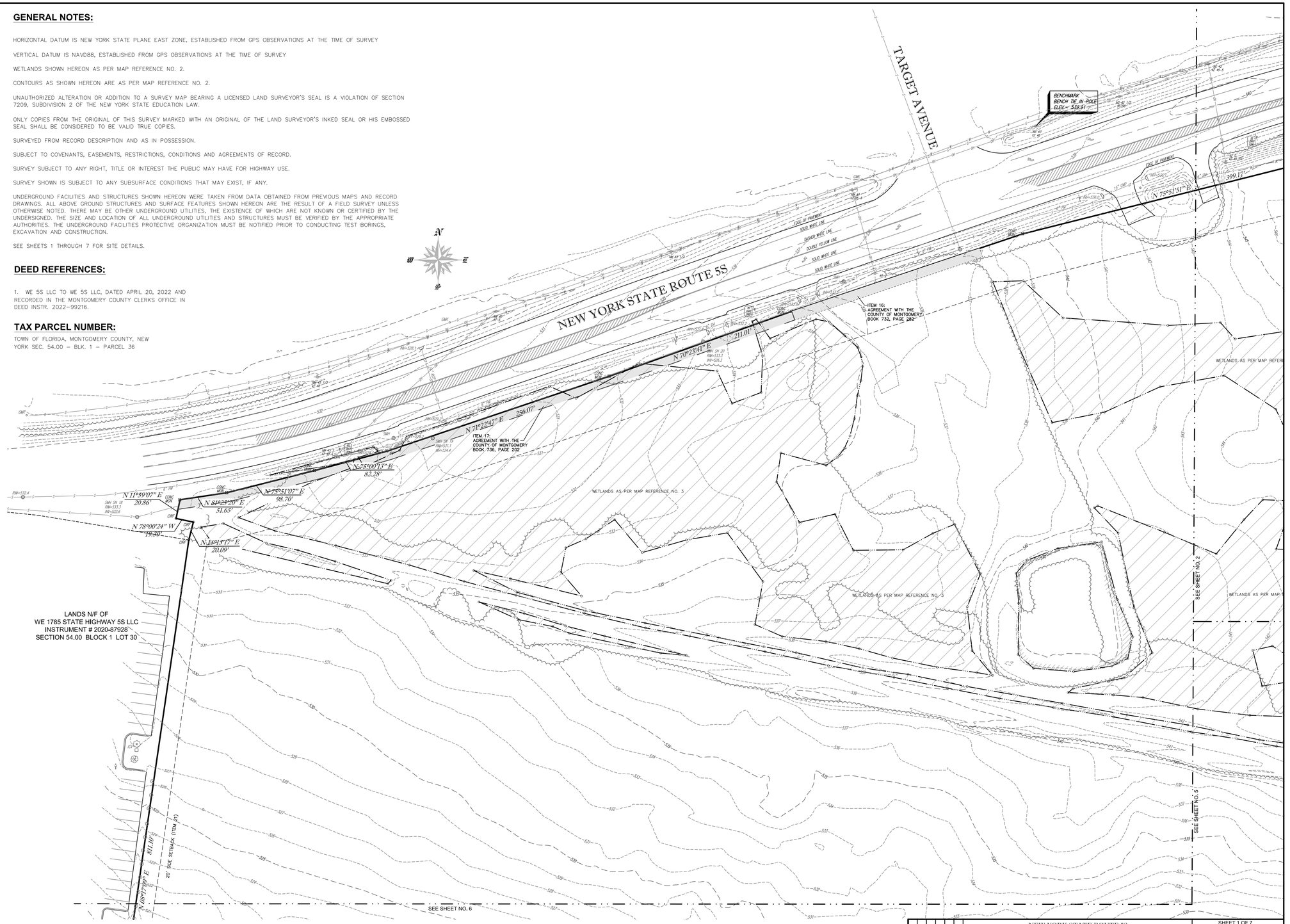
ITEM 21: MATTERS SET FORTH IN MAP FILED JUNE 14, 2022 AS INSTRUMENT NO. 014623 ARE SHOWN HEREON..

MAP REFERENCES:

1. "MAP SHOWING OVERALL MERGED PARCEL PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD & SNOOKS CORNERS RD., PREPARED BY LRC GROUP, DRAWING LM–2 AND FILED IN THE MONTGOMERY COUNTY CLERKS OFFICE AS MAP 014623.

2. PROPOSED MINOR SUBDIVISION PLAN OF MEAD BROTHER PROPERTIES LLC", PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD & SNOOKS CORNERS ROAD, PREPARED BY THE LRC GROUP AND FILED IN THE MONTGOMERY COUNTY CLERKS OFFICE ON MAY 13, 2021 AS MAP NO. 014553.

3. ALTA/NSPS LAND TITLE SURVEY PREPARED FOR WE ACQUISITIONS, LLC, STATE ROUTE 5S, MEAD ROAD AND SNOOKS CORNERS ROAD, DATED DECEMBER 11, 2018, PREPARED BY THE LRC GROUP BEING SHEET NUMBERS, EX 1 THROUGH 5.



50 0 50
SCALE IN FEET
1"=50'

NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

SHEET 1 OF 7

3-25-25	REVISED
2-17-25	REVISED
2-10-25	REVISED
1-8-25	REVISED

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
Phone: (518) 346-1595 Fax: 518-770-1655

VINCENT P. AUSFELD P.L.S.
LICENSE #049097
www.awlsllp.com

Drawing Name: Z:\PROJECTS\2024\24-3839\dwg\24-3839-BM.dwg
Xref's Attached: WETLAND; contours SOUTH; contours NORTH
Date Printed: Mar 25, 2025, 10:45am

N
W E
S

NEW YORK STATE ROUTE 5S

EDGE OF PAVEMENT
SOLID WHITE LINE
DASHED WHITE LINE
DOUBLE YELLOW LINE
SOLID WHITE LINE
EDGE OF PAVEMENT

2002 HIGHWAY BOUNDARY

50' FRONT SETBACK (ITEM 21)

N 79°15'55" E 855.81'

N 75°48'57" E 189.03'

N 79°15'39" E 270.71'

S 85°51'51" E 399.17'

N 79°11'45" E 74.56'

S 86°38'54" E 12.67'

N 85°45'08" E 90.84'

2002 HIGHWAY BOUNDARY

SEE SHEET NO. 1

SEE SHEET NO. 3

SEE SHEET NO. 5

WETLANDS AS PER MAP REFERENCE NO. 3

WETLANDS AS PER MAP REFERENCE NO. 3

WETLANDS AS PER MAP REFERENCE NO. 3

WETLANDS AS PER MAP REFERENCE NO. 3

GRAVEL DRIVEWAY

AREA: 137.24 ACRES

50 0 50
SCALE IN FEET
1"=50'

REVISED	
3-25-25	REVISED
2-17-26	REVISED
2-10-26	REVISED
1-14-26	REVISED
1-8-25	

NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

SHEET 2 OF 7

STATE OF NEW YORK — VINCENT P. AUSFELD — 49597 — LICENSED PROFESSIONAL SURVEYOR

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
Phone: (518) 346-1595 Fax: 518-770-1655

VINCENT P. AUSFELD P.L.S.
LICENSE #049597
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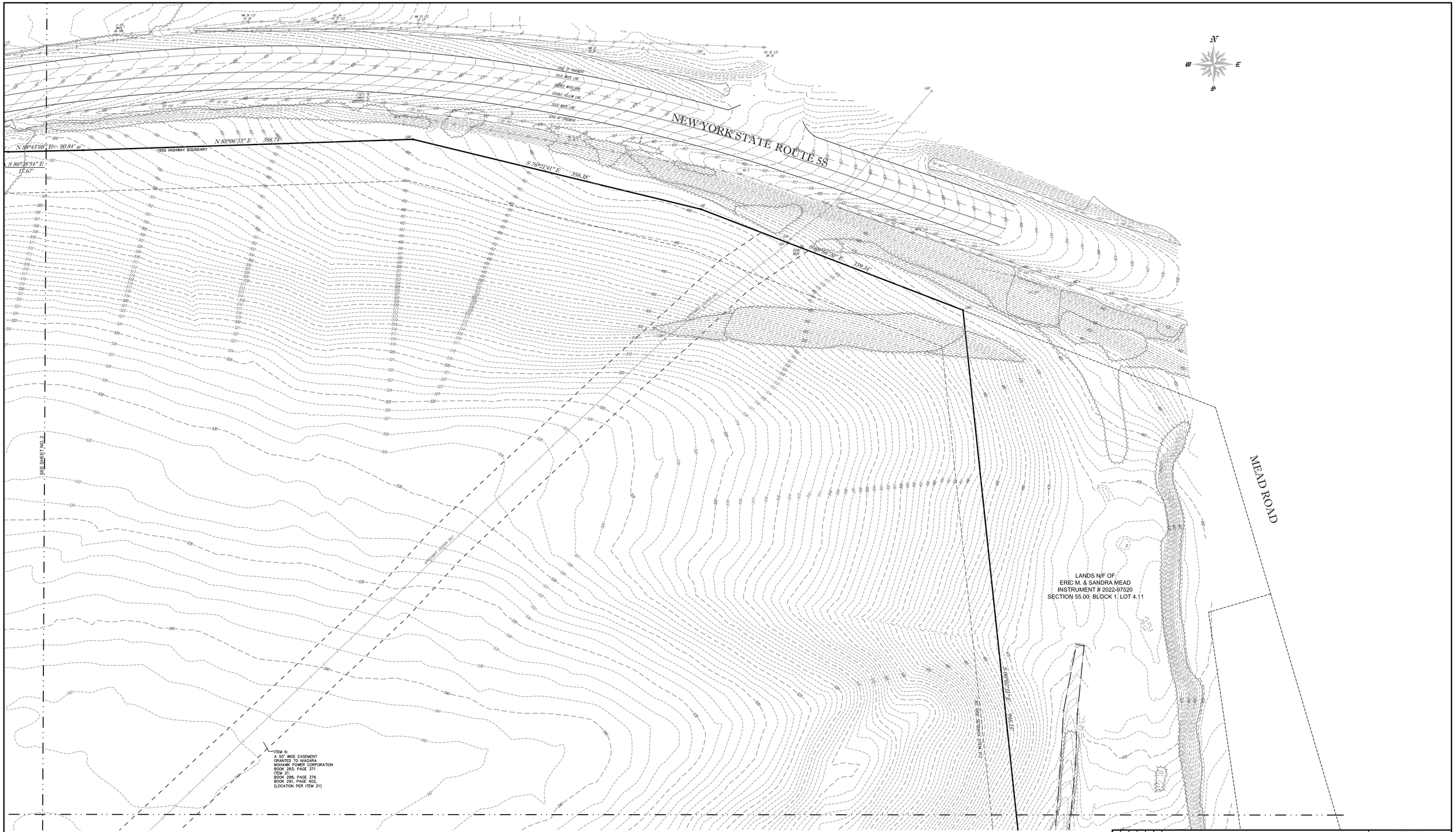
Drawing Name: Z:\PROJECTS\2024\24-3839\dwg\24-3839-BM.dwg
Xref's Attached: WETLAND, contours SOUTH, contours NORTH
Date Printed: Mar 25, 2025, 10:45am



NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

3-25-25	REVISED
2-17-25	REVISED
2-10-25	REVISED
1-8-25	REVISED

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
Phone: (518) 346-1595 Fax: 518-770-1655

SHEET 3 OF 7

VINCENT P. AUSFELD P.L.S.
LICENSE #049597
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Date Printed: Mar 25, 2025, 10:44am

ITEM 21:
BOOK 288, PAGE 376
BOOK 291, PAGE 402,
(LOCATION PER ITEM 21)

SEE SHEET NO. 3

N

W E

S

50' FRONT SETBACK (ITEM 21)

S 51°57'52" W 208.97'

MEAD ROAD

R=1007.65'
L=279.85'
S 43°59'30" W
278.98'

ITEM 8: EASEMENT TO
NIAGARA MOHAWK
INSTRUMENT 2016-66185

R=423.07'
L=88.40'
S 25°55'04" W
88.24'

WETLANDS AS PER MAP REFERENCE NO. 3

S 48°02" W
76.94'

N 73°53'29" W 162.42'

N 87°26'20" W 144.37'

S 86°09'19" W 434.10'

LANDS N/F OF
ERIC M. & SANDRA MEAD
INSTRUMENT # 2022-97520
SECTION 55.00 BLOCK 1 LOT 1.11

50 0 50
SCALE IN FEET
1"=50'

NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

3-26-25	REVISED
2-17-25	REVISED
2-10-25	REVISED
1-9-25	REVISED

Ausfeld & Waldruff Land Surveyors LLP
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VINCENT P. AUSFELD P.L.S.
LICENSE #049597
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SHEET 4 OF 7

STATE OF NEW YORK · VINCENT P. AUSFELD · 049597 · LICENSED PROFESSIONAL SURVEYOR

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Xref's Attached: WETLAND; contours SOUTH; contours NORTH
Date Printed: Mar 25, 2025, 10:42am

SEE SHEET NO. 2

SEE SHEET NO. 6

SEE SHEET NO. 4

SEE SHEET NO. 7

AREA: 137.24 ACRES

N

W E

S

BOOK 288, PAGE 376
BOOK 291, PAGE 402,
(LOCATION PER ITEM 21)

ITEM 6A:
ASSENT AGREEMENT WITH NIAGARA
MOHAWK POWER CORPORATION
INSTRUMENT 2021-92383

OVERHEAD UTILITY LINE

CABLE

WETLANDS AS PER MAP REFERENCE NO. 3

SEE SHEET NO. 7

N 68°42'24" W
93.16'

N 81°00'25" W
99.46'

S 75°49'44" W
96.70'

S 69°57'48" W
56.64'

N 87°30'45" W
21.27'

N 79°06'22" W
59.44'

S 75°42'03" W
75.36'

N 64°52'35" W
50.00'

S 75°48'02" W
76.94'

N 73°53'29" W
162.42'

N 87°26'20" W
144.3'

S 86°09'

S 15°00'25" W

S 05°50'01" W
109.71'

LANDS N/F OF
ERIC L. & SANDRA MEAD
INSTRUMENT # 2022-97520
SECTION 55.60 BLOCK 1 LOT 1.11

50 0 50
SCALE IN FEET
1"=50'

NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

REVISED
3-25-25
2-17-25
2-10-25
1-8-25

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
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VINCENT P. AUSFELD P.L.S.
LICENSE #049597
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SHEET 5 OF 7

STATE OF NEW YORK
VINCENT P. AUSFELD
049597
PROFESSIONAL SURVEYOR

Drawing Name: Z:\PROJECTS\2024\24-3839\dwg\24-3839-BM.dwg
Xref's Attached: WETLAND, contours SOUTH, contours NORTH
Date Printed: Mar 25, 2025, 10:41am



NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

3-25-25	REVISED
2-17-25	REVISED
2-10-25	REVISED
1-8-25	REVISED

SHEET 6 OF 7

STATE OF NEW YORK
VINCENT P. AUSFELD
LICENSED PROFESSIONAL SURVEYOR
49597

Ausfeld & Waldruff Land Surveyors LLP
323 CLINTON STREET, SCHENECTADY NY
Phone: (518) 346-1595 Fax: 518-770-1655

VINCENT P. AUSFELD P.L.S.
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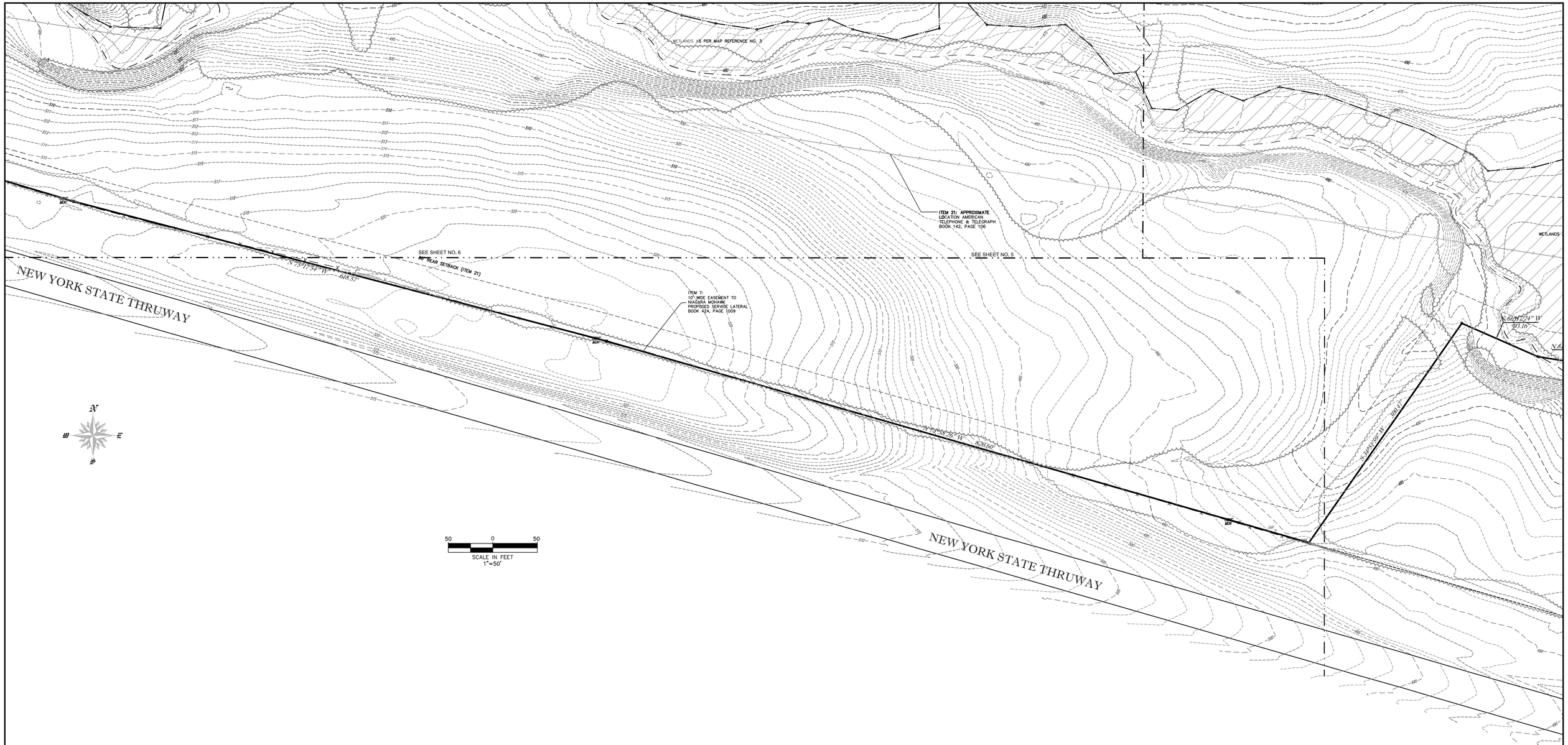

NEW YORK STATE ROUTE 5S

EXISTING CONDITIONS SURVEY OF THE LANDS OF WE 5S LLC

SHEET 7 OF 7

TOWN OF FLORIDA	MONTGOMERY COUNTY, N.Y.
SCALE: 1"=50'	DECEMBER 29, 2024
DRAWN BY: VPA	PROJECT NO: 24-3839

3-25-25	REVISED
2-17-25	REVISED
2-10-25	REVISED
1-9-25	REVISED

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LICENSE #049597
www.awlsllp.com

STATE OF NEW YORK — VINCENT P. AUSFELD — 049597 — LICENSED PROFESSIONAL SURVEYOR

Drawing Name: Z:\PROJECTS\2024\24-3839\dwg\24-3839-BM.dwg
Xref's Attached: WETLAND; contours SOUTH; contours NORTH
Date Printed: Mar 25, 2025, 10:39am

APPENDIX 5

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: MSV1 - Amazon Distribution Center		
Project Location (describe, and attach a general location map): Approximately 1.5 miles west of Interchange 27 on the south side of Route 5S		
Brief Description of Proposed Action (include purpose or need): The Applicant is proposing to construct a ±3.2 Million SF warehouse/distribution facility. The project would have a ±652,000 SF footprint with 5 stories and an overall height of ±103.5'. The project would include approximately 417 tractor trailer spaces with 59 of these loading docks. The project would also include 990 automobile parking spaces. The project would include three (3) driveways on Route 5S and would operate 24 hours a day, 7 days a week. The project would include a new stormwater management system, lighting, electric substation, water tank and landscaping. Project would connect to municipal water and sewer located along Route 5S and include a new electrical substation.		
Name of Applicant/Sponsor: BMG Albany, LLC	Telephone: (781) 974-3628 E-Mail: sbaggett@bluewaterpg.com	
Address: One Tower Bridge, 100 Front Street, Suite 1225		
City/PO: West Conshohocken	State: PA	Zip Code: 19428
Project Contact (if not same as sponsor; give name and title/role): Steven Wilson, Project Manager, Bohler Engineering	Telephone: 518-461-8345 E-Mail: steven.wilson@bohlereng.com	
Address: 17 Computer Drive West		
City/PO: Albany	State: NY	Zip Code: 12205
Property Owner (if not same as sponsor): WE 5S LLC	Telephone: 1 (978) 287-8611 E-Mail: awinstanley@winent.com	
Address: 150 Baker Ave Ext		
City/PO: Concord	State: MA	Zip Code: 01742

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☐No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Planning Board - Site Plan Review; Special Use Permit;	1/21/25
c. City, Town or Village Zoning Board of Appeals ☑Yes☐No	Zoning Board - Parking Interpretation	2/20/25
d. Other local agencies ☑Yes☐No	Town of Florida Water and Sewer District No.1	TBD
e. County agencies ☑Yes☐No	Montgomery County Planning Board - 239M Review;	
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes☐No	NYSDOT - Highway Work Permit NYSDEC - SPDES NOI NYSDOS - Building Permit Variance	TBD
h. Federal agencies ☑Yes☐No	Corps of Engineers - Section 404 Wetland Permit	N/A

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

NYS Heritage Areas:Mohawk Valley Heritage Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☑Yes☐No

If Yes, identify the plan(s):

A portion of the site is listed in the Draft 2017 Agricultural and Farmland Protection Plan for Montgomery County; plan was never formally adopted so it is considered draft.

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
C-2 Commercial

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Greater Amsterdam

b. What police or other public protection forces serve the project site?
Montgomery County Sheriff, New York State Police

c. Which fire protection and emergency medical services serve the project site?
Florida Volunteer Fire Department

d. What parks serve the project site?
N/A

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Warehouse/distribution

b. a. Total acreage of the site of the proposed action? 137.2+/- acres
b. Total acreage to be physically disturbed? 66+/- acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 137.2+/- acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18-24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☑No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: +/-103.5' height; 650' width; and +/-1,100' length

iii. Approximate extent of building space to be heated or cooled: 3.2 million square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑Yes ☐No

If Yes,

i. Purpose of the impoundment: Stormwater management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑Other specify: Stormwater Runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

N/A

iv. Approximate size of the proposed impoundment. Volume: See notes under Part vi million gallons; surface area: 2+/- acres

v. Dimensions of the proposed dam or impounding structure: N/A height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

Earth fill; The stormwater basins are designed to hold water during and immediately after storm events; they will not permanently impound stormwater.

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐Yes ☑No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No
If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐Yes ☐No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑Yes ☐No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Project will impact federally regulated wetlands; lack of NYSDEC jurisdiction has been confirmed

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Project has a permit from Corps of Engineers for disturbance of up to 2 acres of federally regulated wetland. Total wetland impacts are approximately 1.8 acres

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:
Wetland mitigation credits has been purchased to mitigate wetland impacts; this has been approved as part of the permit from the Corps of Engineers.

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: +/-65,000 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes: Existing main located along Route 5S

- Name of district or service area: Town of Florida Water District; City of Amsterdam water supply
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☑Yes ☐No
- Do existing lines serve the project site? ☐Yes ☑No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: N/A gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: +/-55,000 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes: Existing main located along Route 5S

- Name of wastewater treatment plant to be used: City of Amsterdam
- Name of district: Town of Florida Water District
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 44+/- acres (impervious surface)

_____ Square feet or 137.2 acres (parcel size)

ii. Describe types of new point sources. stormwater basins

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

New stormwater management areas

- If to surface waters, identify receiving water bodies or wetlands: Unnamed tributary of Chuctanunda Creek
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery trucks and employee vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Temporary heating during construction

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

None

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☑Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): Refer to Traffic Impact Study for summary of auto/truck trips

iii. Parking spaces: Existing 10-15+/- Proposed 1,525+/- Net increase/decrease 1,510+/-

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Refer to Traffic Impact Study for summary of proposed improvements to Route 5S.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No Project includes EV charging spaces for trucks

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: Project will have a 9.8 MW service

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): National Grid; will serve letter provided on January 7, 2025

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☑Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am to 6 pm
- Saturday: 7 am to 5 pm
- Sunday: closed
- Holidays: closed

ii. During Operations:

- Monday - Friday: 24 hours per day
- Saturday: 24 hours per day
- Sunday: 24 hours per day
- Holidays: 24 hours per day

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Blasting will be require for shale removal; blasting will be during the initial phase of construction and will be approximately 90 days in duration. HVAC equipment and truck traffic during project operations.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking lot lighting will be needed for safety; closest structure is approximately 600' away. All light fixtures will be dark sky compliant.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

Landscape areas may require periodic use of pest/herbicide as part of routine maintenance. Application of all pest/herbicide would completed in conformance with all manufacturer requirements and state and federal regulations.

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☑ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: 10+ tons per 18-24 month +/- (unit of time)
- Operation : 1-2 tons per monthly (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Recyclable materials (e.g., wood, metal, etc.) would be seperated from solid waste
- Operation: Recyclable materials (e.g., paper, cardboard, plastic bottles, etc.) would be seperated from solid waste

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Commercial waste hauler will transfer solid waste and recycables to appropriate facility
- Operation: Commercial waste hauler will transfer solid waste and recycables to appropriate facility

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	.5 +/-	43.5 +/-	+43
• Forested	20 +/-	12 +/-	-8
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	15 +/-	11 +/-	-4
• Agricultural (includes active orchards, field, greenhouse etc.)	85 +/-	0	-85
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	16.5 +/-	14.7+/-	-1.8
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Lawn/landscape areas/field	0	56+/-	+56

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☑No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☑No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 8'+/- feet

b. Are there bedrock outcroppings on the project site? ☑ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? <5% %

c. Predominant soil type(s) present on project site:

Appleton Silt Loam	40 %
Palatine Silt Loam	20 %
Lansing Silt Loam	10 %

d. What is the average depth to the water table on the project site? Average: 0-10' feet

e. Drainage status of project site soils:
☑ Well Drained: 20 % of site
☑ Moderately Well Drained: 60 % of site
☑ Poorly Drained 20 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 50 % of site
☑ 10-15%: 40 % of site
☑ 15% or greater: 10 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Refer to delineated wetland boundaries shown on site plans. ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 876-162 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, Federal Waters, Federal Waters,... Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
White tail deer, squirrel | Refer to Natural Resource Report |
raccoon, skunk |
variety of birds

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: acres
- Following completion of project as proposed: acres
- Gain or loss (indicate + or -): acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☑No
If Yes:
i. Species and listing (endangered or threatened): Refer to Habitat Assessment for further information.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☑Yes ☐No
If Yes, provide county plus district name/number: MONT003

b. Are agricultural lands consisting of highly productive soils present? ☑Yes ☐No
i. If Yes: acreage(s) on project site? 60+/-
ii. Source(s) of soil rating(s): NRCS

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☑ Yes ☐ No

If Yes:

i. Describe possible resource(s): The site was the subject of a Phase III Data Retrieval Plan that was complete in July 2022. SHPO reviewed the completed plan and confirmed the project's Adverse Effects to the J Houck Archeaological Site have been mitigated in August 2022.

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Riverlink Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): City Park

iii. Distance between project and resource: 2+/- miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Steven R. Wilson Date 4/22/25

Signature _____ Title Project Manager

PRINT FORM

APPENDIX 6

Comparison Chart
MSV1 v. 2019 Project (One-Million SF Warehouse)
April 21. 2025

Item	2019 Project	Proposed MSV1
Building		
Building Footprint	1,000,0000 SF	652,000 SF
Total Square Footage	1,000,0000 SF	3,232,740 SF
Stories/Building Height	one story/35’	five stories/103.5’
Parking		
Automobile Parking	250	990
Tractor Trailer Docks	150	59
Tractor Trailer Parking Spaces	750	476
EV Parking Spaces	0	10
Site		
Wetland Impacts	6.5 +/- acres	1.8 acres
Impervious Surface	55+/- acres	43+/- acres
Total Site Disturbance	90+/- acres	66+/- acres
Construction Duration	18-24 months	18-24 months
Blasting Potential	Construction would require removal of shallow bedrock through a combination of ripping via a large track mounted backhoe and controlled blasting. Where blasting is determined to be necessary, it would be completed in accordance with all applicable state and federal regulations.	Construction would require removal of shallow bedrock through a combination of ripping via a large track mounted backhoe and controlled blasting. Where blasting is determined to be necessary, it would be completed in accordance with all applicable state and federal regulations. At a minimum, the blasting protocol will include preparing pre-blast surveys; preparing a blasting plan; performing the work within regulatory limits for vibration and overpressure (noise); field monitoring for vibration and overpressure using seismographs; and maintaining logs of the drilling and blasting work.
Traffic		
Traffic AM Peak	120 trips	157 trips
Traffic PM Peak	162 trips	139 trips
LOS (Level of Service)	Overall, during the AM Peak and PM Peak, for intersections in the vicinity of the site the LOS would remain unchanged with construction of the project; intersection would continue to operate at LOS C (AM Peak) and LOS B (PM Peak)	Overall, during the AM Peak and PM Peak, for intersections in the vicinity of the site the LOS would generally remain unchanged with construction of the project; However, all intersections would continue to operate a LOS A/B/C during the AM and PM peaks.
Driveways on Route 5S	1	3
Off Site Traffic Improvements	Proposed improvements included a shared left- turn/through lane and a separate right turn lane be constructed on the southern leg New Driveway/Route 5S/Target Drive Intersection. In addition, the southbound left-turn lane currently provided on Target Drive should be modified to allow through movements to the Employee Driveway.	Proposed improvements at the New Driveway/Route 5S/Target Drive Intersection include exclusive westbound left-turn lane with approximately 400’ of storage and signalized the intersection. For the NYS Route 5S/ West Driveway widen NYS Route 5S to provide an exclusive westbound left-turn lane with approximately 200’ of storage.
Water/Wastewater Infrastructure		
Water Usage	6,850 gpd	65,000 gpd
Wastewater Generated	6,850 gpd	54,000 gpd

Off Site Infrastructure Improvements Required	None	None
Operations		
Hours of Operation	24 hours per day/7 days a week (closed on holidays)	24 hours per day/7 days a week
Lighting	All lighting is dark sky friendly; the closest residential property is approximately 530' from proposed light source	All lighting is dark sky friendly; closest residential property is approximately 590' from a proposed light source
Landscaping	Landscape Plan proposed 40 Shade Trees and 83 Evergreen Trees	Landscape Plan proposes 199 Shade Trees; 250 Evergreen Trees; 6 Ornamental Trees; 91 Trees and 283 Shrubs around the stormwater management areas
Waste Generation	1-2 tons of waste per month	1-2 tons per month
Miscellaneous		
Cultural Resources	The project completed a Phase I Archaeological Investigation, Phase II Site Evaluation and Phase 3 Date Retrieval Plan; SHPO provide correspondence on August 26, 2022 indicating the project's adverse effects have been mitigated.	SHPO reaffirmed the project would not affect archaeological resources in a February 20, 2025 correspondence.
Floodplain	No floodplain impacts	No floodplain impacts
Wildlife/Threatened and Endangered Species	The only Threatened or Endangered Species identified to potentially occupy the site was the Northern long-eared bat. To mitigate potential impacts, no tree clearing would occur between April 1 and October 31.	The only Threatened or Endangered Species identified to potentially occupy the site was the Northern long-eared bat. To mitigate potential impacts, no tree clearing would occur between April 1 and October 31.
Agricultural Resources	Approximately 85 acres of the parcel is currently in active agricultural and used for hay production. Construction of the project would eliminate the agricultural use from the property.	Approximately 85 acres of the parcel is currently in active agricultural and used for hay production. Construction of the project would eliminate the agricultural use from the property.

APPENDIX 7

SANBORN HEAD

6 Bedford Farms Drive
Bedford, NH 03110

Joshua Garofano
BMG Albany LLC
c/o Bluewater Property Group, LLC
76 8th Avenue, 10th Floor
New York, NY 10011

April 14, 2025
File No. 6480.000

Re: Preliminary Geotechnical Engineering Report (Reissued)
MSV1 – Proposed Amazon ARS Facility
Florida, New York

Dear Josh:

INTRODUCTION

This preliminary geotechnical engineering report (report) was prepared by Sanborn, Head Engineering, P.C. (Sanborn Head) for BMG Albany LLC (BMG Albany, Client) regarding the proposed Amazon ARS Facility (MSV1) located on New York Route 5S (Route 5S) in Florida, New York (Site). The objectives of our work were to assess the subsurface conditions in the proposed development area and provide geotechnical engineering recommendations related to the design of building foundations, the building floor slab-on-grade, site slopes, retaining walls, pavement design, and recommended earthwork procedures for the site work. Where appropriate this report is subject to the limitation in Appendix A.

This report references and expands on subsurface explorations and laboratory testing performed and collected under a previous design concept for WE Acquisitions, LLC, titled *Report of Geotechnical Investigation, Proposed Warehouse, New York State Route 5S*, prepared by Whitestone Associates, Inc. (Whitestone), dated August 26, 2019. Excerpts of the subsurface logs and soil laboratory data are provided in Appendix B and C.

Site Description

The Site, depicted in Figure 1, is approximately 135.3-acre in size is bounded by Route 5S to the north, United States Interstate 90 (I-90, New York State Thruway) to the south, Mead Road to the east, and an existing Amazon facility to the west. The Site primarily consists of undeveloped farmlands with wooded areas located in the north and south, wetlands in the northeast and south, and ponds within the northwestern and southeastern portions of the Site. In addition, existing transmission lines cross the Site from east to west approximately 100 to 400 feet north of the Site's southern boundary, and an existing 50-foot-wide gas utility easement bisects the Site from north to south. The Site The existing conditions within the proposed development area generally consist of sloping farmlands, wooded areas, and wetlands, as well as existing gravel and asphalt driveways.

Based on a review of available historical aerial photographs, the Site was previously occupied by two (2) residential buildings with detached barn and garage structures located along Route 5S. These structures were razed between September 2020 and April 2022. The balance of the Site, except for the wooded areas, appears to have been used for agricultural purposes.

Based on a conceptual site plan entitled *MSV1, Concept Plan A* prepared by Bohler Engineering (Bohler) of Albany, New York, and provided electronically to Sanborn Head on February 25, 2025, the topographic highpoint is located near the center of the Site at approximate elevation (El.) 555 feet. The topography generally slopes down radially to the northeast, east, and south, to a low point located near the northeast corner of the Site at approximate El. 469 feet. In general, the slopes to the north and northwest are more gradual, dropping to a low point along Route 5S of approximate El. 531 feet. In the southwestern portion of the Site, the ground surface rises from an on-Site brook/wetlands, at approximate El. 480 feet, up to the NYS Thruway at approximate El. 520 feet. Elevations discussed herein refer to the North American Vertical Datum of 1988 (NAVD 88

Project Description
According to the plan titled *Preliminary Grading Plan*, prepared by Bohler and provided on March 21, 2025, the proposed development consists of a new, 652,060 square feet multi-story warehouse building associated retaining walls, access roadways, loading dock and transportation staging areas, associated surface parking areas, facility infrastructure features (i.e., substation transformer pad and fire storage tank foundations), and stormwater management features.

Based on the referenced grading plans, the proposed finished floor elevation is 542 feet. It is anticipated that to meet proposed grades, cuts up to approximately 32 feet and fills up to approximately 42 feet will be required. The maximum proposed retaining wall height is approximately 35 feet.

SUBSURFACE EXPLORATION PROGRAM
Recent Subsurface Explorations by Sanborn Head
Between February 10 and 21, 2025, Atlantic Testing Laboratories of Canton, New York advanced 22 test borings (designated SH-1 through SH-22) at the Site. The test borings were advanced using a GeoProbe® drill rig using hollow stem auger techniques to depths ranging from approximately 4.3 feet to 30.5 feet below the ground surface (bgs), or between approximate El. 491.7 and 545.7 feet. Auger and/or split-spoon refusal, likely due to bedrock, was encountered at each test boring location and 10-foot length of NX-size bedrock cores were collected at test borings SH-10 and SH-11.

The test borings were observed and logged by Sanborn Head on a full-time basis. Standard Penetration Tests (SPTs) were performed in general accordance with ASTM D1586 at five-foot intervals to the termination depth. Representative soil samples were obtained by split-barrel sampling procedures, and Sanborn Head personnel visually classified each sample in the field. Soil samples were classified using both the Modified Burmister System and Unified Soil

Classification System and a legend is provided in Appendix B that describes both classification systems. Additional soil characteristics such as density and consistency (based on SPT data), color and moisture were noted on the logs included in Appendix B.1.

Explorations were field located using a Global Navigation Satellite System and are shown on Figure 2. Ground surface elevations were estimated by interpolating between surface elevations obtained from a plan titled *MSV1 Concept Plan A*, prepared by Bohler, as presented on Figure 2 and 3.

Subsurface Explorations by Others

Between January and March 2019, Terracon completed two (2) test boring programs, completing 48 test borings designated B-1 through B-16 and AB-1 through AB-32. Additionally, on June 19, 2019, Whitestone completed a test pit program completing eight (8) test pits designated TP-1 through TP-8 for a prior design concept. Excerpts of previously completed subsurface logs by prepared by others are provided in Appendix B.2 and their as-drilled locations depicted on Figure 2 and 3.

SOIL LABORATORY TESTING

Laboratory Testing by Sanborn Head

Geotechnical laboratory tests were performed by GeoTesting Express, Inc. of Acton, Massachusetts to evaluate the engineering properties of the on-site soils. Five (5) soil samples from test borings across the Site were submitted for grain size distribution (sieve) analysis in accordance with ASTM D6913. Additionally, ten (10) soils samples were submitted to evaluate in-situ moisture content in accordance with ASTM D2216. Additionally, one (1) rock core sample was submitted for Uniaxial Compressive Strength (UCS) strength index testing in accordance with ASTM D7012.

Rock Swelling Potential Testing, including chemical and petrographic analysis, was performed by EXP of Montreal, Quebec, Canada to evaluate the pyrite swelling potential of two (2) core samples collected from SH-10 and SH-11, additionally both samples were submitted for UCS strength index testing.

Please note that natural glacial till soil at the Site may contain a oversized cobbles and boulders, which were not included in soil samples submitted to the laboratory due to sampling/testing procedures. Laboratory test reports should be interpreted accordingly. Due to the timing of this report, only a partial set of geotechnical laboratory test reports were available and are provided in Appendix C. Once testing is complete, a complete set of geotechnical laboratory test reports will be transmitted.

Laboratory Testing by Others

Whitestone completed additional geotechnical laboratory testing during a previous Site concept, including sieve analysis and rock swelling potential testing on bulk samples collected during their previous subsurface exploration program. The results of laboratory testing are provided in Appendix C.2.

SUBSURFACE CONDITIONS

Based on the subsurface exploration data collected by Sanborn Head and data collected by others, the generalized subsurface profile at the Site generally consists of topsoil, underlain by silt and clay deposits and glacial till, overlying weathered and competent bedrock. Fill material was encountered at AB-2 and peat was encountered at SH-8. The following paragraphs provide additional information regarding the subsurface conditions encountered:

Fill material was encountered at AB-2 below an approximately 0.3-foot-thick gravel roadway. The fill material extended to a depth of approximately 2 feet bgs (El. 529 feet) and is described as medium dense clayey sand with gravel with pieces of geotextile fabric observed within the stratum. While not encountered at other exploration locations, it is anticipated that fill material may exist in the vicinity of previously demolished structures and driveways near Route 5S and below existing gravel access roads.

Topsoil was encountered at the surface at each exploration location except B-5, AB-2, and AB-13 and extended to depths ranging from approximately 0.2 feet to 4 feet, or El. 486 feet to El. 555.2 feet. Based on the agricultural history of the Site, it is anticipated that the thickness of topsoil varies significantly across the Site. The topsoil is generally described as soft to very stiff, clayey silt to silt and clay, with varying amounts of sand and gravel and few to very few organic particles. At SH-13, the topsoil encountered is described as medium dense with fine to coarse sand and gravel, trace silt, with few organic particles.

Peat was encountered beneath the topsoil layer at SH-8 to a depth of approximately 9 feet bgs, or El. 496 feet. This deposit is described as very soft peat and organic silt, with trace sand.

Silt and Clay deposits were encountered at the surface at AB-13, and beneath the topsoil layer at B-3, B-6, AB-3, SH-2 through SH-5, SH-7, and SH-9. Where encountered, the silt and clay deposits extend to depths ranging from approximately 2 feet to 9 feet bgs, or El. 495.5 feet to El. 553 feet. The silt and clay deposits are generally described as medium stiff to very stiff, clayey silt to silt and clay, with varying amounts of sand and gravel. Very few to few organics were observed within the silt and clay deposits at exploration locations B-3, B-6, AB-3, and SH-4.

Glacial Till was encountered underlying the upper soil layers at a majority of exploration locations, extending to depths ranging from approximately 2 feet to 22.9 feet bgs, or El. 467 feet to El. 551.5 feet. The glacial till deposits are generally described as very stiff to hard, clayey silt to silt and clay, with varying amounts of sand, gravel, cobbles, and boulders.

Bedrock, or refusal due to probable bedrock, was encountered at depths ranging from approximately 1 foot to 22.9 feet bgs, or El. 465.6 feet to El. 551.6 feet. NX-size bedrock cores were retrieved at SH-10 and SH-11, and a NQ-size bedrock core was retrieved at B-5. The cores are described as medium hard, slightly to severely weathered, gray to dark gray, **Shale**, very close to close horizontal to vertical jointing, slightly to moderately fractured. Based on publicly available geological mapping entitled *Geologic Map of New York; Hudson-Mohawk Sheet,*

1:250,000 authored by L.V. Rickard and D.W. Fisher**,** the shale encountered in our subsurface program is consistent with Utica Shale of the Trenton Group.

The Rock Quality Index of the bedrock cores ranges from 0% to 91%. Laboratory testing indicates that the bedrock has a Swell Potential Petrographic Index of 50 to 67 corresponding to a "medium to high swelling potential," pyrites content ranging from 0.11% to 1.44%, sulphates content ranging from 0.01% to 0.02%, and compressive strength ranging from 34.8 to 147.5 Mpa (e.g., 5 to 21 kips). Loose to very dense weathered bedrock was generally encountered above the competent bedrock and ranges in thickness between approximately 0.1 feet and 8.4 feet.

A contour plan of the estimated elevation of weathered or competent bedrock based on our interpretation of the subsurface data is presented on Figure 3.

Groundwater was encountered at depths ranging from approximately 1 foot to 18.3 feet bgs, or El. 498 feet to El. 550 feet. Mottling (redoximorphic) features were observed at eleven (11) of the previous test boring locations at depths ranging from the ground surface to approximately 6.5 feet bgs. Based on the subsurface conditions encountered, we anticipate that groundwater may be perched at various depths within the glacial till or at the top of the bedrock surface throughout the year.

Where encountered, groundwater measurements were made under the conditions stated on the logs. Due to the fine-grained nature of the Site soil materials, the groundwater levels are generally interpreted as unstabilized. We note that groundwater levels will vary depending on factors such as season, precipitation, construction activity, and other conditions, which may differ from those at the time of our observations.

GEOTECHNICAL ENGINEERING RECOMMENDATIONS

The following presents our geotechnical engineering recommendations related to design of proposed building foundations and the floor slab-on-grade, pavement design, and earthwork procedures for subgrade preparation. Our recommendations are based on the preliminary grading plan prepared by Bohler and provided to Sanborn Head electronically on March 21, 2025.

Engineering Evaluation of Subsurface Conditions

Sanborn Head's engineering evaluation of subsurface conditions and their impact on design and construction is presented below.

- **Pyritic Shale:** The bedrock underlying the Site is known to include pyritic minerals, which when exposed to oxygen undergo a chemical reaction that replaces the pyrite with gypsum. This in turn creates an expanding rock material that continues to expand over long durations (multiple years to decades). Based on the recent Swell Potential laboratory testing results, and consistent with previous test results presented by Whitestone, the on-Site Pyritic Shale is characterized as having a medium to high swelling potential.

Unfortunately, neither the maximum swelling deformation, nor rate of swelling can be determined; therefore, building foundation solutions should consider: (i) reduction of oxygen exposure; and/or (ii) capacity to resist uplift/swelling forces.

Strategies to consider for reducing oxygen exposure to the Pyritic Shale and bedrock subgrade may include, but is not limited to:

- Eliminating crushed shale products;
- Increasing subgrade cover depth;
- Capping the exposed bedrock with a soil or geomembrane barrier;
- Removing bedrock; and/or
- limiting excessive fracturing if blasted.

Based on research by others[1], under laboratory conditions if the Pyritic Shale is allowed to react, significant swelling pressures can develop. The formation of gypsum within the shale partings induced pressures between 4,651 and 13,176 pounds per square foot (psf).

- **Deep Foundation System and Structural Slab:** We recommend that the proposed warehouse, auxiliary buildings, and fire tanks be supported on a drilled deep foundation system consisting of drilled shafts/caissons set into the underlying bedrock. The deep foundation system should be designed to resist the applied compressive, tension, and lateral loads while limiting total and differential post-construction settlements to 1-inch and ½-inch, respectively and that horizontal deflections be limited to ½-inch. The deep foundations should be sized appropriately for the anticipated loading and be spaced a minimum of two diameters center to center.

  Additionally, we recommend that the building slab be constructed as a structural slab, with crawlspace and void form to account for potential heaving, supported on deep foundation elements. At a minimum, the slab design should include a sealed bedrock barrier to limit oxygen reactions within the underlying pyritic shale.

  Deep foundations should be designed in accordance with the 2020 Building Code of New York State (BCNYS). The final design of the deep foundation system should be prepared by a Professional Engineer licensed in the State of New York and reviewed by Sanborn Head on your behalf as the geotechnical engineer of record.

- **Weathered Bedrock and Bedrock Excavation:** Weathered bedrock or bedrock removal is required to achieve proposed subgrades, for the building, southern and western parking, the eastern stormwater management areas, as well as limited areas for deeper utilities. Where encountered, and in order to limit the effects of the swelling potential of the existing weathered shale, weathered rock should be removed to expose a competent bedrock subgrade, at least 18 inches below the proposed subgrade elevation.

[1] Hoover, Shad E.; Wang, Mian C.; and Dempsey, Brian (2004), "Structural Damage Induced by Pyritic Shale," International Conference on Case Histories in Geotechnical Engineering. 2.

Where competent bedrock is encountered above proposed subgrade the bedrock should be removed to at least 18 inches below the subgrade elevation or the proposed utility pipe invert elevations, or deeper if particular bedding thickness is specified. This depth is needed, to seal the exposed bedrock subgrade from oxygen using a bituminous sealant, or an approved equivalent, a 6-inch-thick (minimum) Lean Mat Concrete layer, and a 12-inch-thick layer of Structural Fill soil cushion. Additionally, we recommend sealing the exposed bedrock subgrade within 1-week of their exposure.

If blasting is chosen to be the most economical means of removing bedrock, then blasting should be performed in accordance with the New York State Department of Labor regulations under *§107-05 Safety and Health Regulations, paragraph N*. Additionally, a permit may also be required from the Town of Florida. The blasting contractor should take special care to consider ways to limit overbreak and fracturing to achieve the proposed subgrade.

- **Bedrock Reuse:** Due to the swelling potential of the shale bedrock, removed shale bedrock will not be suitable for reuse as fill material below the proposed building or parking areas, nor in the reinforced zone behind retaining walls. Bedrock reuse should be limited as raise-in-grade fill in landscaped areas, provided it is also located outside the building footprint and the limits of the zone of influence for footings and pavement areas. Re-used shale materials should be expected to experience long-term swelling.

- **Unsuitable Materials:** Clays, Peat, organic silt, and organic topsoil and subsoil containing organic matter such as tree roots, tree stumps, and vegetation debris, should be considered unsuitable material below the proposed warehouse building, floor slabs, retaining walls, and pavement areas. Topsoil and subsoil containing roots should be removed down to a subgrade consisting of the existing inorganic glacial till. Topsoil and subsoil containing less than 5 percent organic material may be re-used deeper than 10 feet below finished grade in parking areas, provided it is also located outside the limits of the zone of influence for stormwater infiltration. Other organic soil may be re-used in proposed landscaped areas or hauled off-Site.

- **Reuse of Excavated Materials:** Excavated overburden soil that meets the material specifications in Table 1 for On-Site Fill may be reused as compacted fill below the base course layer in pavement areas. Excavated overburden soil materials that meet the material specifications in Table 1 for Common Fill may be reused as compacted fill at least 3 feet below the base course in pavement areas. We anticipate the natural silt and clay and glacial till soils will be difficult to place and compact to the required specifications during cold and wet periods of the year. The contractor must protect the excavated clayey soil from inclement weather during the cut and fill earthwork by sequencing the work such that cut material is placed as compacted fill the same day, protecting excavated soil by covering stockpiles, and limiting construction traffic on exposed subgrade soils.

Pyritic Shale should not be processed to produce select materials, nor re-used for site work. Re-use of the Pyritic Shale should be limited to landscape areas only.

Construction Recommendations and Earthwork Procedures

Blasting Requirements

Blasting should be performed in accordance with the New York State Department of Labor regulations (*§107-05 Safety and Health Regulations*, *paragraph N)* and the NYSDOT *Geotechnical Engineering Manual (GEM-22*), which require at a minimum the following activities:

- Preparing pre-blast surveys;
- Preparing a blasting plan;
- Performing the work within regulatory limits for vibration and overpressure (noise);
- Field monitoring for vibration and overpressure using seismographs; and
- Maintaining logs of the drilling and blasting work.

To the extent practical, blasting should be completed prior to the construction of the building foundation, surface finishes, and retaining walls to limit vibration of the proposed structures. Blasting should not be performed within 7 days after concrete is poured unless approved by the Engineer. The blasting contractor should take special care to consider ways to limit overbreak and fracturing to achieve the proposed bedrock subgrade.

Building Area and Footing Subgrade Preparation During Construction

The following describes the recommended earthwork procedures to prepare the building areas.

- At the onset of earthwork operations, the Site should be properly graded to provide a working subgrade for installing the deep foundations elements and to limit stormwater from entering the work areas or ponding on the exposed soil subgrade. Construction traffic over the exposed subgrade should be limited to the extent possible.

- Where additional fill is necessary to achieve proposed grades, On-Site Fill or Structural Fill that meets the material recommendations in Table 1should be utilized. Fill should be placed in loose lifts not to exceed 12 inches in thickness and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

- Excavation and backfilling should be performed in the dry. Fill should not be placed, and footings should not be constructed, over a subgrade with standing water or that is frozen. If standing water is present on the subgrade, then the water should be removed from the surface and soft and yielding soil be removed or allowed to dry prior to placement of additional fill or concrete. IF the subgrade is frozen, then remove the frozen soil or allow the soil to thaw and then recompact the soil prior to placement of fill or concrete.

Subsurface Utility Construction

Trenches for utility excavations should be performed in accordance with local, state, and federal regulations, including the Occupational Safety and Health Administration (29 CFR Part

1926) excavation trench safety standards. A competent person as defined by the regulation is required to confirm the stability of excavations during construction.

Where excavations cannot be sloped back and/or temporarily shored in accordance with OSHA requirements, a temporary earth retaining system (TERS) will be required. The TERS should be selected by the contractor and designed by a Professional Engineer licensed in the State of New York. Care should be taken during construction to protect existing adjacent structures, utilities, and roadways from being undermined.

Fill placed within five (5) feet horizontally of proposed utilities should consist of On-Site Fill, or Structural Fill. Fill should be placed in loose lifts not to exceed 12 inches in thickness and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

Utility Trenching in Bedrock: Bedrock is anticipated to be encountered when excavating trenches in the eastern portion of the Site. Because of this, it is recommended that bedrock be removed to a minimum of 5-feet from the centerline of the proposed utility trench alignment to account for lateral forces due to potential swelling, and at least 18-inches below the proposed invert of utility pipe to allow for sealing of the exposed rock sidewalls and subgrade using spray-on bituminous sealant, or an approved equivalent, and Lean Mat Concrete prior to backfilling with bedding material as specified by others.

Temporary Dewatering

Perched groundwater is expected to exist at depths between 1 to 18.3 feet below the existing surface; therefore, temporary excavation dewatering and/or temporary diversion ditches may be necessary to manage groundwater. Additionally, temporary excavation dewatering in excavations during period of heavy precipitation or snow melt may be needed. Temporary dewatering may be accomplished by pumping filtered water from sumps installed in low points of the excavations. Discharge water should be managed in accordance with local, state, and federal government requirements and the requirements of the project-specific Stormwater Pollution Prevention Plan.

Building Foundation Design

The following sections presents preliminary recommendations for building foundation design.

Drilled Shafts

Due to the potential for post-construction swelling within the pyritic Shale, and the inability to predict location, swell rate, or total movement due to post-construction swelling, we recommend that the building be founded on drilled shafts set into bedrock and integrated with a structural slab overlying a crawlspace with void forms. Based on information provided electronically to Sanborn Head form the DLR Group on March 11, 2025, it is our understanding that the proposed building column loads will range from 160 to 1990 kips.

The following recommended allowable capacities are for the preliminary design of the drilled shafts:

- Skin Friction in Glacial Till: 3 ksf
- Skin Friction in Weathered Bedrock: 3 ksf
- Skin Friction in Competent Bedrock: 8 ksf
- End Bearing in Competent Bedrock: 80 ksf

Skin friction resistance should be ignored between the bottom of the lowest slab and the top of the glacial till. Drilled shafts that derive capacity from combined end bearing and skin friction should be designed to limit the end bearing capacity to a maximum of 50 percent of the total capacity. The minimum center-to-center spacing between drilled shafts designed using skin friction support should be no less than two times the shaft diameter.

We anticipate that the proposed structure can be supported on 2 to 6-foot diameter drilled shafts embedded into competent bedrock depending on the design load. We anticipate that the drilled shafts will be socketed into competent bedrock between 5 to 20 feet depending on the applied load; where socket lengths less than 20 feet are proposed, calculations for the load condition need to be provided by the project team. For drilled shafts with uplift loads, the steel reinforcement should extend the full depth of the drilled shaft. For drilled shafts with lateral loading, the steel reinforcement should extend to the top of bedrock. For drilled shafts with gravity loads only, the steel reinforcement should extend 1/3 the length of the shaft. A bond-break between the concrete shaft and the rock sidewall is recommend.

For lateral support, we recommend the following preliminary design parameters to limit lateral movement to less than 0.5 inches:

- 5-foot-diameter shaft
  - Lateral capacity of 75 kips
  - Max moment is 900 kip-feet
  - Max shear is 80 kips
- 6-foot-diameter shaft
  - Lateral capacity of 100 kips
  - Max moment is 1,500 kip-feet
  - Max shear is 115 kips

Structural Slab Design

We recommend the building slab be constructed as a bi-directional reinforced structural slab with loads transferred to the drilled shafts. We further recommend that the slab system account for a crawlspace below the building to incorporate a void form system designed to limit the effect of ground heave pressure on the proposed slab.

Foundation Design Alternative – Shallow Foundation Bearing on Thickened Structural Fill Soil Cushion

Given the anticipated costs, an alternative to the recommended drilled shafts foundation is currently being evaluated by the project team. A potential alternative foundation concept may include the following:

- Increased bedrock removal (i.e., a deeper profile);
- Placement of a Structural Fill soil cushion that would attenuate the potential differential swelling of the shale;
- Construction of a reinforced soil layer to support the overlying reinforced concrete slab.

This design alternative would need to consider variable uplift displacement and pressures of the pyritic shale balanced against soil cushion thickness and/or geogrid reinforcement requirements. The benefit of this alternative is that a conventional shallow foundation design and construction can be employed rather that the deep foundation design, which could yield schedule benefits. However, the alternative design will generate a significantly greater volume of unsuitable 'waste' rock and required an associated increase volume of soil import.

Slope Design

We recommend that cut and fill slopes be designed with a slope angle of two and a half horizontal to one vertical (3H:1V) or flatter. Vegetative cover should be established on the slope surface as soon as practical after final grading to reduce the potential for erosion and soughing failures. Inboard slopes of stormwater basins should be graded to a slope of 3H:1V or flatter and seeded to establish vegetative cover.

If slope angles up to 1H:1V are proposed, then the slopes should be constructed with Structural Fill with reinforced with a geogrid or similar reinforcement. The 1H:1V fill slope should be designed by a Professional Engineer licensed to practice in the State of New York and the design should be reviewed by Sanborn Head. Geogrid, or similar reinforcement, should be installed in accordance with the manufacturer's specifications, including anchoring and embedment at the toe of the slope as appropriate. For erosion control, the face of the 1H:1V fill slopes may be covered with a vegetated mesh or blanket system, such as Tensar's Sierra slope reinforcement system, or approved equivalent.

Stormwater swales or curbing should be provided at the crest of soil cut and fill slopes to intercept and divert the runoff away from the slope face. Additionally, a drain and swale should be constructed at the base of the proposed bedrock cut face to intercept groundwater that may come perched on the bedrock.

Retaining Wall Design

We anticipate that segmental retaining walls can be used to support access roads and parking areas as an alternative to steep slopes. A segmental retaining wall system consists of a mortarless block face fastened to geogrid that extends into a granular backfill creating a zone of reinforced earth, which together behaves as a gravity wall. Geogrid elements typically extend

behind the wall approximately 0.7 times the height of the wall for level backfill and approximately 0.7 to 0.9 times the height of the wall for sloping backfill.

We understand that the subsurface infiltration systems are proposed to be constructed below the paved parking and drive aisles located to the northeast and west of the proposed building. It should be noted; segmental retaining walls are not designed to withstand hydrostatic pressure (water buildup) and stormwater runoff should be diverted away from the retaining wall area. Several wall design features (e.g., stone or geo-composite chimney drain, a impermeable geomembrane at the rear of the reinforced soil zone, base drains, and increased frequency of weepholes behind the retaining wall faces) alone or in combination, may be required to alleviate the potential of hydrostatic pressure adversely affecting the wall stability and performance. The outlets from the drainage system should discharge to the ground surface downhill and away from the retaining wall. Given the fine-grained nature of the Site soil, riprap (see table 1) or similar along the toe of the wall may be required to reduce erosion by the water draining from behind the wall.

An acceptable foundation subgrade for segmental retaining walls shall consist of either Structural Fill compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C placed over the undisturbed glacial till. Where bedrock subgrades are encountered the exposed bedrock subgrade shall be sealed from oxygen using a bituminous sealant, or an approved equivalent, a 6-inch-thick (minimum) Lean Mat Concrete layer, and a 12-inch-thick layer of Structural Fill soil cushion to proposed bottom of wall subgrade.
We recommend that retaining walls greater than 4 feet in height be designed by a Professional Engineer licensed to practice in the State of New York. Sanborn Head should be retained to review the retaining wall design. A global stability and seepage analysis should be performed during the design phase to evaluate the overall wall stability and hydrostatic conditions behind the wall. If authorized, then Sanborn Head can perform a global stability and seepage analysis once site grades are finalized.

The design of retaining walls should use the following recommended parameters as well as building foundation loads as applicable:

Exhibit 1 – Recommended Retaining Wall Design Parameters

Material	Moist Unit Weight (pcf)	Internal Friction Angle (degrees)	Cohesion (psf)
Reinforced Fill (Engineered Fill)	130	34	0
Retained Soil (On-Site glacial Till)	130	28	0
Retained Soil (On-Site Clay and Silt Soil)	120	28	500
Backfill Slope Angle Behind Wall – 3:1H:1V or flatter. Slope Angle Below Wall – 3H:1V or flatter Traffic Surcharge Design Load Behind Wall – 250 psf Min. Factor of Safety for Global Stability – 1.5 Min. Factor of Safety Against Overturning – 2.0 Min. Factor of Safety Against Sliding – 1.5 Min. Factor of Safety Against Geogrid Tensile Overstress – 1.5			

Min. Factor of Safety Against Geogrid Pullout from Soil – 1.5 Seismic Design Load – Per BCNYS. Net Allowable Soil Bearing Pressure – Not to exceed 5,000 psf

Seismic Design Criteria

The BCNYS incorporates the 2018 International Building Code (IBC) by reference with base code amendments specific to New York. We recommend using the following design parameters as defined by the BCNYS and the IBC:

- Seismic Site Class: Based on the proposed building location, elevation, and available subsurface information, **Site Class "C"** is recommended for the proposed building.
- Design earthquake spectral response accelerations: S_{DS} = 0.199g and S_{D1} = 0.054g.

Lateral Earth Pressures

Below grade walls restrained from rotation, with a horizontal backfill surface, and no groundwater should be designed based on an "at-rest" lateral earth pressure of 60 pounds per cubic foot (pcf).

Below grade walls that are unrestrained at the top and allowed to rotate at least 0.002 times the height of the wall should be designed based on an "active" lateral earth pressure of 40 pcf.

Below grade walls should be designed to resist lateral earth pressure from a seismic event as required by Section 1605.3.1 of the BCNYS.

To evaluate sliding resistance, a coefficient of friction of 0.50 is recommended for cast-in-place concrete on granular soil (or 0.55 for cast-in-place concrete on clean gravel). The passive resistance inside the building and below the floor slab should be modeled as an equivalent fluid pressure of 460 pcf. These frictional resistance and passive resistance values should be considered ultimate strength values, and an appropriate factor of safety should be applied for the sliding analysis. Figures 4 and 5 provide recommended earth pressure diagrams for below grade wall design.

Foundation Drains

Due to the shallow bedrock encountered within the proposed warehouse building footprint. To control groundwater that may be perched above the bedrock, we recommend that the sub-slab drains be installed below the structural slab and perimeter drains adjacent to exterior footings. The subslab drains should consist of a 12 inches layer of Crushed Stone and a minimum 10-mil-thick vapor barrier. The perimeter drains should consist of 4-inch-diameter perforated pipe surrounded by at least 12 inches of Crushed Stone wrapped with nonwoven geotextile as specified in Table 1 – Material Specifications. Additionally, we recommend evaluating the installation of drainage board or the use of free-draining materials, such as Structural Fill as specified in Table 1 – Material Specifications to assist in collecting and directing groundwater towards foundation drains.

Pavement Design and Earthwork Recommendations

The following provides recommendations for pavement design and earthwork in pavement areas.

Subgrade Preparation Procedures for Pavement Areas

The pavement areas should be prepared as follows:

- Vegetation, topsoil, organic matter, and other unsuitable materials should be removed to expose the top of the existing, inorganic natural glacial till subgrade.

- The Site should be graded to direct stormwater away from entering the work areas or ponding on the exposed soil subgrade. The exposed subgrade soils may be sensitive to disturbance and strength degradation in the presence of excess moisture. Construction traffic over the exposed soil subgrade should be limited to the extent practical. The subgrade soil should also be considered frost susceptible.

- Prior to placing fill, the subgrade should be proof-compacted with at least 4 passes of a 10-ton vibratory roller under the observation of a qualified geotechnical engineer, or their representative. Soft or loose zones identified by the proof compaction should be evaluated by excavation and replaced with compacted Structural Fill as necessary. Proof compaction may be waived in the field by the qualified geotechnical engineer, if in their opinion, the proof compaction will cause disturbance to the subgrade.

- General raise-in-grade fill to be placed up to subgrade for pavement base course in proposed pavement areas should consist of Structural Fill. This material should be placed in loose lifts not exceeding 12 inches thick and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

- In the southern and western loading dock, driveways, and parking lot at proposed pavement subgrade locations, bedrock should be removed to at least 36 inches below the proposed bottom of pavement section to allow for the application of a bituminous sealant, or an approved equivalent, to seal the exposed bedrock subgrade from oxygen, a 6-inch minimum Lean Mat Concrete, and a 30-inch Structural Fill soil cushion to proposed pavement subgrade prior to placement of base course materials.

  Alternatively, a slab 'deck' may be evaluated to span both rock cut areas and proposed fill areas for the portion of the proposed pavement areas in the southern and western pavement and loading dock areas, supported on a bi-directional slab, incorporated into the building design, and support on drilled shafts. This alternative may reduce the total length required for soil retention by retaining walls and provide reuse potential for unsuitable rock.

- Construct the appropriate pavement cross-section (standard-duty or heavy-duty) at locations identified on plans prepared by others. The base course layer should be placed and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

Asphalt (Flexible) Pavement Design

The asphalt (flexible) pavement design is intended to strike a balance between performance and cost after considering the soil available at the Site and assumed traffic loads for the proposed use as a warehouse with significant loading dock functions, and the frost susceptible nature of the on-site soils. We recommend the following asphalt pavement cross-sections for standard-duty and heavy-duty applications.

Exhibit 2 – Asphalt (Flexible) Pavement Design

Layer	Thickness	
	Standard Duty (Car Parking)	Heavy Duty (Access Roads/Loading)
Asphalt Wearing Course	2.0 inches	2.5 inches
Asphalt Binder Course	3.5 inches [2.0][1]	4.0 inches [2.5][1]
Pavement Base Course (Subbase Course Type 1, NYSDOT Item 733-0401)	12 inches	12 inches

Notes:

1. An alternative reduced material thickness is shown in brackets [ ] and may be used provided the project team elects to install Tensar TX7 (or similar) Geogrid Reinforcement.

Rigid (Portland Cement Concrete) Pavement Design

We recommend the following cross-sections for standard-duty and heavy-duty rigid pavement applications:

Layer	Thickness	
	Standard Duty	Heavy Duty
Portland Cement Concrete (Unreinforced 4,000 psi)	6 inches	8 inches
Pavement Base Course (Subbase Course Type 1, NYSDOT Item 733-0401)	12 inches	12 inches

Crack control joints should be installed at a spacing of no more than 15 feet on center for rigid pavements.

Please note that some frost-heave should be expected below unheated areas unless four (4) feet of non-frost susceptible material (e.g., Crushed Stone) is provided. A minimum of 12 inches of Crushed Stone (or similar non-frost susceptible soil) may be considered as base course below sidewalks and landscape pavers, especially at building entrances. Under no circumstance should on-site fill be used as base course below sidewalks or pavement; base course should consist only of those materials described herein.

ADDITIONAL ANALYSIS

As part of the on-going consideration for foundation alternatives, Sanborn Head recommends performing additional analysis by way of “Free Swelling Tests” on the existing pyritic shales, in

order to estimate total displacement due to swelling for the design of the void space below the proposed slab and to provide benchmarking of the uplift forces due to swelling for the design of drilled shafts or thickened Structural Fill soil cushion design alternatives. Free Swelling Tests will likely include the collection of bulk rock samples (by mechanical removal), placement under unconfined conditions or oedometric conditions (i.e., radially constrained) and systematic measurement. Field vs laboratory setting, duration and additional variables, such as frequency of water and/or air exposure, can be considered for benchmarking.

CONSTRUCTION MONITORING

We recommend that Sanborn Head be provided the opportunity to review the design drawings and specifications to verify that the recommendation of this report were appropriately incorporated. We further recommend that Sanborn Head be retained to observe earthwork operations and blasting, perform quality control testing on compacted fill, observe foundation subgrade preparation and retaining wall construction, and assist in the development of design changes should subsurface conditions differ from those anticipated prior to the start of construction.

We appreciate the opportunity to be of service on this project. As design progresses or changes, additional explorations or information may be required prior to issuing a final geotechnical report. Please contact Luke Norton by phone at (978) 577-1030 or via email at lnorton@sanbornhead.com should you need additional information or wish to discuss the contents of this report.

Very truly yours,
SANBORN, HEAD ENGINEERING, P.C.



Luke Norton
Vice President



Eric S. Steinhauser, P.E., CPESC, CPSWQ
Secretary

NCJ/LAM/LDN/ESS: ncj

Enclosures: Table 1 – Material Specifications
Figure 1 – Locus Plan
Figure 2 – Exploration Location Plan
Figure 3 – Bedrock Contour Plan
Figure 4 – Wall Design Parameters – At-Rest Condition
Figure 5 – Wall Design Parameters – Active Condition
Appendix A – Limitations
Appendix B – Subsurface Exploration Logs
Appendix B.1 – Test Boring Logs by Sanborn Head

Appendix B.2 – Subsurface Exploration Logs by Others
Appendix C – Geotechnical Laboratory Results
Appendix C.1 – Geotechnical Laboratory Results by Sanborn Head
Appendix C.2 – Geotechnical Laboratory Results from Whitestone

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Table

TABLE 1
MATERIAL SPECIFICATIONS
Proposed Amazon ARS Facility – MSV1
Florida, New York

Structural Fill to be used as raise-in-grade fill below buildings shall consist of hard, inert, durable gravel and sand that is free from ice and snow, roots, surface coatings, sod, loam, clay, rubbish, and other deleterious or organic matter. It shall conform to the material and gradation requirements as specified below. On-Site Fill may be used as Structural Fill provided weather conditions are favorable for recompaction to the specified density.

Sieve Size	Percent Passing by Weight
4-inch	100
1-inch	85-100
No. 4	50-100
No. 40	20-75
No. 200	0-12

On-Site Fill to be used for general raise-in-grade fill in building and pavement areas below the base course layer shall consist of inorganic soil from on-site cut areas and shall be free from ice, snow, roots, sod, loam, clay, rubbish, and other deleterious matter and shall be well-graded within the following gradation requirements:

Sieve Size	Percent Passing by Weight
8-inch	100
1-inch	85-100
No. 4	30-90
No. 40	10-60
No. 200	0-35

**Maximum particle size shall be 4 inches where fill is placed within 3 feet of the building finished floor elevation.*

Base Course for Pavement (Subbase) to be used as the base course layer directly beneath the asphalt binder course in pavement areas shall conform to the material and gradation requirements for Subbase Course, Type 1 (NYSDOT Item 733-0401).

Crushed Stone to be used as base course beneath the slab, for stabilizing footing subgrades, as drainage stone around perforated pipe shall consist of hard durable processed 1-inch crushed stone that meets the requirements for NYSDOT Item 703-02, Coarse Aggregate Size No. 2, in the Standard Specifications.

Riprap to be used where specified on the drawings shall consist of sound, durable stone, free from structural defects with approximately one reasonably flat side for top surface. The stone shall meet the requirements for Riprap, NYSDOT Item 733-22. These requirements are that each stone shall weigh not less than 100 pounds, and at least 50 percent of the total shall consist of stones weighing not less than

300 pounds each. The riprap shall not be dropped onto the underlying geotextile from a height greater than 1 foot.

Geotextile for Riprap to be placed beneath Riprap and where shall consist of a woven polypropylene fabric with a puncture resistance (ASTM D4833) of at least 120 pounds and an apparent opening size (ASTM D4751) of 0.5 millimeters (No. 70 sieve size), or less, such as Mirafi 600X, or approved equivalent.

Geotextile shall consist of a nonwoven polypropylene fabric having a Puncture Resistance (ASTM D4833) of at least 65 pounds, a Permittivity (ASTM D4491) of at least 130 gal/min/sf, and an Apparent Opening Size (ASTM D4751) of 0.15 to 0.22 millimeters such as Mirafi 140N, or Contech C-40NW, or approved equivalent.

Lean Mat Concrete to be used to seal exposed competent Shale bedrock subgrades and shall consist of a ratio of 1:3:6 or 1:4:8 (Cement:Sand:Aggregate) with a compressive strength of 1000 to 2000 psi at 28 days.

Flowable Fill to be used to backfill irregularly shaped excavations or to fill abandoned subsurface utilities shall consist of high slump Portland cement concrete with a compressive strength of 100 to 150 psi at 28 days.

Perforated Pipe to be used behind retaining walls and for foundation drains shall consist of perforated, corrugated, dual wall high-density polyethylene (HDPE) such as ADS N-12 or Schedule 40-PVC pipe, or their equivalents. The perforation size shall be compatible with the specified Crushed Stone particle size.

Figures

File:P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT-MAR25.dwg Plot Date: 4-4-25

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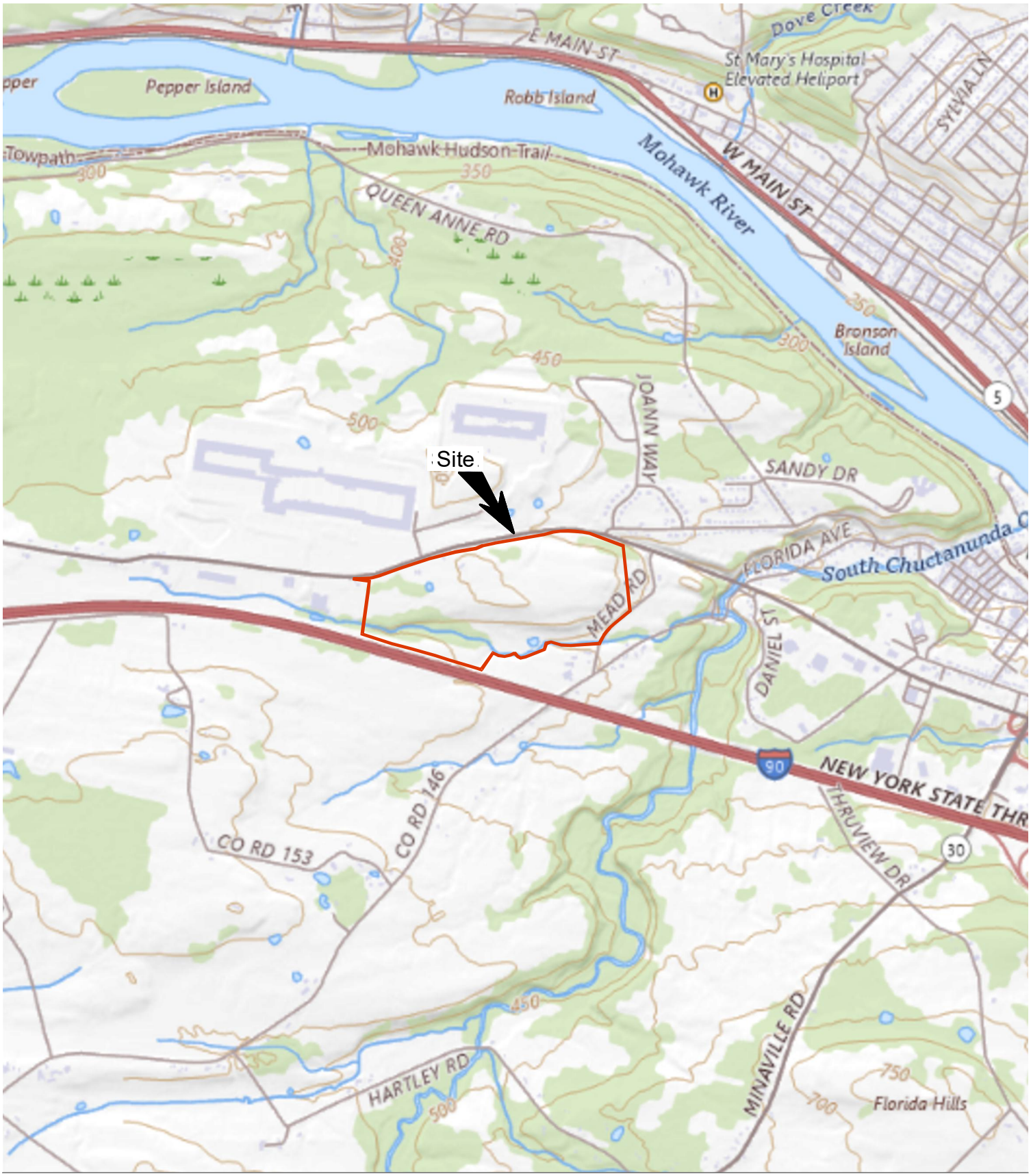

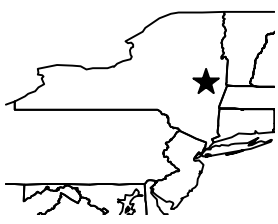

N
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NOTES:
The base map was taken from USGS The National map provided by ESRI through ArcGIS Online.

Drawn By: E. Wright
Designed By: L. Macedo
Reviewed By: L. Norton
Project No: 6480.000
Date: April 2025

1,000 0 2,000 Feet

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

Figure No. 1

Locus Plan

Geotechnical Engineering Services

Proposed Amazon ARS Facility - MSV1
Florida, New York

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NOTES:

1. THE BASE MAP WAS DRAWN FROM A PLAN TITLED, "MSV1-PRELIMINARY GRADING PLAN-2025-03-04", PREPARED BY BOHLER OF ALBANY, NEW YORK, PROVIDED ELECTRONICALLY ON 03/21/2025.
2. EXPLORATIONS DESIGNATED SH-1 THROUGH SH-22 WERE ADVANCED BY ATLANTIC TESTING LABORATORIES, INC. OF CANTON, NEW YORK AND OBSERVED BY SANBORN HEAD BETWEEN FEBRUARY10 THROUGH FEBRUARY 21, 2025.
3. APPROXIMATE LOCATIONS OF EXPLORATIONS WERE MARKED IN THE FIELD USING A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVER AND SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

LEGEND:

- APPROXIMATE SITE BOUNDARY
- B-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- AB-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- SH-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY SANBORN HEAD (FEBRUARY 2025)
- TP-1/TP-2 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT OBSERVED BY OTHERS

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

GRAPHICAL SCALE
150' 75' 0' 150' 300'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: E. WRIGHT
DESIGNED BY: L. MACEDO
REVIEWED BY: L. NORTON
PROJECT MGR: L. MACEDO
PIC: L. NORTON
DATE: APRIL 2025

GEOTECHNICAL ENGINEERING SERVICES
PROPOSED AMAZON ARS FACILITY - MSV1
FLORIDA, NEW YORK

PROJECT NUMBER: 6480.000

EXPLORATION LOCATION PLAN

FIGURE NUMBER: 2

IMAGES: P:\480s\6480.000\Graphics Files\CAD\GT MSV1 MAR2025\REFMSV1 Concept Plan_3D(3-25).dwg
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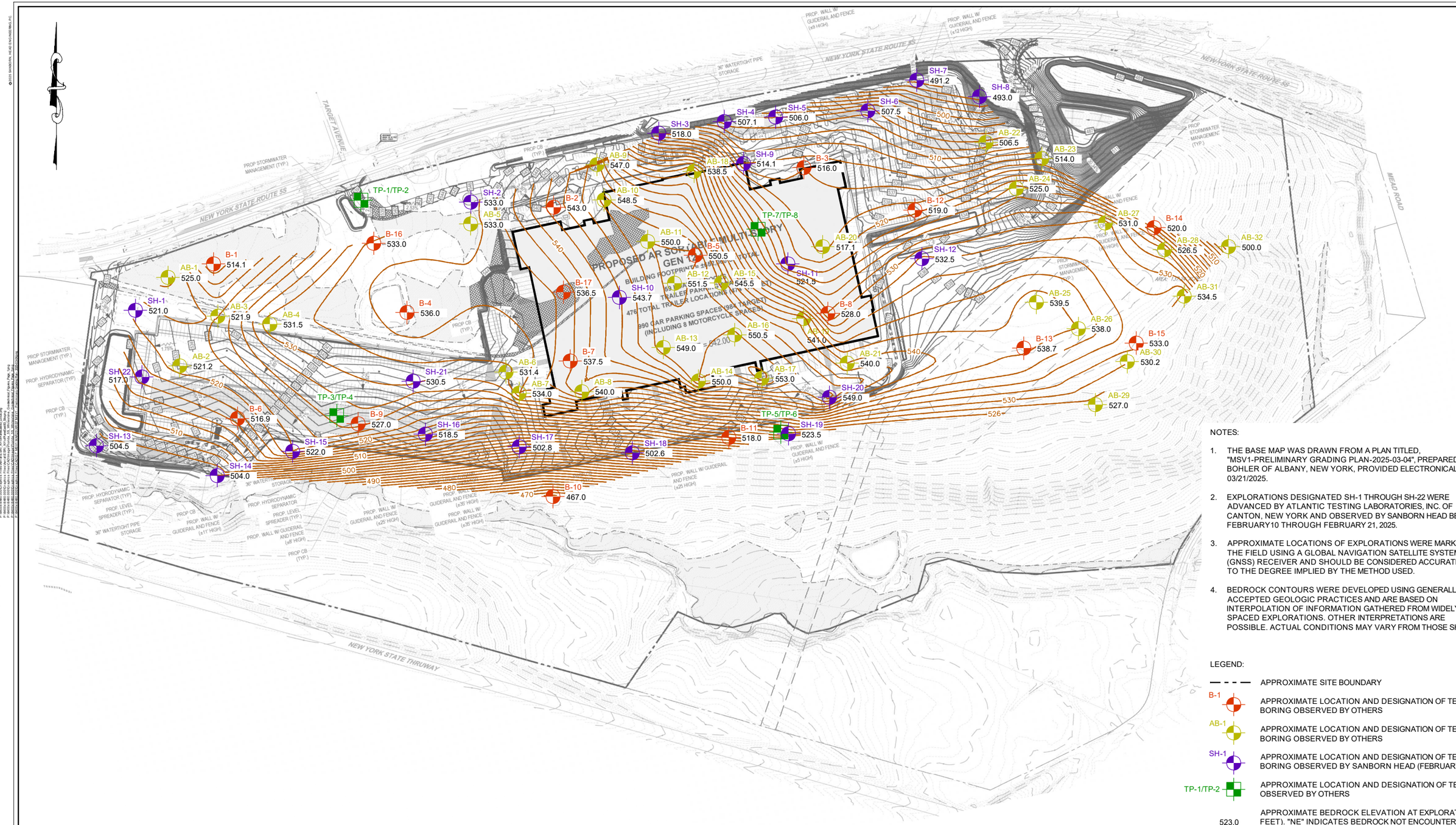
CTB FILE: Sheet.ctb
PLOTTED BY: Macedo
PLOT DATE: 4/4/25



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2. EXPLORATIONS DESIGNATED SH-1 THROUGH SH-22 WERE ADVANCED BY ATLANTIC TESTING LABORATORIES, INC. OF CANTON, NEW YORK AND OBSERVED BY SANBORN HEAD BETWEEN FEBRUARY10 THROUGH FEBRUARY 21, 2025.
3. APPROXIMATE LOCATIONS OF EXPLORATIONS WERE MARKED IN THE FIELD USING A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVER AND SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
4. BEDROCK CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED GEOLOGIC PRACTICES AND ARE BASED ON INTERPOLATION OF INFORMATION GATHERED FROM WIDELY SPACED EXPLORATIONS. OTHER INTERPRETATIONS ARE POSSIBLE. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN.

LEGEND:

- APPROXIMATE SITE BOUNDARY
- B-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- AB-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- SH-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY SANBORN HEAD (FEBRUARY 2025)
- TP-1/TP-2 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT OBSERVED BY OTHERS
- 523.0 — APPROXIMATE BEDROCK ELEVATION AT EXPLORATION (IN FEET). "NE" INDICATES BEDROCK NOT ENCOUNTERED PRIOR TO TERMINATION
- 110 — ESTIMATED BEDROCK CONTOUR BASED ON COLLECTED DATA

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

GRAPHICAL SCALE

150' 75' 0' 150' 300'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: E. WRIGHT
DESIGNED BY: L. MACEDO
REVIEWED BY: L. NORTON
PROJECT MGR: L. MACEDO
PIC: L. NORTON
DATE: APRIL 2025

GEOTECHNICAL ENGINEERING SERVICES
PROPOSED AMAZON ARS FACILITY - MSV1
FLORIDA, NEW YORK

PROJECT NUMBER: 6480.000

BEDROCK SURFACE CONTOUR PLAN

FIGURE NUMBER: 3

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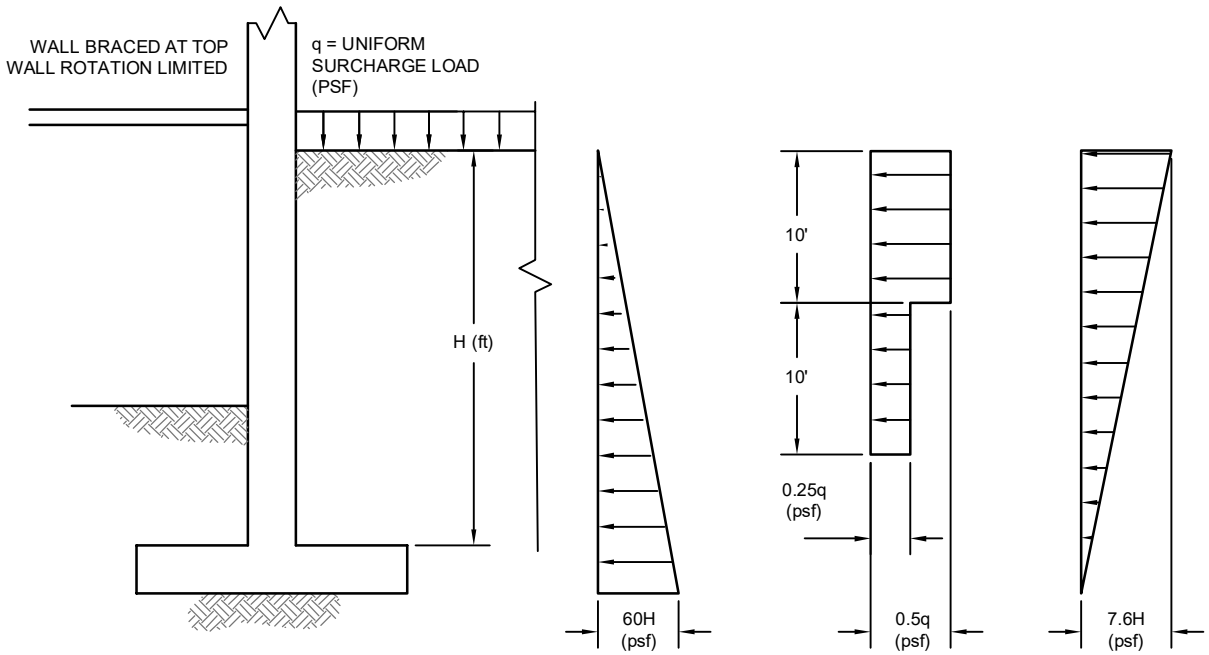

AT-REST LATERAL EARTH PRESSURE | SURCHARGE (SEE NOTES 4 & 5) | SEISMIC (SEE NOTE 6)

NOTES:

1. LOADS ASSUME FOUNDATION WALLS ARE DESIGNED TO LIMIT WALL ROTATION.
2. PRESSURE DISTRIBUTIONS ASSUME FOUNDATION WALL BACKFILL ON-SITE PREPARED AS SPECIFIED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED HEREIN.
3. PRESSURE DISTRIBUTIONS ASSUME SOIL BEHIND WALLS IS DRAINED. THEREFORE NO HYDROSTATIC PRESSURE IS DEVELOPED BEHIND WALLS.
4. FOUNDATION WALL SHOULD BE DESIGNED TO SUPPORT A TEMPORARY CONSTRUCTION SURCHARGE PRESSURE DEPENDING ON THE WALL LOCATION AND FUNCTION. IT IS RECOMMENDED THAT A UNIFORM SURCHARGE LOAD OF 250 PSF IS ASSUMED IF HEAVY COMPACTION EQUIPMENT IS TO BE USED.
5. IGNORE SURCHARGE LOADS BELOW A DEPTH OF 20 FEET.
6. BASED ON THE BUILDING CODE OF NEW YORK STATE. 2020 EDITION, AND TOTAL UNIT WEIGHT OF 135 PCF, USE 7.6H FOR SEISMIC SITE CLASS "C".
7. SLIDING FRICTION COEFFICIENT OF 0.50 IS RECOMMENDED FOR THE WALL FOOTING BEARING ON INORGANIC, GRANULAR SOIL. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ALLOWABLE STRENGTH VALUE.
8. A PASSIVE EARTH PRESSURE OF 460H SHOULD BE USED IN LOCATIONS THAT WILL NOT BE SUBJECT TO FUTURE EXCAVATION OR DISTURBANCE. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ULTIMATE STRENGTH VALUE.

PROPOSED AMAZON ARS FACILITY - MSV1 FLORIDA, NEW YORK	PRELIMINARY GEOTECHNICAL ENGINEERING REPORT FOUNDATION WALL LATERAL EARTH PRESSURES - AT-REST CONDITION		
SANBORN HEAD SANBORN, HEAD ENGINEERING, P.C.	SCALE: NTS	DRAWN BY: DJD	FILE NO. 6480.000
	DATE: APR 2025	CHECKED BY: NCJ	FIGURE NO. 4

FILE: P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT Figs 4-5.dwg
LAYOUT: FIG5
CTB FILE: SHA Standard.ctb
PLOT DATE: 4-4-25

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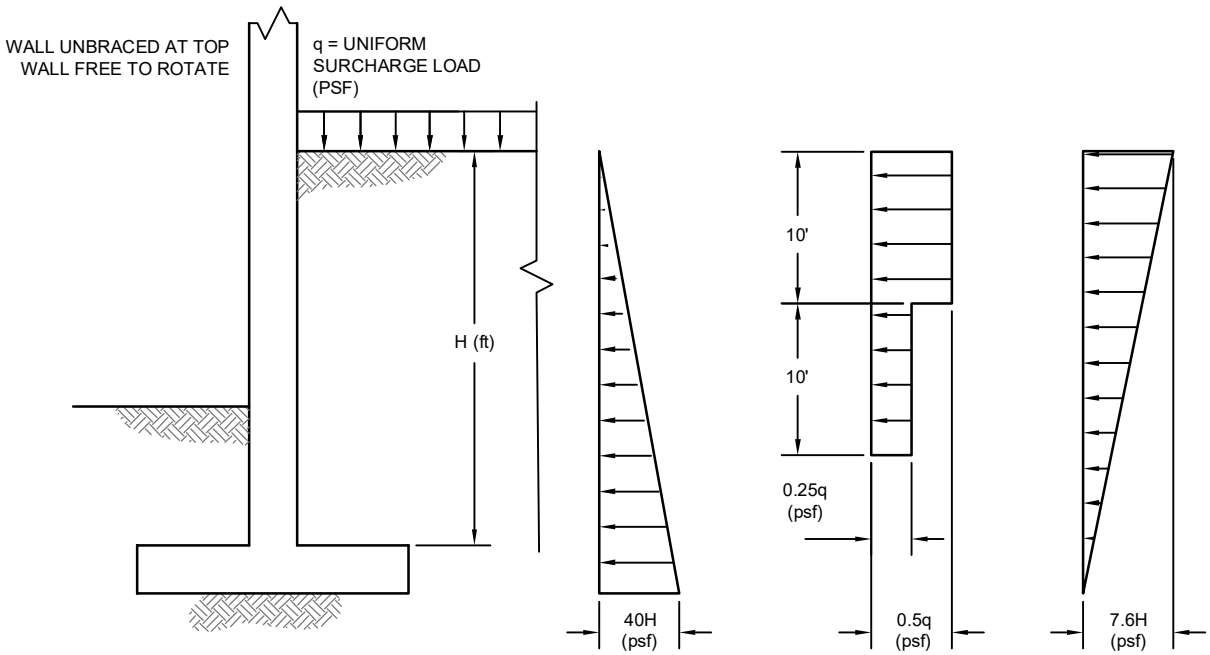

ACTIVE LATERAL EARTH PRESSURE | SURCHARGE (SEE NOTES 4 & 5) | SEISMIC (SEE NOTE 6)

NOTES:

1. LOADS ASSUME FOUNDATION WALL IS FREE TO ROTATE.
2. PRESSURE DISTRIBUTIONS ASSUME FOUNDATION WALL BACKFILL ON-SITE PREPARED AS SPECIFIED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED HEREIN.
3. PRESSURE DISTRIBUTIONS ASSUME SOIL BEHIND WALLS IS DRAINED. THEREFORE NO HYDROSTATIC PRESSURE IS DEVELOPED BEHIND WALLS.
4. FOUNDATION WALL SHOULD BE DESIGNED TO SUPPORT A TEMPORARY CONSTRUCTION SURCHARGE PRESSURE DEPENDING ON THE WALL LOCATION AND FUNCTION. IT IS RECOMMENDED THAT A UNIFORM SURCHARGE LOAD OF 250 PSF IS ASSUMED IF HEAVY COMPACTION EQUIPMENT IS TO BE USED.
5. IGNORE SURCHARGE LOADS BELOW A DEPTH OF 20 FEET.
6. BASED ON THE BUILDING CODE OF NEW YORK STATE, 2020 EDITION, AND TOTAL UNIT WEIGHT OF 135 PCF, USE 7.6H FOR SEISMIC SITE CLASS "C".
7. SLIDING FRICTION COEFFICIENT OF 0.50 IS RECOMMENDED FOR THE WALL FOOTING BEARING ON INORGANIC, GRANULAR SOIL. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ALLOWABLE STRENGTH VALUE.
8. A PASSIVE EARTH PRESSURE OF 460H SHOULD BE USED IN LOCATIONS THAT WILL NOT BE SUBJECT TO FUTURE EXCAVATION OR DISTURBANCE. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ULTIMATE STRENGTH VALUE.

PROPOSED AMAZON ARS FACILITY - MSV1 FLORIDA, NEW YORK	GEOTECHNICAL ENGINEERING REPORT FOUNDATION WALL LATERAL EARTH PRESSURES - ACTIVE CONDITION		
SANBORN HEAD SANBORN, HEAD ENGINEERING, P.C.	SCALE: NTS	DRAWN BY: DJD	FILE NO. 6480.000
	DATE: APR 2025	CHECKED BY: NCJ	FIGURE NO. 5

FILE: P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT Figs 4-5.dwg
LAYOUT: FIG4
CTB FILE: SHA Standard.ctb
PLOT DATE: 4-4-25

Appendix A

Limitations

APPENDIX A
LIMITATIONS

Explorations

1. The analyses, recommendations, and designs submitted in this report are based in part on the data obtained from subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were developed by interpretation of widely spaced explorations and samples; actual soil transitions may be more or less gradual than indicated. For specific information, refer to the test boring logs.
3. Water level readings were made in the drill holes at the times and under the conditions stated on the exploration logs. These data were reviewed and interpretations were made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from those occurring at the time measurements were made.

Review

4. In the event that any changes in the nature, design, or location of the proposed building are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed, and conclusions of the report modified or verified in writing by Sanborn Head.

Construction

5. It is recommended that Sanborn Head be retained to provide geotechnical engineering services during the excavation and earthwork construction phases of the work. This is to observe compliance with the design concepts, specifications, or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

Use of Report

6. This report was prepared for the exclusive use of BMG Albany LLC for the proposed Amazon ARS Facility in Florida, New York, in accordance with generally geotechnical engineering practices. No other warranty, expressed or implied, is made.
7. This report was prepared for this project by Sanborn Head for preliminary design purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of this report may secure it with the understanding that its scope is limited to preliminary design considerations only.

Appendix B

Subsurface Exploration Logs

Appendix B.1

Test Boring Logs
By Sanborn Head

Boring / Monitoring Well Log Legend

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: Industrial Site Redevelopment
Location: Anytown, State
Project No.: 1234.56

Log of Monitoring Well SH-1

Ground Elevation: 112.2 feet
TOC Elevation: 115.2 feet
PVC Elevation: 115.10 feet
Datum: MSL

Drilling Method: Mobile B-53 Truck, 5" PW Drive & Wash

Sampling Method: 2" O.D. Split Spoon w/140 lb Safety Hammer

Drilling Company: Ground Down Drilling Co.
Foreman: J. Driller
Date Started: 06/25/08 **Date Finished: 06/26/08**
Logged By: A. Engineer **Checked By: A. Principal**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
06/24/08	09:45	10.0'	Ground	27'	27'	<5 min
06/25/08	14:50	12.0'	Top of PVC	Well Installed	50'	15 min
07/03/08	13:00	12.2'	Top of PVC	Well Installed	50'	8 days

Depth (ft)	Casing Blows (per ft)	Drill Rate (min/ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
			Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description			
1	2	3	4	5	6	7	8	9	9	10	11	11

1. The numbers in this column report the depth in feet below ground surface.

2. The numbers in this column report the number of blows required to drive the drill casing one foot using a 300 pound hammer, unless otherwise specified.

3. The numbers in this column report the rate of advance when coring rock.

4. The values in this column report the sample designation. In the example S-1, "S" indicates the sample type and "1" indicates the sample number.

"S" indicates split spoon sample
"U" indicates Shelby tube sample
"C" indicates rock core sample
"G" indicates grab sample

5. The numbers in this column report the depth, in feet, from the ground surface of the sample identified in column 4.

6. The numbers in this column report the number of blows required to drive a split spoon sampler 6 inches using a 140 pound hammer free falling 30 inches. The standard split spoon sampler is 1-3/8 inch inside diameter and 2 inches outside diameter. The Standard Penetration Resistance, or N-value in blows per foot, is the sum of the blows recorded over the second and third 6-inch interval.

A number followed by "/3" indicates the distance that the sampler advanced. For example "100/4" indicates that 100 blows of a 140 pound hammer falling 30 inches advanced the sampler 4 inches. "WOR/24" indicates the weight of the drilling rods without the hammer caused the sampler to advance 24 inches.

"WOH" indicates the static weight of the 140 pound hammer and the drilling rods attached to the split spoon sampler were sufficient to cause the sampler to advance.

"WOR" indicates the static weight of the drilling rods attached to the split spoon sampler was sufficient to cause the sampler to advance.

7. The values shown are the length of the soil or rock core sampler penetration and the number of inches of sample recovered from the sampler.

8. The values shown are the results of field tests performed on soil or rock samples. The test method, result and units are indicated. Unless otherwise noted "ND" denotes not detected.

9. These columns provide a graphic illustration and verbal description of the subsurface soil and rock strata. The depths of strata changes should be considered approximate and general in nature, actual strata changes in the field may be more gradual.

10. Descriptions of soil samples include:

- the density or consistency;
- color;
- a listing of MAJOR and minor soil components based on particle size and plasticity;
- structure,
- moisture; and
- other pertinent characteristics.

For example: Medium dense, brown, fine to medium SAND, trace Silt. Stratified. Moist. Faint petroleum odor.

Description of rock core samples include:

- hardness, weathering, rock continuity, color, texture, rock type, structure; and RQD (%)

For example: Hard to very hard, slightly weathered, grey-green, fine grained, RHYOLITE, with joints spaced 4 to 12 inches apart and dipping from near horizontal to approximately 60°. Open crack in core at 14.4', moderately fractured . RQD=58%

NOTE: "RQD" is defined as the summation of all pieces of rock core greater than 4 inches in length divided by the length of the core run and expressed as a percentage.

11. Monitoring well materials or other equipment installed within the borehole are graphically presented in these columns. If no equipment was installed, these columns are used for notes, remarks or other pertinent observations.

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Description and Classification of Soil

1. Density or Consistency: The density or consistency of a soil sample is based on the Standard Penetration Test N-value according to the following table:

Density of Granular Soil	SPT N-Value		Consistency of Cohesive Soil
Very Loose	0-4	<2	Very Soft
Loose	5-10	2-4	Soft
Medium Dense	11-30	5-8	Medium Stiff
Dense	31-50	9-15	Stiff
Very Dense	>50	16-30	Very Stiff
		>30	Hard

The Standard Penetration Resistance, or N-value in blows per foot, is the sum of the blows recorded over the second and third 6-inch interval.

A number followed by "/3" indicates the distance that the sampler advanced. For example "100/4" indicates that 100 blows of a 140 pound hammer falling 30 inches advanced the sampler 4 inches. "WOR/24" indicates the weight of the drilling rods without the hammer caused the sampler to advance 24 inches.

"WOH" indicates the static weight of the 140 pound hammer and the drilling rods attached to the split spoon sampler were sufficient to cause the sampler to advance.

"WOR" indicates the static weight of the drilling rods attached to the split spoon sampler was sufficient to cause the sampler to advance.

2. Color: The color of a soil sample is based on visual observation.

3. Soil Components

A. Description: The components of a soil sample are described by visually estimating the percentage of each component by weight of the total sample using a Modified Burmister System.

i. Major Component: The major soil component is written with upper case letters for granular soil (e.g., SAND, GRAVEL) and a combination of upper and lower case letters for fine grained soil (e.g., Silty CLAY, Clayey SILT).

ii. Minor Component: The minor soil components are written with the first letter of each soil type in upper case, and the remaining letters in lower case (e.g., Gravel, Silt). The minor components are identified and prefaced in the description based on the following percentages:

Preface	Percentage
and	35-50
some	20-35
little	10-20
trace	0-10

iii. Note: The actual percentages of gravel soil may differ from that measured when sampling with a standard split spoon sampler because of the relatively small sampler diameter. Also, it is not possible to identify the presence of boulders and cobbles using a standard split spoon sampler.

B. Definitions

i. Granular Soil: A granular soil sample is defined by the following particle sizes as referenced to a standard sieve:

Material	Description	Standard Sieve Limit	
		Upper	Lower
Boulders	C-sized	--	36 inch
	B-sized	36 inch	24 inch
	A-sized	24 inch	12 inch
Cobbles	--	12 inch	3 inch
Gravel	coarse	3 inch	3/4 inch
	fine	3/4 inch	No. 4
Sand	coarse	No. 4	No. 10
	medium	No. 10	No. 40
	fine	No. 40	No. 200

ii. Fine Grained Soil: The degree of plasticity of fine-grained soils is defined as follows:

Material	Degree of Plasticity	Plasticity Index (PI)	Smallest Thread Diameter (in.)
SILT	Non-Plastic	0	None
Clayey SILT	Slight	1 to 5	1/4
SILT & CLAY	Low	5 to 10	1/8
CLAY & SILT	Medium	10 to 20	1/16
Silty CLAY	High	20 to 40	1/32
CLAY	Very High	40+	1/64

iii. Organic Soil: An organic soil sample is classified by observation of the sample structure as follows:

Material	Description
TOPSOIL	Surficial soils that support plant life and which contain organic matter.
SUBSOIL	Soil underlying the topsoil which may contain roots or plant fibers.
PEAT	Deposits of plant remains in which the original plant fibers or root structure are visible.
ORGANIC SILT	Deposit of plant remains in which the original plant fibers or root structure have decomposed.

iv. Non-Soil Constituents: Non-soil constituents (artificial or anthropogenic material, organic materials, cobbles and boulders) are described as follows:

The following terminology is used to denote size ranges of non-soil constituents such as man-made objects or fill material:

Descriptive Term	Size Range	Comparative Term
Specks	< No. 200 Sieve	Silt and Clay fines
Particles	No. 200 Sieve to No. 4 Sieve	Sand
Fragments	No. 4 Sieve to 3 in.	Gravel
Pieces	3 in. to 12 in.	Cobbles
Blocks	> 12 in.	Boulders

The following terminology is used to describe the frequency that a non-soil constituent is observed by estimating the percentage of the constituent by weight of the total sample:

Descriptor	Percentage
very few	0-5
few	5-10
common	10-20
frequent	20-35
numerous	35-50

4. Moisture Content: The moisture content of a soil sample is based on the observable presence of water according to the following table:

Dry	Moisture is not apparent, dusty.
Moist	No visible water.
Wet	Visible free water.

5. Other Pertinent Characteristics: Pertinent characteristics observed in a soil sample should be noted according to the following table:

Soil Structure Produced by Deposition of Sediments	
Stratified	Random soil deposits of varying components of color.
Varved	Alternating soil deposits of varying thickness (i.e., clays or silts).
Stratum	Soil deposit > 12 inches thick.
Layer	Soil deposit 3 inches to 12 inches thick.
Seam	Soil deposit 1/8 inch to 3 inches thick.
Parting/Lens	Soil deposit <1/8 inch thick.

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UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)LEGEND AND SYMBOLOGY

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)		
		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)		
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)		
		SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)		
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

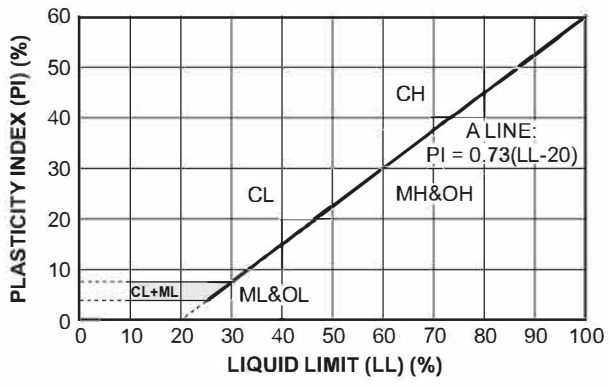
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line with P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for GW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent ..... GW, GP, SW, SP
More than 12 percent ..... GM, GC, SM, SC
5 to 12 percent ..... Borderline cases requiring dual symbols

PLASTICITY CHART



SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-1

Ground Elevation: 532.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/21/25 **Date Finished: 02/21/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/21/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 3	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	5 8 14 17	24/22				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, some Sand, trace Gravel. Moist. TILL.	
6							GLACIAL TILL		
8									
10	S-3	9 - 11	10 20 39 32	24/24				S-3 (9 to 11'): Hard, brown, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
12							-----11.5'-----	Boring terminated at 11.5 feet bgs due to auger refusal on probable bedrock.	
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-2

Ground Elevation: 546 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/10/25 **Date Finished: 02/10/25**

Logged By: D. Robinson/ M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/10/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 2 3 4	24/8			-----0'-----	S-1 (0 to 2'): Medium stiff, light brown, SILT & CLAY, trace Sand, few Organic particles. Moist/ Frozen. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	2 8 12 12	24/13				S-2 (4 to 6'): Very stiff, light brown, SILT & CLAY, trace Sand. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	8 16 21 27	24/24			-----9'-----	S-3 (9 to 11'): Stiff, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		
12									
	S-4	13 - 13.3	100/3"	3/2			WEATHERED ROCK -----13.3-----	S-4 (13 to 13.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
								Boring terminated at 13.3 feet bgs due to auger/ split-spoon refusal on bedrock.	
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-3

Ground Elevation: 531.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/11/25 **Date Finished: 02/11/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 2 3 3	24/9			-----0'-----	S-1 (0 to 2'): Medium stiff, dark brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	3 6 7 10	24/14				S-2 (4 to 6'): Stiff, dark brown to brown, Clayey SILT, trace Sand. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	16 27 45 54	24/6			-----9'-----	S-3 (9 to 11'): Hard, dark brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		HSA refusal at 11.5 feet bgs.
	S-4	11.5 - 13.5	38 31 27 41	24/20				S-4 (11.5 to 13.5'): Hard, grayish brown, SILT & CLAY, little Sand, little Gravel. Moist. TILL.	
12									
							-----13.5'-----	Boring terminated at 13.5 feet bgs due to auger refusal on probable bedrock.	
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-4

Ground Elevation: 530 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/11/25 **Date Finished: 02/11/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 2 2 4	24/15			-----0'-----	S-1 (0 to 2'): Soft, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	3 4 8 12	24/24				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, little Sand, trace Gravel, very few Organics specks. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	10 21 34 31	24/24			-----9'-----	S-3 (9 to 11'): Hard, brown, SILT & CLAY, some Sand, little Gravel. Moist. TILL.	
10									
12									
							GLACIAL TILL		
14	S-4	14 - 16	8 14 18 22	24/22				S-4 (14 to 16'): Hard, gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
16									
	S-5	17 - 19	10 14 16 19	24/2				S-5 (17 to 19'): Very stiff, gray, SILT & CLAY, little Sand, trace Gravel. Gravel in tip of sampler Moist. TILL.	
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-4

Ground Elevation: 530 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/11/25 **Date Finished: 02/11/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
18									
	S-6	19 - 21	5 11 14 19	24/24			GLACIAL TILL	S-6 (19 to 21'): Very stiff, gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
20									
22	S-7	22 - 22.9	8 100/5"	11/11			-----22.9'-----	S-7 (22 to 22.9'): Hard, dark gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	Auger refusal at 22 feet bgs.
								Boring terminated at 22.9 feet bgs due to split-spoon refusal on probable bedrock.	
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-5

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/12/25 **Date Finished: 02/12/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	16:11	18.3'	Ground Surface	N/A	22.2'	< 15min

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 4	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	2 3 8 59	24/8				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, trace Sand, trace Gravel. Moist. TILL.	S-2: Rock observed in tip of split spoon.
							SILT & CLAY		
6									
8									
	S-3	9 - 9.9	16 100/5"	11/11			-----9'-----	S-3 (9 to 9.9'): Hard, brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
10									
12									
							GLACIAL TILL		
14	S-4	14 - 16	12 14 18 21	24/24				S-4 (14 to 16'): Hard, gray to grayish brown, SILT & CLAY, some Sand, little Gravel. Moist. FILL.	
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-5

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/12/25 **Date Finished: 02/12/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	16:11	18.3'	Ground Surface	N/A	22.2'	< 15min

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
18									
	S-5	19 - 21	11 7 8 12	24/16			GLACIAL TILL	S-5 (19 to 21'): Stiff, gray, SILT & CLAY, some Sand, little Gravel. Moist. TILL.	
20									
22	S-6	22 - 22.2	100/2"	2/2			WEATHERED ROCK 22.2	S-6 (22 to 22.2'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
								Boring terminated at 22.2 feet bgs due to auger/ split-spoon refusal on bedrock.	
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-6

Ground Elevation: 523 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/13/25 **Date Finished: 02/13/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 5 5 10	24/16			-----0'----- TOPSOIL -----0.4'-----	S-1 (0 to 2'): Stiff, dark brown to brown, SILT & CLAY, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
4	S-2	4 - 6	8 16 26 24	24/9				S-2 (4 to 6'): Hard, brown, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
8							GLACIAL TILL		
	S-3	9 - 11	7 10 22 24	24/12				S-3 (9 to 11'): Hard, dark gray, SILT & CLAY, little Sand, little Gravel. Moist. TILL.	
14	S-4	14 - 16	27 21 23 37	24/11				S-4A (14 to 15.5'): Hard, dark gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
							-----15.5'----- WEATHERED ROCK -----16'-----	S-4B (15.5 to 16'): Very dense, black, Weathered Rock (Shale). Moist.	
16								Boring terminated at 16 feet bgs due to auger refusal.	
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-7

Ground Elevation: 504.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/13/25 **Date Finished: 02/13/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 10	24/11			-----0'-----	S-1 (0 to 2'): Medium stiff, dark brown, CLAY & SILT, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	1 2 7 7	24/19				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, little Sand, trace Gravel. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	41 49 28 12	24/10			-----9'-----	S-3 (9 to 11'): Hard, dark gray, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
10									
							GLACIAL TILL		
12									
	S-4	13 - 13.3	100/4"	4/2			-----13.3'-----	S-4 (13 to 13.3'): Hard, dark gray, Clayey SILT, little Sand. Moist. TILL.	
14								Boring terminated at 13.3 feet bgs due to split spoon and auger refusal on probable bedrock.	
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-8

Ground Elevation: 505 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/13/25 **Date Finished: 02/13/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	15:15	7'	Ground Surface	N/A	13.3'	<15 min

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 4 3 3	24/17			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	WOH/ 24	24/12				S-2 (4 to 6'): Very soft, dark brown, PEAT and Organic Silt, trace Sand. Moist.	
							PEAT		
6									
8									
	S-3	9 - 11	17 14 19 13	24/19			-----9'-----	S-3 (9 to 11'): Hard, brown to gray, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		
12	S-4	12 - 13.3	51 84 100/3"	15/6			-----12'-----	S-4 (12 to 13.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							WEATHERED ROCK		
							-----13.3'-----	Boring terminated at 13.3 feet bgs due to split spoon and auger refusal on bedrock.	
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-9

Ground Elevation: 534.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 1 3 4	24/11			-----0'-----	S-1 (0 to 2'): Soft, dark brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	1 3 7 11	24/				S-2 (4 to 6'): Stiff, dark brown, SILT & CLAY, little Sand, trace Gravel. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	10 20 21 25	24/17			-----9'-----	S-3 (9 to 11'): Hard, grayish brown, SILT & CLAY, trace Sand, trace Gravel. Moist. TILL.	
10									
12							GLACIAL TILL		
14	S-4	14 - 16	21 33 37 26	24/16				S-4 (14 to 16'): Hard, gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
16									
	S-5	17 - 19	53 22 23 24	24/19			-----17'----- COBBLE -----17.5'----- GLACIAL TILL		Drilled through a 6-inch cobble from 17.0 to 17.5 ft bgs.
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-9

Ground Elevation: 534.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
18	S-6	19 - 20.4	11 27 100/5"	17/11			GLACIAL TILL	S-5 (19 to 20.4'): Hard, gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
20							-----20.4'-----	Boring terminated at 20.4 feet bgs due to split-spoon refusal on probable bedrock.	
22									
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-10

Ground Elevation: 553 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/19/25 **Date Finished: 02/19/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/19/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 2	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 8 12 16	24/24				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
6							GLACIAL TILL		
8									
	S-3	9 - 9.3	60/4"	4/4			WEATHERED ROCK	S-3 (9 to 9.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
	C-1	9.3 - 14.3		60/56			----9.3----	C-1 (9.3 to 14.3'): Medium hard, moderately weathered, dark gray, fine-grained, SHALE, with joints spaced 1 to 3" apart, horizontal to steep. Moderately fractured. REC=93%. RQD=40%.	
12									
14	C-2	14.3 - 19.3		60/60			BEDROCK	C-2 (14.3 to 19.3'): Medium hard, slightly weathered, dark gray, fine-grained, SHALE, with joints spaced 2 to 4" apart, horizontal to near vertical. Moderately fractured. REC=100%. RQD=44%.	
16									
18									
							-----19.3'-----	Boring terminated at 19.3 feet bgs; no refusal encountered.	
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-11

Ground Elevation: 542 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/19/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Drill Rate (min/ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0		S-1	0 - 2	1 2 4 6	24/3			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
								TOPSOIL		
2								-----2'-----		
4		S-2	4 - 6	1 36 17 20	24/8				S-2 (4 to 6'): Hard, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
6										
8										
10		S-3	9 - 11	29 29 23 32	24/8				S-3 (9 to 11'): Very dense, gray, coarse GRAVEL, some Silt, trace Sand. Moist. TILL.	
								GLACIAL TILL		
12										
14		S-4	14 - 16	11 14 18 22	24/16				S-4 (14 to 16'): Dense, gray, Clayey SILT, little Sand, little Gravel. Moist. TILL.	
16										
18										
		S-5	19 - 20.5	26 54 100/5"	17/8			-----19'-----	S-5 (19 to 20.5'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
20								WEATHERED ROCK		
	3	C-1	20.5 - 25.5		60/60			-----20.5'-----	C-1 (20.5 to 25.5'): Medium hard, severely weathered, dark gray, SHALE, with joints spaced 4 to 12" apart, horizontal. Slightly fractured. REC=100%. RQD=82%.	
22	4									
	3							BEDROCK		
24	4									
	4									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-11

Ground Elevation: 542 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/19/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Drill Rate (min/ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
26	2	C-2	25.5 - 30.5		60/60				C-2 (25.5 to 30.5'): Medium hard, slightly weathered, dark gray, SHALE, with joints spaced 4 to 12" apart, horizontal. Slightly fractured. REC=100%. RQD=91%.	
	4									
28	4							BEDROCK		
	3									
30	3									
								-----30.5'-----	Boring terminated at 30.5 feet bgs; no refusal encountered.	
32										
34										
36										
38										
40										
42										
44										
46										
48										
50										

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-12

Ground Elevation: 541.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/14/25 **Date Finished: 02/14/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	Not Measured				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 5	24/13			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 12 16 18	24/17				S-2 (4 to 6'): Very stiff, brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
							GLACIAL TILL		
6									
8									
	S-3	9 - 9.3	100/4"	4/3			WEATHERED ROCK	S-3 (9 to 9.3'): Very dense, black, Weathered Rock (Shale). Moist.	
10							----9.3----	Boring terminated at 9.3 feet bgs due to split-spoon refusal on bedrock.	
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-13

Ground Elevation: 518 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/20/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	9'	Ground Surface	13.5'	13.5'	< 5 minutes

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	5 13 9 6	24/18			-----0'-----	S-1 (0 to 2'): Medium dense, fine to coarse SAND and Gravel, trace Silt, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 5 2 3	24/12				S-2 (4 to 6'): Medium stiff, brown, SAND and Clayey Silt, trace Gravel. Moist. TILL.	
6									
8							GLACIAL TILL		
	S-3	9 - 11	24 9 10 19	24/14				S-3 (9 to 11'): Very stiff, Clayey SILT, some Sand, trace Gravel. Wet. TILL.	
10									
12									
	S-4	13 - 13.5	50/1"	1/1			-----13.5'-----	S-4 (13 to 13.5'): Very dense, dark gray, fine to coarse GRAVEL, some Silt, trace Sand. Moist. TILL.	
14								Boring terminated at 13.5 feet bgs due to split spoon refusal on probable bedrock.	
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-14

Ground Elevation: 517.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/20/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 2 1 2	24/6			-----0'-----	S-1 (0 to 2'): Soft, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 6 4 5	24/0				S-2 (4 to 6'): Stiff, No Recovery.	
6									
8							GLACIAL TILL		
	S-3	9 - 11	7 2 3 11	24/16				S-3 (9 to 11'): Medium stiff, dark brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
10									
12									
	S-4	13 - 13.5	50/6"	6/4			13' WEATHERED ROCK -----13.5-----	S-4 (13.5 to 14'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
14								Boring terminated at 13.5 feet bgs due to split spoon refusal on bedrock.	
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-15

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/20/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 3 5 8	24/10			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
2							TOPSOIL		
4	S-2	4 - 6	8 7 5 53	24/8			-----4'-----	S-2 (4 to 6'): Medium dense, dark gray, Weathered Rock (Shale). Moist.	
6							WEATHERED ROCK -----6'-----	Boring terminated at 6 feet bgs due to auger refusal on bedrock.	
8									
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-16

Ground Elevation: 524.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/18/25 **Date Finished: 02/18/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 3 2 24	24/10			-----0'-----		
							TOPSOIL	S-1A (0 to 1.5'): Medium stiff, brown, Clayey SILT, little Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
2							-----1.5'-----	S-1B (1.5 to 2'): Loose, dark gray, Weathered Rock (Shale). Moist.	
							WEATHERED ROCK		
4	S-2	4 - 5.7	6 14 56 50/2"	24/14				S-2 (4 to 5.7'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
6							-----5.7'-----	Boring terminated at 5.7 feet bgs due to split spoon refusal on bedrock.	
8									
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-17

Ground Elevation: 511.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/18/25 **Date Finished: 02/18/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	6'	Ground Surface	8'	8.7'	10 minutes

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 3 5 4	24/4			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 31 36 56	24/20				S-2 (4 to 6'): Very dense, Weathered Rock (Shale). Moist.	
							WEATHERED ROCK		
8	S-3	8 - 8.7	31 50/3"	9/5			-----8.7'-----	S-3 (8 to 10'): Very dense, Weathered Rock (Shale). Moist.	
								Boring terminated at 8.7 feet bgs due to split spoon refusal on bedrock.	
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-18

Ground Elevation: 512.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/18/25 **Date Finished: 02/18/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 1 2 4	24/3			-----0'-----	S-1 (0 to 2'): Soft, brown, Clayey SILT, and Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 8 12 13	24/11				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
							GLACIAL TILL		
6									
8									
	S-3	9 - 9.1	50/1"	4/3			WEATHERED ROCK	S-3 (9 to 9.1'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							-----9.1-----		
10								Boring terminated at 9.1 feet bgs due to split spoon refusal on bedrock.	
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-19

Ground Elevation: 572.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/14/25 **Date Finished: 02/14/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	Not Measured				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 5	24/12			-----0'-----	S1 (0 to 2'): Medium stiff, dark brown, Clayey SILT, trace fine to coarse Sand. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		Change in strata determined by change in drilling difficulty.
4	S-2	4 - 6	49 75 40 28	24/0			WEATHERED ROCK		S-2: Split spoon sampler unable to be retrieved due to shearing of pull pin. Equipment abandoned in place.
6							-----6'-----	Boring terminated at approximately 6 feet bgs due to inability to retrieve split spoon sampler from embedment in probable bedrock.	
8									
10									
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-20

Ground Elevation: 549.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/14/25 **Date Finished: 02/14/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	6 14 24 29	24/17			-----0'----- TOPSOIL -----0.5'-----	S-1A (0 to 0.5'): Hard, dark brown, Clayey SILT, and Sand, few Organic particles. Moist/Frozen. TOPSOIL.	
								S-1B (0.5 to 2'): Dense, dark gray, Weathered Rock (Shale). Moist.	
2							WEATHERED BEDROCK		
	S-2	3.5 - 4.3	79 100/3"	9/9				S-2 (3.5 to 4.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
4							-----4.3'-----	Boring terminated at 4.3 feet bgs due to split-spoon refusal on bedrock.	
6									
8									
10									
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-21

Ground Elevation: 535.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/18/25 **Date Finished: 02/18/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	5 4 3 5	24/10			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
							WEATHERED ROCK		
4	S-2	4 - 5.1	26 60 50/1"	13/10				S-2 (4 to 5.1'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							-----5.1'-----	Boring terminated at 5.1 feet bgs due to split spoon refusal on bedrock.	
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Florida, NY
Project No.: 6480.000

Log of Boring SH-22

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/21/25 **Date Finished: 02/21/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/21/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 11 8 7	24/8			-----0'-----	S-1 (0 to 2'): Very stiff, brown, Clayey SILT, some Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	12 11 10 17	24/18				S-2 (4 to 6'): Very stiff, black, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
6							GLACIAL TILL		
	S-3	7 - 9	17 17 19 23	24/16				S-3 (7 to 9'): Hard, tan, Clayey SILT and Sand, little Gravel. Moist. TILL.	
8									
	S-4	9 - 10.5	17 23 50/5"	17/17				S-4 (9 to 10.5'): Hard, brown, Clayey SILT, some Sand, little Gravel. Moist.	
10							-----10.5'-----	Boring terminated at 10.5 feet bgs due to split spoon refusal on probable bedrock.	
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

Appendix B.2

Subsurface Exploration Logs
By Others

WHITESTONE
ASSOCIATES, INC.

APPENDIX A
Records of Subsurface Exploration

BORING LOG NO. B-1

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#%bĀR6>91E5IĀ(!#) %#- b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%)Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā !	**TOPSOIL** $%' $&'(						
	CLAYEY SAND (SC) 0Ā2345Ā2675Ā9:Ā;<<52Ā)Ā=55Ā23Ā98@ĀA26ĀC698ĀD52Ā7685 16ĀD52Ā5E85			X	")	"("("(" *+)	
				X	)	%(("" (") *+ ",	
		$		X	))	!("Ā(" #("! *+)#	"%
				X	))	)$ ())( ), (%Ā *+ $Ā	
"Ā Ā	$))&'(	"Ā					
	SILTY SAND (SM) 0Ā23?98@ĀA26ĀB6ĀA73ĀF698ĀD52ĀE585Ā16ĀE5:85			X	"!	"- () $($Ā'$.	
		"$		X	",	"/ () %()) *+ #$	
"! #	$"# $&'(						
	Auger Refusal at 17.4 Feet						

K1219=4316: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16EI N629>ĀA34F=95EĀ9(Ā86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ)(Ā#()Ā"/	N629>Ā_6C<7515EIĀ)(Ā#()Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W3`541Ā6 IĀZN", $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMWWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-2

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#, bĀR6>91E5IĀ(!#) %Ā$b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
	TOPSOIL " Ā $$)&'(				"!	-(/(%(% *+ ")	
	CLAYEY SAND (SC) 0Ā2345Ā2675 18Ā26B: 0ĀC6981Ā76685Ā165E9;CĀE5:85				)Ā	%(-(,(") *+ "#	
	$ Ā $#,&'(	$					
	SILTY SAND (SM) 0Ā26B:0ĀC6981Ā0C5E9;CĀE585				",	"%(" $(") (" - *+)!	
	"Ā Ā $#%&'(	"Ā					
	"Ā $ **WEATHERED SHALE** 0Ā26B:0ĀB510Ā52?ĀE585 $#) $&'(				$	$Ā'$.	
	Auger Refusal at 10.5 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ)(Ā$()Ā"/	N629>Ā_6C<7515EIĀ)(Ā$()Ā"/
T297P9IĀ_XVĀ$$	T297Ā25ZĀR3CC
W3`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-3

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%$) bĀR6>91E5IĀ(#)) ! #b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%$ĀJU1 ^&(TVWHG VRVSJHMOĀJU1 ^	TVWHGĀJU1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ ĀJM^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀJ^
	TOPSOIL " Ā $%#&'(				"/	!(#(#(- *+ ,	
	LEAN CLAY (CL) 0Ā2345Ā2675 18Ā23?Ā6ĀĀ62B: 0ĀC6981Ā19Ā6ĀD52Ā819=				",	#(!("Ā(" Ā *+ "!	
	$ Ā $%Ā&'(	$					
	CLAYEY SAND (SC) 0Ā23?Ā6ĀĀ62B:0ĀC6981ĀC5E9;CĀE5:85				)#	#(!("Ā(") *+ "!	
	"Ā Ā $) $&'(	"Ā					
	CLAYEY SAND WITH GRAVEL (SC) 0Ā734FC1Ā6981ĀE585Ā6ĀD52ĀE585				)#	#("/ (" /( )# *+ %,	/
		"$			",	"# ())( )# *+ #-	
	"/ Ā $" -&'(						
	Spoon Refusal at 19 Feet				Ā	$ĀĀ.	

K1219=4319: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ"() /( )Ā"/	N629>Ā 6C<7515EIĀ"() /( )Ā"/
T297P9IĀ XVĀ$$	T297Ā25ZĀ3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$" ! ĀWPDWOK/TĀTMKHPNNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. B-4

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHM* R319;E5IĀ# /%%/bĀR6>91E5IĀ(#) %) %b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#" Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $#Ā $&'(						
	CLAYEY SAND (SC) 0Ā2345Ā2675Ā9:Ā;<<52Ā)Ā=55Ā6Ā:0ĀC6981ĀD52Ā7685Ā6 C5E9;CĀE585			X	,	)("( )(% *+ %	
				X	"/	-(-(!("" *+ "%	
$ Ā	$%&'(	$					
$ /	**WEATHERED SHALE** 0Ā734FCĀ6981ĀD52ĀE585 $%&'(			X	,	,($Ā'$.	
	Spoon Refusal at 5.9 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX5 1@EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX5 1@EI
N629>Ā34F=975EĀ39 1@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ)(Ā"( )Ā"/	N629>Ā_6C<7515EIĀ)(Ā"( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā5ZĀ3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. B-5

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	CLAYEY SAND (SC)			
	CLAYEY SAND WITH GRAVEL (SC)			
	WEATHERED SHALE			
	SHALE			
	Boring Terminated at 8.8 Feet			

WATER LEVEL OBSERVATIONS

No water before coring

upon completion of drilling

Terracon

BORING LOG NO. B-6

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

" Ä	**TOPSOIL**	$) -&'(	"#
) Ä	**LEAN CLAY (CL)**	$) $&'(	
$ Ä	**SILTY SAND (SM)**	$))&'(	"/
"Ä "	**SILTY SAND WITH GRAVEL (SM)**	$"!&'(	",
	Auger Refusal at 10.1 Feet		Ä

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

BORING LOG NO. B-7

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%$ĀR6>91E5IĀ(#) %Ā% ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#! Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
	TOPSOIL " Ā $#-&'(				)Ā	#()( )(# *+ #	
	SILT WITH SAND (ML) 0Ā2345Ā2675 18Ā26B: 0Ā6981Ā76685) Ā $#$&'(						
	CLAYEY SAND (SC) 0Ā26B:0Ā6981Ā05E9;CĀE585 $ Ā $#)&'(	$	▼		!	#(-(/(, *+ "$	
	SILTY SAND (SM) 0Ā26B:0Ā6981Ā0D52ĀE585 / $ $% $&'(				,	/("! (%#()% *+ $"	
	WEATHERED SHALE 0Ā734F0Ā2?ĀE5: 85 / / $%&'(				$	$Ā'$.	

Spoon Refusal at 9.9 Feet

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916 9ĀC3?ĀA5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>ĀA34F=975EĀ39(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

▼ *Once augers were taken out*

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>ĀK1325EIĀ"() /( )Ā"/	N629>Ā_6C<7515EIĀ"() /( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-8

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%/bĀR6>91E5IĀ(#)) ! " b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#%Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL " % $#" $&'(			X	)Ä	/(,(#(! *+ ")	
	CLAYEY SAND (SC) 0Ā2345Ā2675 18Ā26B: 0ĀC6981ĀC5E9;CĀE585 $ Ä $%&'(			X	"!	-(,("Ä(") *+ ",	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23?Ā6ĀA62B:0ĀC6981ĀC5E9;CĀE5:85Ā16ĀE85 "$ Ä $) ,&'(	$ "Ä "$		X	)#	-(,("Ä(" % *+ ",	
				X	",	"Ä(" #("! *+ %"	/
	WEATHERED SHALE 0Ā734FEĀ20ĀD25ĀE5: 85 "- " $) !&'(			X	")	!( )! ($Ä'".	
	Auger Refusal at 16.1 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI N629>ĀA34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>ĀK1325EIĀ"(%Ä()Ä"/	N629>Ā_6C<7515EIĀ"(%Ä()Ä"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W3`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. B-9

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL					
	CLAYEY SAND WITH GRAVEL (SC)					
	WEATHERED SHALE					
	Spoon Refusal at 6.4 Feet					

WATER LEVEL OBSERVATIONS

No measurable groundwater
upon completion of drilling

Terracon

BORING LOG NO. B-10

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%)%bĀR6>91E5IĀ(#) %Ā$b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ#! Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀg^
	TOPSOIL " Ā #, -&'(			X	)Ā	-(-($(- *+ ""	
	SILTY SAND (SM) 0Ā2345Ā2675 8Ā26B: 0ĀC6981ĀC5E9;CĀE585) Ā #, $&'(			X	"/	!(!(-("Ā *+ "%	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā26B:0ĀC6981ĀC5E9;CĀE5: 85 "Ā Ā #! !&'(	$		X	)#	"%(")("$ ()) *+)!	")
	CLAYEY SAND WITH GRAVEL (SC) 0Ā734FĀĀ>2?0ĀC 6981ĀE585Ā6ĀD5?ĀE585)Ā Ā #- !&'(	"Ā "$		X	))	,Ā () $()) () Ā *+ #!	
				X	)	##($Ā'#.	
	WEATHERED SHALE 0Ā734FCĀ6981ĀD52ĀE585)" # #- $ $&'(	)Ā		X	"!	##(- #($Ā'$.	
	Spoon Refusal at 21.4 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā3: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI N629>ĀA34F=975EĀ9 (Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 0Ā \

N629>ĀK1325EIĀ"() ,( )Ā"/	N629>Ā_6C<7515EIĀ"() ,( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā6ZĀ3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL				1	
	SILT WITH SAND (ML)				1	
	CLAYEY SAND WITH GRAVEL (SC)				1	
	WEATHERED SHALE				2	
	Spoon Refusal at 11.4 Feet				2	

WATER LEVEL OBSERVATIONS

At completion of drilling

BORING LOG NO. B-12

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#, bĀR6>91E5IĀ(#)) - " b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
	TOPSOIL " Ā $%#&'(				)Ā	!(-(#(# *+ "Ā	
	CLAYEY SAND (SC) 0Ā26B:0ĀC6981ĀC5E9;CĀE585				")	#($(-($ *+ ""	
	$ Ā $%Ā&'(	$					
	CLAYEY SAND WITH GRAVEL (SC) 0Ā26B:0ĀC6981ĀC5E9;CĀE5:85Ā61ĀD2ĀE5:85				)#	$(-("Ā(" % *+ "-	
		"Ā			$	$Ā'$.	
	"$ Ā $) Ā&'(	"$					
	"$) **WEATHERED SHALE** 0Ā734FCĀ6981ĀD52ĀE585 $) Ā&'(					$Ā').	
	Spoon Refusal at 15.2 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D7510Ā \

N629>Ā K1325EIĀ"() /( )Ā"/	N629>Ā_6C<7515EIĀ"() /( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-13

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL		
	CLAYEY SAND WITH GRAVEL (SC)		
	WEATHERED SHALE		
	Spoon Refusal at 4.8 Feet		

WATER LEVEL OBSERVATIONS

No measurable groundwater
upon completion of drilling

Terracon

BORING LOG NO. B-14

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

")	**TOPSOIL**	
) Ä	**SILTY SAND (SM)**	)Ä
	CLAYEY SAND (SC)	")
$ #	**WEATHERED SHALE**	$

Spoon Refusal at 5.4 Feet

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

BORING LOG NO. B-15

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%-bĀR6>91E5IĀ(#)) %#b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL						
	") $%#&'(				)Ā	") (" !("$ (/ *+ %)	
	CLAYEY SAND (SC) 0Ā2345Ā2675 18Ā32FĀA260ĀC6981Ā0C5E9;CĀE585						
	) Ā $%%&'(						
	WEATHERED SHALE 0Ā734FCĀ6981Ā076685Ā165Ā9;CĀE5:85				)#	,(!(-($ *+ "%	
		$					
					)#	)( )( )( ) *+ #	
	"Ā Ā $) $&'(						
	"Ā # **WEATHERED SHALE** 0Ā734FCĀ6981ĀD52ĀE585 $) # $&'(	"Ā			$	$Ā'$.	
	Spoon Refusal at 10.4 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ"() /( )Ā"/	N629>Ā_6C<7515EIĀ"() /( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-16

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHM* R319;E5IĀ# /%#$bĀR6>91E5IĀ(#) %) ! b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%,Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $% $&'(						
) Ā	**CLAYEY SAND (SC)** 0Ā2345Ā2675 18Ā26B: 0ĀC6981Ā76685 $%&'(				"-	%)( )(% *+ #	
$ Ā	**CLAYEY SAND WITH GRAVEL (SC)** 0Ā443896:37Ā46Ā75 80Ā26B:0ĀC6981Ā0C5E9;C E5:85 $%%&'(	$			))	$(-(") (" ! *+ ",	
- "	**WEATHERED SHALE** 0Ā734FCĀ6981ĀD52ĀE5:85 $%&'(				,	%(($Ā'".	

Spoon Refusal at 6.1 Feet

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916 9ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ89(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ)(Ā"( )Ā"/	N629>Ā_6C<7515EIĀ)(Ā"( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPH ĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. B-17

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL				
	CLAYEY SAND (SC)				
	CLAYEY SAND WITH GRAVEL (SC)				
	Auger Refusal at 12.5 Feet				

WATER LEVEL OBSERVATIONS

No measurable groundwater

No measurable groundwater

Terracon

BORING LOG NO. AB-1

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

0	**TOPSOIL**				
0	**LEAN CLAY (CL)**				
5	**CLAYEY SAND WITH GRAVEL (SC)**				
7	**COMPLETELY WEATHERED SHALE**				
	Auger and Sampler Refusal on Bedrock at 7 Feet				

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

BORING LOG NO. AB-2

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHMO* R319;E5IĀ# /%%#bĀR6>91E5IĀ(#) %$b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%"Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
Ā %	**GRAVEL ROADWAY** $%"&'(						
	FILL - CLAYEY SAND WITH GRAVEL 0Ā95458Ā6=Ā>56195Ā29462Ā: >5Ā6ĀA62B: 0 C6981ĀC5E9;CĀE585 $) /&'(			X	,	"Ā(" Ā(-(- *+ "-	
) Ā	**CLAYEY SAND WITH GRAVEL (SC)** 0Ā443896:37Ā46758Ā3:EĀ,76E5280Ā623 >5Ā16 A26B:0ĀC6981ĀE585 $) "&'(	$		X	"!	"$ (" ,( )%($Ā *+ #"	
"Ā "	**WEATHERED SHALE** 0Ā26B:Ā16ĀA734ĀE20Ā5 2?ĀE585 $) "&'(	"Ā			"	$Ā"'.	
	Auger and Sampler Refusal on Bedrock at 10.1 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
K13: E9 >Ā3152Ā6A852D5EĀ31Ā-23E5Ā-2962Ā6Ā2979:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>ĀK1325EIĀ%) -( )Ā"/	N629>Ā_6C<7515EIĀ%) -( )Ā"/
T2977Ā9IĀ_XVĀ$$	T2977ĀZĀ3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-3

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHMO* R319;E5IĀ# /%%/bĀR6>91E5IĀ(#) %#- b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%-Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā %	**TOPSOIL** $%$ $&'(						
	LEAN CLAY (CL) 0Ā2345Ā2675 18C 61175E0Ā6>5Ā6ĀA26: 0Ā6981ĀC5E9;C(819Ā6ĀD52? 819==			X	")	"( )(%$ *+ $	
- %	$) / $&'(	$		X	)Ā	") (" $(", () , *+ %%	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā443896:37Ā4675Ā8Ā3:EĀ,76E5280Ā>23?Ā16ĀA734F0 C6981ĀE585Ā6ĀD5?ĀE585	"Ā		X	)#	") (" $(", (% *+ %%	
"# "	$))&'(		▽				
	Auger and Sampler Refusal at 14.1 Feet				Ā	$Ā"'.	

K1219=4316: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā>23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@EI
N629>Ā34F=75EĀ9(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

▽ *13.7 feet after boring completion*

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) -( )Ā"/	N629>Ā 6C<7515EIĀ%) -( )Ā"/
T297P9IĀ XVĀ$$	T297Ā6ZĀ3CC
W3`541Ā6 IĀZN', $",!	

HGMKĀNOPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-4

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHM* R319;E5IĀ# /%%,bĀR6>91E5IĀ(#) %% b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%,Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	Ā) **TOPSOIL** $%&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā443896:37Ā467580Ā61175E0Ā6253Ā6ĀA6B: 0 C 6981ĀĀB10Ā52?Ā76685Ā16ĀE5:85 **Wet from approximately 0 to 1.5 feet**	$		X	")	""") .()(# *+)	
	- $ $%' $&'(			X	",	"Ā(" #("/ ($Ā'). *+ %%	
	- ! **WEATHERED SHALE** 0Ā734FE2Ā0ĀD23ĀE5: 85 $%' $&'(***Sampler Refusal on Bedrock at 6.7 Feet***						

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā<23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@EI N629>Ā34F=95EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3? Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) -( )Ā"/	N629>Ā_6C<7515EIĀ%) -( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-5

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM* R319;E5IĀ# /%#! bĀR6>91E5IĀ(#) % $b ĀJ<<26L9C315ĀK2=45Ā\75DIĀ$#$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀJU1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL Ā / $##&'(						
	LEAN CLAY (CL) 0Ā2345Ā2675 18C61175E0Ā6>23Ā6ĀA2B: 0ĀC6981Ā6=1 $ Ā $#Ā&'(			X	"/	%"( )(# *+ %	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā443896:37Ā4675 8623: >5Ā6ĀA2B:0ĀC69810 E5:85Ā16ĀD752E5 85	$		X	)Ā	") (",("$ (" $ *+ %%	
		"Ā		X	)Ā	") (",(#, ($Ā'). *+ --	
	") Ā $%%&'(") " **WEATHERED SHALE** 0Ā734FE2Ā0ĀD23Ā E5: 85 $%%&'(				"	$Ā'".	
	Auger and Sampler Refusal on Bedrock at 12.1 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J6C3194

JED3 45C5: 1ĀX5 1@EI)Ā"'#.ĀC KJ

JA3: E6: C5: 1ĀX5 1@EI N629>Ā34F=975EĀ39 1@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI K13: E9 >Ā3 1526Ā852D5EĀ31Ā-23E5Ā-2626Ā6Ā2979:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3? Y3 152D751Ā \

N629>Ā K1325EIĀ%) -( )Ā"/	N629>Ā_6C<7515EIĀ%) -( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā25ZĀ3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-6

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%#bĀR6>91E5IĀ(#) %" " b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#%Ā]U1 ^&(TVWHG VRVSJHMO^Ā]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā !	**TOPSOIL** $#) $&'(						
	LEAN CLAY (CL) 0Ā2345Ā2675 18ĀC61175E0Ā6 25Ā6ĀA26: 0ĀC6981ĀĀB10Ā6=1			X	",	Y G(" (" (% *+)	
$ Ā	$%&'(	$					
	SILTY SAND WITH GRAVEL (SM) 0Ā443896:37Ā46Ā58Ā3:EĀA76E52 80Ā>23Ā16ĀA26 0 C6981ĀĀB10Ā5E9;CĀE585ĀĀD5 7ĀE585			X	)#	%$("$ () $ *+)Ā	
		"Ā		X	$	$Ā'$.	
"" -	$%" $&'(						
"" !	**WEATHERED SHALE** 0Ā734FE2 0ĀD5 3ĀE5: 85 $%" $&'(				"	$Ā'".	
	Auger and Sampler Refusal on Bedrock at 11.7 Feet						

K1219=4310: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā3: 8969ĀC3?Ā5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=75EĀ9 1@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI
K13: E9 >Ā3 1526Ā852D5EĀ31Ā23E5Ā2 62Ā6Ā2779:
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 0Ā \

N629>Ā K1325EIĀ%) $()Ā"/	N629>Ā_6C<7 515EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$	T297 25ZĀ3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$",! ĀWPDWOK/TĀTMKHPNNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-7

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL	$% $&'(			",	Y G(" (" (% *+)
	CLAYEY SAND WITH GRAVEL (SC) 76685	$ Ä $%#&'(	$			
	WEATHERED SHALE	$ / $%%&'(			,	%$$Ä'$.
	Sampler Refusal on Bedrock at 5.9 Feet					

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

BORING LOG NO. AB-8

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%)bĀR6>91E5IĀ(#) %Ā" b ĀJ<<26L9C315ĀK2=45Ā\75DIĀ$##Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā !	**TOPSOIL** $#%$&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā443896:37Ā46Ā758Ā3:EĀ,76E52806Ā23 >5Ā16 A26B:0ĀC6981Ā76685			X	",	)( )(#(# *+ -	
# Ā	$#Ā&'(						
# /	**WEATHERED SHALE** 0Ā734FE2Ā0ĀD23Ā E5: 85 $%&'(			X	$	$Ā'$.	
	Auger and Sampler Refusal on Bedrock at 4.9 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@E
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX16@E
N629>Ā34F=75EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #Ā N263EB3?
Y3 152D751Ā \

N629>Ā K1325EIĀ%) $()Ā"/	N629>Ā_6C<7515EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOKVTĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-9

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM O* R319;E5IĀ# /%$) bĀR6>91E5IĀ(#) %b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$ĀĀ]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
Ā -	**TOPSOIL** $#/ $&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀC6981ĀD52Ā7665				")	Y G(" () (% *+ %	
% Ā	$#!&'(						
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23ĀE5: 85						
# #	$#$ $&'(				$	$Ā'$.	
	Auger and Sampler Refusal on Bedrock at 4.4 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>ĀK1325EIĀ%) -( )Ā"/	N629>Ā_6C<7515EIĀ%) -( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-10

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#/ bĀR6>91E5IĀ(#)) / / b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$#Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā -	**TOPSOIL** $$%$&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā2345Ā2675 8C61175E0Ā6=5Ā6ĀA26: 0Ā69810 76685			X	",	Y G() (%($ *+ $	
$ $	$#, $&'(	$					
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23Ā E5: 85			X	)%	"! (" #(%Ā$Ā'$. *+ ##	
- /	$#!&'(						
	Sampler Refusal on Bedrock at 6.9 Feet						

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916 9ĀC3?Ā5Ā5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>Ā34F=975EĀ89(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) -( )Ā"/	N629>Ā_6C<7515EIĀ%) -( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ Ā3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL					
	LEAN CLAY (CL)					
	WEATHERED SHALE					
	Sampler Refusal on Bedrock at 5.9 Feet					

WATER LEVEL OBSERVATIONS

No measurable groundwater
upon completion of drilling

Terracon

BORING LOG NO. AB-12

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#) bĀR6>91E5IĀ(#)) / b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $$# $&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀC6981ĀĀB107Ā6685			X	"/	"( )( )(# *+ #	
% $	$$" $&'(						
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23ĀE5: 85						
$ Ā	$$Ā&'(	$		X	")	%#$Ā	
	Sampler Refusal on Bedrock at 5 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā<23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=95EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D751Ā \

N629>Ā K1325EIĀ%) $()Ā"/	N629>Ā_6C<7515EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKVWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-13

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHM* R319;E5IĀ# /%%-bĀR6>91E5IĀ(#)) /) b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
	LEAN CLAY WITH GRAVEL (CL) 0Ā61175E0Ā6>5Ā6ĀA2B: 0ĀC6981ĀC5E9;C(819=) Ā $$%&'(			X	"#	Y G(" (%(- *+ #	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA2B:0ĀC6981ĀC5E9;CĀE5:85 - Ā $#/&'(	$		X	)Ā	") (" %(), ($Ā'$. *+ #"	
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23Ā E5: 85 - / $#,&'(						
	Sampler Refusal on Bedrock at 6.9 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@E
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX16@E
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$
W2`541Ā6 IĀZN', $",!

N629>Ā_6C<7515EIĀ%) $()Ā"/
T297Ā2ĀZ_R3CC

BORING LOG NO. AB-14

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%%bĀR6>91E5IĀ(!#)) , ! b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	Ä ! **TOPSOIL** $$%$&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀB510Ā52?Ā76685				)Ä	Y G(" (" () *+)	
	# Ä $$Ä&'(						
	WEATHERED SHALE 0Ā26B:0ĀE20Ā52?ĀE585						
	$ # $#, $&'(	$			$	$Ä'$.	
	Sampler Refusal on Bedrock at 5.4 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>ĀK1325EIĀ%) $()Ä"/ | N629>Ā_6C<7515EIĀ%) $()Ä"/
T297P9IĀ_XVĀ$$ | T297Ā5ZĀ3CC
W2`541Ā6 IĀZN', $",!

BORING LOG NO. AB-15

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#) bĀR6>91E5IĀ(#)) , $b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$ĀĀ]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M^	UMRTĀHWKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL " Ā $#/&'(				"#	Y G() (#(- *+ -	
	LEAN CLAY (CL) 0Ā61175E0Ā6253Ā6ĀA2B: 0Ā6981ĀC5E9;C(819= # Ā $#-&'(						
	# # **WEATHERED SHALE** 0Ā734FE2Ā0ĀD23Ā E5: 85 $#$ $&'(				$	$Ā'$.	
	Sampler Refusal on Bedrock at 4.4 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3? Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) $()Ā"/ | N629>Ā_6C<7515EIĀ%) $()Ā"/

T297P9IĀ_XVĀ$$ | T297Ā2ĀZ R3CC

W3`541Ā6 IĀZN', $",!

BORING LOG NO. AB-16

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%!bĀR6>91E5IĀ(!#)) , %b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā -	**TOPSOIL** $$# $&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀC6981Ā76685			X	"#	Y G() (%(# *+ $	
# $	$$Ā $&'(						
$ #	**WEATHERED SHALE** 0Ā734FE2Ā20ĀD23ĀE5: 85 $#/ $&'(	$		X	$	$Ā'$.	
	Sampler Refusal on Bedrock at 5.4 Feet						

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@E
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@E
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) $()Ā"/	N629>Ā_6C<7515EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-17

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%%ĀR6>91E5IĀ(#)) , b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$- Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHWKH PVK[RHK	YJHV P _O*H V* HĀ]^
Ä ,	**TOPSOIL** $$$ $&'(						
	LEAN CLAY (CL) 0Ā61175E0Ā625Ā6ĀA26: 0Ā6981Ā05E9;C(819= % Ä $$%&'(				"/	Y G(" (%(% *+ #	
	WEATHERED SHALE 0Ā734FEĀ20ĀD23Ā5: 85 # # $$" $&'(				$	$Ä'$.	
	Auger and Sampler Refusal on Bedrock at 4.4 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>Ā34F=75EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) $()Ā"/	N629>Ā_6C<7515EIĀ%) $()Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ Ā3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-18

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%$) bĀR6>91E5IĀ(#)) , , b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%/Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $% $&'(						
	WEATHERED SHALE 0Ā734F0Ā6981ĀĀB10Ā5E9;CĀE5:85Ā16Ā2Ā5: 85				",	"( )(,("Ā *+ "Ā	
) #	$% $&'(				#	$Ā'$.	
	Sampler Refusal on Bedrock at 2.4 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā<23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@EI
N629>Ā34F=95EĀ39(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

1.2 feet while drilling (perched)

1 foot after boring completion

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) !( )Ā"/ | N629>Ā_6C<7515EIĀ%) !( )Ā"/

T297P9IĀ_XVĀ$$ | T297Ā2ĀZ Ā3CC

W2`541Ā6 IĀZN', $",!

BORING LOG NO. AB-19

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%,bĀR6>91E5IĀ(#)) ! $b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M^	UMRTĀHWKH PVK[RHK	YJHV P _O*H V* HĀ]^
	TOPSOIL " Ä $##&'(			X	",	Y G(" (%(% *+ #	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀC6981Ā76685 # Ä $#"&'(						
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23Ā E5: 85 $ # $% $&'(	$		X	"Ä	%$$Ä'$.	
	Sampler Refusal on Bedrock at 5.4 Feet						

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā<23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>Ā34F=975EĀ39(Ā8694; 119>8Ā,<6: Ā46C<75196:

*6 15BI

Y GĀ+ĀY59>@Ā6ĀGCC52 K13: E9 >Ā3152Ā6A852D5EĀ31Ā<23E5Ā<2962Ā6Ā2979:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3? Y3 152D751Ā \

N629>Ā K1325EIĀ%) $()Ä"/	N629>Ā_6C<7515EIĀ%) $()Ä"/
T2977Ā9IĀ_XVĀ$$	T2977Ā5ZĀ3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀWWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-20

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#$bĀR6>91E5IĀ(#)) !) b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%/Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
	Ā , **TOPSOIL** $%&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā443896:37Ā46Ā75886Ā3: >5Ā6ĀĀ6B:0ĀC69810 76685Ā16ĀDE5: 85 **Trace rootlets observed from 0 to 2 feet**			X	"!	"( )(#(% *+ -	
		$		X	)#	!(!("Ā(" # *+ "!	
	Grades to gray	"Ā		X	)#	)" (%#(%)($Ā *+ --	
		"$		X	)#	)" (%#()# () # *+ $,	
		)Ā		X	)"	,("$ (%#($Ā'$. *+ #/	
	)" / $" !&'(						
	Sampler Refusal at 21.9 Feet						

K1219=4319: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J6C3194

JED3 45C5: 1ĀX5 1@EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX5 1@EI
N629>ĀA34F=95EĀ9 1@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>ĀK1325EIĀ%) !( )Ā"/	N629>Ā_6C<7515EIĀ%) !( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā5ZĀ3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOK/TĀTMKHPNNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-21

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%$ĀR6>91E5IĀ(#)) - / b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$#$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ä ,	**TOPSOIL** $##&'(						
	CLAYEY SAND WITH GRAVEL (SC)0Ā26B:Ā16ĀA734FĀ6981Ā76685			X	"#	Y G() (%(# *+ $	
$ Ä	$#Ä&'(	$					
	WEATHERED SHALE0Ā734FĀ2Ā0ĀD23ĀE5: 85			X	)Ä	)$ (#%(%,(%Ä *+ ,"	
! Ä	$%&'(						
	Boring Terminated at 7 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=95EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI
Y GĀ+ĀY59>@Ā6ĀGCC52

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ%) $()Ä"/	N629>Ā_6C<7515EIĀ%) $()Ä"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀWWJPJ HVTĀUPOXĀOPMQM*JRĀPOPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-22

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%$#bĀR6>91E5IĀ(#)) $) b ĀJ<<26L9C315ĀK2=45Ā\75DIĀ$$ Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ä !	**TOPSOIL** $) # $&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā2345Ā2675 8Ā23: >5Ā6ĀA2B: 0Ā6981Ā76685			X	"#	"(#($() *+ /	
$ Ä	$) Ä&'(	$					
	SILTY SAND (SM) 0Ā26B:0ĀB510Ā52?Ā76685			X	)#	)(""") .(, *+ "	
"Ä Ä	$" $&'(	"Ä					
	SILTY SAND WITH GRAVEL (SM) 0Ā443896:37Ā46Ā758Ā3:EĀ,76E52 80ĀA2B: 0ĀE2Ā2 2? E5:85			X	)#	)" (%)(%,(%) *+ !Ä	
	Grades to wet	"$		X	)Ä	") () !(#Ä(% *+ -!	
", $	$Ä- $&'(						
"/ "	**WEATHERED SHALE** 0Ā734FE2Ā0ĀD23Ā E5: 85 $Ä-&'(				"	$Ä"'.	
	Auger and Sampler Refusal at 19.1 Feet						

K1219=4316: Ā9758Ā25Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916 9ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@EI
N629>Ā34F=75EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #Ā N263EB3?
Y3 152D751Ā \

N629>Ā K1325EIĀ%) ,( )Ā"/	N629>Ā_6C<7515EIĀ%) ,( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ Ā3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPNNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-23

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM O* R319;E5IĀ# /%$%bĀR6>91E5IĀ(#)) #- b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$$ Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $) # $&'(						
	CLAYEY SAND (SC) 0Ā23: >5Ā6ĀA62B:0ĀC6981Ā76685Ā165Ā9;CĀE5:85			X	"/	"( )($(# *+ !	
- Ā	$" /&'(	$					
	SILTY SAND WITH GRAVEL (SM) 0Ā443896:37Ā46Ā758Ā3:EĀ,76E5280Ā>23Ā16ĀA8260 C6981ĀĀB10Ā52?ĀE585			X	"!	)(/(%Ā%Ā *+ %/	
"" Ā	$" #&'(	"Ā	▽	X	#	$Ā#.	
	Auger and Sampler Refusal at 11 Feet				Ā	$ĀĀ.	

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16EI N629>Ā34F=75EĀ91@86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

▽ *10.5 feet after boring completion*

Terracon

$/ #Ā N263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) ,( )Ā"/	N629>Ā 6C<7515EIĀ%) ,( )Ā"/
T297P9IĀ XVĀ$$	T297Ā2ĀZ R3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPH ĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$" ,! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-24

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%$bĀ6 >91E5IĀ(#))# /b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%"Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL " Ā $%Ā&'(				"/	"(-($(# *+ ""	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā2345Ā2675 1862 3: >5Ā6ĀA2B: 0ĀC6981ĀĀB10 C5E9;CĀE585 - Ā $) $&'(	$			",	-("" () $()) *+ %-	
	WEATHERED SHALE 0Ā734FEĀ20ĀD23ĀE5: 85 / " $))&'(				Ā	$Ā'".	
	Auger and Sampler Refusal on Bedrock at 9.1 Feet				"	$Ā'".	

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?ĀA5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16EI)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX16EI N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) !( )Ā"/ | N629>Ā_6C<7515EIĀ%) !( )Ā"/

T297P9IĀ_XVĀ$$ | T297Z5ĀZ R3CC

W2`541Ā6 IĀZN', $",!

BORING LOG NO. AB-25

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM O* R319;E5IĀ# /%#bĀ6 >91E5IĀ(#))# -b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$#) Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ]^
Ā %	**TOPSOIL** $#)&'(						
	CLAYEY SAND WITH GRAVEL (SC) 0Ā26B:0ĀC6981ĀC5E9;C(819=) $ $% $&'(				"/	"(#(#($ *+ ,	
	WEATHERED SHALE 0Ā734FE2Ā0ĀD23Ā5: 85 % , $%&'(				"Ā	%Ā$Ā'#.	
	Auger and Sampler Refusal on Bedrock at 3.8 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516EI N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā1325EIĀ%) !( )Ā"/ | N629>Ā_6C<7515EIĀ%) !( )Ā"/

T297P9IĀ_XVĀ$$ | T297Z6ZĀ3CC

W3`541Ā6 IĀZN', $",!

BORING LOG NO. AB-26

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

	TOPSOIL	
	CLAYEY SAND (SC)	"/
	LEAN CLAY WITH GRAVEL (CL)	
	WEATHERED SHALE	"
	Auger and Sampler Refusal on Bedrock at 4.2 Feet	

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

BORING LOG NO. AB-27

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM O* R319;E5IĀ# /%#! bĀR6>91E5IĀ(!#)) % b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%)Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā %	**TOPSOIL** $%" $&'(						
" Ā	**SILTY SAND WITH GRAVEL (SM)** 0Ā734FBĀ107Ā6685 $%"&'(				))	"(!( )/ (%) *+ %-	
) Ā	**WEATHERED SHALE** 0Ā734FCĀ6981ĀD52ĀE585 $%Ā&'(						
	Sampler Refusal on Bedrock at 2 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX16@EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX16@EI
N629>Ā34F=975EĀ89(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) ,( )Ā"/	N629>Ā_6C<7515EIĀ%) ,( )Ā"/
T297P9IĀ_XVĀ$$	T297Z6ZĀR3CC
W3`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZN$",! ĀWPDWOK/TĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-28

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_JHM* R319;E5IĀ# /%#$bĀR6>91E5IĀ(#)) %' b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%ĀĀ]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL " % $) /&'(			X	)%	)($(,(/ *+ "%	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀB510ĀE5E9;CĀE585 % $ $) - $&'(						
	WEATHERED SHALE 0Ā734FEĀ20ĀD23ĀE5: 85 $ / $) #&'(	$		X	""	%#$Ā'$.	
	Sampler Refusal on Bedrock at 5.9 Feet						

K1219=4310: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?ĀA5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>ĀA34F=975EĀ39(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D751Ā \

N629>ĀK1325EIĀ%) ,( )Ā"/	N629>Ā_6C<7515EIĀ%) ,( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-29

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%'bĀR6>91E5IĀ(#)) % b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$/ Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā -	**TOPSOIL** $) , $&'(						
) Ā	**LEAN CLAY WITH GRAVEL (CL)** 0Ā734FCĀ6981ĀC5E9;C(819= $) !&'(				"/	"(#(%)"" *+ !	
# Ā	**WEATHERED SHALE** 0Ā734FEĀ2Ā0ĀE5 85 $) $&'(				)#	"# (" -( )# (#" *+ #Ā	

Auger Refusal on Bedrock at 4 Feet

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916 9ĀC3?ĀA5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516E
)Ā"'#.ĀCKJ

JA3: E6: C5: 1ĀX516E
N629>Ā34F=975EĀ9 (Ā86Ā4; 119>8Ā,<6: Ā46C<7 5196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) !( )Ā"/	N629>Ā_6C<7515EIĀ%) !( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ Ā3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"'-"/

BORING LOG NO. AB-30

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%%$bĀR6>91E5IĀ(#)) %$b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$%$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M^	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	TOPSOIL " Ā $%#&'(			X	",	"(#(-(- *+ "Ā	
	CLAYEY SAND WITH GRAVEL (SC) 0Ā23: >5Ā6ĀA62B:0ĀB510ĀE5E9;CĀE585 # , $%Ā&'(						
	WEATHERED SHALE 0Ā734FEĀ20ĀD23ĀE5: 85 $ / $) /&'(	$		X	""	), ($Ā'$.	
	Auger and Sampler Refusal on Bedrock at 5.9 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?ĀA5Ā23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI N629>ĀA34F=975EĀ39(Ā86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ%) !( )Ā"/	N629>Ā_6C<7515EIĀ%) !( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"!, ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-31

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#bĀ6 >91E5IĀ(#))) ,b ĀJ<<26L9C315ĀK2=45ĀV5DIĀ$%$Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHWKH PVK[RHK	YJHV P _O*H V* HĀ^
Ā $	**TOPSOIL** $%# $&'(						
	WEATHERED SHALE 0Ā734F0Ā6981ĀE585				)Ā	$("! () $($Ā *+ #)	
) Ā	$%%&'(						
	Auger Refusal on Bedrock at 2 Feet						

K1219=4316: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8916ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 10Ā \

N629>Ā K1325EIĀ%) !( )Ā"/	N629>Ā_6C<7515EIĀ%) !( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā2ĀZ_R3CC
W2`541Ā6 IĀZN', $",!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$",! ĀWPDWOK/TĀTMKHPMNQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

BORING LOG NO. AB-32

W3>5Ā"Ā6Ā

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

QPJWGMĀROQ	RO_J HM0* R319;E5IĀ# /%#$bĀR6>91E5IĀ(#))) %b ĀJ<<26L9C315ĀK2=345ĀV5DIĀ$Ā-Ā]U1 ^&(TVWHG VRVSJHMOĀ]U1 ^	TVWHGĀ]U1 ^	YJHV PĀRVSVR ONKVPSJHMO*K	KJXWRVĀHIWV	PV_OSVP\ Ā]M:	UMRTĀHKH PVK[RHK	YJHV P _O*H V* HĀ^
	Ā , **TOPSOIL** $Ā$&'(						
	LEAN CLAY WITH GRAVEL (CL) 0Ā443896:37Ā467580Ā734F0Ā6981Ā6ĀB10 C5E9;C(819=Ā6ĀD5Ā819=				)#	)(/(,($ *+ "!	
					)#	$(-(,(- *+ "#	
		$					
	- Ā $ĀĀ&'(				))	)(%(("% *+ "Ā	
	WEATHERED SHALE 0Ā734F0Ā6981Ā0C5E9;CĀE5: 85Ā6ĀD5ĀE585						
	, % #/ ! $&'(				"Ā	"# (" Ā($Ā'#.	
	Sampler Refusal on Bedrock at 8.3 Feet						

K1219=4319: Ā9758Ā325Ā3<<26L9C315ĀM(89; 0Ā15Ā23: 8969ĀC3?Ā5Ā-23E; 37 G3CC52ĀH?5IĀĀ;J16C3194

JED3 45C5: 1ĀX516EI
)Ā"'#.ĀGKJ

JA3: E6: C5: 1ĀX516EI
N629>Ā34F=975EĀ91@86Ā4; 119>8Ā,<6: Ā46C<75196:

*6 15BI

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon

$/ #ĀN263EB3?
Y3 152D5 1Ā \

N629>Ā K1325EIĀ%) ,( )Ā"/	N629>Ā_6C<7515EIĀ%) ,( )Ā"/
T297P9IĀ_XVĀ$$	T297Ā6ZĀR3CC
W2`541Ā6 IĀZN', $" ,!	

HGMKĀNOMPQĀROQĀMKĀ*OHĀSTĀMKWJPJ HVTĀUPOXĀOPMQM*JRĀPQPHĀQVOĀKJPHĀROQ(*OĀYVRRĀĀZ$"! ĀWPDWOKVTĀTMKHPNINQWZĀĀXOTVRRJV P QWZĀĀ$"-"/

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-1

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	9.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	7.0	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
4.0	S-1	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0			As Above, Occasional Cobbles (SM)	
			8.7				
9.0	RS-1	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			10.0			Test Pit Log TP-1 Terminated at a Depth of 9.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934868 N, 74.232835 W	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-2

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	13.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
						Brown to Gray, Silty Sand with Gravel (SM)	
			5.0	GLACIAL TILL		As Above (SM)	Difficult digging implies very dense
						As Above (SM)	
			10.0			As Above (SM)	Boulder @ 11 fbgs
			12.0				
12.5	RS-2	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-2 Terminated at a Depth of 13.0 Feet Below Ground Surface	
						Test Pit Location: (Lat,Lon) = 42.934685 N, 74.232423 W)	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-3

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
3.0	RS-3	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
			5.5			Test Pit Log TP-3 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.932880 N, 74.232457 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-4

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		14" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
5.5	RS-4	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-4 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933167 N, 74.232110 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-5

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	4.5	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		9" Topsoil	
2.0	S-2	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-5	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0			Test Pit Log TP-5 Terminated at a Depth of 5.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933329 N, 74.228796 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-6

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	7.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
			6.0				
6.5	RS-6	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-6 Terminated at a Depth of 7.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933459 N, 74.227922 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-7

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		10" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel, Cobbles (SM)	
			4.5				
			5.0	SHALE BEDROCK			
5.5	RS-4	Grab				Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-7 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934019 N, 74.229186 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-8

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		8" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-8	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
						Test Pit Log TP-8 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934131 N, 74.229427 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

Appendix C

Geotechnical Laboratory Results

Appendix C.1

Geotechnical Laboratory Results by Sanborn Head

GeoTesting EXPRESS
A Sercel Business

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	03/13/25	Checked By:	ank
Depth :	---	Test Id:	806875		

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
SH-4	S- 3	9-11'	Moist, brown silt with gravel	10.4
SH-5	S- 4	14-16'	Moist, very dark gray silty clay with gravel	9.6
SH-5	S- 5	19-21'	Moist, very dark gray silty clay with gravel	10.2
SH-9	S- 4	14-16'	Moist, dark gray silty sand with gravel	7.0
SH-11	S- 2	4-6'	Moist, very dark grayish brown sandy clay with organics	23.5
SH-12	S- 2	4-6'	Moist, dark grayish brown silt with sand	12.4
SH-13	S- 2	4-6'	Moist, dark grayish brown silt with gravel	23.9
SH-13	S- 3	9-11'	Moist, very dark grayish brown gravelly silt with clay	14.2
SH-18	S- 2	4-6'	Moist, very dark brown silt with gravel	10.3
SH-18	S- 3	8-10'	Moist, black gravelly silt with clay	12.4

Notes: Temperature of Drying : 110º Celsius

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4/14/2025: Edited to update project location

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	SH-8	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/13/25	Checked By:	ank
Depth :	4-6'	Test Id:	806879		
Test Comment:	---				
Visual Description:	Moist, very dark grayish brown silt with sand with organics				
Sample Comment:	---				

Moisture, Ash, and Organic Matter - ASTM D2974

Boring ID	Sample ID	Depth	Description	Moisture Content,%	Ash Content,%	Organic Matter,%
SH-8	S-2	4-6'	Moist, very dark grayish brown silt with sand with organics	37	94.8	5.2

Notes: Moisture content determined by Method A and reported as a percentage of oven-dried mass; dried to a constant mass at temperature of 105º C
Ash content and organic matter determined by Method C; dried to constant mass at temperature 440º C

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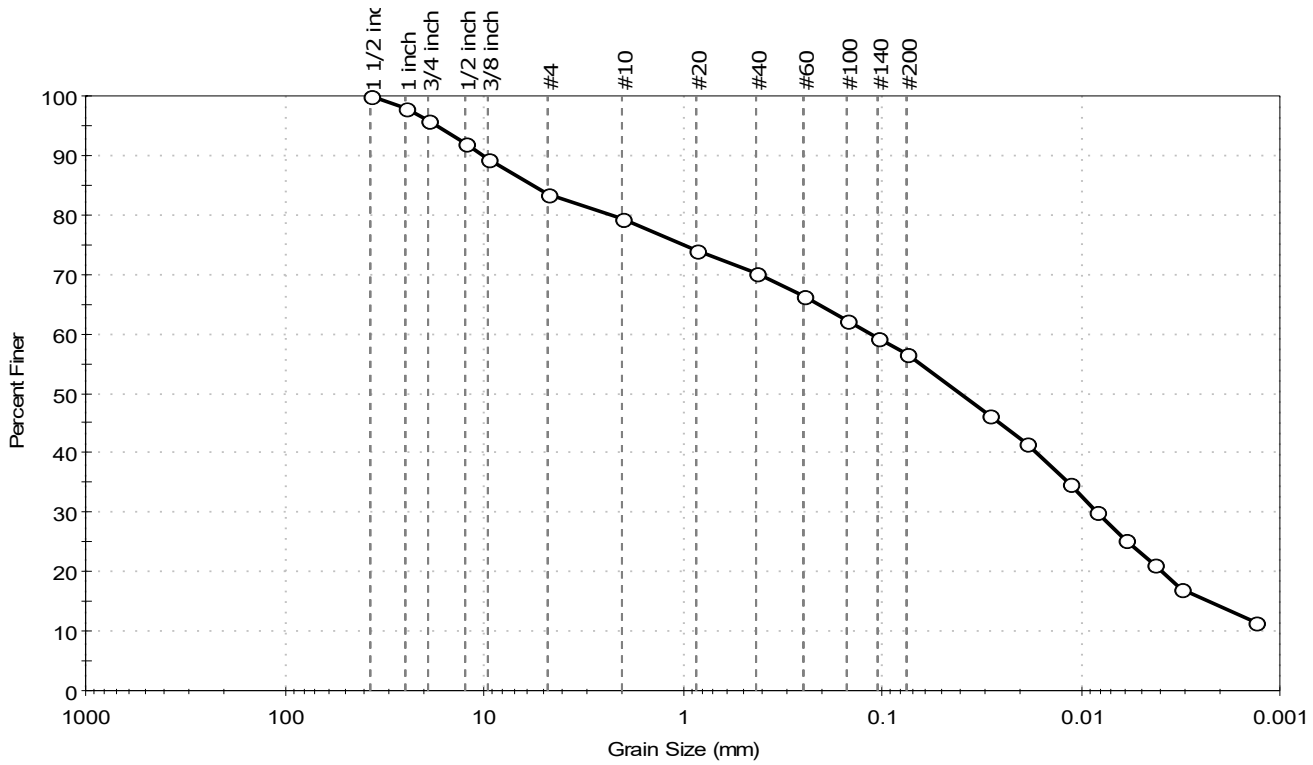
GeoTesting EXPRESS
A Sercel Business

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Bucket	Tested By:	ajl
Sample ID:	Composite South	Test Date:	03/21/25	Checked By:	ank
Depth :	---	Test Id:	806845		

Test Comment: ---
Visual Description: Moist, dark gray brown sandy silt with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	16.5	26.9	56.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	98		
3/4 inch	19.00	96		
1/2 inch	12.50	92		
3/8 inch	9.50	90		
#4	4.75	83		
#10	2.00	79		
#20	0.85	74		
#40	0.42	70		
#60	0.25	66		
#100	0.15	62		
#140	0.11	59		
#200	0.075	57		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0292	46		
---	0.0190	42		
---	0.0114	35		
---	0.0083	30		
---	0.0060	25		
---	0.0043	21		
---	0.0031	17		
---	0.0013	11		

Coefficients

D_{85} = 5.6540 mm D_{30} = 0.0083 mm
D_{60} = 0.1158 mm D_{15} = 0.0023 mm
D_{50} = 0.0409 mm D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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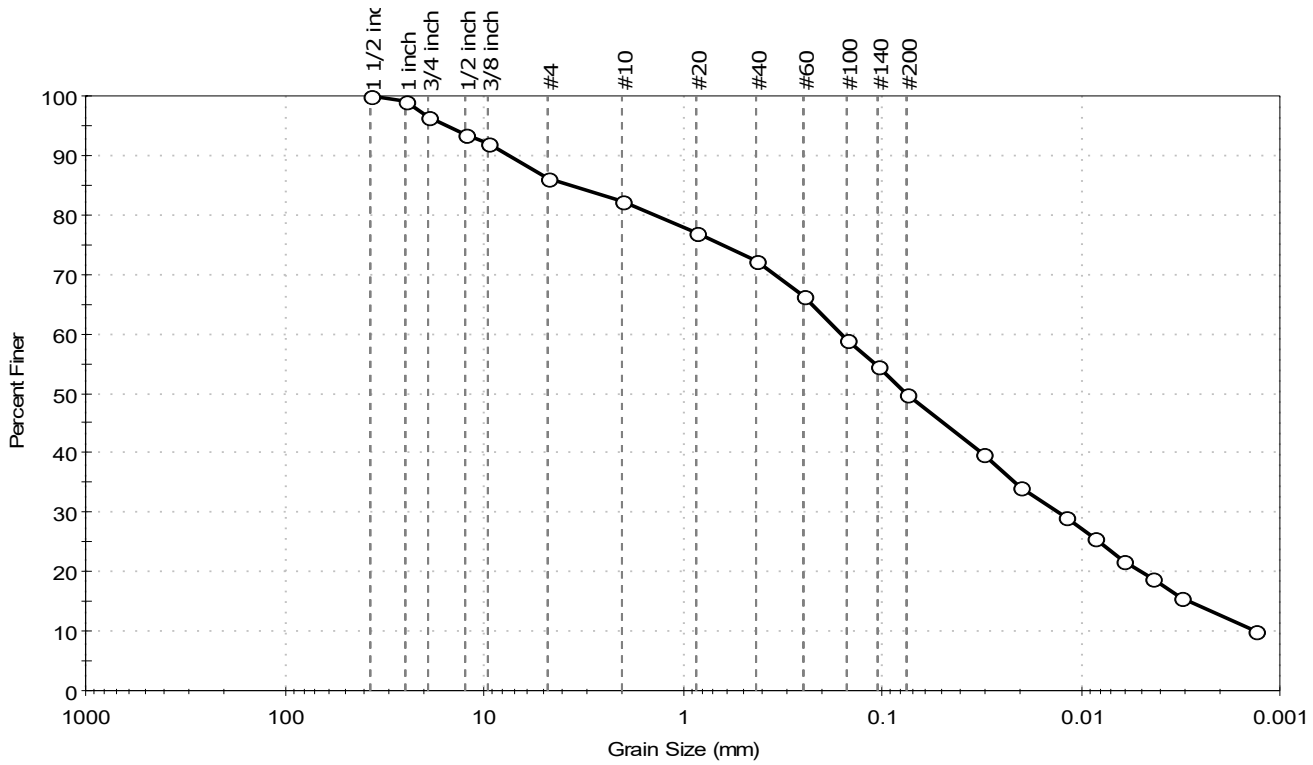
Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Bucket	Tested By:	ajl
Sample ID:	Composite North	Test Date:	03/21/25	Checked By:	ank
Depth :	---	Test Id:	806846		
Test Comment:	---				
Visual Description:	Moist, olive gray silty sand				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	14.0	36.1	49.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	99		
3/4 inch	19.00	97		
1/2 inch	12.50	93		
3/8 inch	9.50	92		
#4	4.75	86		
#10	2.00	82		
#20	0.85	77		
#40	0.42	72		
#60	0.25	66		
#100	0.15	59		
#140	0.11	54		
#200	0.075	50		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0308	40		
---	0.0202	34		
---	0.0119	29		
---	0.0086	26		
---	0.0061	22		
---	0.0044	19		
---	0.0032	16		
---	0.0013	10		

Coefficients

D_{85} = 3.7890 mm D_{30} = 0.0129 mm

D_{60} = 0.1604 mm D_{15} = 0.0028 mm

D_{50} = 0.0754 mm D_{10} = N/A

C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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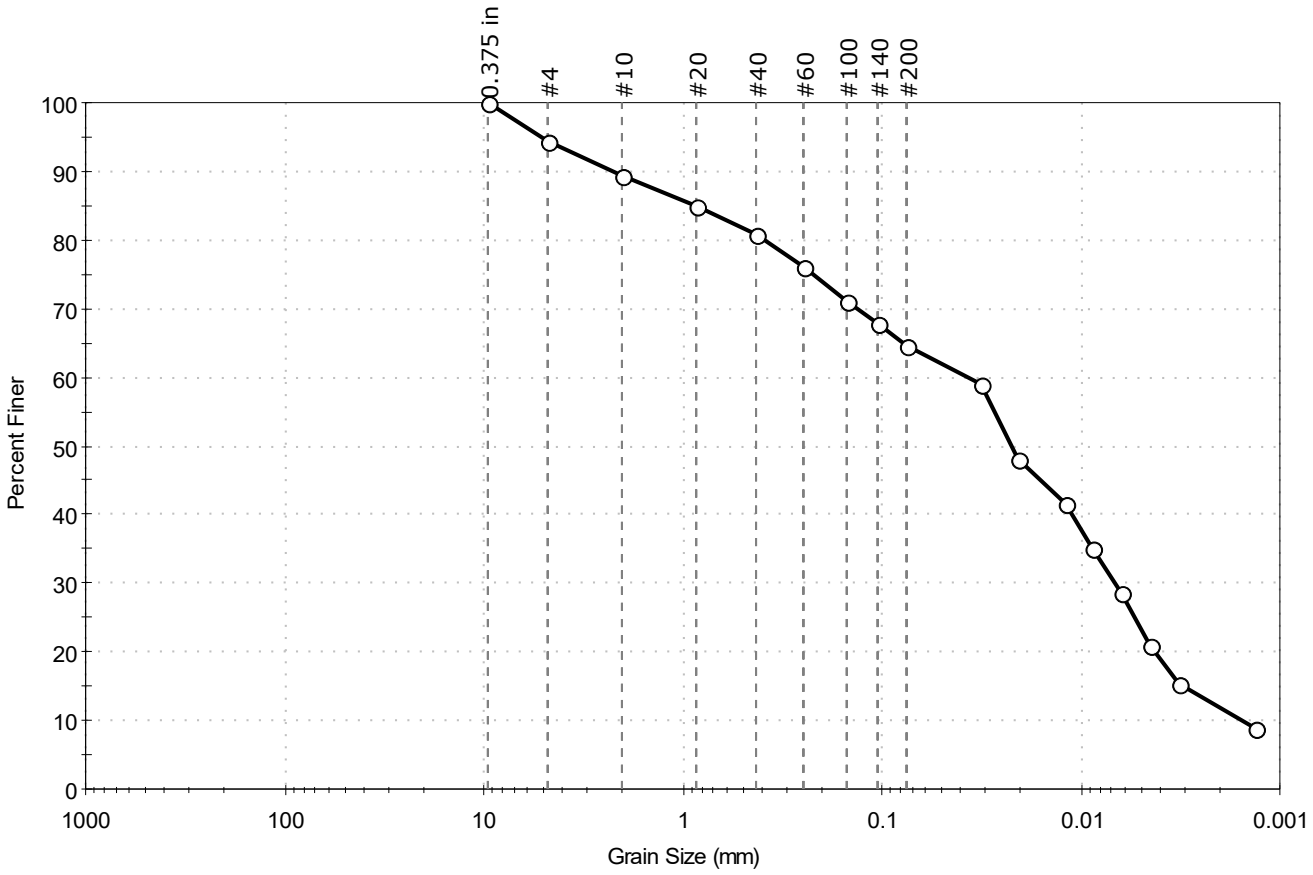
Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	SH-12	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/17/25	Checked By:	ank
Depth :	4-6'	Test Id:	806852		
Test Comment:	---				
Visual Description:	Moist, dark grayish brown sandy silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.5	29.8	64.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	94		
#10	2.00	90		
#20	0.85	85		
#40	0.42	81		
#60	0.25	76		
#100	0.15	71		
#140	0.11	68		
#200	0.075	65		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0316	59		
---	0.0205	48		
---	0.0121	42		
---	0.0087	35		
---	0.0062	28		
---	0.0045	21		
---	0.0032	15		
---	0.0013	9		

Coefficients

D_{85} =0.8669 mm	D_{30} =0.0067 mm
D_{60} =0.0362 mm	D_{15} =0.0031 mm
D_{50} =0.0220 mm	D_{10} =0.0016 mm
C_u =22.625	C_c =0.775

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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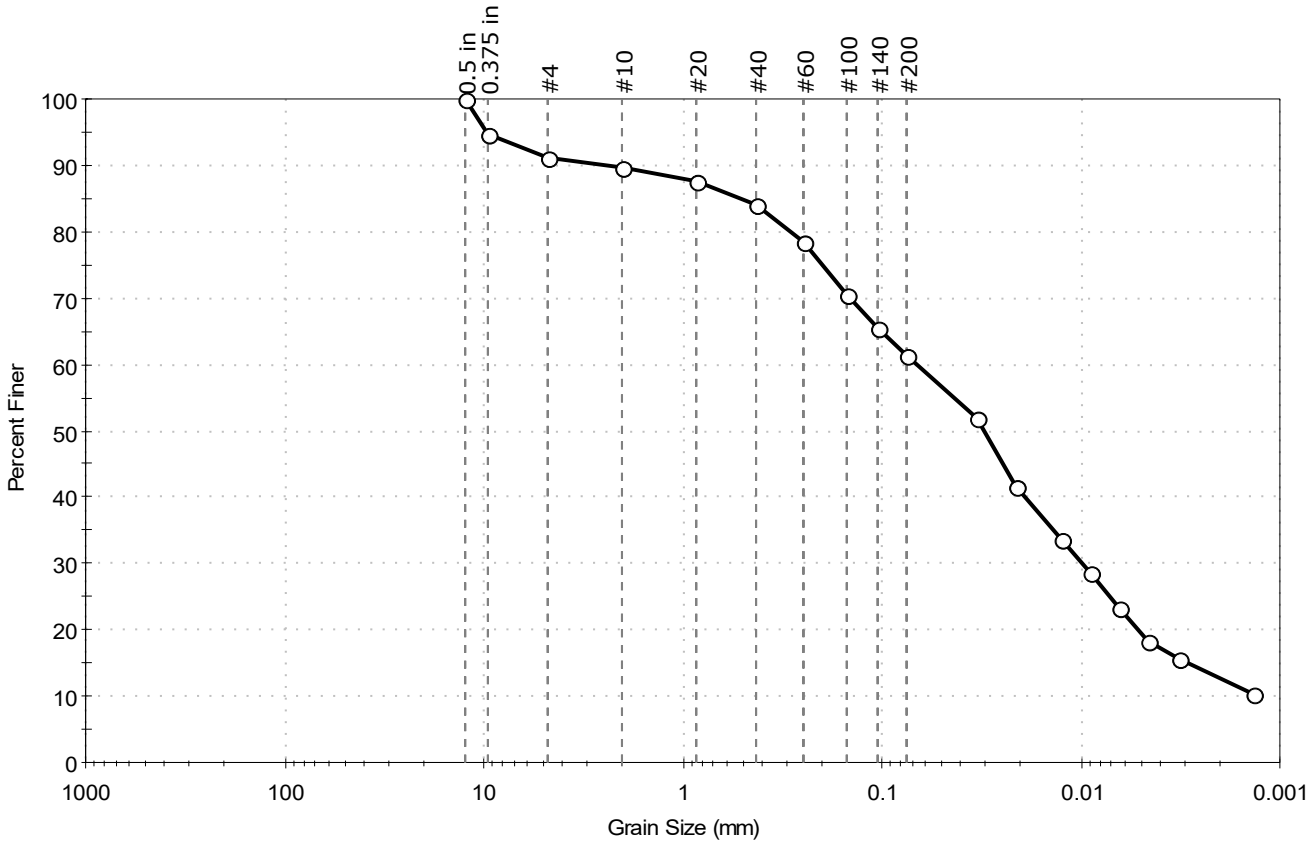
GeoTesting EXPRESS
A Sercel Business

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	SH-8	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/17/25	Checked By:	ank
Depth :	4-6'	Test Id:	806848		
Test Comment:	---				
Visual Description:	Moist, very dark grayish brown sandy silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.8	29.8	61.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	95		
#4	4.75	91		
#10	2.00	90		
#20	0.85	88		
#40	0.42	84		
#60	0.25	78		
#100	0.15	70		
#140	0.11	65		
#200	0.075	61		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0335	52		
---	0.0214	42		
---	0.0125	34		
---	0.0089	29		
---	0.0064	23		
---	0.0046	18		
---	0.0032	16		
---	0.0013	10		

Coefficients

D_{85} = 0.5114 mm
D_{30} = 0.0098 mm
D_{60} = 0.0666 mm
D_{15} = 0.0029 mm
D_{50} = 0.0308 mm
D_{10} = N/A
C_u = N/A
C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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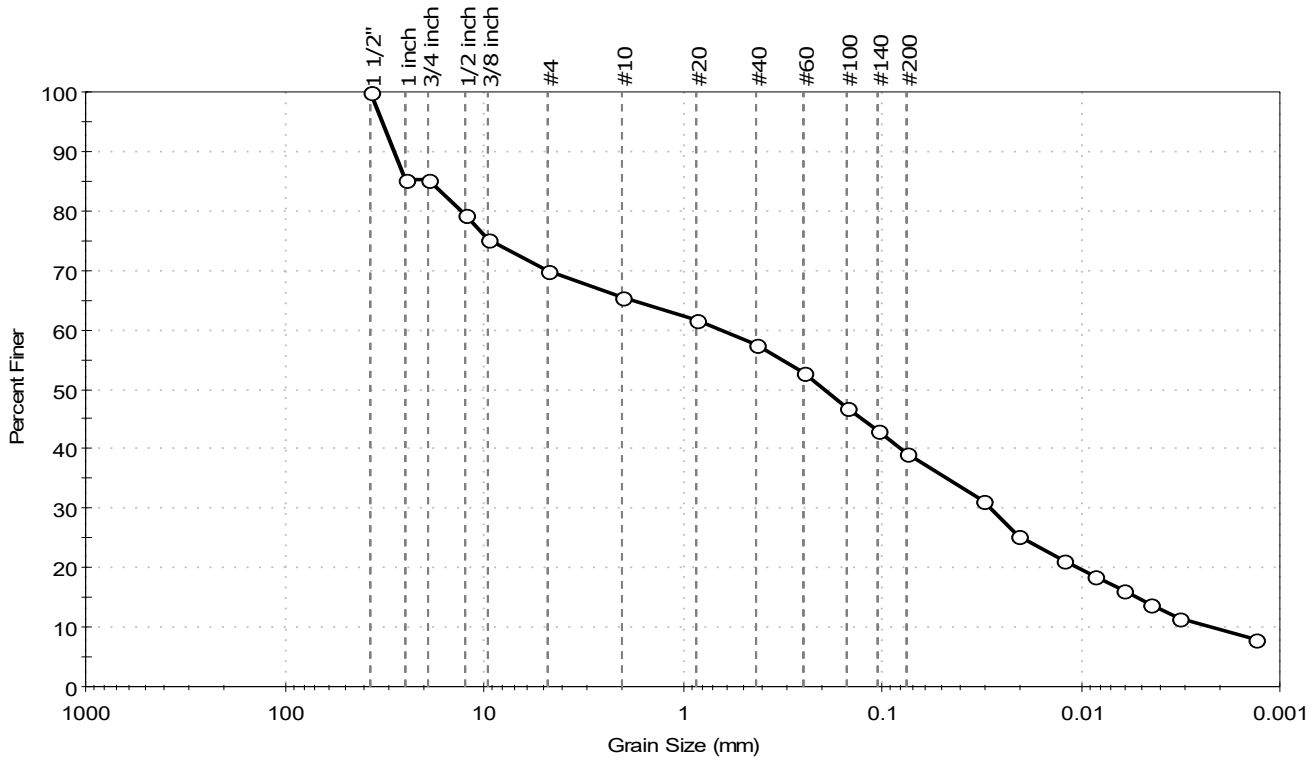
GeoTesting EXPRESS
A Sercel Business

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	SH-9	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-4	Test Date:	03/18/25	Checked By:	ank
Depth :	14-16'	Test Id:	806847		
Test Comment:	---				
Visual Description:	Moist, dark gray silty sand with gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	30.0	30.9	39.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2"	37.50	100		
1 inch	25.00	85		
3/4 inch	19.00	85		
1/2 inch	12.50	79		
3/8 inch	9.50	75		
#4	4.75	70		
#10	2.00	66		
#20	0.85	62		
#40	0.42	58		
#60	0.25	53		
#100	0.15	47		
#140	0.11	43		
#200	0.075	39		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0309	31		
---	0.0209	25		
---	0.0122	21		
---	0.0086	18		
---	0.0062	16		
---	0.0045	14		
---	0.0032	12		
---	0.0013	8		

Coefficients

D_{85} = 18.5732 mm
D_{30} = 0.0285 mm
D_{60} = 0.6425 mm
D_{15} = 0.0053 mm
D_{50} = 0.1973 mm
D_{10} = 0.0022 mm
C_u = 292.045
C_c = 0.575

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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4/14/2025: Edited to update project location

GeoTesting EXPRESS
A Sercel Business

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Florida, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Core	Tested By:	gp
Sample ID:	SH-10 C1	Test Date:	04/02/25	Checked By:	smd
Depth :	11.4-11.8'	Test Id:	806880		
Test Comment:	---				
Visual Description:	See photograph(s)				
Sample Comment:	---				

Bulk Density and Compressive Strength of Rock Core Specimens by ASTM D7012 Method C

Boring ID	Sample Number	Depth	Bulk Density, pcf	Compressive strength, psi	Failure Type	Meets ASTM D4543	Note(s)
---	SH-10 C1	11.4-11.8 ft	164	21393	1	No	1,*

Notes: Density determined on core samples by measuring dimensions and weight and then calculating.

All specimens tested at the approximate as-received moisture content and at standard laboratory temperature.

The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.

Failure Type: 1 = Intact Material Failure; 2 = Discontinuity Failure; 3 = Intact Material and Discontinuity Failure (See attached photographs)

1: Best effort end preparation. See Tolerance report for details.
2: The as-received core did not meet the ASTM side straightness tolerance due to irregularities in the sample as cored.
3: Specimen L/D < 2.
4: The as-received core did not meet the ASTM minimum diameter tolerance of 1.875 inches.
5: Specimen diameter is less than 10 times maximum particle size.
6: Specimen diameter is less than 6 times maximum particle size.

*Because the indicated tested specimens did not meet the ASTM D4543 standard tolerances, the results reported here may differ from those for a test specimen within tolerances.

Client:	Sanborn, Head & Associates, Inc.	Test Date:	4/1/2025
Project Name:	MSV 1	Tested By:	cml
Project Location:	Florida, NY	Checked By:	smd
GTX #:	320702		
Boring ID:	---		
Sample ID:	SH-10 C1		
Depth (ft):	11.4-11.8		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.12	4.12	4.12
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	552.49		
Bulk Density, lb/ft^3	164	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.1	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

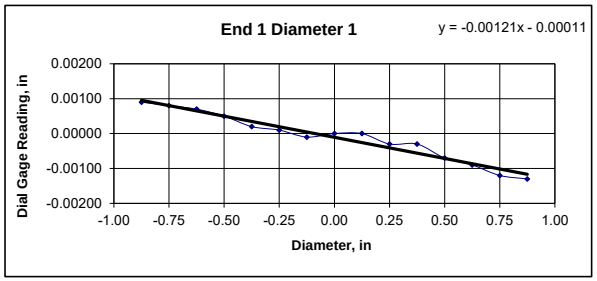
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00090	0.00080	0.00070	0.00050	0.00020	0.00010	-0.00010	0.00000	0.00000	-0.00030	-0.00030	-0.00070	-0.00090	-0.00120	-0.00130
Diameter 2, in (rotated 90°)	0.00080	0.00060	0.00050	0.00040	0.00030	0.00020	0.00020	0.00000	-0.00030	-0.00050	-0.00080	-0.00080	-0.00100	-0.00100	-0.00100

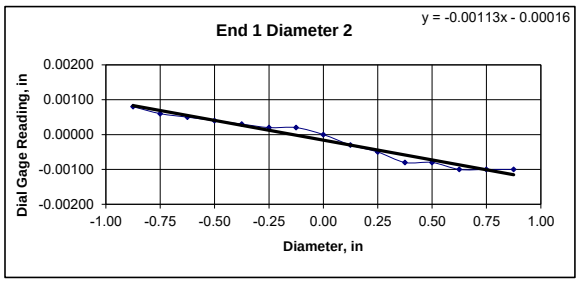
Difference between max and min readings, in:
0° = 0.00220 90° = 0.00180

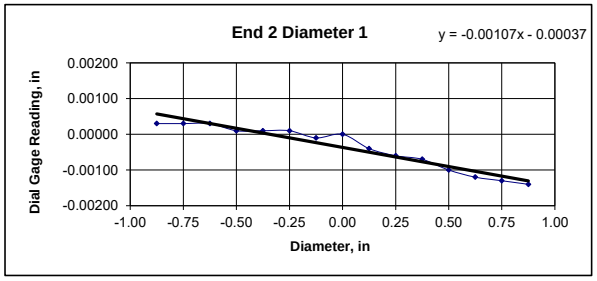
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00030	0.00030	0.00030	0.00010	0.00010	0.00010	-0.00010	0.00000	-0.00040	-0.00060	-0.00070	-0.00100	-0.00120	-0.00130	-0.00140
Diameter 2, in (rotated 90°)	-0.00160	-0.00140	-0.00130	-0.00100	-0.00080	-0.00030	-0.00010	0.00000	0.00000	0.00050	0.00060	0.00070	0.00080	0.00090	0.00120

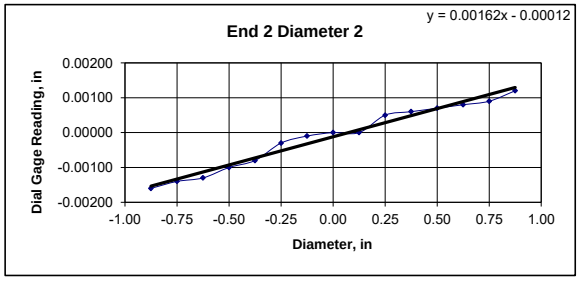
Difference between max and min readings, in:
0° = 0.0017 90° = 0.0028

Maximum difference must be < 0.0020 in. Difference = ± 0.00140
Flatness Tolerance Met? NO









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00121
Angle of Best Fit Line: 0.06941

End 2:
Slope of Best Fit Line 0.00107
Angle of Best Fit Line: 0.06139

Maximum Angular Difference: 0.00802

Parallelism Tolerance Met? NO
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00113
Angle of Best Fit Line: 0.06499

End 2:
Slope of Best Fit Line 0.00162
Angle of Best Fit Line: 0.09266

Maximum Angular Difference: 0.02767

Parallelism Tolerance Met? NO
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00220	1.989	0.00111	0.063	YES
Diameter 2, in (rotated 90°)	0.00180	1.989	0.00091	0.052	YES
END 2					
Diameter 1, in	0.00170	1.989	0.00085	0.049	YES
Diameter 2, in (rotated 90°)	0.00280	1.989	0.00141	0.081	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

4/14/2025: Edited to update project location

Client:	Sanborn, Head & Associates, Inc.	Test Date:	4/1/2025
Project Name:	MSV 1	Tested By:	cml
Project Location:	Florida, NY	Checked By:	smd
GTX #:	320702		
Boring ID:	---	Reliable dial gauge measurements could not be performed on this rock type. Tolerance measurements were performed using a machinist straightedge and feeler gauges to ASTM specifications.	
Sample ID:	SH-10 C1		
Depth (ft):	11.4-11.8		
Visual Description:	See photographs		

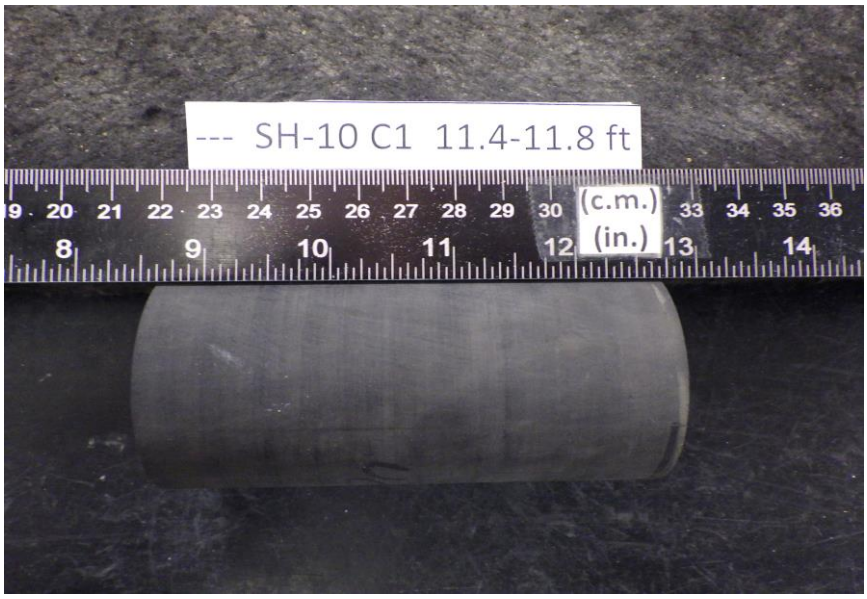
BEST EFFORT END FLATNESS TOLERANCES OF ROCK CORE SPECIMENS TO ASTM D4543

END FLATNESS		
END 1		
Diameter 1	Is the maximum gap $\leq \pm 0.001$ in.?	YES
Diameter 2 (rotated 90°)	Is the maximum gap $\leq \pm 0.001$ in.?	YES
END 2		
Diameter 1	Is the maximum gap $\leq \pm 0.001$ in.?	YES
Diameter 2 (rotated 90°)	Is the maximum gap $\leq \pm 0.001$ in.?	YES

End Flatness Tolerance Met? YES

4/14/2025: Edited to update project location

Client:	Sanborn, Head & Associates, Inc.
Project Name:	MSV 1
Project Location:	Florida, NY
GTX #:	320702
Test Date:	4/2/2025
Tested By:	cml
Checked By:	smd
Boring ID:	---
Sample ID:	SH-10 C1
Depth, ft:	11.4-11.8



After cutting and grinding



After break

4/14/2025: Edited to update project location

8487 Albert-Louis-Van Houtte
Montréal (Québec) H1Z 4J2
Phone: 514-521-4290
Fax: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES, AND OTHER MATERIALS

Client :	Sanborn, Head and Associates Inc.	**Material :**	Rock core		
		Source :	New-York State		
Project :	New-York State Project		Sample SH-10 / C-2		
File n° :	MTS-25003936-A0	**Collected the :**	N/A	**Received :**	2025-03-04
Sample n°:	MO-22495	**Sampled by :**	-	**Client ref. :**	6480-000-010

Sieve analysis (LC 21-040)

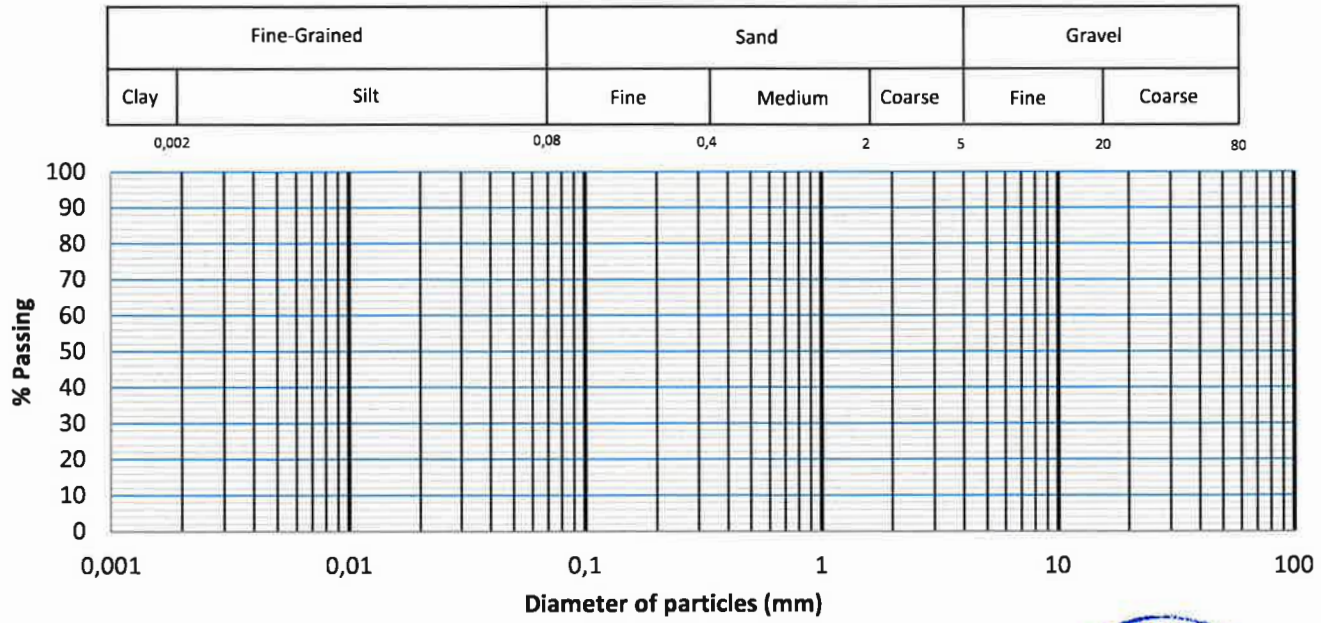
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80		
56		
40		
31,5		
20		
14		
10		
5		
2,5		
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
PISP	NQ 2560-500	50	
Pyrite eq.	NQ 2560-500	0,78%	
Sulphate eq.	NQ 2560-500	0,01%	
Compressive strenght	ASTM D7012	34,8 Mpa	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : _____
Isabelle Coulombe
Laboratory Manager

Approuved by : _____
Alain Blanchette, geo., M.A.Sc.
Principal Director

GÉOLOGUE / GÉOLOGIST ALAIN BLANCHETTE # 254 QUÉBEC

MO-22495.xls

8487 Albert-Louis-Van Houtte Avenue
Montreal (Québec) H1Z 4J2
Phone : 514-521-4290
Fax : 514-521-4637
www.exp.com

SOIL AND AGGREGATES

Determination of the petrographic index of swelling potential NQ 2560-500

Client : Sandborn, Head and Associates inc.
Date : 2025-03-21
File n° : MTS-25003936-A0
Project : Technical Testing Program
Lab n° : MO-22495 (SH-10, C-2)
Client ref. : 6480-000-010

Particle type : Rock core
Source : N/A
Sampled by : Client
Location : N/A

Masses					
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g

Synoptic Board

Petrographic facies	IP	Core	PISP								
Black calcareous mudstone	0.5	50	50								
PISP per fraction:			50								

PISP of material: 50

Remarks:

The rock core sample received presents the following characteristics:

- Length : 120 mm
- Diameter : 47 mm
- Weight : 619 g
- This type of rock presents a moderate to high swelling potential, according to BNQ 2560-511 Standard.
- Strong reaction to HCl 10 %.
- No sign of sulfide oxidation, no sign of sulfation.

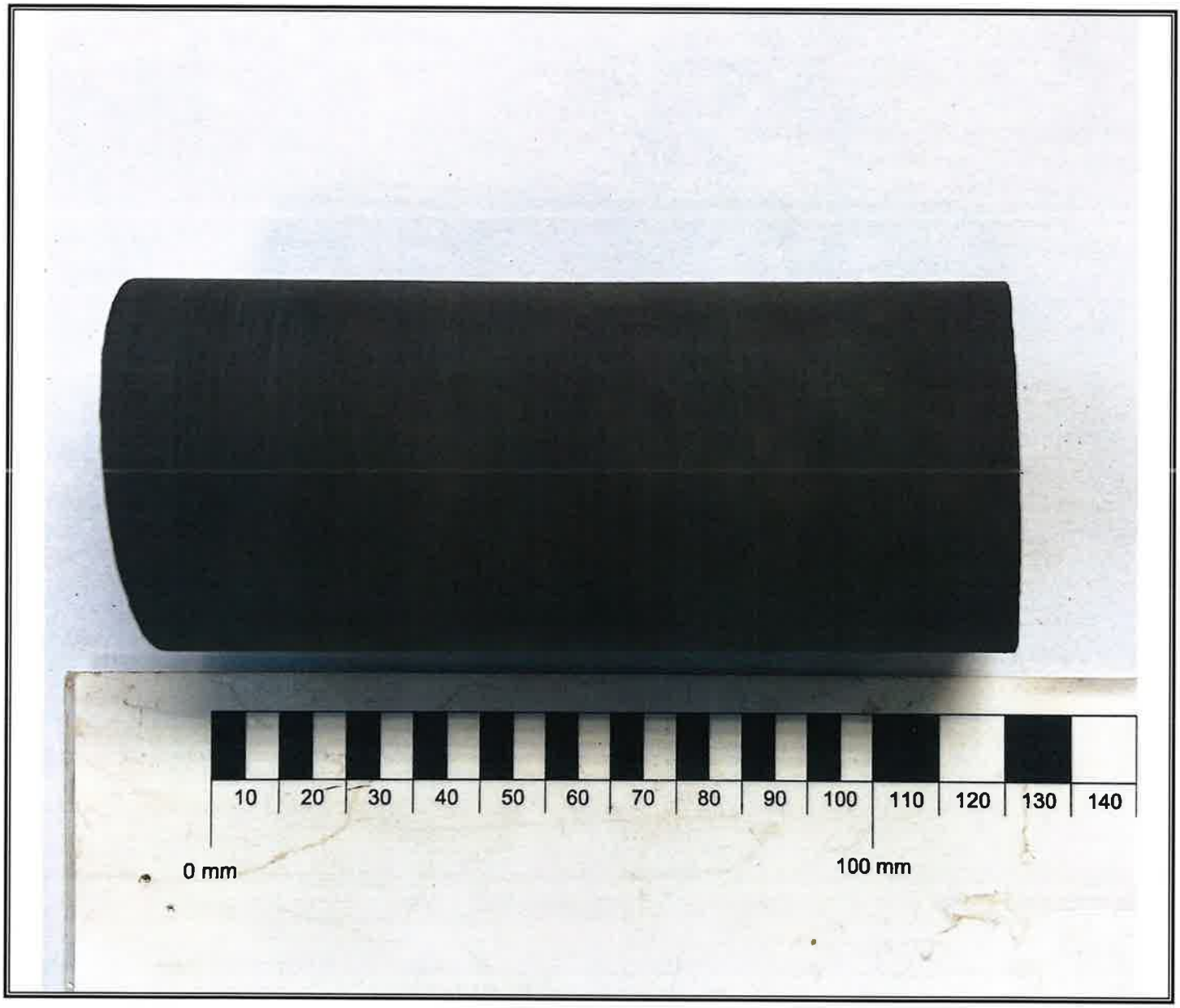
Realized by: Alexandre Beaudry, GIT
Date: 2025-03-21 (AAAA – MM – JJ)

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

Approved by:
Alain Blanchette, géo., M.Sc.A.
Senior Director
Date: 2025-03-21 (AAAA – MM – JJ)

Photographic Report

Client : Sandborn, Head and Associates inc.	**Date :** 2025 (AAAA) - 03 (MM) - 05 (JJ)
Dossier : MTS-25003936-A0	**Labo nº :** MO-22495 / SH-10 C-2
Projet : Technical Testing Program	**Réf. client :** 6480-000-010



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Uniaxial Compressive Strength of Intact Rock Core Specimens
ASTM D7012

Client:	Sanborn, Head and Associates inc.	Date:	March 7, 2025
		File:	MTS-25003936-A0
Project:	Technical Testing Program	Lab no:	MO-22495
		Client ref.:	6480-000-010

1.0 DATA

Coring realized the : N/D by: Customer

Localization of the core hole : MO-22495 : 18' : SH-10 / C-2

2.0 RESULTS

Sample:	Lab No	MO-22495		
	Reference No	SH-10 / C-2		
Date of the test		2025-03-05		
Cure (type)		Dry		
Total lenght (mm)		120,85		
Grounded lenght (mm)		99,30		
Grounded core weight (kg)		0,518		
Core diameter (mm)		50,14		
Height/diameter ratio (2.0 – 2.5)		1,98		
Density (kg/m^3)		2 642		
Load (Newton)		68 760		
Compressive strength (MPa)		34,8		
Failure type		Multiple extension		

3.0 REMARKS

Tested by the method «C» of the standard

Verified by:

Isabelle Coulombe
Laboratory Manager

Approuved by:

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE # 254
QUÉBEC

Alain Blanchette, geo., M.A.Sc.
Principal Director, OGQ # 254

POLYTECHNIQUE MONTRÉAL
UNIVERSITÉ D'INGÉNIERIE

Département des génies civil, géologique et des mines (CGM)

Laboratoire de Géo-ingénierie - Géochimie Analytique

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Campus de l'Université de Montréal
2900, Édouard-Montpetit
École Polytechnique
2500, chemin de Polytechnique
H3T 1J4

Adresse postale
C.P. 6079, succ. Centre-ville
Montréal (Québec) Canada
H3C 3A7
Téléphone : (514) 340-4257
Courriel : cgm@polymtl.ca
Télécopieur : (514) 340-3981

École affiliée à l'Université de Montréal

Les Services exp. inc.
8487, Avenue Albert-Louis-Van Houtte
Montréal, (Québec) H1Z 4J2
Tél.: 514 521-4290, Téléc.: 514 521-4637

À l'attention d'Alexendre Beaudry
courriel : alexandre.beaudry@exp.com

Bon de commande : MTS-2025-045
No. projet : MTS-25003936-A0

Échantillon #	*Labo #*	*S (total) exprimé en S %m**	*Sulfates hydrosolubles exprimé en SO4 %m**
MO-22495	LGC250704	0,42	0,007

*%m = 1g/100g
Réf.: **BNQ** 2560-500/2022
S par LECO CS744
Sulfates hydrosolubles par turbidimétrie selon *standard methods*

Laboratoire de Géo-ingénierie - Géochimie Analytique
Jérôme Leroy, Technicien en chimie analytique
Tél.: (514) 340-4711 poste 2199
jerome.leroy@polymtl.ca
Zohra Laimeche, Technicienne en chimie analytique
Tél.: (514) 340-4711 poste 4789
zohra.laimeche@polymtl.ca

10 mars 2025

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Fax: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES, AND OTHER MATERIALS

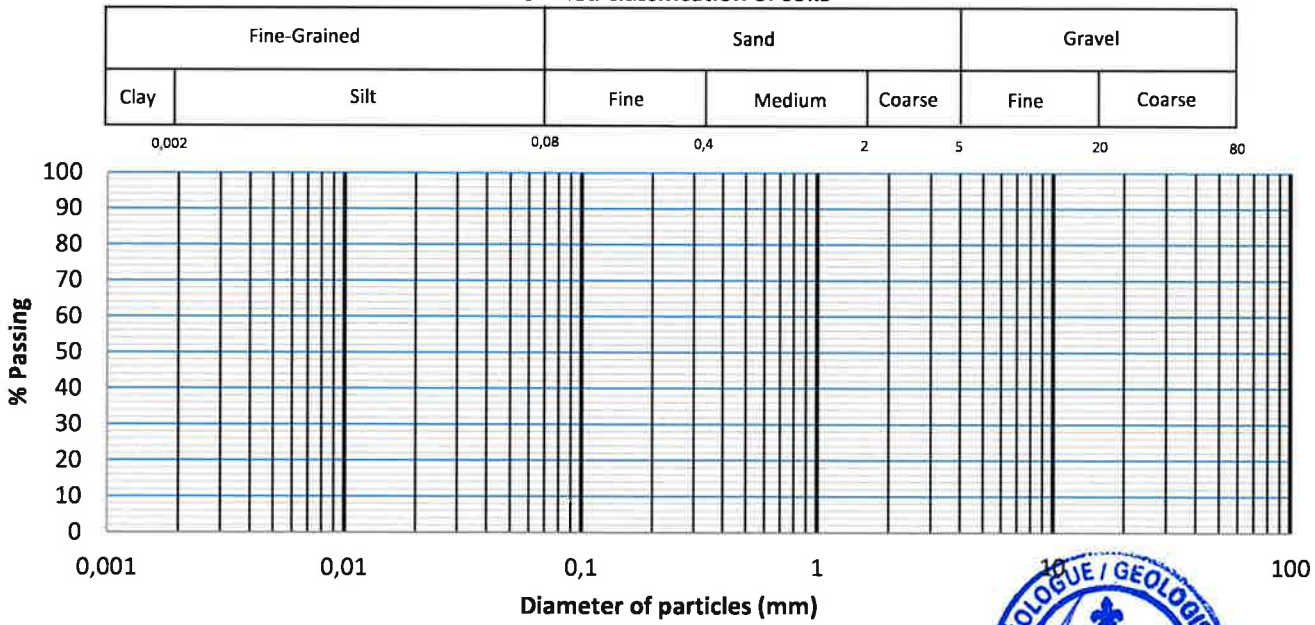
Client :	Sanborn, Head and Associates Inc.	**Material :**	Rock core		
		Source :	New-York State		
Project :	New-York State Project		Sample SH-11 / C-1		
File n° :	MTS-25003936-A0	**Collected the :**	N/A	**Received :**	2025-03-04
Sample n°:	MO-22496	**Sampled by :**	-	**Client ref. :**	6480-000-010

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56		
40		
31,5		
20		
14		
10		
5		
2,5		
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
PISP	NQ 2560-500	50	
Pyrite eq.	NQ 2560-500	1,44%	
Sulphate eq.	NQ 2560-500	0,02%	
Compressive strenght	ASTM D7012	62,4 Mpa	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE
254
QUÉBEC

Verified by : _____
Isabelle Coulombe
Laboratory Manager

Approuved by : _____
Alain Blanchette, geo., M.A.Sc.
Principal Director

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Phone : 514-521-4290
Fax : 514-521-4637
www.exp.com

SOIL AND AGGREGATES

Determination of the petrographic index of swelling potential NQ 2560-500

Client	: Sandborn, Head and Associates inc.	Date	: 2025-03-21
		File n°	: MTS-25003936-A0
Project	: Technical Testing Program	Lab n°	: MO-22496 (SH-11, C-1)
		Client ref.	: 6480-000-010

Particle type	: Rock core
Source	: N/A
Sampled by	: Client
Location	: N/A

Masses

Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g

Synoptic Board

Petrographic facies	IP	Core	IPPG								
Black calcareous mudstone	0.5	50	50								
PISP per fraction:			50								

PISP of material: 50

Remarks:

The rock core sample received presents the following characteristics:

- Length : 130 mm
- Diameter : 47 mm
- Weight : 670 g
- This type of rock presents a moderate to high swelling potential, according to BNQ 2560-511 Standard.
- Strong reaction to HCl 10 %.
- No sign of sulfide oxidation, no sign of sulfation.

Realized by: Alexandre Beaudry, GIT — Date: 2025-03-21 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A, Senior Director — Date: 2025-03-21 (AAAA – MM – JJ)

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

Photographic Report

Client : Sandborn, Head and Associates inc.	**Date :** 2025 (AAAA) - 03 (MM) - 05 (JJ)
Dossier : MTS-25003936-A0	**Labo nº :** MO-22496 / SH-11 C-1
Projet : Technical Testing Program	**Réf. client :** 6480-000-010



POLYTECHNIQUE MONTRÉAL
UNIVERSITÉ D'INGÉNIERIE

Département des génies civil, géologique et des mines (CGM)

Laboratoire de Géo-ingénierie - Géochimie Analytique

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Les Services exp. inc.
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Montréal, (Québec) H1Z 4J2
Tél.: 514 521-4290, Téléc.: 514 521-4637

À l'attention d'Alexendre Beaudry
courriel : alexandre.beaudry@exp.com

Bon de commande : MTS-2025-045
No. projet : MTS-25003936-A0

Échantillon #	*Labo #*	*S (total) exprimé en S %m**	*Sulfates hydrosolubles exprimé en SO4 %m**
MO-22496	LGC250705	0,77	0,009

*%m = 1g/100g

Réf.: **BNQ** 2560-500/2022

S par LECO CS744

Sulfates hydrosolubles par turbidimétrie selon *standard methods*

Laboratoire de Géo-ingénierie - Géochimie Analytique
Jérôme Leroy, Technicien en chimie analytique
Tél.: (514) 340-4711 poste 2199
jerome.leroy@polymtl.ca
Zohra Laimeche, Technicienne en chimie analytique
Tél.: (514) 340-4711 poste 4789
zohra.laimeche@polymtl.ca

10 mars 2025

8487 Albert-Louis-Van Houtte
Montréal (Québec) H1Z 4J2
Phone: 514-521-4290
Fax: 514-521-4637
www.exp.com

Uniaxial Compressive Strength of Intact Rock Core Specimens ASTM D7012

Client:	Sanborn, Head and Associates inc.	Date:	March 7, 2025
		File:	MTS-25003936-A0
Project:	Technical Testing Program	Lab no:	MO-22496
		Client ref.:	6480-000-010

1.0 DATA

Coring realized the : N/D by: Customer

Localization of the core hole : MO-22496 : 26' : SH-11 / C-1

2.0 RESULTS

Sample:	Lab No	MO-22496		
	Reference No	SH-11 / C-1		
Date of the test		2025-03-05		
Cure (type)		Dry		
Total lenght (mm)		131,24		
Grounded lenght (mm)		109,12		
Grounded core weight (kg)		0,560		
Core diameter (mm)		50,58		
Height/diameter ratio (2.0 – 2.5)		2,16		
Density (kg/m^3)		2 554		
Load (Newton)		125 32		
Compressive strength (MPa)		62,4		
Failure type		Multiple extension		

3.0 REMARKS

Tested by the method «C» of the standard

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE # 254 QUÉBEC

Verified by: _____
Isabelle Coulombe
Laboratory Manager

Approuved by: _____
Alain Blanchette, geo., M.A.Sc.
Principal Director, OGQ # 254

Appendix C.2

Geotechnical Laboratory Results from Whitestone

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001
Service Date: 02/13/19
Report Date: 02/13/19
Task:

DENTE A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

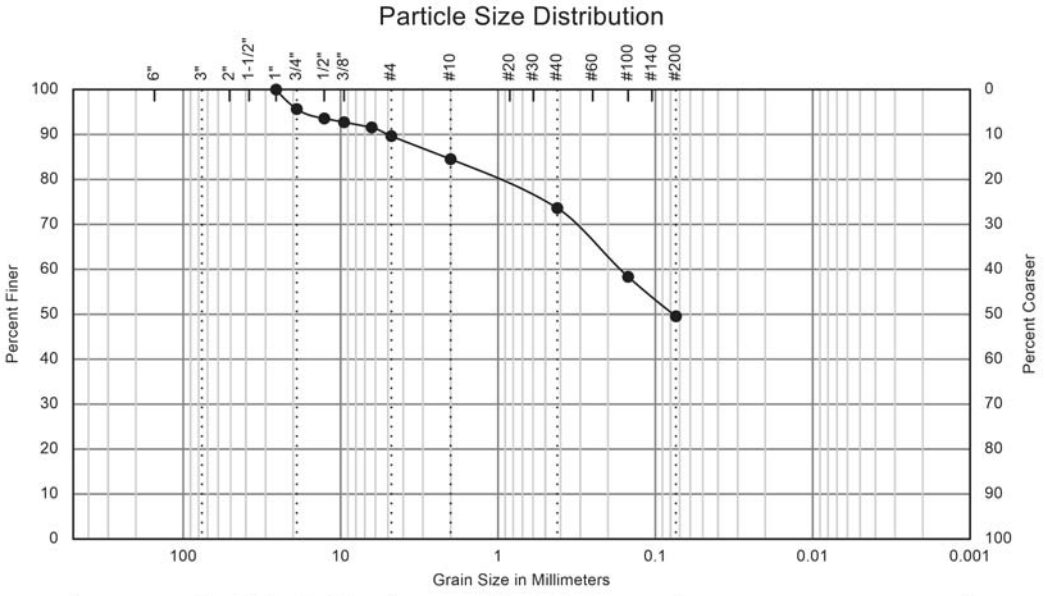
Sample Information

Sample Type:	SPT
Sample Location:	B-1/S-3 4'-6'
Sample Description:	SILT and F-M-C SAND, Little F-C Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"			
1-1/2"			
1"	100.0		
3/4"	95.7		
1/2"	93.6		
3/8"	92.7		
1/4"	91.6		
#4	89.6		
#10	84.5		
#40	73.6		
#100	58.3		
#200	49.6		



% Cobbles	% Gravel - 10.4		% Sand - 40.1			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	4.3	6.0	5.1	10.9	24.1	49.6

D_{60} = 0.17	D_{30} =	D_{10} =	C_c =	C_u =	FM =

*

Comments:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/ 3193 1W
Report Date: 0/ 3193 1W
Task:

DENTE A Terracon COMPANY
5W A Broadway
E atervliet, A NY A 1/ 18W 970W
518-/ 66-0910

Client

E A2 quisitions A LLC
2 ttn: A Thomas A De2 ngelis
900 A George A Street, A G-01
New A Haven, A CT A 06511

Project

Proposed A Distribution A Center A 5SA Highway A2 msterdam, A NY
5SA Highway
Florida, A NY

Project A Number: A B185187

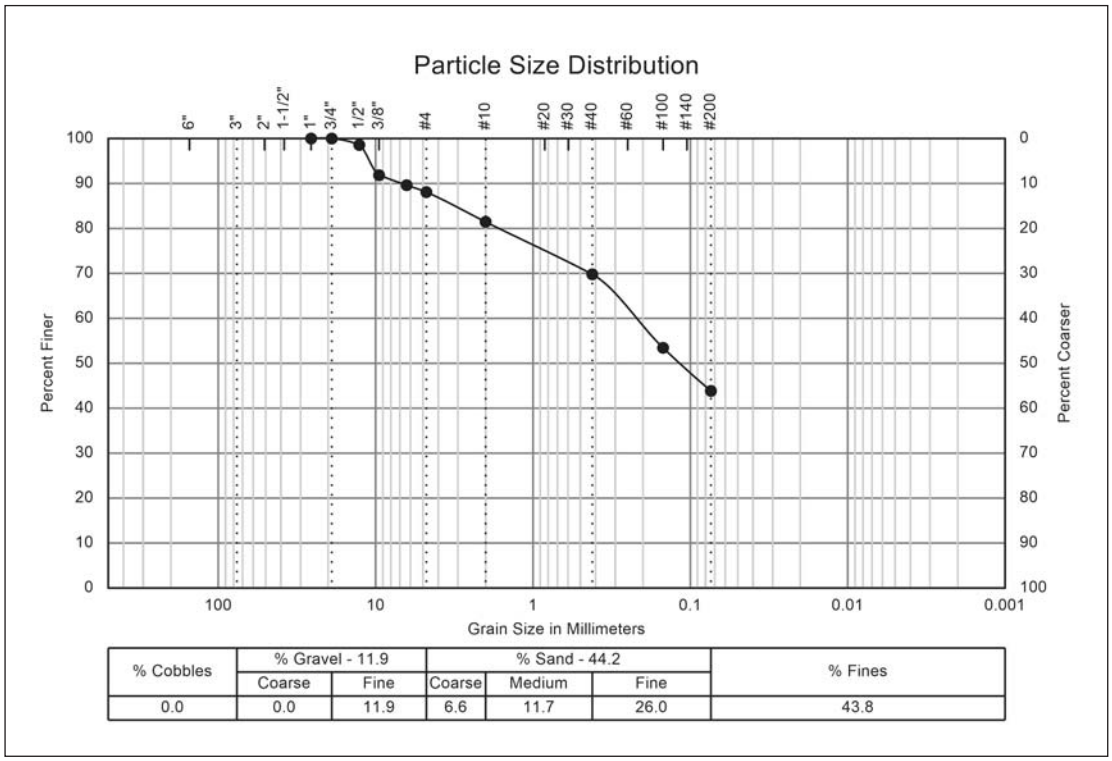
Sample Information

Sample Type:	SPT
Sample Location:	B-3/S-4 10'-12'
Sample Description:	F-M-C SAND and SILT, Little Fine Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
1"	100.0		
3/4"	100.0		
1/2"	98.6		
3/8"	91.8		
1/4"	89.6		
#4	88.1		
#10	81.5		
#40	69.8		
#100	53.4		
#200	43.8		



% Cobbles	% Gravel - 11.9		% Sand - 44.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	11.9	6.6	11.7	26.0	43.8

D_{60} = 0.22	D_{30} =	D_{10} =	C_c =	C_u =	FM =

*

Comments:

Services: PerRormA gradation A analysis A on A sample A RA material A returned A to A the A RRice A n A general A accordance A with A 2 STf A D6W9.
Dente Group - A Terracon Co. Rep.: A2 . A Barron
Reported To: N32
Contractor: N32
Report Distribution:
(1) Æ A2 quisitions A LLC, A Thomas A De2 ngelis

Reviewed By:

John A Odorisio
Senior A ngineer

Test Methods: 2 STf A D6W9

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/ 3193 1W
Report Date: 0/ 3193 1W
Task:

A Terracon COMPANY
5W#ABrnadway
E acervlseq,ANYA/ 18W970W
518-/ 66-0910

Client

E Aquisi stosnLtACC2
c coL:AThnmatADec Lgelst
900AGenrgeASoreeq,AG-01
NewAHaveL,A2 TA06511

Project

PrnpntedADstorsbi osnLA2 eLcerA5SAHsghwayAt mtcerdam,ANY
5SAHsghway
Flnrsda,ANY

PrnjeqoANi mber:AB185187

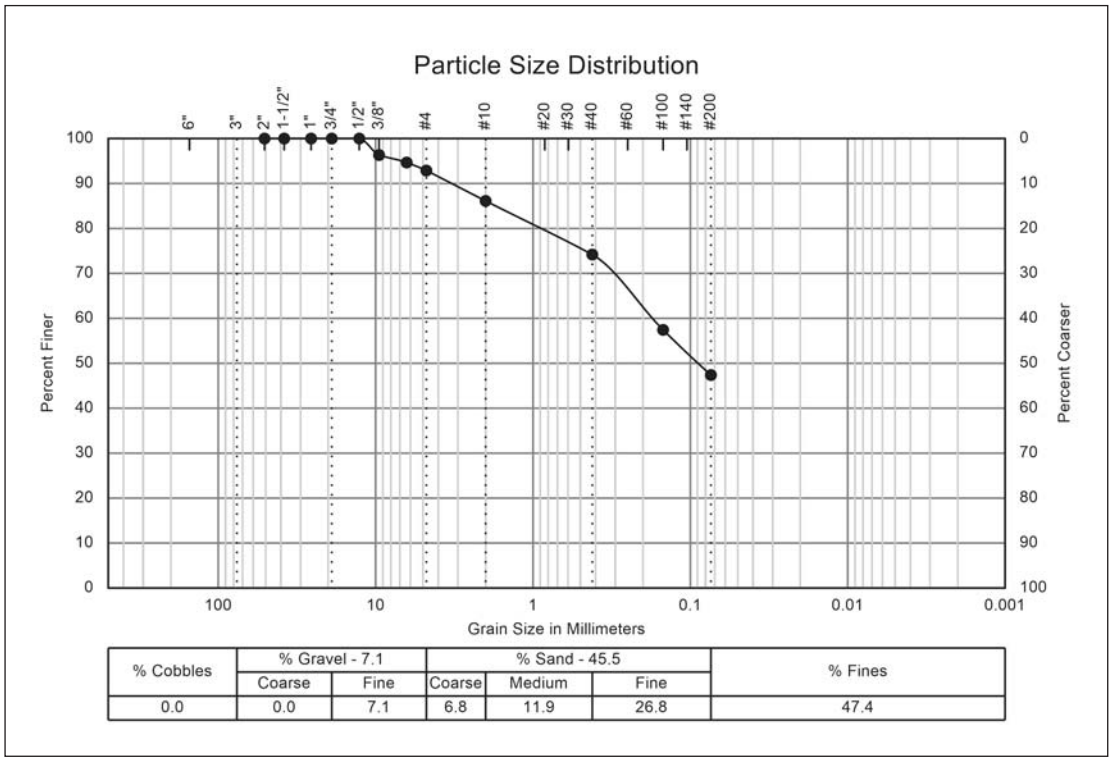
Sample Information

Sample Type:	SPT
Sample Location:	B-10/S-3 5'-7'
Sample Description:	SILT and F-M-C SAND, trace fine gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"	100.0		
1-1/2"	100.0		
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	96.3		
1/4"	94.7		
#4	92.9		
#10	86.1		
#40	74.2		
#100	57.4		
#200	47.4		



% Cobbles	% Gravel - 7.1		% Sand - 45.5			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	7.1	6.8	11.9	26.8	47.4

D_{60} = 0.17	D_{30} =	D_{10} =	C_c =	C_u =	FM =

*

Comments:

Services: PerRnrmAgradaosnLAaLalytstAnLAaampleAnRAmaersalAeci rLedAnAheARRqeALAgeLeralAqqnrdaLqeAvschAt STf AD6W19.
Dente Group - A Terracon Co. Rep.: At .ABarrnL
Reported To: N3c
Contractor: N3c
Report Distribution:
(1)Æ Aquisi stosnLtACC2 ,AThnmatADec Lgelst

Reviewed By:

JnhLAOdnrstsn
SeLsnrA LgsLeer

Test Methods: c STf AD6W19

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001B
Service Date: 02/13/19
Report Date: 02/13/19
Task:

A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

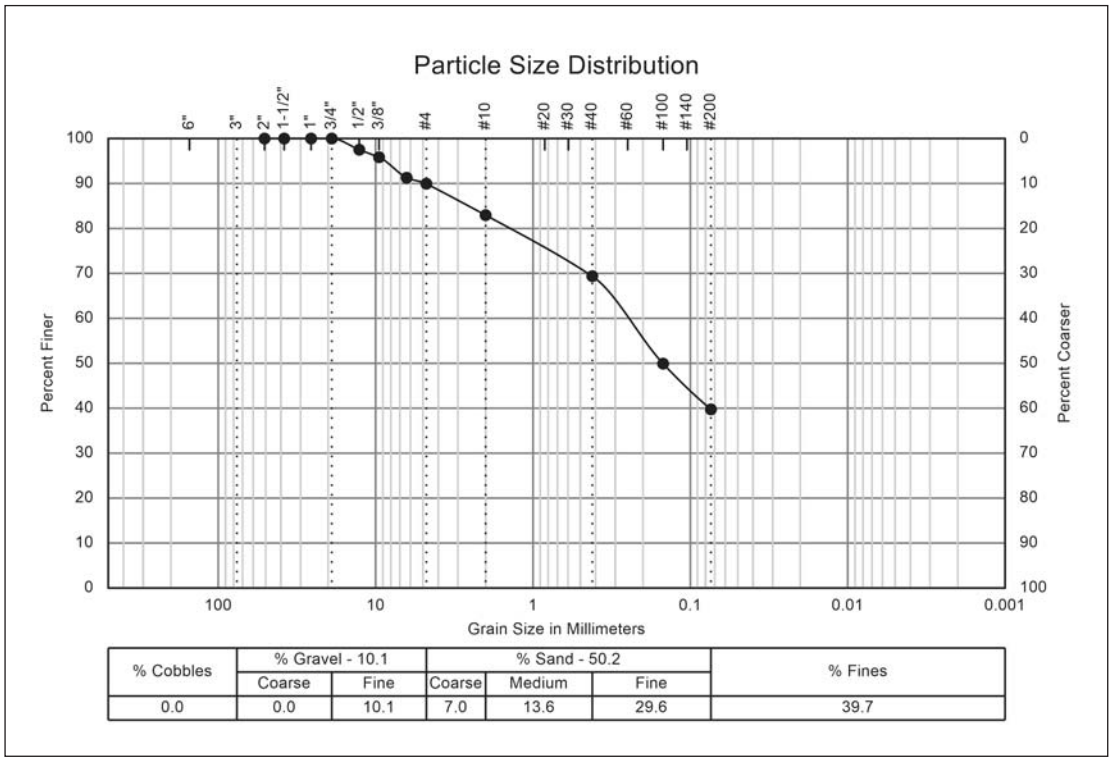
Sample Information

a-mple D(pe:	agD
a-mple Noc-tioM	BI1/aI3 4'64y6
a-mple FescriptioM	SIL IT and F-MCaAND, Nittle SiMe Gr-vel
=aTa:	ailt(s-MC)aL 9

Laboratory Test Data

Dest L etPoC:	naDL Fh04O
L etPoC:	dn
ntterUerX Nimits:	NNnir I ', NNb veMI ', gNI ', gAI '
a-mple grep-r-tioM	b veMFrieC
aieviMX L etPoC:	aiMXle aievelaet aieviMX

aieve ai*e	gerceM SiMer	apec2'	g-ss)z. S-il9
y5	1'' 2		
4I4/y5	1'' 2		
45	1'' 2		
O'35	1'' 2		
4/y5	0728		
O'15	0821		
4/35	042O		
#3	1020		
#4'	1O2		
#3'	h023		
#4''	3020		
#y''	O027		



% Cobbles	% Gravel - 10.1		% Sand - 50.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	10.1	7.0	13.6	29.6	39.7

"

F h' . '2/3	F O' .	F 4' .	T c .	T u .	SL .

Comments:

Services: PerRorm gradation analysis on sample oRmaterial returned to the oRRce in general accordance with ASTf D6913.
Dente Group - A Terracon Co. Rep.: A. Barron
Reported To: N/A
Contractor: N/A
Report Distribution:
(1) WE Acquistions LLC, Thomas DeAngelis

Reviewed By:

John Odorisio
Senior Engineer

Test Methods: ASTf D6913

DPe tests were performeC iMXeMer-I-ccorC-Mce witP-pplic-Ule naDL, nnaHDb, or Fb D test metPoCs2 DPis report is exclusivel(for tPe use of tPe clieM iMCic-teC-Uove-MCsP-ll Mot Ue reproCuceC except iMfull witPout tPe writteMcoMseM of our comp-M(2 Dest results tr-MsmitteC PereiM-re oM(-pplic-Ule to tPe -ctu-l s-mples testeC-t tPe loc-tioM)s9refereMceC-MC-re Mot Mecess-ril(iMCic-tive of tPe properties of otPer-pp-reMl(simil-r or iCeMic-l m-teri-ls2

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #1		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48711	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

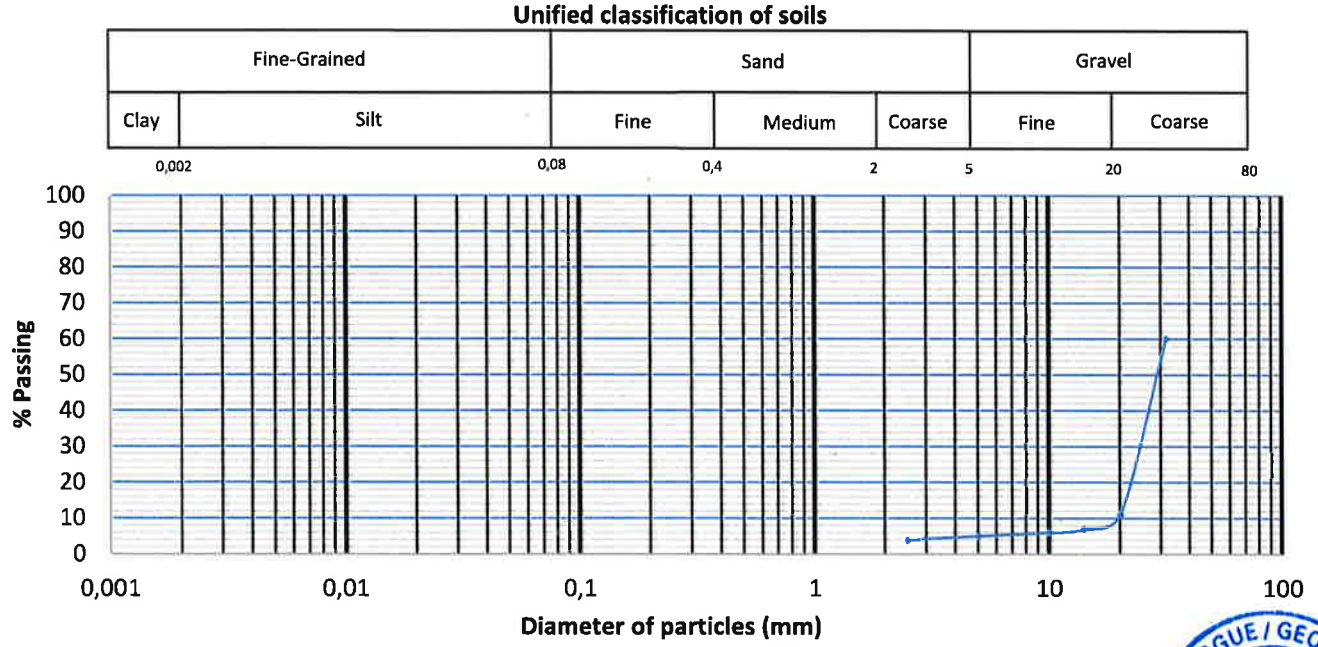
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	64	
Pyrite equivalent	NQ2560-500	0,15%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

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48711.xls

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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48711
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 1
Source :	Florida, New York
Sampled by :	Client
Location :	RS1 + RS2

Weight used

Passing	40	mm	Retained	31.5	mm	Weight	900	g
Passing	31.5	mm	Retained	20	mm	Weight	715	g
Passing	-	mm	Retained	-	mm	Weight	-	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	5	5						
Indurated Shale	0.5	43	21.5	47	23.5						
Slate Shale	0.75	57	43.1	48	35.8						
SPPI per fraction:			64.6		64.3						

Final SPPI: 64

Remark

Realized by:	Marie-Camille Labranche, Trainee, Geological Engineering	Date:	July 3rd, 2019 AAAA – MM – JJ
Approved by:	Alain Blanchette, géo., M.Sc.A. Principal Director	Date:	July 3rd, 2019 AAAA – MM – JJ

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

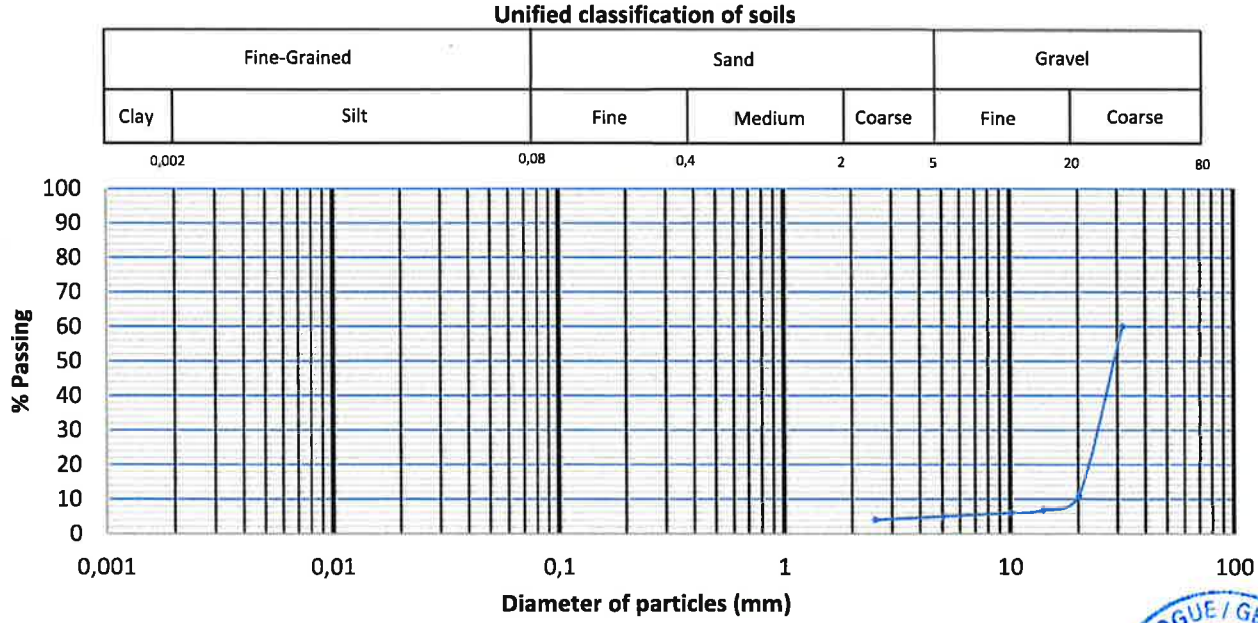
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #2		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48712	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	67	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,007%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48712
Client's ref. : 60678

Sample : Crushed Stone, sample nº 2
Source : Florida, New York
Sampled by : Client
Location : RS2 + RS3

Weight used								
Passing	40	mm	Retained	31.5	mm	Weight	1 389	g
Passing	31.5	mm	Retained	20	mm	Weight	962	g
Passing	20	mm	Retained	14	mm	Weight	771	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained 14 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	0.5	0	0	40	20	34	17				
Indurated Shale	0.75	100	75	60	44.8	66	49.4				
SPPI per fraction:			75		64.8		66.4				

Final SPPI: 67

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

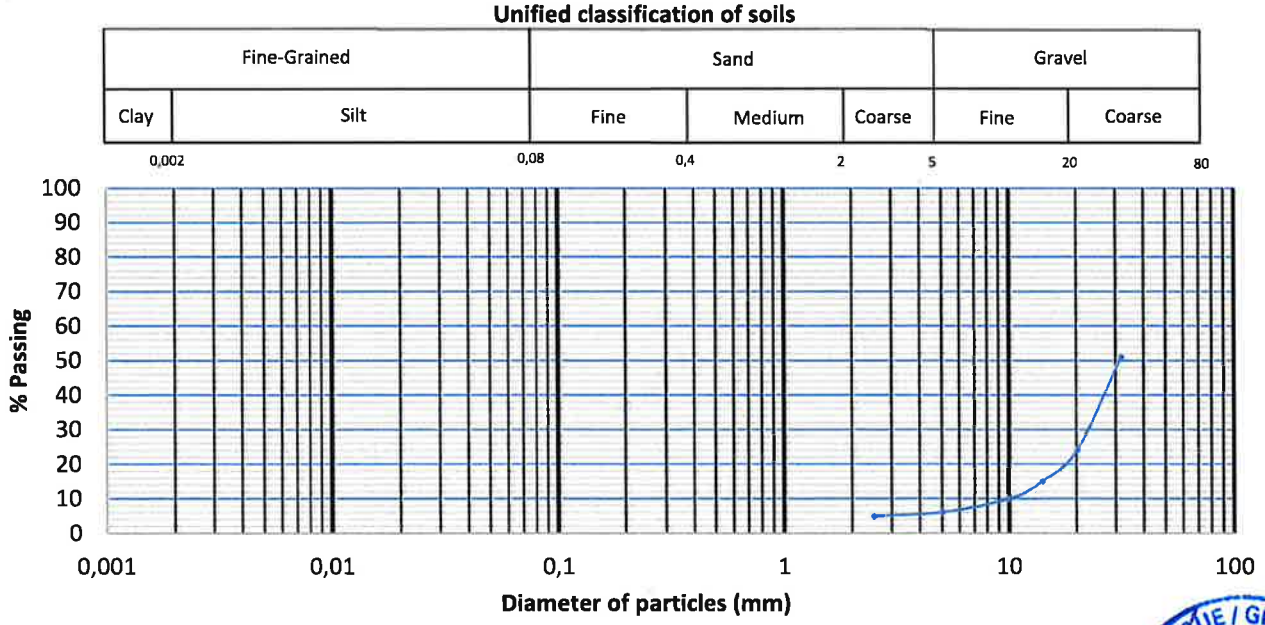
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #3		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48713	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80	100	
56	95	
40	73	
31,5	51	
20	24	
14	15	
10	10	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	70	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,009%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
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AGGREGATES AND SOILS

Swelling potential petrographic index determination
NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48713
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 3
Source :	Florida, New York
Sampled by :	Client
Location :	RS5 + RS6

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 478	g
Passing	40	mm	Retained	31.5	mm	Weight	723	g
Passing	31.5	mm	Retained	20	mm	Weight	584	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	12	12	25	25				
Indurated Shale	0.5	53	26.5	22	11	27	13.5				
Slate Shale	0.75	47	35.6	66	49.5	48	36.2				
SPPI per fraction:			62.1		72.5		74.7				

Final SPPI: 70

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering — Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A. Principal Director — Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #4		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48714	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

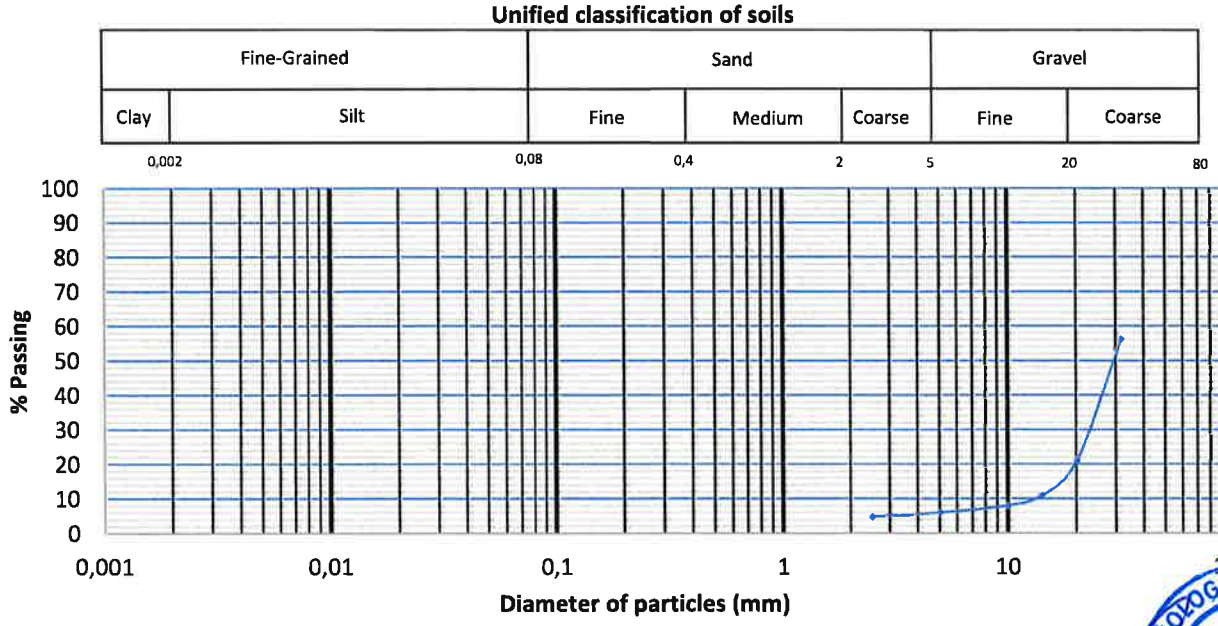
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80	100	
56	96	
40	78	
31,5	56	
20	21	
14	11	
10	8	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	68	
Pyrite equivalent	NQ2560-500	0,13%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
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Approved by :
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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48714
Client's ref. : 60678

Sample : Crushed Stone, sample nº 4
Source : Florida, New York
Sampled by : Client
Location : RS7 + RS8

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 438	g
Passing	40	mm	Retained	31.5	mm	Weight	572	g
Passing	31.5	mm	Retained	20	mm	Weight	872	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	9	9	34	34				
Indurated Shale	0.5	60	30	61	30.5	34	17				
Slate Shale	0.75	40	29.8	30	22.6	32	24.1				
SPPI per fraction:			59.8		62.1		75.1				

Final SPPI: 68

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019
AAAA – MM – JJ

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019
AAAA – MM – JJ

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APPENDIX 8

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

FOR

CONSTRUCTION ACTIVITIES

Located At:
Route 5S / Mead Road
Town of Florida
Montgomery County, New York State

Prepared For:
BMG Albany, LLC
One Tower Bridge, 100 Front Street, Suite 1225
West Conshohocken, PA 19428

Prepared By:
Bohler Engineering NY, PLLC
17 Computer Drive West
Albany, NY 12205

SWPPP Preparation Date:
April 16, 2025

Estimated Project Start and End Dates:
October 1 2025 – October 1, 2027

1) CONTACT INFORMATION / RESPONSIBLE PARTIES 4
a) Summary of Requirements 4
b) Construction Stormwater Team 4
c) Design Stormwater Team 4
2) SITE EVALUATION, ASSESSMENT AND PLANNING 5
a) Project/Site Information (Part III.B.1.c.i) 5
b) Site Location Map/Construction Drawings (Part III.B.1.c.ii) 5
c) Stormwater Discharges 6
d) Cultural Resources (Part I.A.4) 6
e) Threatened and Endangered Species (Part I.A.3) 6
f) AA or AA-s Classified Watersheds (Part I.A.8.b) 6
g) Consideration of Future Physical Risks Due to Climate Change (Part III.A.2) 6
3) EROSION AND SEDIMENT CONTROLS 7
a) Soils Description (Part III.B.1.c.iii) 7
b) Construction Phasing Plan (Part III.B.1.c.iv) 7
c) Minimum Soil & Erosion Control Measures (Part III.B.1.c.v) 7
d) Soil Stabilization Plan (Part III.B.1.c.vi) 8
e) Maintenance Inspection Schedule (Part III.B.c.viii) 8
f) Pollution Prevention Measures (Part III.B.c.ix) 8
g) Stormwater Discharges Associated with Non-Construction Activity (Part III.B.c.x) 9
h) Deviation from Blue Book Standards (Part III.B.c.xi) 9
4) POST CONSTRUCTION STORMWATER MANAGEMENT 9
(a) Introduction 9
(b) Existing Conditions 10
(c) Proposed Conditions 10
(d) Stormwater Calculations 13
(e) Operations & Maintenance 14

APPENDIX

Appendix A – SPDES General Permit for Construction Activities

Appendix B – NYSDEC Forms

Appendix C – Owner / Operator Forms

Appendix D – SWPPP Preparer Forms

Appendix E – Contractor Forms

Appendix F – O&M Documents

Appendix G – SHPO Findings

Appendix H – NYSDEC Stormwater Mapper, Threatened & Endangered Species Map

Appendix I – NRCS Soil Survey

Appendix J – Hydraulic Calculations

Appendix K – Geotechnical Report

1) CONTACT INFORMATION / RESPONSIBLE PARTIES

a) Summary of Requirements

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements set forth in the New York State Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-25-001). The General Permit authorizes stormwater discharges to the surface waters of New York State from construction related activities.

The project involves soil disturbance of one (1) or more acres of land and meets the requirements outlined in Appendix B, Table 2 of the General Permit, which requires the preparation of a SWPPP that includes both erosion and sediment control and post-construction stormwater management practices. This SWPPP describes the erosion and sediment control practices and, where required, the post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges. This SWPPP also identifies potential sources of pollution which may be reasonably expected to affect the quality of stormwater discharges.

b) Construction Stormwater Team

As required by Part III.A.7 of the GP-0-25-001, the Owner/Operator must identify the contractor(s) and subcontractor(s) responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. At least one (1) person from each of the contractors and subcontractors shall be identified as responsible for implementation of the SWPPP and will be known as the Trained Contractor. The Trained Contractor(s) shall be on site daily when soil disturbance activities are being performed.

The Trained Contractor(s) who will be engaged in construction activities at the site are responsible for completing the Contractor Certification Form included in the Appendix prior to construction.

c) Design Stormwater Team

As required by Part III.A.1&4 of the GP-0-25-001, the Owner/Operator must prepare a SWPPP that documents the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the design requirements outlined in the General Permit. Furthermore, SWPPP's that require the post-construction stormwater management practice component shall be prepared by a Qualified Professional as defined in the General Permit.

The Owner/Operator and Qualified Professional have been identified as the following:

Name	Address	Responsibility
BMG Albany, LLC	One Tower Bridge, 100 Front Street, Suite 1225 West Conshohocken, PA 19428	Owner/Developer

Bohler Engineering	17 Computer Drive West Albany, NY 12205	Qualified Professional

2) SITE EVALUATION, ASSESSMENT AND PLANNING

a) Project/Site Information (Part III.B.1.c.i)

Site Name	MSV1 – Amazon Distribution Center
Address	Route 5S / Mead Road
City, State, Zip Code	Town of Florida
County	Montgomery County

Type of Construction: ☐Commercial ☐Industrial ☒Other Warehouse / Distribution

Size of Property	±137.2 acres
Total Area Expected to be Disturbed	±66.0 acres
Maximum Area to be Disturbed at Any One Time:	±66.0 acres

b) Site Location Map/Construction Drawings (Part III.B.1.c.ii)

The following drawings are included in this report and are bound under separate cover:

- **Site Survey** – Existing condition for the parcel including all required existing information (watercourses, topography, vegetation, utilities, property boundaries, etc.)
- **Site Plan** – Comprehensive plan of all proposed improvements and limits of disturbance.
- **Grading and Drainage Plan** – Plan illustrates existing and proposed slopes, proposed stormwater quantity and quality mitigation measures and limits of disturbance.
- **Utility Plan** – Plan includes detailed design information for the installation of all proposed utilities resulting in the disturbance of soil for this project.
- **Erosion and Sediment Control Plan** – Erosion and sediment control measures to be in place and inspected, prior to commencement of construction. The proposed measures were designed in accordance with the New York Guidelines for Urban Erosion and Sediment Control. Proposed measures include inlet protection, silt fence and/or silt sock, temporary stone outlet sediment traps, temporary swales, stabilized construction entrance, and construction sequencing.
- **Erosion and Sediment Control Details –** Plan contains all notes, details and construction sequencing necessary for the construction of the erosion control practices as shown on the Erosion and Sediment Control Plan.
- **Landscaping Plan** – Included is all proposed landscaping for the project.
- **Construction Details** – Included are all details associated with the post-construction stormwater management system.

c) Stormwater Discharges

The table below identifies all discharge points for stormwater leaving the project site.

Point of Discharge	Name of State receiving water	Is the receiving water on 303d list?	If yes, limiting pollutant
Design Point 1	South Chuctanunda Creek	No	N/A
Design Point 2	South Chuctanunda Creek	No	N/A
Design Point 3	South Chuctanunda Creek	No	N/A

d) Cultural Resources (Part I.A.4)

Construction activities that propose the disturbance of a property with historic significance are not covered by the General Permit. As such, documentation from the NYS office of Parks, Recreation, and Historic Preservation (OPRHP) has been included in the appendix stating that the proposed project will result in no impact to properties of historical significance.

e) Threatened and Endangered Species (Part I.A.3)

Construction activities that may adversely affect a species that is endangered, threatened, or of special concern are not covered by the General Permit. As such, documentation has been included in the appendix showing that the proposed project will not result in adverse impact to a species that is endangered, threatened, or of special concern.

f) AA or AA-s Classified Watersheds (Part I.A.8.b)

The project does not propose to disturb more than one acre of existing non-impervious area on steep slopes within a watershed of Surface of the State classified as AA or AA-s.

g) Consideration of Future Physical Risks Due to Climate Change (Part III.A.2)

Increasing Temperature: The subject project is proposing to minimize the impact of land alterations by reducing impervious areas where possible. For example, the project proposes to minimize drive aisle widths, minimize parking space size, and minimize the number of parking spaces to what is required to support the proposed use. Correspondingly, the project will maximize available greenspace and landscaping. These techniques both aid to decrease the adsorption of radiant heat from increasing temperatures.

Increasing Precipitation, Variability, and Severity of Storm Events: The subject project proposes a new stormwater management system that has been sized to collect and transport stormwater to downstream discharge points, while meeting or exceeding the requirements set forth for stormwater quality and quantity control measures. The storm pipe network will adequately transport stormwater, while accounting for both cost and efficiency of the project.

Rising Sea Level: The subject project is not located near, nor directly discharges to, low-lying costal areas which are at elevated risks of inundation during high tides.

Shifting Ecology: Due to the uncertainty of the ever-changing ecosystem, direct results & outcomes are uncertain. However, the subject project is proposing to incorporate the latest technologies in stormwater management practices that have been tested and approved by the NYSDEC.

3) EROSION AND SEDIMENT CONTROLS

a) Soils Description (Part III.B.1.c.iii)

Data supplied by the USDA Natural Resources Conservation Service (NRCS) indicates that site soils are primarily classified as:

USDA Soil Symbol	Hydrologic Group (HSG)	Texture	Character
AnB	D	Angola Silt Loam	Somewhat poorly drained
ApB	D	Appleton Silt Loam	Somewhat poorly drained
ChA	D	Churchville Silty Clay Loam	Somewhat poorly drained
DaB	D	Darien Silt Loam	Somewhat poorly drained
LaC	B	Lansing Silt Loam	Well Drained
Ma	D	Madalin Silty Clay Loam	Poorly drained
PaB	C	Palatine Silt Loam	Well Drained
PaC	C	Palatine Silt Loam	Well Drained
PaD	C	Palatine Silt Loam	Well Drained

The USDA NRCS Soil Survey is included in the appendix of this report.

b) Construction Phasing Plan (Part III.B.1.c.iv)

Construction sequencing, limits of clearing and grading, utility and infrastructure installation, and all other associated activities resulting in soil disturbance are detailed on the Erosion and Sediment Control, Grading and Drainage and Utility Plans. A recommended Construction Sequence has been included on the Erosion and Sediment Control Notes & Details sheet. Part I.E.6 of the SPDES General Permit for Stormwater Discharges from Construction Activity, requires written authorization from the New York State Department of Environmental Conservation (NYSDEC) prior to disturbing more than 5 acres of soil.

c) Minimum Soil & Erosion Control Measures (Part III.B.1.c.v)

The Soil and Erosion Control measures that are proposed to be implemented for this site are shown and detailed in the Site Development Plans (part III.B.1.c.vi). All practices are to be installed per requirements outlined in the NYSDEC Standards and Specifications for Erosion and Sediment Control (Blue Book). All practices shall be installed per the timeline outlined in the Construction Sequence and shall remain functional until the contributing areas have achieved 80% stabilization. The dimensions, material specifications, installation details and operation and maintenance

requirements are included on the Soil Erosion & Sediment Control Notes & Details Sheet included in the Site Development Plans (Part III.B.1.c.vii).

d) Soil Stabilization Plan (Part III.B.1.c.vi)

All temporary and permanent soil stabilization practices to be implemented at the subject Project are outlined in the Erosion & Sediment Control Plan included in the Site Development Plans. It is the responsibility of the General Contractor to identify any areas that are not adequately stabilized and provide adequate stabilization practices to address. As a guideline, any temporary or permanent slopes over 3:1 shall be stabilized using slope stabilization fabric installed per the manufacturer's guidelines. Any open soil that is not to be disturbed within 14 days shall be seeded or mulched. These practices shall remain operational until 80% establishment has been achieved.

e) Maintenance Inspection Schedule (Part III.B.c.viii)

Maintenance of the proposed erosion and sediment control practices are detailed on the Erosion and Sediment Control Plan. Included in this report are the SWPPP Observation and Operations and Maintenance Checklists. The owner/operator is ultimately responsible for inspection and maintenance during construction. Stabilization must be achieved prior to removal of temporary erosion and sediment control devices and filing of the NYSDEC Notice of Termination (NOT). The SWPPP Monitoring Professional must inspect and approve final stabilization prior to filing of the NOT. Following the NOT filing, which terminates permit coverage, the Property Owner or any subsequent owner shall follow the guidelines set forth in this report and will be responsible for operations and maintenance over the lifetime of the facility.

Operations and maintenance of this facility is the responsibility of the owner/operator. A designated representative shall conduct bi-annual inspections and keep a log of results and mitigation measures taken. This log shall be made available to the authority having jurisdiction upon their request. Maintenance shall depend mainly on inspection observations and all records should be sent to the Stormwater Program Manager as they are performed. Any deficiencies in the facility shall be corrected immediately upon discovery. Sediment removal shall occur as needed but at minimum twice yearly (if applicable). Cleaning of structures shall include the removal, and proper disposal, of all sand and debris from sumps. A qualified hauler, familiar in the proper disposal of waste shall dispose of sediment. Inspection forms and/or checklists in addition to maintenance procedures have been provided for use as part of this document.

f) Pollution Prevention Measures (Part III.B.c.ix)

The following activities are anticipated during construction and could have the potential to generate pollutants. All such activities are to be conducted in accordance with all applicable General Permit requirements and in accordance with industry-standard best management practices. An inventory of possible pollutants and their associated pollution prevention measure is listed below.

- Construction waste will be disposed in on-site construction dumpsters immediately. The dumpsters shall be located such that any stormwater runoff will be directed to a sediment trap.
- Any materials or chemicals considered to be hazardous shall be covered or stored in construction trailers to ensure no discharge to stormwater will occur.

- A concrete washout will be installed prior to any concrete being poured onsite. The washout will meet or exceed the requirements outlined in the Blue Book.
- Any spills that occur must be reported to the below contacts:

Contact	Name	Phone Number
NYSDEC Spills Hotline	NYSDEC	1-800-457-7362
Jurisdiction Contact	NYSDEC Region 4	1-518-357-2069

The proposed stormwater management system has been designed to minimize the offsite environmental impacts of potential pollutants from the proposed project. These pollutants can include sediments, nutrients, organic carbons, trace metals, chlorides, and bacteria. Sources of these pollutants include atmospheric deposits, leaking vehicle fluids, and windblown debris from adjacent areas. These pollutants are commonly found in urban stormwater runoff and their effects can be mitigated by the proper implementation of approved stormwater management practices.

g) Stormwater Discharges Associated with Non-Construction Activity (Part III.B.c.x)

Construction support activities located beyond the construction project area are not to be covered under this SWPPP and the Construction General Permit.

h) Deviation from Blue Book Standards (Part III.B.c.xi)

None of the proposed Soil Erosion & Sediment Control practices are proposed to deviate from the NYSDEC technical standards as outlined in the Blue Book. Any changes to the approved Soil Erosion & Sediment Control Plan that are made in the field during construction shall be documented and the Engineer of Record shall be informed.

4) POST CONSTRUCTION STORMWATER MANAGEMENT

(a) Introduction

The applicant, BMG Albany, LLC, is proposing to develop a 137.2-acre property located at Route 5S / Mead Road, in the Town/of Florida, Montgomery County, New York. The project will include construction of ±652,000 SF building (ground floor building footprint) along with associated parking, access drives, stormwater management, landscaping, and utilities. The proposed features are shown on the latest Site Plan Documents prepared by Bohler Engineering NY, PLLC.

This report will briefly discuss the proposed development and provide a detailed analysis of the existing and proposed site conditions and the proposed stormwater management system. Hydraulic calculations included in this report were generated for the 1-, 10- and 100-year storm events utilizing the SCS TR-20 and HydroCad Stormwater modeling software.

The following type II, 24-hour SCS rainfall distribution was applied to the calculations:

Rainfall Event	Depth (inches)
1-Year	2.19
10-Year	3.50
100-Year	5.68

Source: Cornell University data, “Extreme Precipitation in New York and New England”.

(b) Existing Conditions

The project site is primarily undeveloped with portions of asphalt associated with existing access drives to the site off Route 5S. Majority ground cover consists of Green areas with moderate to steep topography.

The existing project site has been divided into three (3) Watershed areas for analysis purposes. Watershed ground covers, flow paths, and design points are depicted in the Existing Conditions Watershed Areas Summary Table Below.

Watershed	Ground Cover	Flow Path	Discharge Point
E-1	Primarily grass areas	Sheet flow to shallow concentrated before discharging to onsite stream, eventual discharge to the 60” drainage culvert under the Mead Road right of way.	DP-1 (60” CMP under Mead Road)
E-2	Primarily grass and woods with portions of impervious areas	Sheet flow to shallow concentrated, eventual discharge to existing swale located within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
E-3	Primarily woods and wetlands along with portions of grass and impervious areas	Sheet flow to shallow concentrated flow, discharge to onsite wetland before overflow into the culvert located within the Route 5S right of way.	DP-3 (24” RCP)

The existing watershed area, discharge points, and topography are illustrated on the Pre Development Drainage Area Map included in the appendix of this report.

(c) Proposed Conditions

The proposed development is designed to mimic the existing drainage patterns and reduce the discharge flow rate from the pre-developed to post-developed conditions.

The proposed project site has been divided into three (3) Watershed area(s) for analysis purposes. These watershed areas have been further divided into sub-catchments with unique flow paths. Ground covers, flow paths, and design points associated with proposed flows are depicted in the Proposed Conditions Watershed Areas Summary Table Below.

Watershed	Sub-Catchment	Ground Cover	Flow Path	Discharge Point
P-1	P-1(A)	Grass	Sheet flow to shallow concentrated before discharging to onsite stream, eventual discharge to the 60”	DP-1 (60” CMP under Mead Road)

			drainage culvert under the Mead Road right of way.	
	P-1(B)	Pavement	Sheet flow to a network of catch basins, discharge to underground detention system before being discharged to onsite stream. Eventual discharge to the 60" drainage culvert under the Mead Road right of way.	DP-1 (60" CMP under Mead Road)
	P-1(C)	Pavement	Sheet flow to a network of catch basins, discharge to underground detention system before being discharged to onsite stream. Eventual discharge to the 60" drainage culvert under the Mead Road right of way.	DP-1 (60" CMP under Mead Road)
	P-1(D)	Pavement	Sheet flow to a network of catch basins, discharge to underground detention system before being discharged to onsite stream. Eventual discharge to the 60" drainage culvert under the Mead Road right of way.	DP-1 (60" CMP under Mead Road)
	P-1(E)	Grass, Pavement	Sheet flow to a network of catch basins, discharge to an Infiltration Bioretention system before being discharged to onsite stream. Eventual discharge to the 60" drainage culvert under the Mead Road right of way.	DP-1 (60" CMP under Mead Road)
	P-1(F)	Roof	Discharge to underground detention system before being discharged to onsite stream. Eventual discharge to the 60" drainage culvert under the Mead Road right of way.	DP-1 (60" CMP under Mead Road)
P-2	P-2(A)	Grass	Sheet flow to shallow concentrated, eventual discharge to existing swale located within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
	P-2(B)	Grass, Pavement	Sheet flow to a network of catch basins, pipe flow to proposed Micropool Extended Detention Pond before eventual discharge to existing swale within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
	P-2(C)	Grass, Pavement	Sheet flow to a network of catch basins, pipe flow to proposed	DP-2 (Swale within the

			Micropool Extended Detention Pond before eventual discharge to existing swale within the Route 5S right of way	Route 5S right of way)
	P-2(D)	Grass, Pavement	Sheet flow to a network of catch basins, discharge to underground detention system before eventual controlled discharge to existing swale within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
	P-2(E)	Roof	Piped flow to bioretention area, discharge to proposed Micropool Extended Detention Pond before eventual controlled discharge to existing swale within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
	P-2(F)	Roof	Piped flow to bioretention area, discharge to proposed Micropool Extended Detention Pond before eventual controlled discharge to existing swale within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
	P-2(G)	Roof	Piped flow to proposed Micropool Extended Detention Pond before eventual controlled discharge to existing swale within the Route 5S right of way	DP-2 (Swale within the Route 5S right of way)
P-3	P-3(A)	Grass, Woods, Pavement	Sheet flow to shallow concentrated flow to bioretention area, controlled discharge to the culvert located within the Route 5S right of way.	DP-3 (24" RCP)
	P-3(B)	Grass, woods, wetlands, pavement	Sheet flow to shallow concentrated flow, discharge to onsite wetland before overflow into the culvert located within the Route 5S right of way.	DP-3 (24" RCP)

The proposed watershed areas, topography and flow paths are illustrated on the Post Development Drainage Area Map, included in the appendix of this report.

Stormwater from a portion of the proposed impervious cover, including the proposed trailer areas, is considered a 'Hot Spot' by NYSDEC and is sent to a treatment train consisting of a catch basins with a snout (oil/water separator) and a First Defense Hydrodynamic Separator Water Quality Treatment Unit before being discharged to the proposed stormwater management practices. The proposed treatment train has been approved by the NYSDEC as an appropriate pretreatment system for a hotspot prior to being treated by a standard practice.

(d) Stormwater Calculations

The proposed stormwater management system consists of the practices provided in the summary table below. The table below also shows the water quality treatment provided by each practice.

Practice	WQv Provided (CF)	RRv Provided (CF)
Filtration Bioretention 1 (F-5)	±18,056	±11,520
Filtration Bioretention 2 (F-5)	±21,098	±21,098
Filtration Bioretention 3 (F-5)	±8,787	±8,787
Filtration Bioretention 4 (F-5)	±1,786	±1,786
Micropool Extension Detention Pond (P-1)	±50,741	0
Underground Detention 1	±101,688	0
Underground Detention 2	±21,374	0

The table below shows the total required and proposed water quality and runoff reduction volumes for the overall project.

Treatment	Required (CF)	Provided (CF)	Percent Achieved (%)	Requirement Met? (Y/N)
Water Quality WQv	±212,555	±223,500	105	Y
Runoff Reduction RRv / RRv min	±42,779	±43,191	101	Y

Required and proposed Water Quality (WQv) and Runoff Reduction (RRv) calculations are provided on the standard GI Worksheets included within the appendix section of this report.

Onsite soil tests (test pits and borings) were observed for the subject project by Sanborn Head in February 2025. Testing information can be found in the Appendix portion of this report.

The proposed stormwater management system serves to mitigate the impact of the development. During major storm events, post-development peak rates are expected to be reduced from pre-development peak rates, as shown on the discharge quantity table(s) below.

Rainfall Event	Design Point 1		
	Existing (cfs)	Proposed (cfs)	% Reduction
1-year	±9.34	±3.44	63
10-year	±28.65	±27.84	3
100-year	±68.44	±66.72	2

Rainfall Event	Design Point 2		
	Existing (cfs)	Proposed (cfs)	% Reduction
1-year	±17.71	±2.94	83
10-year	±51.43	±21.34	59
100-year	±120.32	±100.49	16

Rainfall Event	Design Point 3		
	Existing (cfs)	Proposed (cfs)	% Reduction
1-year	±14.98	±12.39	17
10-year	±30.09	±25.20	25
100-year	±57.79	±50.47	13

The existing and proposed stormwater models, depicting peak flow rates for pre- and post-development conditions are included within the appendix portion of this report.

(e) Operations & Maintenance

Maintenance of the proposed erosion and sediment control practices are detailed on the Erosion and Sediment Control Plan. Included within the appendix portion of this report are Construction Inspection and Operations and Maintenance Checklists. The operator is ultimately responsible for inspection and maintenance during construction. Stabilization must be achieved prior to removal of temporary erosion and sediment control practices. The SWPPP Monitoring Professional must inspect and approve final stabilization prior to filing of the NOT. Following the NOT filing, which terminates permit coverage, the Property Owner or any subsequent owner shall follow the guidelines set forth in this report and will be responsible for operations and maintenance over the lifetime of the facility. Operations and maintenance of the proposed post-stormwater management facilities is the responsibility of the Owner/Operator.

A designated representative from the above-mentioned party shall conduct bi-annual inspections and keep a log of results and mitigation measures taken. This log shall be made available to the municipality at their request. Maintenance shall depend mainly on inspection observations. Any deficiencies in the facility shall be corrected immediately upon discovery. Sediment removal shall occur as needed but at minimum twice yearly (if applicable). Cleaning of structures shall include the removal, and proper disposal, of all sand and debris from sumps. A qualified hauler, familiar in the proper disposal of waste shall dispose of sediment. Inspection forms and/or checklists in addition to maintenance procedures have been provided for use as part of this document.

Further maintenance requirements are depicted on the Operation and Maintenance Plan included within the appendix portion of this report.

APPENDIX "A"

SPDES GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES GP-0-25-001

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP-0-25-001

Construction General Permit (CGP)

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2025 Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

Scott E. Sheeley JAN. 29, 2025

Authorized Signature Date

Address: NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *stormwater discharges* from certain *construction activities* are unlawful unless they are authorized by a National Pollutant Discharge Elimination System (NPDES) permit or by a state permit program. New York State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

C*onstruction activities* constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

Table of Contents

Part I. How to Obtain Coverage and General Requirements 5
A. Eligibility Requirements 5
B. Types of *Discharges* Authorized 9
C. Prohibited *Discharges* 10
D. Electronic Notice of Intent (eNOI) Submittal 10
E. General Requirements for *Owners or Operators* with Permit Coverage 14
F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001 18
G. Change of *Owner or Operator* 19
Part II. Water Quality-Based Effluent Limitations 20
A. Maintaining Water Quality 20
B. Effluent Limitations Applicable to *Discharges* from *Construction Activities* 20
C. Post-Construction Stormwater Management Practice (SMP) Requirements 23
Part III. Stormwater Pollution Prevention Plan (SWPPP) 28
A. General *SWPPP* Requirements 28
B. Required *SWPPP* Contents 32
C. Required *SWPPP* Components by Project Type 37
Part IV. Inspection and Maintenance Requirements 37
A. General Construction Site Inspection and Maintenance Requirements 37
B. Contractor Maintenance Inspection Requirements 37
C. *Qualified Inspector* Inspection Requirements 38
Part V. How to Terminate CGP Coverage 43
A. Electronic Notice of Termination (eNOT) Submittal 43
Part VI. Record Retention and Reporting 45
A. Record Retention 46
B. Reporting 46
Part VII. Standard Permit Requirements 46
A. Duty to Comply 46
B. Need to Halt or Reduce Activity Not a Defense 46
C. Penalties 46
D. False Statements 47
E. Re-Opener Clause 47
F. Duty to Mitigate 47
G. Requiring Another General Permit or Individual SPDES Permit 47
H. Duty to Provide Information 49
I. Extension 49
J. Signatories and Certification 50
K. Inspection and Entry 52
L. Confidentiality of Information 53
M. Other Permits May Be Required 53

N. NYSDEC Orders or Civil Decrees/Judgments 53
O. Property Rights 53
P. Compliance with Interstate Standards 53
Q. Oil and Hazardous Substance Liability 54
R. Severability 54
S. NYSDEC Approved Forms 54
APPENDIX A – Abbreviations and Definitions 55
Abbreviations 55
Definitions 56
APPENDIX B – Required SWPPP Components by Project Type 64
Table 1 64
Table 2 66
APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal 68
APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants) 74
APPENDIX E – List of NYSDEC Regional Offices 80
APPENDIX F – SWPPP Preparer Certification Form 81
APPENDIX G – MS4 SWPPP Acceptance Form 83
APPENDIX H – NYCDEP SWPPP Acceptance/Approval Form 86
APPENDIX I – MS4 No Jurisdiction Form 89
APPENDIX J – Owner/Operator Certification Form 91

Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:

    a. one or more acres; or

    b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or

    c. less than one acre where NYSDEC has determined that a SPDES permit is required for *stormwater discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of pollutants to *surface waters of the State*.

        i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or

        ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or

        iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or

        iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.

2. *Discharges* from the *owner's or operator's construction activities* are/were not:

    a. already covered by a different SPDES permit; or

    b. covered under a different SPDES permit that was denied, terminated, or revoked; or

    c. identified in an expired individual SPDES permit that was not renewed; or

    d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.

3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:

    a. permit issued pursuant to 6 NYCRR Part 182 for the project; or

    b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.

4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:

    a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

        i. 1-5 acres of disturbance - 20 feet; or

        ii. 5-20 acres of disturbance - 50 feet; or

iii. 20+ acres of disturbance - 100 feet.

b. NYSDEC consultation form sent to OPRHP,[1] and copied to NYSDEC's Agency Historic Preservation Officer (APO), and

i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or

ii. documentation from OPRHP that the *construction activity* will result in No Impact; or

iii. documentation from OPRHP providing a determination of No Adverse Impact; or

iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).

c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

i. No Affect; or

ii. No Adverse Affect; or

iii. Executed Memorandum of Agreement.

d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.

5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.

6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

[1] The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

owner or operator must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:

    a. obtain all such necessary permits; or

    b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.

8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:

    a. For linear transportation and linear utility project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb two or more acres of *steep slope*.

    b. For all other project types, the *construction activities*:

        i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and

        ii. are undertaken on land with no existing *impervious cover*; and

        iii. disturb one or more acres of *steep slope*.

B. Types of *Discharges* Authorized

1. The following *stormwater discharges* are authorized under this permit:

   a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.

   b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:

      i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and

      ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and

      iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and

      iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.

2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:

   a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; and

   b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and

   c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges* of *stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:

    a. Wastewater from washout of concrete; and

    b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and

    c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and

    d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

    e. Toxic or hazardous substances from a spill or other release.

D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:

    a. *construction activities* that are not part of a *common plan of development or sale*; or

b. an entire *common plan of development or sale*; or

c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:

    i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and

    ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and

    iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or

d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:

    i. meets all other eligibility requirements of Part I.A.; and

    ii. will occur in NYSDEC's Regions 3-9; and

    iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and

    iv. will occur between November 1st and March 31st.

2. As prerequisites for submitting an eNOI, the *owner or operator* must:

    a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and

    b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:

        i. for all eNOIs:

            1. the SWPPP Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and

ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:

1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:

a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or

b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or

c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 “Governmental Immunity from Zoning and Other Legislation”; and

2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:

a. if outside the municipal boundaries of NYC: the MS4 SWPPP Acceptance Form, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and

3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator,* or by a duly authorized representative of that person in accordance with Part VII.J.2.

3. Submitting an eNOI:

a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.[2]

b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.

i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

[2] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

E. General Requirements for *Owners or Operators* with Permit Coverage

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.

2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:

   a. all areas of disturbance have achieved *final stabilization;* and

   b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.

3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:

   a. all documentation necessary to demonstrate eligibility with this permit; and

   b. this permit; and

   c. the *SWPPP*; and

   d. the signed SWPPP Preparer Certification Form; and

   e. the signed MS4 SWPPP Acceptance Form or signed NYCDEP SWPPP Acceptance/Approval Form or signed MS4 No Jurisdiction Form (when applicable); and

   f. the signed Owner/Operator Certification Form; and

g. the eNOI; and

h. the LOA; and

i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).

4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:

   a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and

   b. inspection reports in accordance with Part IV.C.4. and 6.; and

   c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and

   d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and

   e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).

5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.

6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:

   a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:

i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or

ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or

iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.

b. The written Request to Disturb Greater Than Five Acres must include:

i. The SPDES permit identification number (Permit ID); and

ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and

iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and

iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and

v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and

vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."

c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or

ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.

7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).[3] *Construction activity* shall not resume until written permission to do so has been received from the RWE.

9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:

   a. notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI; and

   b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and

   c. receive an updated LOA.

10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

[3] The Regional Water Manager where a DEC Region does not have a RWE.

F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of *a construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.

2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,[4] which contains the information identified in Part I.F.3. below, if:

   a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and

   b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.

3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.

4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.

5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

[4] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

G. Change of *Owner or Operator*

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:

    a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and

    b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and

    c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and

    d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and

    e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or

    f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:

        i. the revised area of disturbance and/or *impervious area(s)*; and

        ii. the revised SMP information, if applicable; and

        iii. a narrative description of what has changed; and

        iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

    Owners or operators must follow Part I.E.9. to modify the eNOI.

Part II. Water Quality-Based Effluent Limitations

A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York:

1. There must be no increase in turbidity that will cause a substantial visible contrast to natural conditions; and

2. There must be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There must be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the *stormwater discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard,* the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

    a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:

        i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s; and

        ii. Control *stormwater discharge*s, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and

        iii. *Minimize* the amount of soil exposed during *construction activity*; and

        iv. *Minimize* the disturbance of *steep slope*; and

        v. *Minimize* sediment *discharge*s from the site; and

        vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharge*s, unless *infeasible*; and

        vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required

where the intended function of a specific area of the site dictates that it be compacted; and

viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:

i. *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and

ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-Construction Stormwater Management Practice (SMP) Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

a. Sizing Criteria for *New Development*

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

   In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.4 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

   1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

   2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or

   3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams, or

2. A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watersheds

i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):

1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or

2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM. The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:

1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or

2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or

3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:

1. the site *directly discharges* to tidal waters or fifth order or larger streams; or

2. A downstream analysis reveals that *overbank* control is not required.

c. *Sizing Criteria* for *Redevelopment Activity*

i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.

1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or

2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or

3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or

4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or

5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or

6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.

ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.

iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

d. *Sizing Criteria* for Combination of *Redevelopment Activity* and *New Development*

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

Part III. Stormwater Pollution Prevention Plan (SWPPP)

A. General *SWPPP* Requirements

1. A *SWPPP* must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the *SWPPP*. The *SWPPP* must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

    a. The owner or operator must consider:

        i. the following physical risks due to climate change:

            (i) increasing temperature; and

            (ii) increasing precipitation; and

            (iii) increasing variability in precipitation, including chance of drought; and

            (iv) increasing frequency and severity of flooding; and

            (v) rising sea level; and

            (vi) increasing storm surge; and

            (vii) shifting ecology.

        ii. for each of the following:

            (i) overall site planning; and

            (ii) location, elevation, and sizing of:

                a. control measures and practices; and

                b. conveyance system(s); and

                c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.

5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:

   a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and

   b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*; and

   c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* NYSDEC, or other regulatory authority; and

   d. to document the final construction conditions in an as-built drawing.

6. NYSDEC may notify the *owner or operator* at any time that the *SWPPP* does not meet one or more of the minimum requirements of this permit. The notification must be in writing and identify the provisions of the *SWPPP* that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.

7. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion and sediment control practices included in the *SWPPP* and the

contractor(s) and subcontractor(s) that will be responsible for constructing the SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

> "I hereby certify under penalty of law that I understand and agree to comply with the requirements of the *SWPPP* and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) for Stormwater Discharges from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the *SWPPP* that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for *SWPPP* implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* must attach the certification statement(s) to the copy of the *SWPPP* that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the *SWPPP* after the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.

    a. Erosion and sediment control practices must be designed:

        i. in conformance with the BB; or

        ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.

    b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.

    c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:

        i. Background information about the scope of the project, including the location, type and size of project; and

        ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the *stormwater discharge*(s) and receiving surface water(s); and

        iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and

        iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:

    a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and

    b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and

2. A sequencing plan for a specific *phase* must include:

    a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and

    b. all permanent and *temporary stabilization* measures; and

v. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented; and

vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and

vii. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any

temporary sediment basins and structural practices that will be used to divert flows from exposed soils; and

viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and

ix. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the *stormwater discharges*; and

x. A description and location of any *stormwater discharges* associated with industrial activity other than construction at the site, including, but not limited to, *stormwater discharges* from asphalt plants and concrete plants located on the *construction site*; and

xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

   a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and

   b. SMPs must be designed in conformance with the *performance criteria*:

      i. in the DM; or

      ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or

      iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:

    a. subject to governmental review and approval:

        i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and

        ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or

    b. not subject to governmental review and approval:

        i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and

        ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and

c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and

d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and

e. The SMP component of the *SWPPP* must include the following:

    i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and

    ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

iii. A Stormwater Modeling and Analysis Report that includes:

(i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and

(ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and

(iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and

(iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and

(v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and

(vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.

iv. Soil testing results and locations (test pits, borings); and

v. Infiltration test results, when required in accordance with Part III.B.2.a.; and

vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

C. Required *SWPPP* Components by Project Type

Owners or operators of *construction activities*, identified in Table 1 of Appendix B, are required to prepare a *SWPPP* that only includes erosion and sediment control practices designed in accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

Part IV. Inspection and Maintenance Requirements

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

a. if the corrective action does not require engineering design:

    i. begin implementing corrective actions within one business day; and

    ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

    i. begin the engineering design process within five business days; and

    ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

2. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.

3. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

C. *Qualified Inspector* Inspection Requirements

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:

    a. the construction of a single-family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than or equal to five (5) acres and is

not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to five (5) acres and is not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D; and

c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and

d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.

2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:

a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or

b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or

c. For *construction sites* where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator,* the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or

e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* must inspect:

   a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and

   b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and

   c. all areas of disturbance that have not achieved *final stabilization*; and

   d. all points of *discharge* to *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and

   e. all points of *discharge* from the *construction site*.

4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:

   a. Permit identification number; and

   b. Date and time of inspection; and

   c. Name and title of person(s) performing inspection; and

   d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and

   e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow; and

   f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and

   g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and

   h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and

   i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and

   j. Estimates, in square feet or acres, of the following areas:

i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and

ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and

iii. Total area that has achieved *temporary stabilization*; and

iv. Total area that has achieved *final stabilization*; and

k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and

l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and

m. Identification and status of all corrective actions that were required by previous inspection; and

n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* must also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* must attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:

a. if the corrective action does not require engineering design:

i. begin implementing corrective actions within one business day; and

ii. complete the corrective actions within five business days; or

b. if the corrective action requires engineering design:

i. begin the engineering design process within five business days; and

ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.

6. All inspection reports must be signed by the *qualified inspector.* In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

Part V. How to Terminate CGP Coverage

A. Electronic Notice of Termination (eNOT) Submittal

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:

a. Total project completion:

i. all *construction activity* identified in the *SWPPP* has been completed; and

ii. all areas of disturbance have achieved *final stabilization*; and

iii. all temporary, structural erosion and sediment control measures have been removed; and

iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and

v. an as-built drawing has been prepared; or

b. Planned shutdown with partial project completion:

   i. all soil disturbance activities have ceased; and

   ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and

   iii. all temporary, structural erosion and sediment control measures have been removed; and

   iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and

   v. an as-built drawing has been prepared; or

c. In accordance with Part I.G. Change of Owner or Operator; or

d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.

2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice(s)" certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.

3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the "MS4 Acceptance" statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) when required in Part V.A.2.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:

    a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or

    b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or

    c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or

    d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.

5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.[5]

    a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

[5] Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4th Floor, Albany, New York 12233-3505.

Part VI. Record Retention and Reporting

A. Record Retention

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

B. Reporting

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

Part VII. Standard Permit Requirements

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

A. Duty to Comply

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

B. Need to Halt or Reduce Activity Not a Defense

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

C. Penalties

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to $37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

D. False Statements

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

E. Re-Opener Clause

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

F. Duty to Mitigate

The *owner or operator*, and its contractors and subcontractors, must take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G. Requiring Another General Permit or Individual SPDES Permit

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:

a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and

b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and

c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and

d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and

e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and

f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and

g. the *discharge* is in violation of section 17-0501 of the ECL; and

h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:

   i. the location of the *discharge(s)* with respect to *surface waters of the State*; and

   ii. the size of the *discharge(s)*; and

   iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and

   iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.

2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,[6] that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

H. Duty to Provide Information

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

I. Extension

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

[6] The Regional Water Manager where a DEC Region does not have a RWE.

J. Signatories and Certification

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

    a. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

        (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

        (ii) the manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

        Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

    b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

    1. the chief executive officer of the agency; or

    2. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Part VII.J.1. or using the Duly Authorized Form, found on the DEC website; and

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

    c. The written authorization is submitted to NYSDEC.

3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

    I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

K. Inspection and Entry

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the *discharge*, upon the presentation of credentials and other documents as may be required by law, to:

1. enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the requirements of this permit; and

2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and

3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and

5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

L. Confidentiality of Information

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

M. Other Permits May Be Required

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

N. NYSDEC Orders or Civil Decrees/Judgments

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

O. Property Rights

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

P. Compliance with Interstate Standards

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

Q. Oil and Hazardous Substance Liability

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

R. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, must not be affected thereby.

S. NYSDEC Approved Forms

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.

APPENDIX A – Abbreviations and Definitions

Abbreviations

APO – Agency Preservation Officer
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
CPv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024
DOW – Division of Water
EAF – Environmental Assessment Form
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law
EPA – U.S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NYC – The City of New York
NYCDEP – The City of New York Department of Environmental Protection
NYSDEC – The New York State Department of Environmental Conservation
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RR – Runoff Reduction
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SMP – Post-Construction Stormwater Management Practice
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023).

Alter Hydrology from Pre- to Post-Development Conditions – the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer System – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

Commence (Commencement of) Construction Activities – the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the *SWPPP*. See definition for "*Construction Activity(ies)*" also.

Common Plan of Development or Sale – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

Common plan of development or sale does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Construction Activity(ies) – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal.

Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

Construction Site – the land area where *construction activity(ies)* will occur. See also the definitions for "*Commence (Commencement of) Construction Activities"* and "*Common Plan of Development or Sale."*

Dewatering – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Directly Discharge(s)(ing) (to a specific surface waterbody) – runoff flows from a *construction site* by overland flow and the first point of *discharge* is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system and the first point of *discharge* from the separate storm sewer system is the specific surface waterbody.

Discharge(s)(d) – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

Embankment – an earthen or rock slope that supports a road/highway.

Equivalent (Equivalence) – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization – all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other *equivalent* stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

Historic Property – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) – all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and compacted gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – not technologically possible, or not economically practicable and achievable considering best industry practices.

Minimize(ing)(ation) – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. owned or operated by a State, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, *stormwater*, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA, that *discharges* to *surface waters of the State*; and

2. designed or used for collecting or conveying *stormwater*; and

3. which is not a *combined sewer system*; and

4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Natural Buffer(s) – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

Nonpoint Source(s) – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

Performance Criteria – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRv, CPv, Qp and Qf) in Part I.C.2. of the permit.

Phase – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

Pollutant(s) – dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast *discharged* into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq.

Qualified Inspector – a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional – a person that is knowledgeable in the principles and practices of *stormwater* management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the *SWPPP* that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Renewable Energy – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

Site Limitations – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

Steep Slope – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Stormwater – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

Streambank – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

Surface Waters of the State – shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization – exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Load (TMDL) – the sum of the allowable loads of a single *pollutant* from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a *pollutant* that a waterbody can receive and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint source*s, and a margin of safety (MOS).

Traditional Land Use Control MS4 Operator – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Trained Contractor – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training

in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

Tree Clearing – *construction activities* limited to felling and removal of trees.

Tree clearing does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

Water Quality Standard – such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single-family home not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and not located in one of the watersheds listed in Appendix C and not *directly discharging* to one of the 303(d) segments listed in Appendix D
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

- All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

Within the municipal boundaries of NYC:

- Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

The following *construction activities*:

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover*
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

Table 1 (Continued)
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following *construction activities*:

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned[1]
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the "Agricultural Best Management Practice Systems Catalogue" (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, "temporary" means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Single-family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family home that disturbs five (5) or more acres of land
- Single-family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix D
- Single-family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC with greater than 25% *impervious cover* at total site build-out
- Single-family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single-family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPS)

The following *construction activities*:

- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- Athletic fields (natural grass) that include the construction or reconstruction of *impervious area* (>5% of disturbed area) or *alter the hydrology from pre- to post-development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations, and well drilling pads, surfaced with *impervious cover,* and constructed as part of an overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of *construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.

- Entire New York City Watershed located east of the Hudson River – Figure 1
- Onondaga Lake Watershed – Figure 2
- Greenwood Lake Watershed – Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

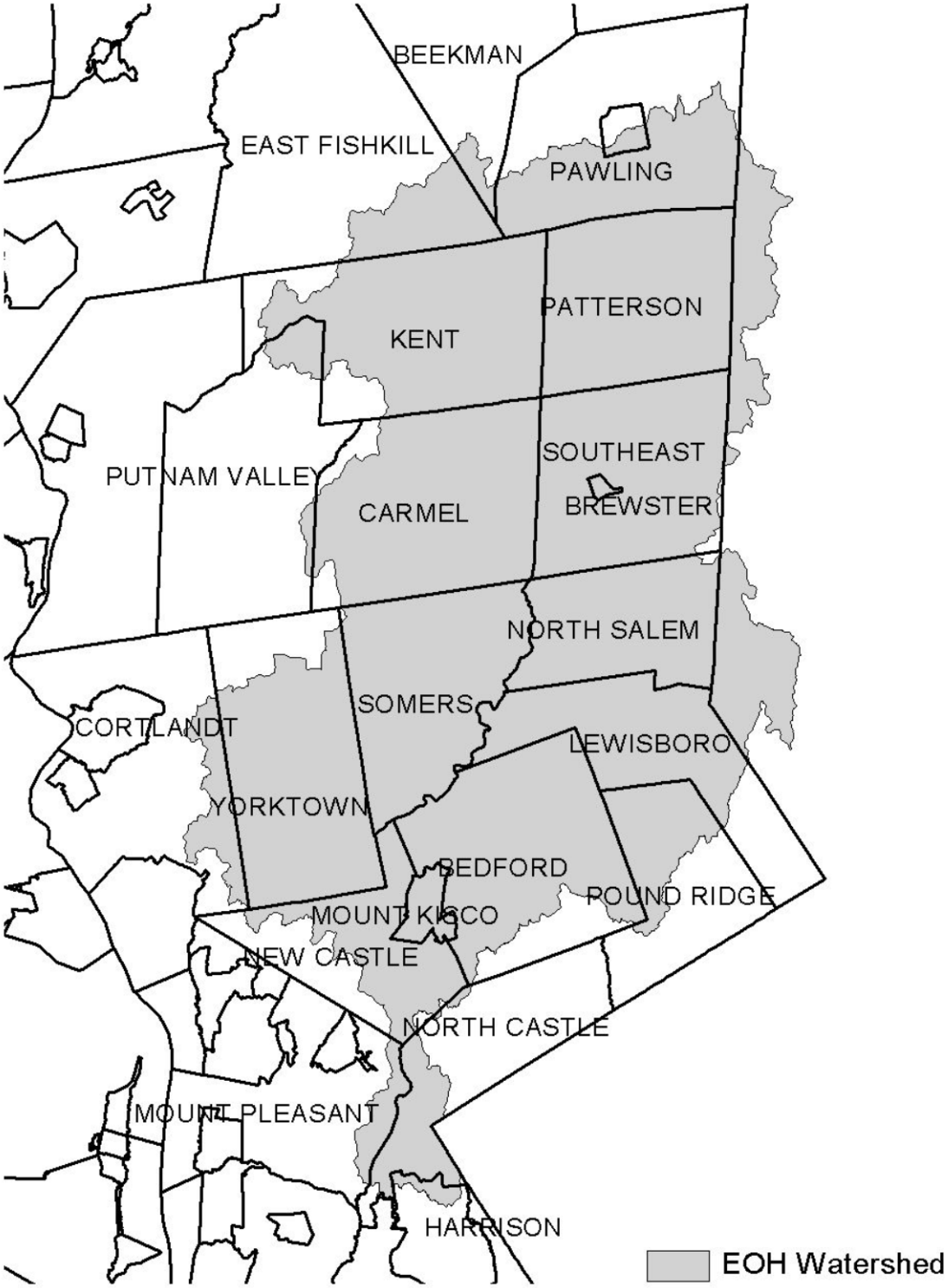


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

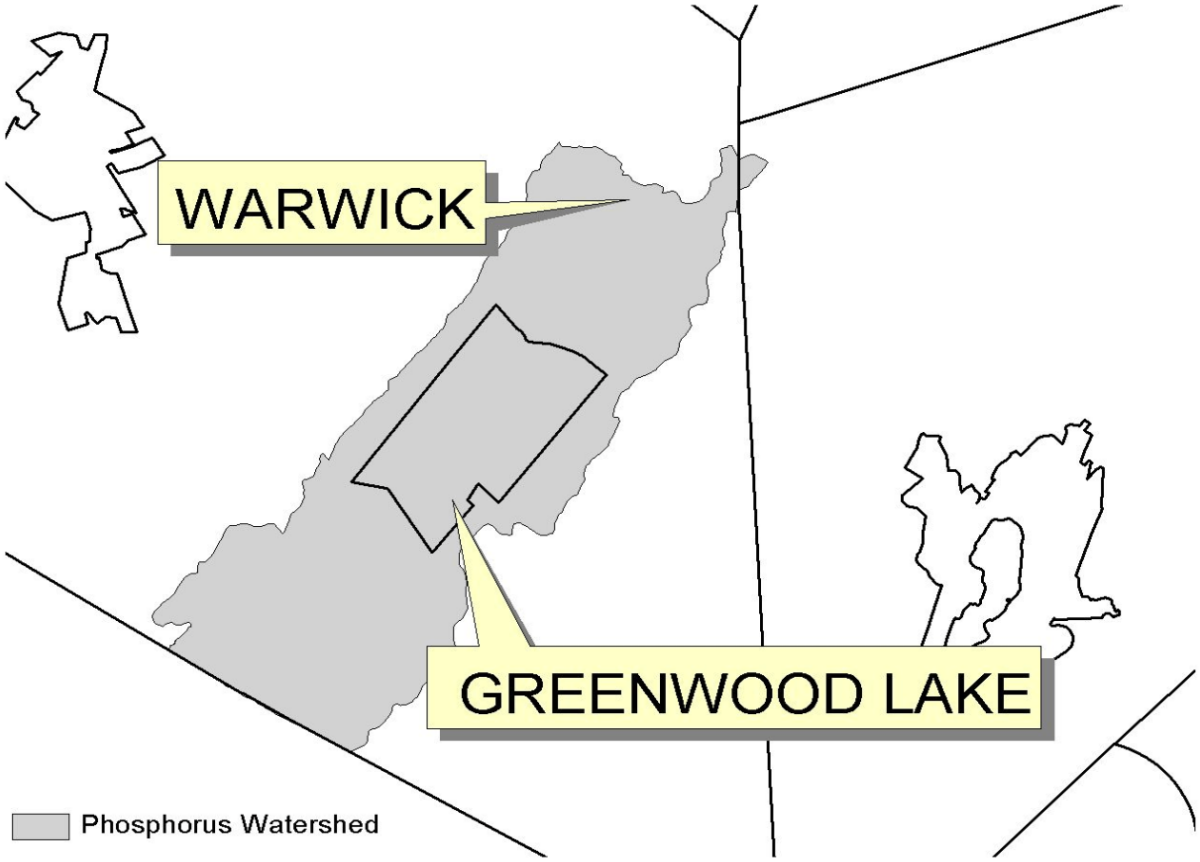


Figure 4 - Oscawana Lake Watershed

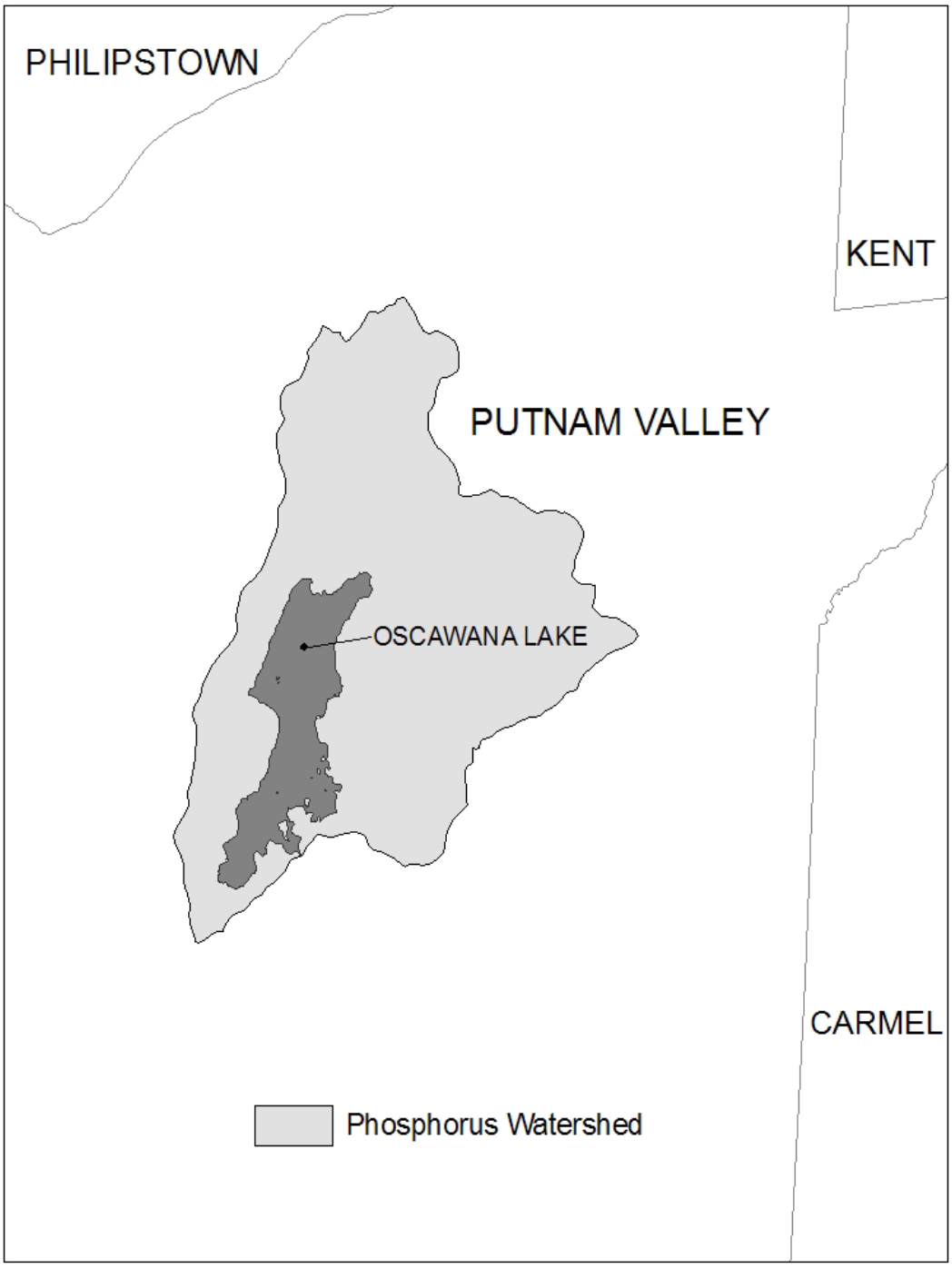
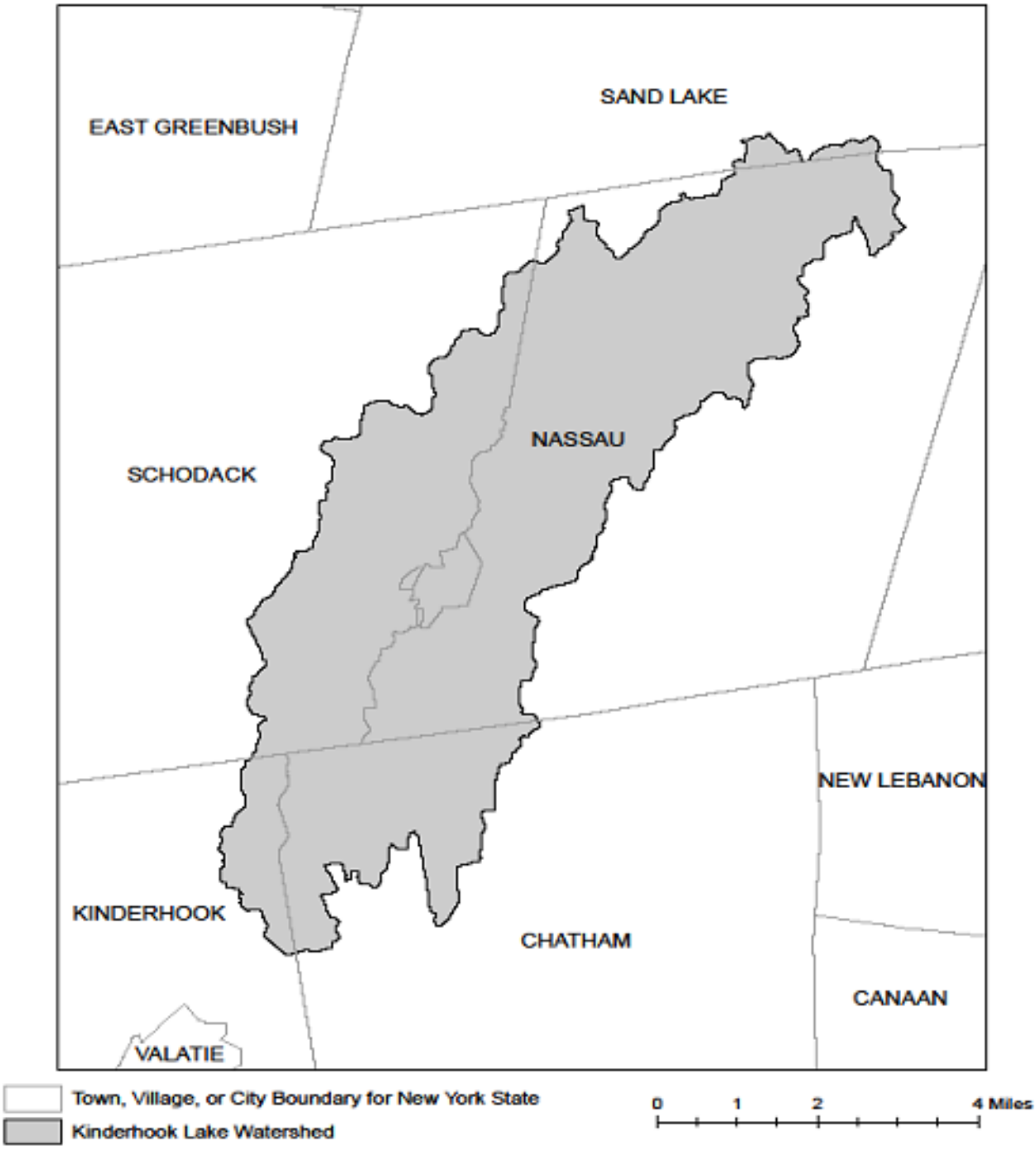


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of "The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL" dated June 2020.

County	Waterbody	Pollutant
Albany	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	Phosphorus
Albany	Lawsons Lake (1301-0235)	Phosphorus
Allegany	Amity Lake, Saunders Pond (0403-0054)	Phosphorus
Allegany	Andover Pond (0403-0056)	Phosphorus
Bronx	Reservoir No.1/Lake Isle (1702-0075)	Phosphorus
Bronx	Van Cortlandt Lake (1702-0008)	Phosphorus
Broome	Blueberry, Laurel Lakes (1404-0033)	Phosphorus
Broome	Fly Pond, Deer Lake (1404-0038)	Phosphorus
Broome	Minor Tribs to Lower Susquehanna (0603-0044)	Phosphorus
Broome	Whitney Point Lake/Reservoir (0602-0004)	Phosphorus
Cattaraugus	Allegheny River/Reservoir (0201-0023)	Phosphorus
Cattaraugus	Beaver Lake/Alma Pond (0201-0073)	Phosphorus
Cattaraugus	Case Lake (0201-0020)	Phosphorus
Cattaraugus	Linlyco/Club Pond (0201-0035)	Phosphorus
Cayuga	Duck Lake (0704-0025)	Phosphorus
Cayuga	Owasco Inlet, Upper, and tribs (0706-0014)	Nutrients
Chautauqua	Chadakoin River and tribs (0202-0018)	Phosphorus
Chautauqua	Hulburt/Clymer Pond (0202-0079)	Phosphorus
Chautauqua	Middle Cassadaga Lake (0202-0002)	Phosphorus
Clinton	Great Chazy River, Lower, Main Stem (1002-0001)	Silt/Sediment
Columbia	Robinson Pond (1308-0003)	Phosphorus
Cortland	Dean Pond (0602-0077)	Phosphorus
Dutchess	Fallkill Creek (1301-0087)	Phosphorus
Dutchess	Hillside Lake (1304-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Phosphorus
Dutchess	Wappingers Lake (1305-0001)	Silt/Sediment
Erie	Beeman Creek and tribs (0102-0030)	Phosphorus
Erie	Delaware Park Pond (0101-0026)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Phosphorus
Erie	Ellicott Creek, Lower, and tribs (0102-0018)	Silt/Sediment
Erie	Green Lake (0101-0038)	Phosphorus
Erie	Little Sister Creek, Lower, and tribs (0104-0045)	Phosphorus
Erie	Murder Creek, Lower, and tribs (0102-0031)	Phosphorus

Erie	Rush Creek and tribs (0104-0018)	Phosphorus
Erie	Scajaquada Creek, Lower, and tribs (0101-0023)	Phosphorus
Erie	Scajaquada Creek, Middle, and tribs (0101-0033)	Phosphorus
Erie	Scajaquada Creek, Upper, and tribs (0101-0034)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Phosphorus
Erie	South Branch Smoke Cr, Lower, and tribs (0101-0036)	Silt/Sediment
Genesee	Bigelow Creek and tribs (0402-0016)	Phosphorus
Genesee	Black Creek, Middle, and minor tribs (0402 0028)	Phosphorus
Genesee	Black Creek, Upper, and minor tribs (0402-0048)	Phosphorus
Genesee	Bowen Brook and tribs (0102-0036)	Phosphorus
Genesee	LeRoy Reservoir (0402-0003)	Phosphorus
Genesee	Mill Pond (0402-0050)	Phosphorus
Genesee	Oak Orchard Cr, Upper, and tribs (0301-0014)	Phosphorus
Genesee	Oatka Creek, Middle, and minor tribs (0402-0031)	Phosphorus
Genessee	Tonawanda Cr, Middle, Main Stem (0102-0002)	Phosphorus
Greene	Schoharie Reservoir (1202-0012)	Silt/Sediment
Greene	Sleepy Hollow Lake (1301-0059)	Silt/Sediment
Herkimer	Steele Creek tribs (1201-0197)	Phosphorus
Herkimer	Steele Creek tribs (1201-0197)	Silt/Sediment
Kings	Hendrix Creek (1701-0006) 18	Nitrogen
Kings	Prospect Park Lake (1701-0196)	Phosphorus
Lewis	Mill Creek/South Branch, and tribs (0801-0200)	Nutrients
Livingston	Christie Creek and tribs (0402-0060)	Phosphorus
Livingston	Conesus Lake (0402-0004)	Phosphorus
Livingston	Mill Creek and minor tribs (0404-0011)	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs (0402-0033)	Phosphorus
Monroe	Buck Pond (0301-0017)	Phosphorus
Monroe	Cranberry Pond (0301-0016)	Phosphorus
Monroe	Durand, Eastman Lakes (0302-0037)	Phosphorus
Monroe	Lake Ontario Shoreline, Western (0301-0069) 9	Phosphorus
Monroe	Long Pond (0301-0015)	Phosphorus
Monroe	Mill Creek and tribs (0302-0025)	Phosphorus 2
Monroe	Mill Creek/Blue Pond Outlet and tribs (0402-0049)	Phosphorus
Monroe	Minor Tribs to Irondequoit Bay (0302-0038)	Phosphorus
Monroe	Rochester Embayment - East (0302-0002) [9]	Phosphorus
Monroe	Rochester Embayment - West (0301-0068) 9	Phosphorus
Monroe	Shipbuilders Creek and tribs (0302-0026)	Phosphorus 2
Monroe	Thomas Creek/White Brook and tribs (0302-0023)	Phosphorus

Nassau	Bannister Creek/Bay (1701-0380)	Nitrogen
Nassau	Beaver Lake (1702-0152)	Phosphorus
Nassau	Browswere Bay (1701-0383)	Nitrogen
Nassau	Camaans Pond (1701-0052)	Phosphorus
Nassau	East Meadow Brook, Upper, and tribs (1701-0211)	Silt/Sediment
Nassau	East Rockaway Channel (1701-0381)	Nitrogen
Nassau	Glen Cove Creek, Lower, and tribs (1702-0146)	Silt/Sediment
Nassau	Grant Park Pond (1701-0054)	Phosphorus
Nassau	Hempstead Bay, Broad Channel (1701-0032)	Nitrogen
Nassau	Hempstead Lake (1701-0015)	Phosphorus
Nassau	Hewlett Bay (1701-0382)	Nitrogen
Nassau	Hog Island Channel (1701-0220)	Nitrogen
Nassau	Massapequa Creek, Upper, and tribs (1701-0174)	Phosphorus
Nassau	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Phosphorus
Nassau	Reynolds Channel, East (1701-0215) [12]	Nitrogen
Nassau	Reynolds Channel, West (1701-0216) 12	Nitrogen
Nassau	Tidal Tribs to Hempstead Bay (1701-0218)	Nitrogen
Nassau	Tribs (fresh) to East Bay (1701-0204)	Silt/Sediment
Nassau	Tribs (fresh) to East Bay (1701-0204)	Phosphorus
Nassau	Tribs to Smith Pond/Halls Pond (1701-0221)	Phosphorus
Nassau	Woodmere Channel (1701-0219)	Nitrogen
New York	Harlem Meer (1702-0103)	Phosphorus
New York	The Lake in Central Park (1702-0105)	Phosphorus
Niagara	Bergholtz Creek and tribs (0101-0004)	Phosphorus
Niagara	Hyde Park Lake (0101-0030)	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0053) 9	Phosphorus
Niagara	Lake Ontario Shoreline, Western (0301-0072) 9	Phosphorus
Oneida	Ballou, Nail Creeks (1201-0203)	Phosphorus
Onondaga	Ley Creek and tribs (0702-0001) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nutrients (phosphorus)
Onondaga	Minor Tribs to Onondaga Lake (0702-0022) 10	Nitrogen (NH3, NO2)
Onondaga	Onondaga Creek, Lower (0702-0023) 10	Nutrients (phosphorus)
Onondaga	Onondaga Creek, Lower, and tribs (0702-0023)	Turbidity
Onondaga	Onondaga Creek, Middle, and tribs (0702-0004)	Turbidity
Onondaga	Onondaga Creek, Upper, and tribs (0702-0024)	Turbidity
Ontario	Great Brook and minor tribs (0704-0034)	Phosphorus 2
Ontario	Great Brook and minor tribs (0704-0034)	Silt/Sediment

Ontario	Hemlock Lake Outlet and minor tribs (0402-0013)	Phosphorus
Ontario	Honeoye Lake (0402-0032)	Phosphorus
Orange	Brown Pond Reservoir (1303-0013)	Phosphorus
Orange	Lake Washington (1303-0012)	Phosphorus
Orange	Minor Tribs to Middle Wallkill (1306-0061)	Phosphorus
Orange	Monhagen Brook and tribs (1306-0074)	Phosphorus
Orange	Orange Lake (1301-0008) [16]	Phosphorus
Orange	Quaker Creek and tribs (1306-0025)	Phosphorus
Orange	Wallkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Wallkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenvwood Lake (0301-0041)	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0070) 9	Phosphorus
Orleans	Lake Ontario Shoreline, Western (0301-0071) 9	Phosphorus
Oswego	Lake Neatahwanta (0701-0018)	Nutrients (phosphorus)
Oswego	Pleasant Lake (0703-0047)	Phosphorus
Putnam	Lost Lake, Putnam Lake (1302-0053)	Phosphorus
Putnam	Minor Tribs to Croton Falls Reservoir (1302-0001)	Phosphorus
Queens	Bergen Basin (1701-0009) 18	Nitrogen
Queens	Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18	Nitrogen
Queens	Kissena Lake (1702-0258)	Phosphorus
Queens	Meadow Lake (1702-0030)	Phosphorus
Queens	Shellbank Basin (1701-0001) 18	Nitrogen
Queens	Willow Lake (1702-0031)	Phosphorus
Rensselaer	Nassau Lake (1310-0001)	Phosphorus
Rensselaer	Snyders Lake (1301-0043)	Phosphorus
Richmond	Grassmere Lake/Bradys Pond (1701-0357)	Phosphorus
Rockland	Congers Lake, Swartout Lake (1501-0019)	Phosphorus
Rockland	Rockland Lake (1501-0021)	Phosphorus
Saratoga	Ballston Lake (1101-0036)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Phosphorus
Saratoga	Dwaas Kill and tribs (1101-0007)	Silt/Sediment
Saratoga	Lake Lonely (1101-0034)	Phosphorus
Saratoga	Round Lake (1101-0060)	Phosphorus
Saratoga	Tribs to Lake Lonely (1101-0001)	Phosphorus
Schenectady	Collins Lake (1201-0077)	Phosphorus
Schenectady	Duane Lake (1311-0006)	Phosphorus
Schenectady Lake	Mariaville Lake (1201-0113)	Phosphorus
Schuyler	Cayuta Lake (0603-0005)	Phosphorus

Seneca	Reeder Creek and tribs (0705-0074)	Phosphorus
St.Lawrence	Black Lake Outlet, Black Lake (0906-0001)	Phosphorus
St.Lawrence	Fish Creek and minor tribs (0906-0026)	Phosphorus
Steuben	Smith Pond (0502-0012)	Phosphorus
Suffolk	Agawam Lake (1701-0117)	Phosphorus
Suffolk	Big/Little Fresh Ponds (1701-0125)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Phosphorus
Suffolk	Canaan Lake (1701-0018)	Silt/Sediment
Suffolk	Fresh Pond (1701-0241)	Phosphorus
Suffolk	Great South Bay, East (1701-0039)	Nitrogen
Suffolk	Great South Bay, Middle (1701-0040)	Nitrogen
Suffolk	Great South Bay, West (1701-0173)	Nitrogen
Suffolk	Lake Ronkonkoma (1701-0020)	Phosphorus
Suffolk	Mattituck/Marratooka Pond (1701-0129)	Phosphorus
Suffolk	Mill and Seven Ponds (1701-0113)	Phosphorus
Suffolk	Millers Pond (1702-0013)	Phosphorus
Suffolk	Moriches Bay, East (1701-0305)	Nitrogen
Suffolk	Moriches Bay, West (1701-0038)	Nitrogen
Suffolk	Quantuck Bay (1701-0042)	Nitrogen
Suffolk	Shinnecock Bay and Inlet (1701-0033)	Nitrogen
Suffolk	Tidal Tribs to West Moriches Bay (1701-0312)	Nitrogen
Sullivan	Bodine, Mongomery Lakes (1401-0091)	Phosphorus
Sullivan	Davies Lake (1402-0047)	Phosphorus
Sullivan	Evens Lake (1402-0004)	Phosphorus
Sullivan	Pleasure Lake (1402-0055)	Phosphorus
Sullivan	Swan Lake (1401-0063)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Phosphorus
Tompkins	Cayuga Lake, Southern End (0705-0040)	Silt/Sediment
Ulster	Ashokan Reservoir (1307-0004)	Silt/Sediment
Ulster	Esopus Creek, Lower, Main Stem (1307-0010) [17]	Turbidity
Ulster	Esopus Creek, Middle, Main Stem (1307-0003) 17	Turbidity
Ulster	Esopus Creek, Upper, and minor tribs (1307-0007)[3]	Silt/Sediment
Ulster	Wallkill River, Lower, Main Stem (1306-0027)	Phosphorus
Warren	Hague Brook and tribs (1006-0006)	Silt/Sediment
Warren	Huddle/Finkle Brooks and tribs (1006-0003)	Silt/Sediment
Warren	Indian Brook and tribs (1006-0002)	Silt/Sediment
Warren	Lake George (1006-0016) and tribs	Silt/Sediment
Warren	Tribs to Lake George, East Shore (1006-0020)	Silt/Sediment
Warren	Tribs to Lake George, Lk.George Village (1006-0008)	Silt/Sediment

Washington	Wood Cr/Champlain Canal and tribs (1005-0036)	Phosphorus
Westchester	Lake Katonah (1302-0136)	Phosphorus
Westchester	Lake Lincolndale (1302-0089)	Phosphorus
Westchester	Lake Meahagh (1301-0053)	Phosphorus
Westchester	Lake Mohegan (1301-0149)	Phosphorus
Westchester	Lake Shenorock (1302-0083)	Phosphorus
Westchester	Mamaroneck River, Lower (1702-0071)	Silt/Sediment
Westchester	Mamaroneck River, Upp, & minor tribs (1702-0123)	Silt/Sediment
Westchester	Saw Mill River (1301-0007)	Phosphorus
Westchester	Saw Mill River, Middle, and tribs (1301-0100)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Phosphorus
Westchester	Sheldrake River (1702-0069)	Silt/Sedimnt
Westchester	Silver Lake (1702-0040)	Phosphorus
Westchester	Teatown Lake (1302-0150)	Phosphorus
Westchester	Truesdale Lake (1302-0054)	Phosphorus
Westchester	Wallace Pond (1301-0140)	Phosphorus

APPENDIX E – List of NYSDEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	220 White Plains Road, Suite 110 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL. (716) 851-7070

APPENDIX "B"

NYSDEC FORMS

Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.6

(Submission #: HQC-1J1D-FKRBT, version 1)

Details

Originally Started By	Bohler Engineering
Alternate Identifier	MSV1 - Amazon Distribution Center—Region 3
Submission ID	HQC-1J1D-FKRBT
Status	Draft

Form Input

Eligibility

Disturbance Threshold

1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?
Yes

1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?
No

1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?
No

1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?
No

Other SPDES Permits

2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?
Yes

Threatened and Endangered Species

3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?
No

State Historic Preservation Act (SHPA)

4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?
No

4.a. Will the construction activity:

a) occur within an archeologically sensitive area indicated on the sensitivity map, or

b) have the potential to affect a property that is listed or determined to be eligible for listing on the National or State Registers of Historic Places, or

c) include a new permanent building on the construction site within the following distances from a building, structure, o object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government qualified preservation professional has determined is a historically/archeologically significant building, structure, or obje

- 1-5 acres of disturbance—20 feet
- 5-20 acres of disturbance—50 feet
- 20+ acres of disturbance—100 feet?

No

4.b. Is there documentation at the construction site demonstrating:

a) that the construction activity is not within an archeologically sensitive area indicated on the sensitivity map, and that construction activity is not immediately adjacent to a property listed or determined to be eligible for listing on the Nation State Registers of Historic Places, and

b) that there is no new permanent building to be built on the construction site within the following distances from a build structure, or object that is more than 50 years old, or if there is such a new permanent building on the construction site within those parameters that OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualifie preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:

- 1-5 acres of disturbance – 20 feet
- 5-20 acres of disturbance – 50 feet
- 20+ acres of disturbance – 100 feet?

Yes

State Environmental Quality Review (SEQR)

---

5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?
Yes

5.a. Has the owner/operator obtained documentation that the project review pursuant to SEQR, or the equivalent, has been satisfied per Part I.A.5. or I.A.6. of GP-0-25-001?
Yes

Uniform Procedures Act (UPA) Permits

---

6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001?
Yes

Steep Slope

---

7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?
No

Owner/Operator Information

8. Owner/Operator Name
BMG Albany, LLC

9. Owner/Operator Contact Person Information

First and Last Name	Phone	E-mail
Sean Baggett	(781) 974-3628	sbaggett@bluewaterpg.com

10. Owner/Operator Mailing Address

One Tower Bridge, 100 Front Street, Suite 1225
West Conshohocken, PA 19428
USA

11. Is the billing contact different from the Owner/Operator Contact?
No

12. What type of organization is the owner/operator?
LLC

12.b. Is the owner/operator registered with the Department of State to do business in New York State?
Yes

12.b.i. Department of State ID #
NONE PROVIDED

The Department of State ID can be found using the following link:
Department of State | Division of Corporations

Site Information

13. Project/Site Name
MSV1 - Amazon Distribution Center

14. Site Address

NYS Route 5S / Mead Road
Florida, NY 12010
Orange

DEC Region
3

15. Site Latitude & Longitude
42.93448462332612,-74.22525554895401

Project Details

16. This eNOI submission is for:
A construction activity not part of a common plan of development or sale in accordance with Part I.D.1.a.

17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".
Table 2

18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.
The applicant, BMG Albany, LLC, is proposing to develop a 137.2-acre property located at Route 5S / Mead Road, in the Town/of Florida, Montgomery County, New York. The project will include construction of ±652,000 SF building (ground floor building footprint) along with associated parking, access drives, stormwater management, landscaping, and utilities. The project site is primarily undeveloped with portions of asphalt associated with existing access drives to the site off Route 5S. Majority ground cover consists of Green areas with moderate to steep topography. Refer to the project SWPPP for additional information.

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

19. Total Site Area (acres)
137.2

20. Total Area to be Disturbed (acres)
66.0

21. Existing Impervious Area to be Disturbed (acres)
1.1

22. Future Impervious Area Within Disturbed Area (acres)
45.1

Nature of the project:
Redevelopment with increase in impervious area

23. Do you plan to disturb more than 5 acres of soil at any one time?
No

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
0

B (%)
10

C (%)
40

D (%)
50

25. Enter the planned start and end dates of the disturbance activities.

Start Date
10/01/2025

End Date
10/01/2027

26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
South Chuctanunda Creek

27. Type of waterbody identified in question 26?
Stream/Creek On Site

28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?
No

29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?
No

30. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
Yes

31.a. What is the name of the municipality/entity that owns the separate storm sewer system? If the separate sewer system is owned by an MS4 Operator, enter the MS4 Operator name.
Town of Florida

32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

33. Is this property owned by a state authority, state agency, federal government or local government?
No

Required SWPPP Components

General SWPPP Requirements

34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?
Yes

35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?
Yes

36. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?
Yes

37. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the NYS Stormwater Management Design Manual?
Yes

37.a. Which version of the NYS Stormwater Management Design Manual was used to develop the SWPPP?
2024

SWPPP Preparer

39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

40. Name of the person who prepared the SWPPP
Vishal Rai

41. SWPPP Preparer Organization Name
Bohler Engineering

42. SWPPP Preparer Contact Information

First and Last Name	Phone	E-mail
Vishal Rai	518-438-9900	vrai@bohlereng.com

43. SWPPP Preparer Address

17 Computer Dr West
Albany, NY 12205

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Upload the completed form
Download SWPPP Preparer Certification Form

44. Please upload the SWPPP Preparer Certification
NONE PROVIDED
Comment
NONE PROVIDED

44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?
No

All forms submitted with the eNOI must be signed in accordance with Part VII.J. per Part I.D.2.b. of GP-0-25-001.

Erosion & Sediment Control Criteria

45. Has a construction sequence schedule for the planned management practices been prepared?
Yes

Post-Construction Criteria

Site Planning and Soil Restoration

46. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
Preservation of Undisturbed Area
Preservation of Buffers
Reduction of Clearing and Grading
Locating Development in Less Sensitive Areas
Sidewalk Reduction
Driveway Reduction
Building Footprint Reduction
Parking Reduction

47. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6 ("Soil Restoration") of the Design Manual.
All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

Water Quality Criteria

49. Water Quality Sizing Criteria

Total WQv required (acre-feet)	Total RRv provided (acre-feet)	Minimum RRv (acre-feet)	Total WQv provided (acre-feet)	Sum of RRv and WQv provided
4.88	0.99	0.98	4.14	5.13

Water Quantity Criteria

50. Per Section 9.2.1.C.VI and VII of the 2024 Design Manual, is there 0% change to hydrology that increases the discharge rate and volume from the project site?
Yes

Operation and Maintenance

53. Has a long-term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

53.a. Identify the entity responsible for the long-term Operation and Maintenance.
BMG Albany, LLC

Post-Construction SMP Identification

54. Post-Construction RR Techniques and Standard SMPs

RR Techniques and SMPs	Contributing Impervious Area (acres)	Total Contributing Area (acres)
Filtration Bioretention (F-5)	10.300	
Micropool Extended Detention Pond (P-1)	10.510	

55. Alternative SMPs

Type of Alternative SMP	Manufacturer of the Alternative SMP	Name of the Alternative SMP	Contributing Impervious Area (acres)
NONE PROVIDED	*NONE PROVIDED*	*NONE PROVIDED*	*NONE PROVIDED*

Other Permits

56. Identify other permits, existing and new, that are required for this project/facility.
USACE Wetland Permit

56.a. Indicate the Size of Impact from the USACE Wetland Permit, in acres, to the nearest tenth.
1.57

57. Is this NOI for a change in owner/operator per Part I.G.?
No

MS4 SWPPP Acceptance

59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?
No

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the Owner/Operator Certification Form by clicking the link below.
Owner/Operator Certification Form

61. Upload Owner/Operator Certification Form
NONE PROVIDED
Comment
NONE PROVIDED

61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?
NONE PROVIDED

Additional Project Information

62. Enter any additional pertinent project information in the text box below.
The project is located in an area with Pyritic Shale bedrock which expands when exposed to the atmosphere. As such, per geotechnical recommendations, infiltration and related stormwater management facilities are not appropriate for the site. Given the ground conditions, a minimum RRv (assuming HSG D) is provided utilizing stormwater management techniques that do not require infiltration.

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4 Operator:
12. MS4 SPDES Permit Identification Number: NYR20A
13. Street Address:
14. City/State/Zip:
15. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name[1]:

Title/Position:

Signature:

Date:

VI. Additional Information

[1] Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

APPENDIX "C"

OWNER / OPERATOR FORMS

Owner/Operator Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.

Project/Site Name: _____

eNOI Submission ID: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name MI Owner/Operator Last Name

_____

Signature

_____

Date

Revised: January 2025

APPENDIX "D"

SWPPP PREPARER FORMS

INSPECTION CERTIFICATION FORM

Name | New York SPDES Permit number *(fill in when obtained)*

Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature | Date | Title

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

Project/Site Name:

eNOI Submission ID:

Owner/Operator Name:

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name | MI | SWPPP Preparer Last Name

Signature

Date

Revised: January 2025

APPENDIX "E"

CONTRACTOR FORMS

CONTRACTOR CERTIFICATION STATEMENT

Project Name: _____

Project Location: _____

As required in Part III.A.6 of the NYSDEC Construction General Permit GP-20-001, each contractor & subcontractor who are identified in the SWPPP shall complete the information below and sign a copy of the certification statement before they commence on any construction activity.

Contracting Firm Information:

Firm Name	Firm Address	Phone Number

Trained Contractor:

Name	Title

Elements of the SWPPP the above Firm is responsible for:

1. _____
2. _____
3. _____
4. _____

CERTIFICATION:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the Qualified Inspector during a site inspection. I also understand that the Owner or Operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."

_____

Company Name — Business Telephone Number

_____

Business Address — City, — State, — Zip Code

_____

Signature — Date

_____

Printed Name — Title

BOHLER

CONSTRUCTION ACTIVITY FORM

NOTE: The contractor is responsible for maintaining an accurate and complete log of construction activities, including, but not limited to, commencement of stabilization, major grading activities, timeframes when construction ceases on a portion of site (temporary or permanent) until the Notice of Termination (NOT) is filed.

MAJOR STABILIZATION AND GRADING ACTIVITIES

Construction Activity	Contractor Name	Start Date	End Date	Location

APPENDIX "F"

O&M DOCUMENTS

2.7. Bioretention

Areas of Bioretention

Key areas to inspect for Bioretention include the following:

- BR 1. Drainage Area
- BR 2. Inlets
- BR 3. Bioretention Ponding Area
- BR 4. Vegetation
- BR 5. Outlets

Note: The category of Bioretention includes:

- Bioretention cells – areas of soil, mulch, and vegetation that treat runoff
- Dry swales – long, linear bioretention cells, sometimes with check dams along a mildly sloping swale
- Rain gardens – usually small-scale bioretention practices on residential or small commercial properties

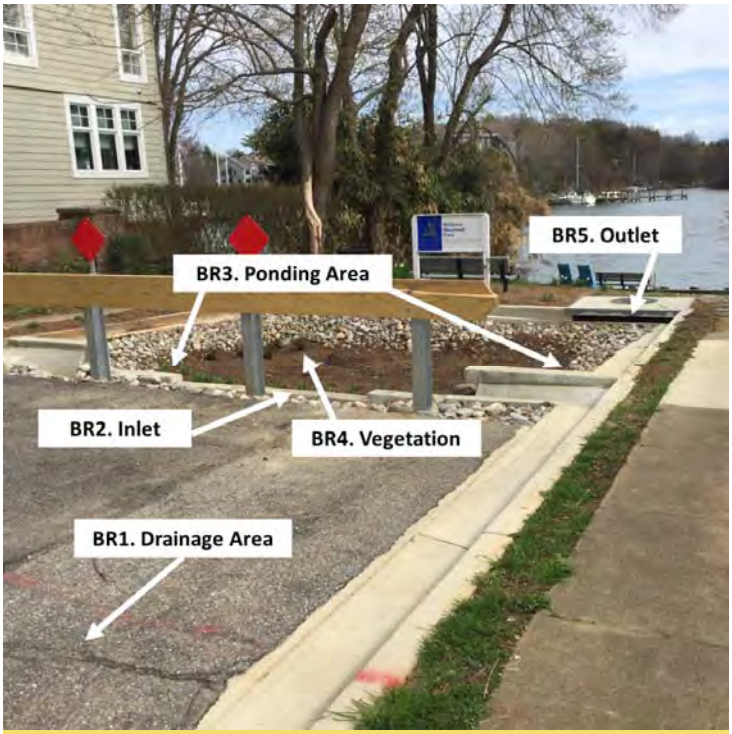


Figure 2.7.1. Key Areas for Level 1 Inspection of Bioretention

- Stormwater planters – usually in more urban settings, with soil and plants in a concrete box that receives roof runoff or perhaps other water from the site
- Tree pits – also a more urban practice where the bioretention is confined within some sort of box (e.g., concrete) and places along road curbs or other areas to treat runoff

For the purposes of this chapter, the term “Bioretention cell” will be used to generally describe these practices.

Bioretention Level 1 Inspection

The Level 1 Inspection focuses on the Drainage Area (BR1), Inlets (BR2), Bioretention Ponding Area (BR3), Vegetation (BR4), and Outlets (BR5). This inspection should be conducted on a regular basis, with an early spring inspection to ensure that the practice has survived the winter, particularly if there has been a significant amount of snow. An inspection during the growing season or in the early fall is also recommended to check on the health of vegetation.

BR 1. Drainage Area

Description: The drainage area sends runoff to and is uphill from the Bioretention cell. When it rains, water runs off and flows to the Bioretention cell and ponds within the cell temporarily (usually for no more than 48 hours). Sometimes, the runoff will contain dirt, grit, grass clippings, oil, or other substances that SHOULD NOT be directed to the Bioretention area.

Instruction: Look for areas that are uphill from the Bioretention cell. Consult **Table 2.7.1** below.

Table 2.7.1 BR Drainage Area

Problem (Check if Present)		Follow-Up Actions
	☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and mulch areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Large areas of soil have been eroded, or larger channels are forming. May require rerouting of flow paths.
	☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
	☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

BR 2. Inlets

Description: The inlets to a Bioretention cell are where water flows into the cell. Depending on the design, water can flow in through:

- Curb cuts or openings in a parking lot or roadway
- Pipes or ditches that carry water into the Bioretention cell from the drainage area
- Flow directly over the land surface (known as “sheetflow”), sometimes across a strip of rock or stone



Figure 2.7.2 Bioretention Cell Inlets

CSN, 2013

Instruction: Stand in the Bioretention cell itself and look for all the places where water flows in. Often there will be multiple points of inflow to the practice. Consult **Table 2.7.2** below for possible problems.

Table 2.7.2 BR Inlets

Problem (Check if Present)	Follow-Up Actions
 ☐ Inlets collect grit and debris or grass/weeds. Some water may not be getting into the Bioretention cell. The objective is to have a clear pathway for water to flow into the cell.	☐ Use a flat shovel to remove grit and debris (especially at curb inlets or openings). Parking lots generate fine grit that will accumulate at these spots. ☐ Pull out clumps of growing grass or weeds and scoop out the soil or grit that the plants are growing in. ☐ Remove any grass clippings, leaves, sticks, and other debris that is collecting at inlets. ☐ For pipes and ditches, remove sediment and debris that is partially blocking the pipe or ditch opening where it enters the Bioretention cell. ☐ Dispose of all material properly where it will not re-enter the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Inlets are blocked to the extent that most of the water does not seem to be entering the Bioretention cell.
 ☐ Some or all of the inlets are eroding so that rills, gullies, and other erosion is present, or there is bare dirt that is washing into the Bioretention cell.	☐ For small areas of erosion, smooth out the eroded part and apply rock or stone (e.g., river cobble) to prevent further erosion. Usually, filter fabric is placed under the rock or stone. ☐ In some cases, reseeding and applying erosion-control matting can be used to prevent further erosion. Some of these materials may be available at a garden center, but it may be best to consult a landscape contractor. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Erosion is occurring at most of the inlets, and it looks like there is too much water that is concentrating at these points. The inlet design may have to be modified.

BR 3. Bioretention Ponding Area

Description: The ponding area fills up with water during a rainstorm. If you picture the Bioretention cell as a bathtub, there is the *bottom* (usually flat surface), *side slopes* (areas that slope down to the bottom from the surrounding ground), and *berms or structures that control the depth to which water ponds.*

Instruction: Examine the entire Bioretention surface and side slopes. Consult the table below for possible problems.

Table 2.7.3 BR Ponding Area

Problem (Check if Present)	Follow-Up Actions
 ☐ Mulch (if used) needs to be replaced or replenished. The mulch layer had decomposed or is less than 1-inch thick.	☐ Add new mulch to a total depth (including any existing mulch that is left) of 2 to 3 inches. The mulch should be shredded hardwood mulch that is less likely to float away during rainstorms. ☐ Avoid adding too much mulch so that inlets are obstructed or certain areas become higher than the rest of the Bioretention surface. ☐ Other:
 ☐ Minor areas of sediment, grit, trash, or other debris are accumulating on the bottom.	☐ Use a shovel to scoop out minor areas of sediment or grit, especially in the spring after winter sanding materials may wash in and accumulate. Dispose of the material where it cannot re-enter the Bioretention cell. ☐ If removing the material creates a hole or low area, fill with soil mix that matches original mix and cover with mulch so that the Bioretention surface area is as flat as possible. ☐ Remove trash, vegetative debris, and other undesirable materials. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Sediment has accumulated more than 2-inches deep and covers 25% or more of the Bioretention surface. ☐ Kick-Out to Level 2 Inspection: The Bioretention cell is too densely vegetated to assess sediment accumulation or ponding; see BR-4, Vegetation.

 ☐ There is erosion in the bottom or on the side slopes. Water seems to be carving out rills as it flows across the Bioretention surface or on the slopes, or sinkholes are forming in certain areas. ☐ Source: Stormwater Maintenance, LLC.	☐ Try filling the eroded areas with clean topsoil or sand, and cover with mulch. ☐ If the problem recurs, you may have to use stone (e.g., river cobble) to fill in problem areas. ☐ If the erosion is on a side slope, fill with clay that can be compacted and seed and mulch the area. ☐ Other: ☐ Kick-Out to Level 2 Inspection: The problem persists or the erosion is more than 3-inches deep and seems to be an issue with how water enters and moves through the Bioretention cell. ☐ Kick-Out to Level 2 Inspection: The problem does not seem to be caused by flowing water, but a collapse or sinking of the surface (e.g., “sinkhole”) due to some underground problem.
 ☐ The bottom of the Bioretention cell is not flat, and the water pools at one end, along an edge, or in certain pockets. The whole bottom is not uniformly covered with water. See design plan to verify that Bioretention surface is intended to be flat. Check during or immediately after a rainstorm.	☐ If the problem is minor (just small, isolated areas are not covered with water), try raking the surface OR adding mulch to low spots to create a more level surface. You may need to remove and replace plantings in order to properly even off the surface. ☐ Check the surface with a string and bubble level to get the surface as flat as possible. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Ponding water is isolated to less than half of the Bioretention surface area, and there seem to be elevation differences of more than a couple of inches across the surface.
 ☐ Water stands on the surface more than 72 hours after a rainstorm and /or wetland-type vegetation is present. The Bioretention cell does not appear to be draining properly.	☐ Kick-Out to Level 2 Inspection: This is generally a serious problem, and it will be necessary to activate a Level 2 Inspection.

BR 4. Vegetation

Description: The health of vegetation within the Bioretention cell is perhaps the most critical maintenance item for the property owner or responsible party. Many Bioretention cells become overgrown, and "desirable" vegetation becomes choked out by weeds and invasive plants. It is important to know what the Bioretention cell is supposed to look like and what plants seem to be thriving or doing poorly. Periodic maintenance of vegetation will prevent larger problems that are more difficult and costly to manage.

Instruction: Examine all Bioretention cell vegetation. Consult the table below for possible problems.

Table 2.7.4 BR Vegetation

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation requires regular maintenance—pulling weeds, removing dead and diseased plants, replacing mulch around plants, adding plants to fill in areas that are not well vegetated, etc.	☐ If you can identify which plants are weeds or not intended to be part of the planting plan, eliminate these, preferably by hand pulling. ☐ If weeds are widespread, check with the local stormwater authority and/or Extension Office about proper use of herbicides for areas connected with the flow of water. ☐ Even vegetation that is intended to be present can become large, overgrown, and/or crowd out surrounding plants. Prune and thin accordingly. ☐ If weeds or invasive plants have overtaken the whole Bioretention cell, bush-hog the entire area before seedheads form in the spring. It will be necessary to remove the root mat manually or with appropriate herbicides, as noted above. ☐ Re-plant with species that are aesthetically pleasing and seem to be doing well in the Bioretention cell. ☐ Other: ☐ Kick-Out to Level 2 Inspection: You are unsure of the original planting design, or the vegetation maintenance task is beyond your capabilities of time, expertise, or resources. If you are unsure of the health of the vegetation (e.g. salt damage, invasives, which plants are undesirable) or the appropriate season to conduct vegetation management, consult a landscape professional before undertaking any cutting, pruning, mowing, or brush hogging.
 ☐ Vegetation is too thin, is not healthy, and there are many spots that are not well vegetated.	☐ The original plants are likely not suited for the actual conditions within the Bioretention cell. If you are knowledgeable about plants, select and plant more appropriate vegetation (preferably native plants) so that almost the entire surface area will be covered by the end of the second growing season. ☐ Other: ☐ Kick-Out to Level 2 Inspection: For all but small practices (e.g., rain gardens), this task will likely require a landscape design professional or horticulturalist.

BR 5. Outlets

Description: Outlets are where water leaves the Bioretention cell when there is too much ponded water. There are various ways that outlets are configured. They can be a yard drain type of structure in the Bioretention cell itself or a rock weir where water flows during large storms. Many Bioretention practices have an underdrain, which is like a French drain, that helps the Bioretention cell drain properly after storms. The underdrain pipe may “daylight” (come to the ground surface) at some point downhill from the Bioretention cell.

Instruction: Examine outlets that release water out of the Bioretention cell. Consult the table below for possible problems.

Table 2.7.5 BR Outlets

Problem (Check if Present)	Follow-Up Actions
☐ Erosion at outlet	☐ Add stone to reduce the impact from the water flowing out of the outlet pipe or weir during storms. ☐ Other:
	☐ Kick-Out to Level 2 Inspection: Rills have formed and erosion problem becomes more severe.
 ☐ Outlet obstructed with mulch, sediment, debris, trash, etc.	☐ Remove the debris and dispose of it where it cannot re-enter the Bioretention cell. ☐ Other:
	☐ Kick-Out to Level 2 Inspection: Outlet is completely clogged or obstructed; there is too much material to remove by hand or with simple hand tools.

2.8. Green Roof

Areas of the Green Roof

Key areas to inspect for green roofs include the following:

GR 1. Vegetation and Surface
GR 2. Overflows and Drains

Note: Green Roofs consist of green infrastructure practices applied on rooftops, wherein stormwater is filtered through a vegetated planting bed. Green Roofs are a unique practice in that they are often covered by a professional ongoing maintenance contract, and their design is highly variable depending on the specific product. This section highlights some key inspection items.



Figure 2.8.1. Key Areas for Level 1 Inspection of Green Roof

2.10. Ponds and Wetlands

Areas of Ponds and Wetlands

Key areas to inspect for ponds and wetlands include the following:

- PO 1. Drainage area
- PO 2. Inlet pipes and swales
- PO 3. Pond area and embankments
- PO 4. Pond outlet

Note: This category includes the following practices:

- *Wet ponds* – have a permanent pool of water and may be divided into various "cells"
- *Stormwater wetlands* – have a variety of depth zones ranging from deep pools to shallow wetlands and are characterized by wetland vegetation

It is recommended strongly to have as-built drawings and copies of previous inspections at hand, if available. Aerial photos may be needed to help direct the inspector to the pond or wetland location if it is obscured by vegetation.

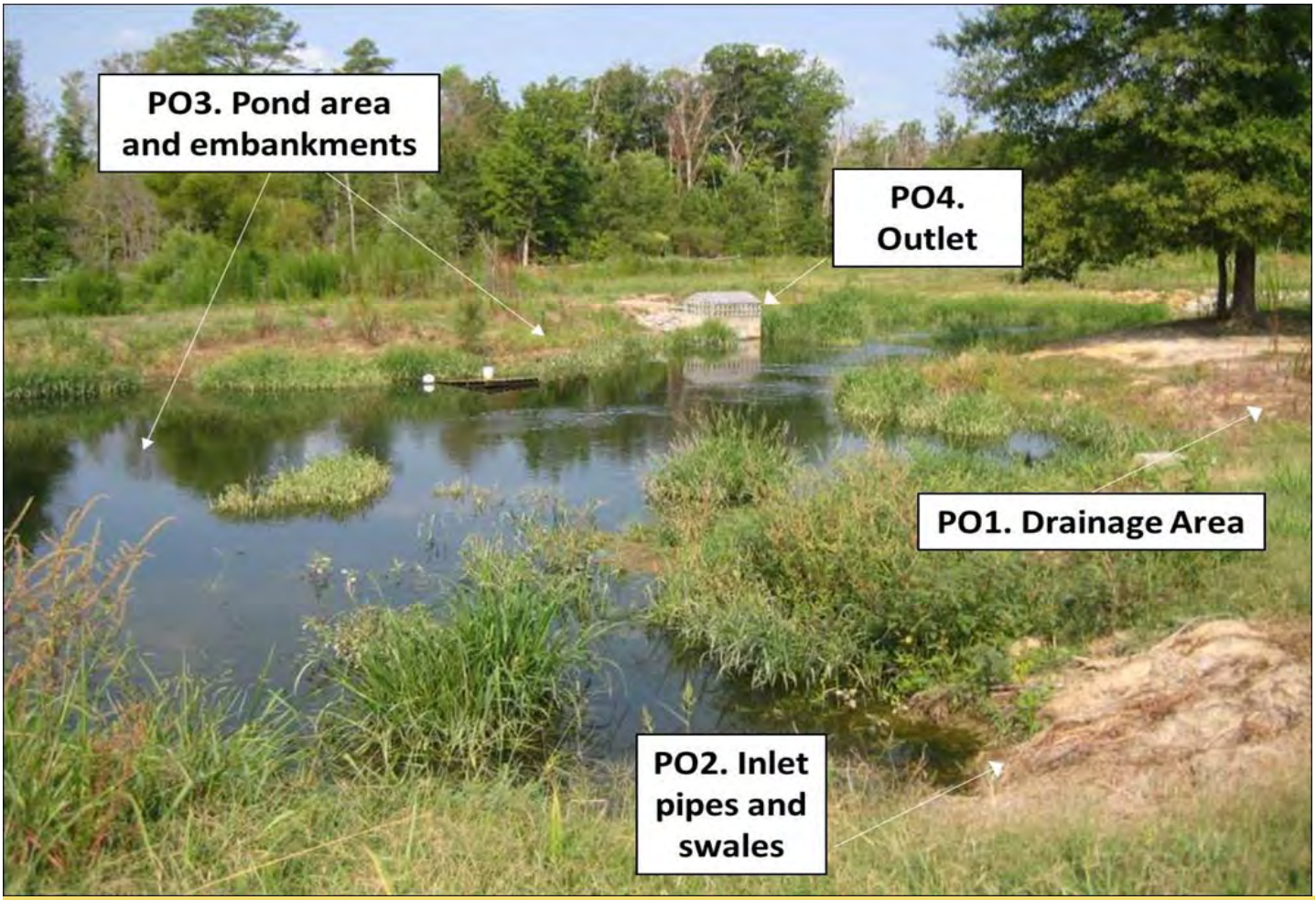


Figure 2.10.1. Key Areas for Level 1 Inspection of a Pond/Wetland

Pond and Wetland Level 1 Inspection

The Level 1 Inspection focuses on the drainage area (PW 1), inlet pipes or swales (PW 2), pond area and embankments (PW 3) and pond outlet structures and outfall (PW 4). This inspection should be conducted on a regular basis to ensure that a buildup of trash, vegetation, or sediment does not interfere with the pre-treatment, pond or wetland, and the outfall's normal flow or function. Pond embankments and dams should be regularly inspected for evidence of erosion, burrowing or tunneling animals, and large woody vegetation growing on the dam.

PW 1. Drainage Area

Description: The drainage area conveys runoff to and is uphill from the pond inlet. When it rains, water runs off through roof drains, yard drains, parking lots, roadways and underdrains to the ponds. Flow is through underground piping systems, overland via swales, or across the ground as sheetflow. Sometimes, the runoff will contain dirt, grit, grass clippings, leaves and woody debris that can collect in the drainage system. If left alone, blockages can occur and increase the chance of shallow flooding or standing water. Standing water in drainage systems foster mosquitos, pipe corrosion, and possible nuisance and odor conditions.

Instruction: Look for areas that are uphill from the pond. Consult **Table 2.10.1** below:

Table 2.10.1 PW Drainage Area

Problem (Check if Present)	Follow-Up Actions
☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and straw areas of bare soil to establish vegetation. ☐ Fill in eroded areas with soil, compact, seed and mulch with straw to establish vegetation. ☐ Other: ☐ Kick-Out to Level 2 Inspection: If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ If large areas of soil have been eroded or larger channels are forming, this may require rerouting of flow paths or use of an erosion-control seed mat or blanket to reestablish acceptable ground cover or anchor sod where it is practical.
 ☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Remove excessive vegetation or woody debris that can block drainage systems. ☐ Other:
 ☐ Open containers of oil, grease, paint, or other substances exposed to rain in the drainage area	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

PW 2. Pond Inlets

Description: Free, unobstructed flow from the drainage area to stormwater ponds is necessary to prevent shallow flooding and even structural damage from flooding. Pond inlets can consist of pipes, ditches, swales, or other means to convey stormwater to the pond or wetland.

Instruction: Look for all areas where water flows into the pond during storms. Note that there may be multiple points of inflow and types of structures (e.g., pipes, open ditches, etc.). Consult **Table 2.10.2** below:

Table 2.10.2 Pond Inlets

Problem (Check if Present)		Follow-Up Actions
 	☐ Inlets are buried, covered or filled with silt, debris, or trash, or blocked by excessive vegetation.	☐ If the problem can be remedied with hand tools and done in a safe manner, remove vegetation, trash, woody debris, etc. from blocking inlet structures. ☐ Other: ☐ Kick-Out to Level 2 or 3 Inspection: If the amount of material is too large to handle OR there are ANY safety concerns about working in standing water, soft sediment, etc., the work will likely have to be performed by a qualified contractor.
	☐ Inlets are broken, and, with pieces of pipe or concrete falling into the pond, there is erosion around the inlet, there is open space under the pipe, or there is erosion where the inlet meets the pond	☐ Kick-Out to Level 2 Inspection: These types of structural or erosion problems are more serious and will require a qualified contractor to repair.

PW 3. Pond Area and Embankments

Description: The pond area and embankment can consist of the following elements:

- Pre-treatment cell or small holding area where water first flows into the pond from the various inlets. These are commonly referred to as “forebays” and will be demarcated from the main pond area by small dams made of earth or rock. The purpose of forebays is to capture some of the sediment and pollutants before they reach the deep pool, making maintenance easier over time. Not all ponds will have forebays.
- The pond surface can be open water or a combination of open water and areas with wetland vegetation. Sometimes there is a shallow bench around the perimeter of a pond, known as an “aquatic bench.”
- The “side slopes” are areas around the perimeter of the pond where the surrounding land slopes down to the pond surface.
- Most ponds will have a “riser structure,” where the water exits a pond during storms. This can be a concrete or metal pipe that is open at the top, often with some type of trash rack. Some ponds also have an “emergency spillway,” which is an open, rock-lined channel that carries water from large storms safely across the embankment.
- The dam or embankment holds water in the pond and is constructed of compacted soil, such as clay. There is often a pipe through the embankment that carries water from the riser structure safely through the embankment to the downstream channel.

The pond’s pre-treatment areas or forebays should not be choked with vegetation or full of sediment. Removal of excessive vegetation and sediment and selective replanting are often annual maintenance activities.

Likewise, the pond’s deep pool should not to be choked with vegetation or filled with sediment. Vegetation and sediment bars can restrict flow and cause short circuiting that reduces capture of sediment. Pond volume is to be maintained at the original design capacity and free of sediment bars or debris piles. Sometimes ponds are over-maintained and have no vegetation. Algae and turbidity (muddy water) are common problems in many ponds.

Instruction: Examine both interior and exterior pond banks as well as the pond body. Observe from the inlet pipes to the outfall structure and emergency overflow.

Table 2.10.3 PW Pond Area and Embankments

Problem (Check if Present)		Follow-Up Actions
	☐ The pretreatment area(s) or forebay(s) are filled with sediment, trash, vegetation, or other debris.	☐ If the problem can be remedied with hand tools and done in a safe manner, use a flat shovel or other equipment to remove small amounts of sediment. ☐ Remove trash and excessive vegetation from forebays if this can be done in a safe manner. ☐ Other:
		☐ Kick-Out to Level 2 Inspection: Large amounts of sediment or debris will have to be removed by a qualified contractor. ANY condition that poses a safety concern for working in standing water or soft sediments should be referred to a Level 2 Inspection or qualified contractor.

Table 2.10.3 PW Pond Area and Embankments

Problem (Check if Present)		Follow-Up Actions
	☐ The pond area itself has accumulated sediment, trash, debris, or excessive vegetation that is choking the flow of the water, OR the pond area is covered with algae or aquatic plants.	☐ Level 1 includes handling only small amounts of material that can be removed by hand, or with rakes or other hand tools. Do not attempt any repair that poses a safety issue. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Most cases will call for a Level 2 Inspection and/or a qualified contractor. ☐ You are not sure what type and amount of vegetation is supposed to be in the pond. ☐ The algae or aquatic plants should be identified so that proper control techniques can be applied.
	☐ The side slopes of the pond are unstable, eroding, and have areas of bare dirt.	☐ If there are only minor areas, try filling in small rills or gullies with topsoil, compacting, and seeding and mulching all bare dirt areas with an appropriate seed. Alternatively, try using herbaceous plugs to get vegetation established in tricky areas, such as steep slopes. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Erosion and many bare dirt areas on steep side slopes will require a Level 2 Inspection and repair by a qualified contractor.
 	☐ The riser structure is clogged with trash, debris, sediment, vegetation, etc., OR is open, unlocked, or has a steep drop and poses a safety concern. The pond level may have dropped below its “normal” level.	☐ If you can safely access the riser on foot or with a small boat, clear minor amounts of debris and remove it from the pond area for safe disposal. ☐ Other: ☐ Kick-Out to Level 2 Inspection: The riser cannot be accessed safely, the amount of debris is substantial, or the riser seems to be completely clogged and the water level has risen too high. ☐ There are safety issues with the riser and concern about access to pipes, drops, or any other life safety concern. ☐ The riser is leaning, broken, settling or slumping, corroded, eroded or any other structural problem.

Table 2.10.3 PW Pond Area and Embankments		
Problem (Check if Present)		**Follow-Up Actions**
	☐ The dam/embankment is slumping, sinking, settling, eroding, or has medium or large trees growing on it.	☐ If there are small isolated areas, try to fix them by adding clean material (clay and topsoil) and seeding and mulching. ☐ Periodically mow embankments to enable inspection of the banks and to minimize establishment of woody vegetation. ☐ Remove any woody vegetation that has already established on embankments. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Most of these situations will require a Level 2 Inspection or evaluation and repair by a qualified contractor. Seepage through the dam or problems with the pipe through the dam can be a serious issue that should be addressed to avoid possible dam failure.
	☐ The emergency spillway or outfall (if it exists) has ☐ erosion, settlement, or loss of material. Rock-lined spillways have excessive debris or vegetation.	☐ Clear light debris and vegetation. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Displacement of rock lining, excessive vegetation and erosion/settlement may warrant review and decision by Level 2 Inspector to check against original plan. ☐ Any uncertainty about the integrity of the emergency spillway should be referred to a Level 2 Inspector. ☐ Erosion or settlement such that design has been compromised should be reviewed by an engineer.

PW 4. Pond Outlet

Description: The pond's outlet enables the ponded water to discharge to downstream drainage systems or stream channels. The outlet is often at the base of the dam/embankment on the downstream side. Inspection of this point can help prevent flooding of the pond and upstream drainage systems and prevent pond failure at a weak point of a pond's containment system.

Instruction: Examine the outlet of the pipe on the downstream side of the dam/embankment where it empties into a stream, channel, or drainage system. Consult the table below for possible problems.

Table 2.10.4 PW Pond Outlet

Problem (Check if Present)	Follow-Up Actions
 ☐ The pond outlet is clogged with sediment, trash, debris, vegetation, or is eroding, caving in, slumping, or falling apart.	☐ If there is a minor blockage, remove the debris or vegetation to allow free flow of water. ☐ Remove any accumulated trash at the outlet. ☐ Outlet: ☐ Kick-Out to Level 2 Inspection: ☐ If the area at the outlet cannot be easily accessed or if the blockage is substantial, a Level 2 Inspection is warranted. ☐ Erosion at and downstream of the outfall should be evaluated by a qualified professional. ☐ Any structural problems, such as broken pipes, structures falling into the stream, or holes or tunnels around the outfall pipe, should be evaluated by a Level 2 Inspector and will require repair by a qualified contractor. ☐ The pool of water at the outlet pipe is discolored, has an odor, or has excessive algae or vegetative growth.

2.11. Infiltration

Areas of Infiltration

Key areas to inspect for Infiltration include the following:

- IN 1. Drainage Area
- IN 2. Inlets
- IN 3. Infiltration Area
- IN 4. Outlets



Figure 2.11.1 Key Areas for Level 1 Inspection of Infiltration Practice

Note: The category of Infiltration includes:

- Infiltration Trench – Long, narrow infiltration practice, usually with small gravel at the surface and a reservoir of larger gravel or stone beneath
- Infiltration Basin – Larger practice, usually covered with grass and highly permeable soil beneath
- Dry Well – Small pit filled with stone or gravel, or precast concrete chamber surrounded by stone that receives and stores runoff to enable it to infiltrate into the underlying ground.

IN 4. Outlets

Description: Outlets are where water exits the surface of the infiltration area during larger storms when the underground infiltration reservoir fills up and the excess water needs somewhere to go. Note that not all infiltration practices will have an identifiable outlet if the design is for all the water to infiltrate into the ground. Outlets may be a berm, stone weir, or pipe.

Instruction: Locate and inspect all outlets. Consult **Table 2.11.4** below for possible problems.

Table 2.11.4 IN Outlets

Problem (Check if Present)	Follow-Up Actions
 ☐ Outlet obstructed with sediment, debris, trash, etc.	☐ Remove the debris and dispose of it where it cannot re-enter the infiltration area. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Outlet is completely obstructed; there is too much material to remove by hand or with simple hand tools.
☐ Rills or gullies are forming at outlet.	☐ For minor rills, fill in with soil, compact, and seed and straw to establish vegetation. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Rills are more than 2" to 3" deep and require more than just hand raking and re-seeding.

3.10. Ponds & Wetlands – Level 2 Inspections and Triggers for Level 3

The most likely triggers for a Level 3 Inspection for Ponds and Wetlands are:

- Severe erosion
- Excessive algae or aquatic plants
- Settlement and pipe corrosion
- Major sediment buildup

Table 3.10.1 Level Inspection: PONDS and WETLANDS

Recommended Repairs and Required Skills	Triggers for Level 3 Inspection
Observed Condition: Bare Soil or Erosion in the Drainage Area	
Condition 1: Extensive problem spots, but no channels or rills forming Reseed problem areas. If problem persists or grass does not take, consider hiring a landscape contractor. Condition 2: Problem is extensive, and rills/channels are beginning to form May be necessary to divert or redirect water that is causing the erosion problem. If it appears that simple regrading—such as installing a berm or leveling a low spot–will fix the problem, make repairs and ensure that the problem is repaired after the next storm.	• Large rills or gullies are forming in the drainage area. • An attempt to regrade the drainage area has been unsuccessful. • Fixing the problem would require major regrading (i.e., redirecting more than a 100-square-foot area. • It is not clear why the problem is occurring.
Observed Condition: Manholes or Inlet Pipe Buried or Covered with Vegetation	
Condition 1: Nearest manhole and inlet pipe not found Consult as-built drawings to get to closest suspected location and use metal detector to search for metal manhole cover. If unsuccessful, identify nearest drain inlets and approximate pipe direction to locate next manhole. Condition 2: Manhole located and inspected Never enter a manhole, except by following confined-space entry protocols. If outlet pipe is not visible or greater than 25% full of sediment/debris or trash, it will typically require a qualified contractor to flush, clean and clear blockages. Condition 3: Inlet pipe not found at pond Clear vegetation and brush that may be covering the inlet pipe. Buried inlet pipes may be found through use of a metal probe. Condition 4: Inlet pipe buried in sediment or blocked by vegetation Once located, the pipe path can be cleared of vegetation with brush hook or other brush tools. Light digging may clear sediment from the end of the pipe.	• To locate buried manholes and lost storm lines, it is sometimes necessary to hire a pipeline inspection contractor with televising equipment or ground-penetrating radar and enter at the closest upstream access point. • Locating a buried inlet pipe may require wading in the edge of the pond and using a metal probe and brush axe to find and expose the pipe. • If other than light digging is necessary to remove accumulated sediment, a contractor with heavy equipment may be required.

Table 3.10.1 Level Inspection: PONDS and WETLANDS	
Recommended Repairs and Required Skills	**Triggers for Level 3 Inspection**
Observed Condition: Pipe or Headwall Settlement, Erosion, Corrosion or Failure	
Condition 1: Pipe or headwall settlement or failure Severe sinkholes, settlement or corrosion should be kicked out to Level 3 Inspection. Condition 2: Flow not confined to pipe and visible outside pipe wall With flashlight, observe the inside of the pipe and note its condition. Take photographs. Look for sinkholes developing that indicate pipe failure beneath the surface. Kick out to Level 3 inspection.	• Where blockages are visible, a decision is needed on whether to clear them or leave in place. If a third of the pipe is full of sediment, it should be removed by a contractor with pipe-cleaning equipment. • Corrosion of inlet pipes that allows flow around the pipe exterior is a structural concern because it can lead to settlement, sinkholes and undermining pond embankment. Evidence of this type of failure may require specialized pipe-inspection equipment and investigation by an engineer.
Observed Condition: Pond Conditions	
Condition 1: Pond pre-treatment zone is full of sediment or not constructed as shown on as-built drawings. Condition 2: Excessive buildup of sediment or overgrowth If the pre-treatment area or pond pool is overgrown or filled with sediment so that the original design is compromised, corrective measures are required. If plants have died, then replanting is necessary. If none of the original design exists due to alteration or sediment, kick out to Level 3 inspection.	• It may require inspection by an engineer to determine next steps for clearing, replanting or reconstruction. • Erosion or settlement such that design has been compromised should be reviewed by an engineer. Recurring erosion may require redesign and/or regrading to direct flow away from eroding area. • If sediment has filled more than 50% of the pond's capacity, dredging is likely needed and should be evaluated by a qualified contractor. • Removal or control of excessive algae or aquatic plants can be assessed by a qualified pond maintenance company.

5.2. Inspection and Maintenance Checklists and Documentation

The checklists included in this chapter are specific to the maintenance hierarchy. The maintenance plan should include inspection checklists for all three hierarchies. In addition, these checklists should be modified to identify the specific practice elements included in each design. The materials developed as a part of the maintenance plan should be provided to the practice owner and local government. (See **Table 5.2**)

Table 5.2. Customizing Checklists and Guidance

Hierarchy	Checklist/Checklist Guidance	Tips for Customizing
Level 1	**Section 2** includes both the checklists and guidance.	Add photographs of the practice (once installed), and include a simple aerial photograph of the site to locate the practice. Include key local government contacts and contractors along with the checklist.
Level 2	**Section 3** includes guidance on how to respond to the Level 1 Inspection and/or activate a Level 3 investigation. **Appendix B** includes routine inspection checklists for the Level 2 Inspector.	Modify to remove elements that are not in this particular practice.
Level 3	Guidance is included in **Sections 3 and 4**.	Typically, this will not need to be modified.

5.3. Budgeting for Maintenance

A maintenance plan should include a budget for annual maintenance. In the Public Maintenance model, a single entity (the local government) will be responsible for maintenance of many practices, so the cost of maintenance for an individual practice may not be as important as estimating the average cost of maintenance across all practices. For privately maintained practices, on the other hand, it is very helpful to develop a cost estimate that is as accurate as possible for the specific location. As a result, two options for estimating costs are presented here, including:

- **Option 1**: Average or Unit Costs
  Generalized cost data are used to estimate an annual cost. This option may be used for a municipality or other institution that manages a large number of practices.
- **Option 2:** Detailed Individual Practice Budget
  Annual costs are estimated using more detailed practice information, as well as more detailed estimates of labor and materials costs.

Option 1: Average or Unit Costs

In this option, annual maintenance costs are estimated on a per-acre basis or based on a percentage of the construction costs. These prices typically range from about 1% to 4% of the construction costs (King and Hagan, 2011; **Table 5.3**).

Table 5.3 Typical Maintenance Costs (Source: King and Hagan, 2011; Adjusted to 2015 Costs)

Practice	Annual Maintenance Cost (% of Construction)	Annual Maintenance Cost ($/cubic foot of the water quality volume–WQV—treated)
Buffers	4%	$0.25-$0.35
Tree Planting	4%	$0.35
Ponds and Wetlands	4%	$0.22-$0.35
Infiltration Trench/ Basin	2%	$0.25
Filtering Practices	4%	$0.41-$0.47
Bioretention	4%	$0.44
Swales	3%	$0.18-$0.26
Permeable Pavement	1%	$0.64-$0.89

While the costs in **Table 5.3** may be a reasonable starting point, it is important to note that the actual data will vary greatly, depending on labor rates and materials costs. For example, the hourly “Open Shop” labor rate for rough grading is approximately $27/hour in Elmira and $38/hour in New York City (Means, 2015). In addition, costs for labor, materials and equipment will vary depending on the maintenance arrangement (**Table 5.4**).

Table 5.4 Variability in Maintenance Costs Based on Maintenance Arrangement			
Maintenance Arrangement	**Labor**	**Materials**	**Equipment**
Public Maintenance (Municipality)	Level 1: Intern Wage Level 2: Staff Salary Level 3: Professional Staff or Contractor	Low: Materials bought in bulk.	Low: Typically owned by Public Works or similar department.
Private Maintenance (Homeowner)	Level 1: Homeowner (Free) or Contractor Level 2: Private Landscaper or Contractor Level 3: Professional Contractor	High: Materials purchased in small quantities.	High: Specialized equipment needs to be rented if needed.
Private Maintenance (Commercial or HOA)	Level 1: Free (with HOA volunteers) or Contracted Labor Rate Level 2: Private Landscaper or Contractor Level 3: Professional Contractor	Varies: Materials may be bought in bulk or on a small scale, depending on the size of the private entity.	High: Specialized equipment needs to be rented if needed.

Option 2: Site-Based Costs

Because both the unit costs of labor and materials and the average annual costs of maintenance can be so highly variable, more detailed data will be needed to estimate costs at a particular site. One approach for estimating these costs is to generate a list of routine maintenance items, along with associated unit costs for labor, materials and equipment. This approach requires the user to enter basic design data for the practice, as well as information regarding local labor rates and other general costs. In the bioretention example below, unit costs are used to estimate routine maintenance costs, including inspections and regular maintenance.

Example Annual Cost Estimation: Bioretention

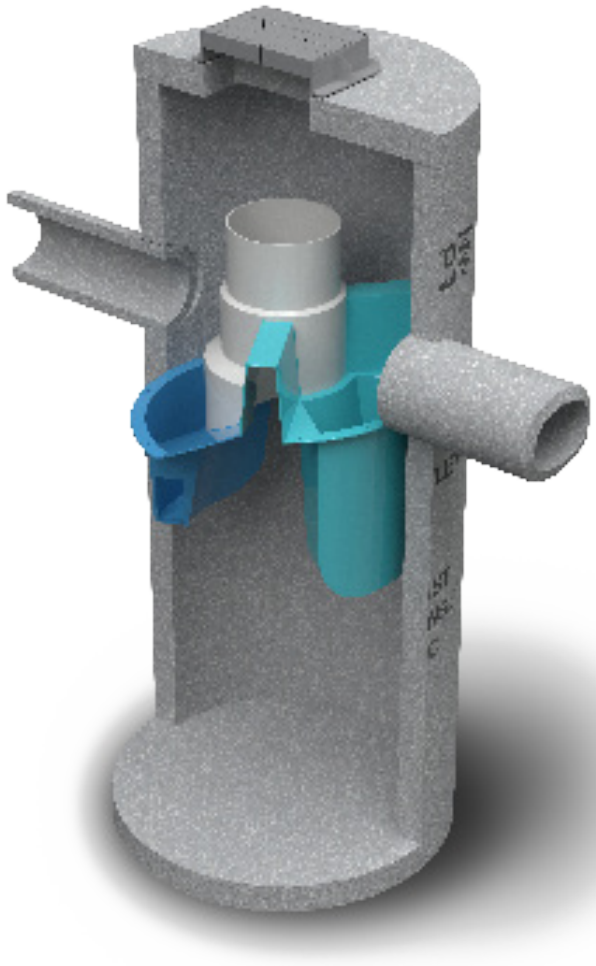
An example cost estimation for a bioretention cell follows below. The cost estimation tool used in the Maintenance Chapter will be automated. This example demonstrates how the unit cost and typical frequency data will be used to estimate average annual maintenance costs. In it, we are estimating annual maintenance costs for a bioretention practice with characteristics summarized in **Table 5.5**. **Table 5.6** then summarizes activities, their frequency and extent, and associated labor costs.

Using the assumptions for this practice, the annual costs for routine maintenance would be $1,828 ($1.15/cubic foot of Water Quality Volume) in the first year and $1,468 ($0.90/cf WQv) in subsequent years. This value is much higher than the $0.44/cf estimated using general cost data (**Table 5.3**). However, significant cost savings could be realized by using volunteer or intern-level labor for Level 1 inspections and routine maintenance.

Table 5.5. Assumptions for Bioretention Cost Example

Practice Design		**Unit Costs**	
Water Quality Volume (cf)	1,600	Level 1 Labor ($/hr)	$15
Forebay Volume (cf)	400	Level 2 Labor ($/hr)	$35
Total Practice Area (sf)	2,000	Mulch ($/cy)	$10
Filter Area (sf)	1,000	Plants ($/plant)	$1
Ponding Area (sf)	1,500	Trash Tipping Fee	$25
Slope Area (sf)	500	Seed/Mulch for a small area	$10
Turf Area (sf)	No Turf	Average Cost for a PVC Replacement Part (Planning Level)	$100
Inlets (#)	1		

Hydro International



Operation and Maintenance Manual

First Defense® High Capacity and First Defense®Optimum

Vortex Separator for Stormwater Treatment

Table of Contents

3 First Defense® by Hydro International
- Introduction
- Operation
- Pollutant Capture and Retention

4 Model Sizes & Configurations
- First Defense® Components

5 Maintenance
- Overview
- Maintenance Equipment Considerations
- Determining Your Maintenance Schedule

6 Maintenance Procedures
- Inspection
- Floatables and Sediment Clean Out

8 First Defense® Installation Log

9 First Defense® Inspection and Maintenance Log

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DISCLAIMER: Information and data contained in this manual is exclusively for the purpose of assisting in the operation and maintenance of Hydro International plc's First Defense®. No warranty is given nor can liability be accepted for use of this information for any other purpose. Hydro International plc has a policy of continuous product development and reserves the right to amend specifications without notice.

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

I. First Defense® by Hydro International

Introduction

The First Defense® is an enhanced vortex separator that combines an effective and economical stormwater treatment chamber with an integral peak flow bypass. It efficiently removes total suspended solids (TSS), trash and hydrocarbons from stormwater runoff without washing out previously captured pollutants. The First Defense® is available in several model configurations to accommodate a wide range of pipe sizes, peak flows and depth constraints.

The two product models described in this guide are the First Defense® High Capacity and the First Defense® Optimum; they are inspected and maintained identically.

Operation

The First Defense® operates on simple fluid hydraulics. It is self-activating, has no moving parts, no external power requirement and is fabricated with durable non-corrosive components. No manual procedures are required to operate the unit and maintenance is limited to monitoring accumulations of stored pollutants and periodic clean-outs. The First Defense® has been designed to allow for easy and safe access for inspection, monitoring and clean-out procedures. Neither entry into the unit nor removal of the internal components is necessary for maintenance, thus safety concerns related to confined-space-entry are avoided.

Pollutant Capture and Retention

The internal components of the First Defense® have been designed to optimize pollutant capture. Sediment is captured and retained in the base of the unit, while oil and floatables are stored on the water surface in the inner volume (Fig.1).

The pollutant storage volumes are isolated from the built-in bypass chamber to prevent washout during high-flow storm events. The sump of the First Defense® retains a standing water level between storm events. This ensures a quiescent flow regime at the onset of a storm, preventing resuspension and washout of pollutants captured during previous events.

Accessories such as oil absorbent pads are available for enhanced oil removal and storage. Due to the separation of the oil and floatable storage volume from the outlet, the potential for washout of stored pollutants between clean-outs is minimized.

Applications

- Stormwater treatment at the point of entry into the drainage line
- Sites constrained by space, topography or drainage profiles with limited slope and depth of cover
- Retrofit installations where stormwater treatment is placed on or tied into an existing storm drain line
- Pretreatment for filters, infiltration and storage

Advantages

- Inlet options include surface grate or multiple inlet pipes
- Integral high capacity bypass conveys large peak flows without the need for “offline” arrangements using separate junction manholes
- Long flow path through the device ensures a long residence time within the treatment chamber, enhancing pollutant settling
- Delivered to site pre-assembled and ready for installation

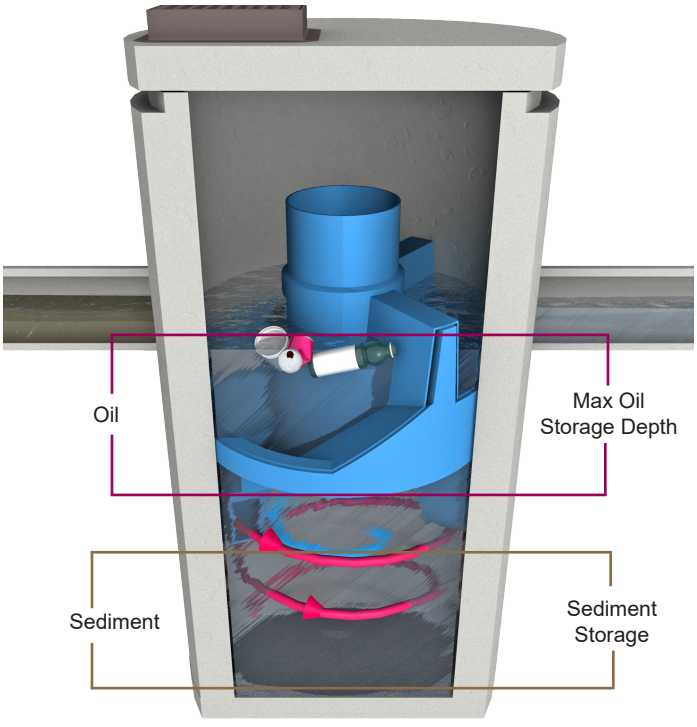

Fig.1 Pollutant storage volumes in the First Defense®.

II. Model Sizes & Configurations

The First Defense® inlet and internal bypass arrangements are available in several model sizes and configurations. The components have modified geometries allowing greater design flexibility to accommodate various site constraints.

All First Defense® models include the internal components that are designed to remove and retain total suspended solids (TSS), gross solids, floatable trash and hydrocarbons (Fig.2). First Defense® model sizes (diameter) are shown in Table 1.

III. Maintenance

First Defense® Components

1. **Built-In Bypass**
2. **Inlet Pipe**
3. **Inlet Chute**
4. **Floatables Draw-off Port**
5. **Outlet Pipe**
6. **Floatables Storage**
7. **Sediment Storage**
8. **Inlet Grate or Cover**

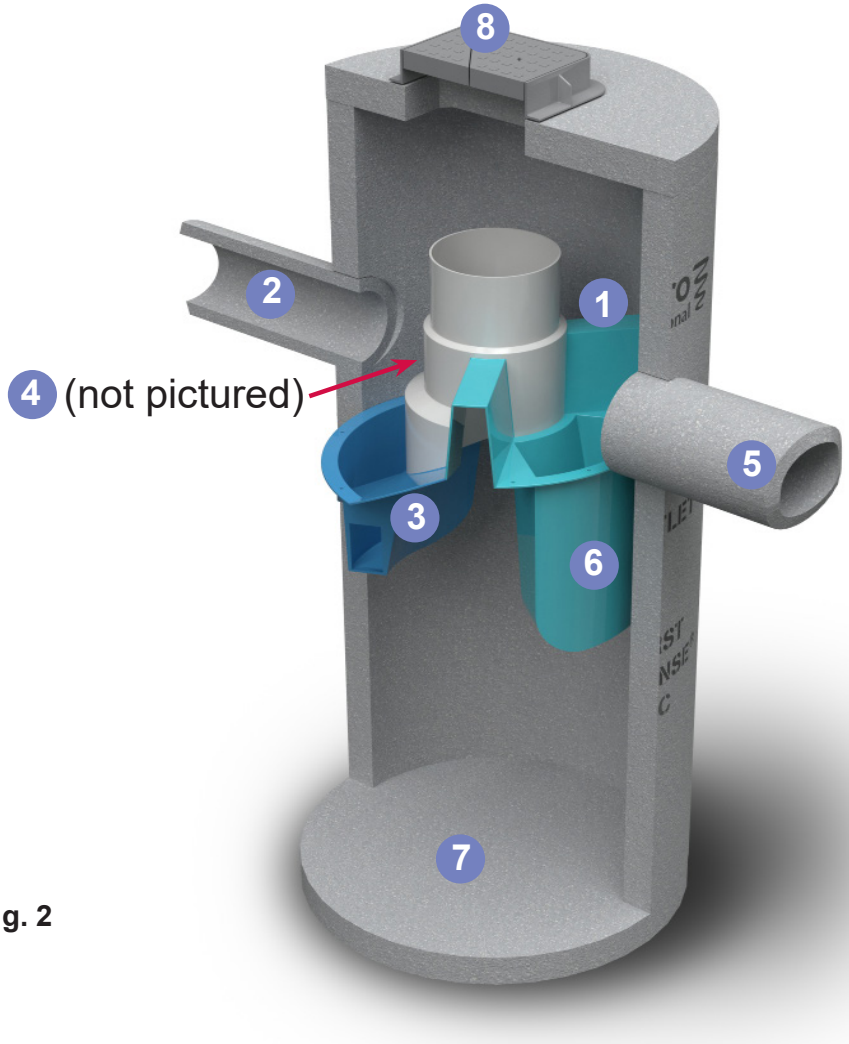

Fig. 2

Table 1

First Defense® Model Sizes
(ft / m) diameter
3 / 0.9
4 / 1.2
5 / 1.5
6 / 1.8
7 / 2.1
8 / 2.4
10 / 3.0

Overview

The First Defense® protects the environment by removing a wide range of pollutants from stormwater runoff. Periodic removal of these captured pollutants is essential to the continuous, long-term functioning of the First Defense®. The First Defense® will capture and retain sediment and oil until the sediment and oil storage volumes are full to capacity. When sediment and oil storage capacities are reached, the First Defense® will no longer be able to store removed sediment and oil.

The First Defense® allows for easy and safe inspection, monitoring and clean-out procedures. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables. Access ports are located in the top of the manhole.

Maintenance events may include Inspection, Oil & Floatables Removal, and Sediment Removal. Maintenance events do not require entry into the First Defense®, nor do they require the internal components of the First Defense® to be removed. In the case of inspection and floatables removal, a vactor truck is not required. However, a vactor truck is required if the maintenance event is to include oil removal and/or sediment removal.

Maintenance Equipment Considerations

The internal components of the First Defense® have a centrally located circular shaft through which the sediment storage sump can be accessed with a sump vac hose. The open diameter of this access shaft is 15 inches in diameter (Fig.3). Therefore, the nozzle fitting of any vactor hose used for maintenance should be less than 15 inches in diameter.

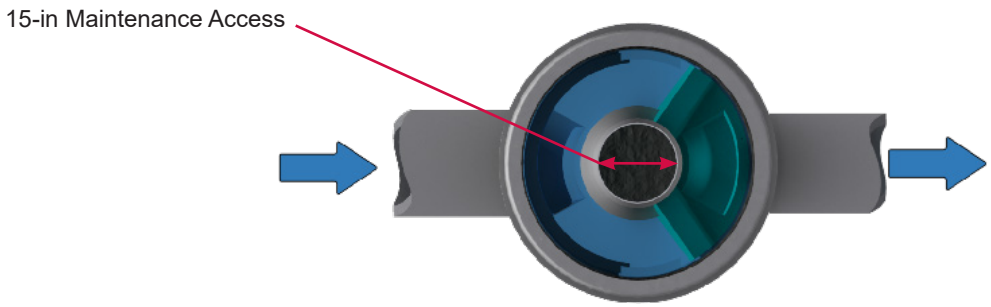

Fig.3 The central opening to the sump of the First Defense®is 15 inches in diameter.

Determining Your Maintenance Schedule

The frequency of clean out is determined in the field after installation. During the first year of operation, the unit should be inspected every six months to determine the rate of sediment and floatables accumulation. A simple probe such as a Sludge-Judge® can be used to determine the level of accumulated solids stored in the sump. This information can be recorded in the maintenance log (see page 9) to establish a routine maintenance schedule.

The vactor procedure, including both sediment and oil / flotables removal, for First Defense® typically takes less than 30 minutes and removes a combined water/oil volume of about 765 gallons.

Inspection Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.

2. Remove the grate or lid to the manhole.

3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities. Fig.4 shows the standing water level that should be observed.

4. Without entering the vessel, use the pole with the skimmer net to remove floatables and loose debris from the components and water surface.

5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel.

6. On the Maintenance Log (see page 9), record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components or blockages.

7. Securely replace the grate or lid.

8. Take down safety equipment.

9. Notify Hydro International of any irregularities noted during inspection.

Floatables and Sediment Clean Out

Floatables clean out is typically done in conjunction with sediment removal. A commercially or municipally owned sump-vac is used to remove captured sediment and floatables (Fig.4).

Floatables and loose debris can also be netted with a skimmer and pole. The access port located at the top of the manhole provides unobstructed access for a vactor hose to be lowered to the base of the sump.

Scheduling

- Floatables and sump clean out are typically conducted once a year during any season.

- Floatables and sump clean out should occur as soon as possible following a spill in the contributing drainage area.



Fig.4 Floatables are removed with a vactor hose

Recommended Equipment

- Safety Equipment (traffic cones, etc)
- Crow bar or other tool to remove grate or lid
- Pole with skimmer or net (if only floatables are being removed)
- Sediment probe (such as a Sludge Judge®)
- Vactor truck (flexible hose recommended)
- First Defense® Maintenance Log

Floatables and Sediment Clean Out Procedures

1. Set up any necessary safety equipment around the access port or grate of the First Defense® as stipulated by local ordinances. Safety equipment should notify passing pedestrian and road traffic that work is being done.

2. Remove the grate or lid to the manhole.

3. Without entering the vessel, look down into the chamber to inspect the inside. Make note of any irregularities.

4. Remove oil and floatables stored on the surface of the water with the vactor hose or with the skimmer or net

5. Using a sediment probe such as a Sludge Judge®, measure the depth of sediment that has collected in the sump of the vessel and record it in the Maintenance Log (page 9).

6. Once all floatables have been removed, drop the vactor hose to the base of the sump. Vactor out the sediment and gross debris off the sump floor

7. Retract the vactor hose from the vessel.

8. On the Maintenance Log provided by Hydro International, record the date, unit location, estimated volume of floatables and gross debris removed, and the depth of sediment measured. Also note any apparent irregularities such as damaged components, blockages, or irregularly high or low water levels.

9. Securely replace the grate or lid.

Maintenance at a Glance

Inspection	- Regularly during first year of installation - Every 6 months after the first year of installation
Oil and Floatables Removal	- Once per year, with sediment removal - Following a spill in the drainage area
Sediment Removal	- Once per year or as needed - Following a spill in the drainage area
NOTE: For most clean outs the entire volume of liquid does not need to be removed from the manhole. Only remove the first few inches of oils and floatables from the water surface to reduce the total volume of liquid removed during a clean out.	

First Defense® Installation Log

HYDRO INTERNATIONAL REFERENCE NUMBER:	
SITE NAME:	
SITE LOCATION:	
OWNER:	CONTRACTOR:
CONTACT NAME:	CONTACT NAME:
COMPANY NAME:	COMPANY NAME:
ADDRESS:	ADDRESS:
TELEPHONE:	TELEPHONE:
FAX:	FAX:

INSTALLATION DATE: / /

MODEL SIZE (CIRCLE ONE): [3-FT] [4-FT] [5-FT] [6-FT] [7-FT] [8-FT] [10-FT]

INLET (CIRCLE ALL THAT APPLY): GRATED INLET (CATCH BASIN) INLET PIPE (FLOW THROUGH)

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

First Defense® Inspection and Maintenance Log

Date	Initials	Depth of Floatables and Oils	Sediment Depth Measured	Volume of Sediment Removed	Site Activity and Comments

Hydro International (Stormwater), 94 Hutchins Drive, Portland ME 04102
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

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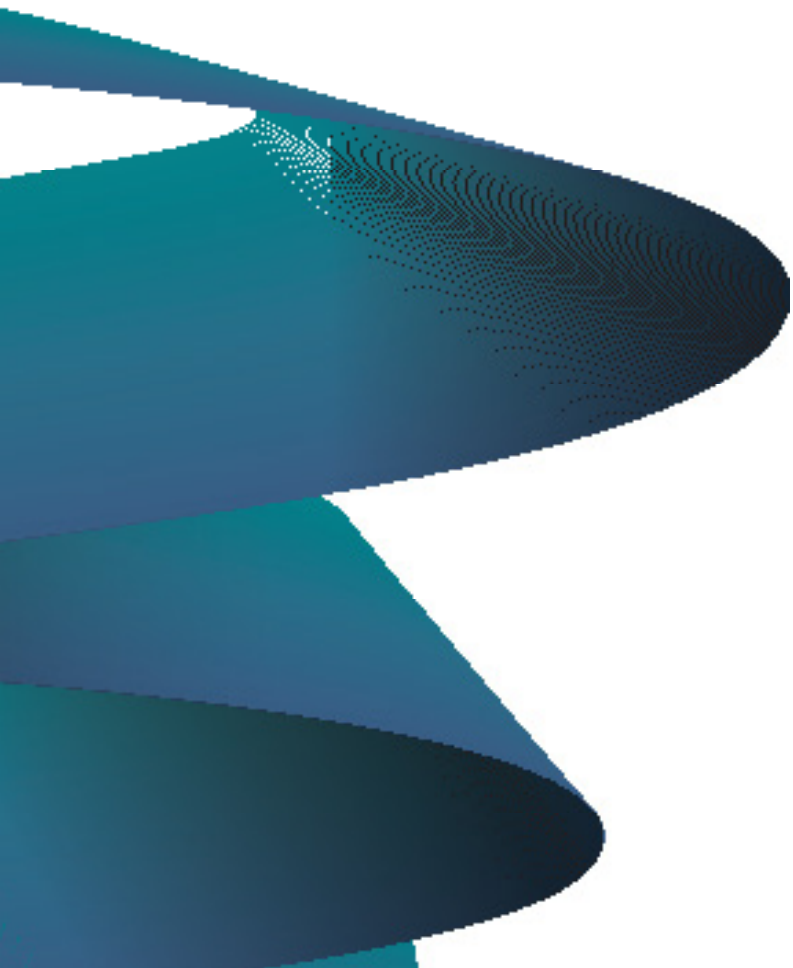
Tel: (207) 756-6200 Fax: (207) 756-6212 Web: www.hydro-int.com

Hydro International



Stormwater Solutions

94 Hutchins Drive
Portland, ME 04102

Tel: (207) 756-6200
Fax: (207) 756-6212
stormwaterinquiry@hydro-int.com

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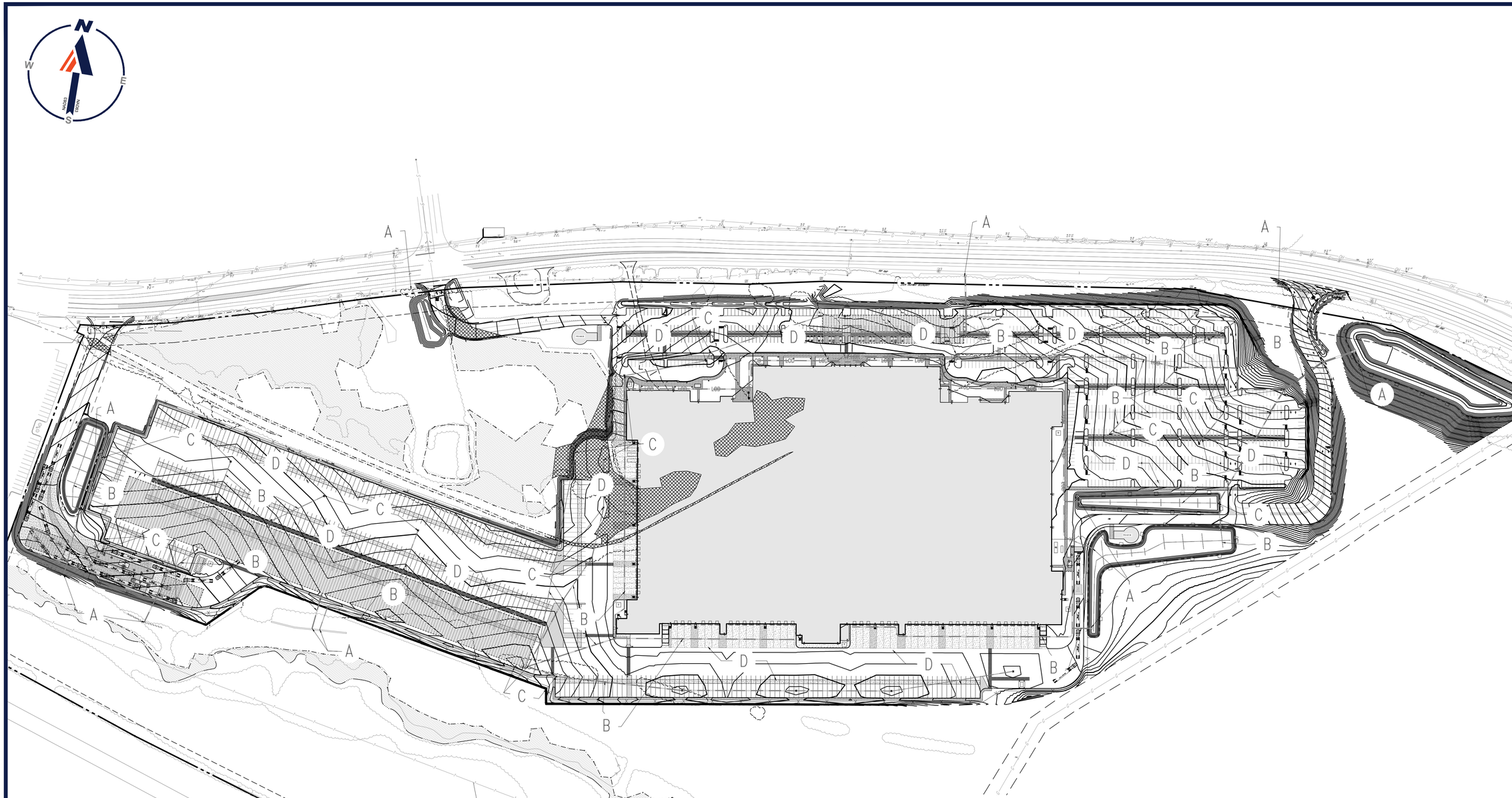

SHORT-TERM MEASURES (FREQUENCY: AT LEAST ONCE A MONTH)

1. INSPECT END SECTIONS / EMERGENCY OVERFLOW / RIPRAP (A):
   - Observe and record evidence of discharge occuring from pipe.
   - Check outlet pipe for obstructions and dispose off-site as needed.
   - Check stone and surrounding area for signs of erosion.
   - Repair and or replace stone as needed.
2. STORM PIPES (B):
   - Inspect, clean and repair as needed
   - Check for sediment and dispose off sediment in stone beds as needed.
3. CATCH BASINS / DRAINAGE MANHOLES (C) :
   - Inspect on-site catch basin and manholes.
   - Check inlet and outlet pipes for obstructions and dispose off-site as needed.
   - Check sumps for sediment and debris. Dispose off-site if more than 6" of sediment has accumulated.

LONG-TERM MEASURES (FREQUENCY: TWICE YEARLY)

1. REPEAT SHORT TERM INSPECTION ITEMS:
   - Extensive inspection of all short term inspection items
   - Clean all structures and dispose off-site as needed
   - Sweep paved parking and access areas and dispose of debris off-site (D)
   - Follow the Downstream Defender manufactures inspection and maintenance requirements.
2. SWPPP INSPECTION:
   - Inspection of entire system shall be conducted and a report shall be prepared by a qualified inspector meeting the requirements as set forth in the General Permit, included in the SWPPP. The report shall include a of all inspection findings, actions completed and actions required to date.
   - The SWPPP Inspection Forms shall be completed and kept on site and by the qualified inspector for future reference and for the lifetime of the facility.

KEY:

MAJOR AREAS OF PRACTICE

A. END SECTIONS / EMERGENCY OVERFLOW / RIPRAP
B. PIPES/INFILTRATION TRENCHES
C. CATCH BASINS AND DRAINAGE MANHOLES
D. PAVED PARKING AND ACCESS DRIVES

20 10 5 0 30
SCALE: 1" = 30'

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LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	1/28/2025	PER CLIENT COMMENTS	SJR / SRW
2	2/07/2025	REVISED DRIVEWAYS	JRS / SRW
3	2/25/2025	REVISED SUBSTATION LOCATION	JRS / SRW

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DRAWN BY:	SJR
CHECKED BY:	SRW
DATE:	1/10/2025
CAD I.D.:	P-CIVL-O&M-

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

OPERATIONS & MAINTENANCE PLAN

SHEET NUMBER:

REVISION 3 - 2/25/2025

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VR

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APPENDIX "G"

SHPO FINDINGS

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

RANDY SIMONS
Commissioner Pro Tempore

February 20, 2025

Jed Sarabia
Bohler Engineering
17 Computer Drive West
Albany, NY 12205

Re: USACE
MSV1 – Amazon Warehouse/Distribution Facility
Route 5S, Town of Florida, Montgomery County, NY
25PR01056

Dear Jed Sarabia:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

Based upon this review, it is the opinion of the New York SHPO that no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please contact Josalyn Ferguson at the following email address:

Josalyn.Ferguson@parks.ny.gov

Sincerely,

R. Daniel Mackay

Deputy State Historic Preservation Officer
Division for Historic Preservation

APPENDIX "H"

NYSDEC STORMWATER MAPPER, THREATENED AND ENDANGERED SPECIES

Threatened and Endangered Species
Habitat Suitability Assessment Report

Amazon Distribution Center
Route 5S
Town of Florida
Montgomery County, NY

February 7, 2025

Prepared by:

Michael Nowicki
Ecological Solutions, LLC
121 Leon Stocker Drive
Stratton, VT 05360
(203) 910-4716

1.0 INTRODUCTION **3**
TABLE 1 COVER TYPES IDENTIFIED ON THE SITE 3

2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION **8**

2.1 Northern long-eared bat **8**

2.2 Tricolored bat **8**

2.3 Monarch butterfly **9**

3.0 PHOTOGRAPHS **11**
Figure 1 Location Map 14

1.0 INTRODUCTION

The Applicant proposes the expansion of existing Amazon Distribution Center building and parking areas located at 2121 Ulster Avenue in the Town of Ulster, Ulster County, New York (*Figure 1*).

The US Fish and Wildlife Service (USFWS) lists the Northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), and Monarch butterfly (*Danaus plexippus*) as federally listed threatened/endangered species or candidate species that may be on the site. The New York State Department of Environmental Conservation (NYSDEC) does not list any threatened/endangered species in this area.

Habitat cover types are listed in Table 1 and described below.

TABLE 1
COVER TYPES IDENTIFIED ON THE SITE

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	< 1	43+/-	+43+/-
• Forested	6 +/-	3	- 3 +/-
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	45 +/-	30	-15 +/-
• Agricultural (includes active orchards, field, greenhouse etc.)	75	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	12 +/-	10.2+/-	-1.8
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Lawn/landscape areas	0	32+/-	32+/-

Habitat Descriptions

Successional Old Field

This ecological community is defined as meadow habitat dominated by forbes and grasses that occurs on sites that have been cleared and plowed for farming or other development and then abandoned. Shrubs may be present, but collectively they have less than 50% cover in the community. This is a relatively short-lived community that succeeds to a shrubland, woodland, or forest community. This community may provide habitat for a variety of butterflies, birds typically associated with field and shrub communities, and small mammals.

Successional Shrubland

This type of habitat occurs as successional old field habitats advanced in age and growth. Successional shrubland is similar to successional old field with the added development of shrub and

sapling growth which dominates at least half of its aerial extent. The two habitats (i.e., successional old field and successional shrubland) are often found proximal to and interspersed with each other. This habitat is frequented by a number of bird species including gray catbird, brown thrasher eastern towhee, and song sparrow.

Rich Mesophytic Forest

This ecological community is composed of hardwood or mixed forest typically on a mineral rich, fine textured, well-drained soil. The forest canopy may consist of a variety of trees including; red oak (*Quercus rubra*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), American beech (*Fagus grandifolia*), black cherry (*Prunus serotina*), black birch (*Betula lenta*) and sugar maple (*Acer saccharum*). This forest also has a well-developed shrub layer and species rich herbaceous layer with characteristic species including American hornbeam (*Carpinus caroliniana*), maple-leaf viburnum (*Viburnum acerifolium*), witch hazel (*Hamamelis virginiana*), interrupted fern (*Osmunda claytoniana*), white baneberry (*Actaea pachypoda*), and early meadow rue (*Thalictrum dioicum*). Trees are generally healthy on the site and in the 4-6 inch dbh range.

Successional Northern Hardwood Forest

This forest is a hardwood or mixed forest that occurs on sites that have been cleared or similarly disturbed. Codominant canopy species may include any of the following trees; quaking aspen (*Populus tremuloides*), big-toothed aspen (*P. grandidentata*), balsam poplar (*P. balsamifera),* paper birch (*Betula papyrifera*), gray birch (*Betula populifolia*), pin cherry (*Prunus pensylvanica*), black cherry and white pine (*Pinus strobus*), with lesser amounts of white ash, green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*). Trees are generally healthy on the site and in the 4-6 inch dbh range.

Cropland Row Crops

This land use/cover type consists of areas that are actively cultivated to produce crops such as corn, potatoes and soybeans or similar crops. This land use and variable cover type can at times offer moderate wildlife habitat, primarily in the form of seasonally available food sources.

Cropland Field Crops

This land use/cover type consists of areas that are actively cultivated to produce crops such as alfalfa, Timothy, oats and wheat and includes areas that are periodically rotated to pasture lands. This land use and variable cover type can at times offer moderate wildlife habitat, in the form of seasonally available food sources and limited cover. Both cropland categories are created and/or maintained by human activities such that exiting soils and vegetation are substantially different than the character of what occurred prior to manipulation by humans. Characteristic birds with varying abundance may include grasshopper sparrow, vesper sparrow, bobolink, and mourning dove.

Shallow Emergent Marsh

Palustrine emergent shallow marsh (PEM) habitats occur in areas with saturated soils and include areas of standing water to a depth of up to approximately three feet for some portion of the year.

These hydrological conditions will vary seasonally and are also dependent on recent climatological conditions and biological factors, including the North American beaver, whose activity levels will vary over time based upon food resource availability. Small areas of water colonized by aquatic plants are included within the deeper portions of this habitat type and provide resources for reptiles, amphibians, fish and aquatic invertebrates.

Dominant herbaceous plant species within this habitat type include common reed (*Phragmites australis*), common cattail (*Typha latifolia*), soft rush (*Juncus effusus*), wool grass (*Scirpus cyperinus*), purple loosestrife (*Lythrum salicaria*), water horehound (*Lycopus americanus*), beggar-ticks (*Bidens frondosa*), smartweeds (*Polygonum spp.*), grass-leaved goldenrod (*Euthamia graminifolia*) and rough-stemmed goldenrod (*Solidago rugosa*). Patches of wetland shrubs and/or small trees such as black willow (*Salix nigra*), silky dogwood (*Cornus amomum*), and Northern arrowwood (*Viburnum dentatum*) are found along the margins and within this habitat type and reflect the wide range of growing conditions present.

Avian species observed in these habitats include wading birds such as green heron and great blue heron, waterfowl such as Canada goose, mallard, green-winged teal, blue-winged teal, pied-billed grebe and other species including osprey, belted kingfisher, Eastern kingbird, red-winged blackbird, swamp sparrow and common grackle. Amphibians and reptiles observed within this habitat include the spring peeper, green frog, Northern leopard frog and painted turtle. Sign of the North American beaver, raccoon, muskrat and white-tailed deer were also previously observed.

Palustrine Shrub Swamp

Palustrine scrub shrub/shrub swamp (PSS) habitats consist of areas dominated by wetland shrub species and saplings of wetland tree species combined with various lianas to form dense thickets. Depending on the hydrologic regime, these areas may also exhibit some lesser components of upland and/or invasive shrub and non-woody species. Areas of PSS are generally dominated by shrubs such as silky dogwood, gray dogwood (*Cornus racemosa*), Northern arrowwood, black willow, honeysuckle (*Lonicera spp.*) and common buckthorn (*Rhamnus cathartica*), and saplings of red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), Eastern cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), black ash (*Fraxinus nigra*) and pin oak (*Quercus palustris*). Common reed and purple loosestrife are locally abundant and may occur with other species such as willow herb (*Epilobium sp.*), sensitive fern (*Onoclea sensibilis*) and moneywort (*Lysimachia nummularia*). Vines such as poison ivy (*Toxicodendron radicans*) and fox grape (*Vitis labrusca*) are also present at varying densities. Depending on landscape position, time of year and recent climatological conditions, standing water may or may not be present. These habitat types are generally adjacent to and interspersed with other habitat types (PFO/PEM) and contribute to the site's overall habitat structural diversity and complexity.

Wildlife utilization of these areas includes avian species commonly found in a variety of habitats, including scrub/shrub thickets and includes the black-capped chickadee, tufted titmouse, Northern cardinal, and blue jay, as well as species more typically associated with wetland habitats such as the red-winged blackbird, common grackle, swamp sparrow, green heron and great blue heron. Amphibians such as the Northern leopard frog, green frog and spring peepers may utilize this habitat type, as well as mammals such as raccoon, muskrat, beaver and white-tailed deer.

Palustrine Forested Wetland

Palustrine forested wetlands (PFO) on the site are dominated by tree species such as red maple, silver maple, Eastern cottonwood, green ash, black ash, willow (Salix Sp.), American sycamore (*Platanus occidentalis*), slippery elm (*Ulmus rubra*) and pin oak. The forest canopy is subtended by an understory consisting of saplings of these tree species as well as shrubs such as silky dogwood, gray dogwood, black willow, Northern arrowwood, honeysuckle and common buckthorn. Overall canopy coverage varies and in forest openings, where sufficient light penetrates to the forest floor, herbaceous plants such as sedges (*Carex spp.*), rushes (*Juncus spp.*) and forbes such as asters (*Aster spp.*), goldenrods (*Solidago spp.*), purple loosestrife, moneywort, willow herb and sensitive fern can be found. Vines such as poison ivy (*Toxicodendron radicans*) and fox grape (*Vitis labrusca*) may also be present at varying densities.

Surface water/hydrology conditions vary and include areas of sustained standing water, perennial and intermittent stream channels, as well as areas which appear to be saturated for prolonged periods, and areas with little or no evidence of standing water. Plant community composition and structure are strongly influenced by these varying hydrological conditions.

Wildlife utilization of this habitat type is largely dependent on and in response to the variability in plant communities and the wide variety of plant species and hydrological conditions results in the presence of a wide range of animal species. Mammals such as North American beaver, white-tailed deer, raccoon, and gray squirrel, amphibians such as the green frog and Northern leopard frog, and avian species such as Baltimore oriole, Northern cardinal, hairy woodpecker, downy woodpecker and other species can be expected to use this habitat type.

Farm Pond/Artificial Pond

These small aquatic habitats are constructed in agricultural or residential areas and typically lack perennially flowing inlets or outlets. Observed biota is limited and may reflect those species which naturally colonized them, as well as those intentionally seeded. Fish such as sunfish (*Lepomis spp.*), yellow perch (*Perca flavescens*) and largemouth bass (*Micropterus salmoides*) are commonly found in these habitats along with painted turtle (*Chrysemys picta*), green frog (*Rana clamitans*) and other common reptiles and amphibians. Mammals such as muskrat (*Ondatra zibethicus*) and beaver are likewise found colonizing these habitats, especially when additional lentic and lotic aquatic habitats are found close by.

Rocky Headwater Stream

The unnamed tributary to Chuctanunda Creek is a small, shallow, perennial stream with moderate to steep gradient. Water flows over eroded bedrock, boulders, cobbles, gravel and sand and alternating sequences of riffles, runs and pools are present. Fish commonly observed in these habitats include dace (*Rhinichthys spp.*), creek chub (*Semotilus atromaculatus*), common shiner (*Luxilus cornutus*), sculpins (*Cottus spp.*), and white sucker (*Catostomus commersonii*). A robust aquatic macroinvertebrate community is also commonly observed in these habitats and includes

species such as caddisfly (*Trichoptera*), stonefly (*Plecoptera*), mayfly (*Ephemoptera*), chironomid midges, and crayfish (*Cambaridae*).

2.0 HABITAT SUITABILITY ASSESSMENT/CONCLUSION

2.1 Northern long-eared bat

Winter Habitat: Northern long-eared bats (NLEB) spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds.

Feeding Habits: Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces.

Conclusion - The proposed project requires 3 acres of a total of 6 acres of tree removal for the proposed project. The trees are generally small in the 2-6 inch dbh range and in the impact area do not posses the characteristics associated with roosting or colony habitat. The project sponsor proposes to avoid, minimize, and mitigate other potential impacts by:

- The removal of 3 acres of these trees will not impact this species however to ensure no direct impacts occur all tree removal will occur between November 1 and March 31 when bats are not on the site;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site, and;
- Minimizing site lighting by having light fixtures only on the buildings that have tops to direct light downward.

These measures will result in avoiding and minimizing impacts that may affect bats.

2.2 Tricolored bat

During the winter, tricolored bats are found in caves and mines, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. As its name suggests, the tricolored bat is

distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip.
White-nose syndrome, a disease that impacts bats, is caused by a fungal pathogen. It has led to 90 to 100% declines in tricolored bat winter colony abundance at sites impacted by the disease. Since white-nose syndrome was first observed in New York in 2006, it has spread rapidly across the majority of the tricolored bat range.

During the spring, summer and fall - collectively referred to as the non-hibernating seasons - tricolored bats primarily roost among live and dead leaf clusters of live or recently dead deciduous hardwood trees. In the southern and northern portions of the range, tricolored bats will also roost in Spanish moss (*Tillandsia usneoides*) and *Usnea trichodea* lichen, respectively. In addition, tricolored bats have been observed roosting during summer among pine needles, within artificial roosts like barns, beneath porch roofs, bridges, concrete bunkers, and rarely within caves. Female tricolored bats exhibit high site fidelity, returning year after year to the same summer roosting locations. Female tricolored bats form maternity colonies and switch roost trees regularly. Males roost singly.

Essential habitat is a dense growth of trees and underbrush covering a large tract.

Conclusion - As with the NLEB - the removal of 3 acres of trees will not impact this species. The project sponsor proposes to avoid, minimize, and mitigate other potential impacts by:

- The removal of 3 acres of these trees will not impact this species however to ensure no direct impacts occur all tree removal will occur between November 1 and March 31 when bats are not on the site;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site, and;
- Minimizing site lighting by having light fixtures only on the buildings that have tops to direct light downward.

These measures will result in avoiding and minimizing impacts that may affect bats.

2.3 Monarch butterfly

Monarchs, like all other butterflies and moths, go through egg, larval (caterpillar), chrysalis (pupa), and adult stages. Monarch caterpillars ingest milkweed that contains a toxic compound. The presence of this toxin is used by the monarch butterfly as a defense against predators.

In late August, masses of monarch butterflies begin an epic migration stretching thousands of miles from areas across the United States and as far north as Canada (east of the Rocky Mountains) to overwinter in mountaintops of Central Mexico.

Conclusion – There field habitat or potential habitat for the monarch butterfly but according to IPaC this site does not overlap proposed critical habitat for this species. Impacts are not expected

since large open areas of the site will remain. Milkweed essential to this species although not abundant on the site will remain for use by this species so no mitigation measure is proposed.

3.0 PHOTOGRAPHS

Field on the Site



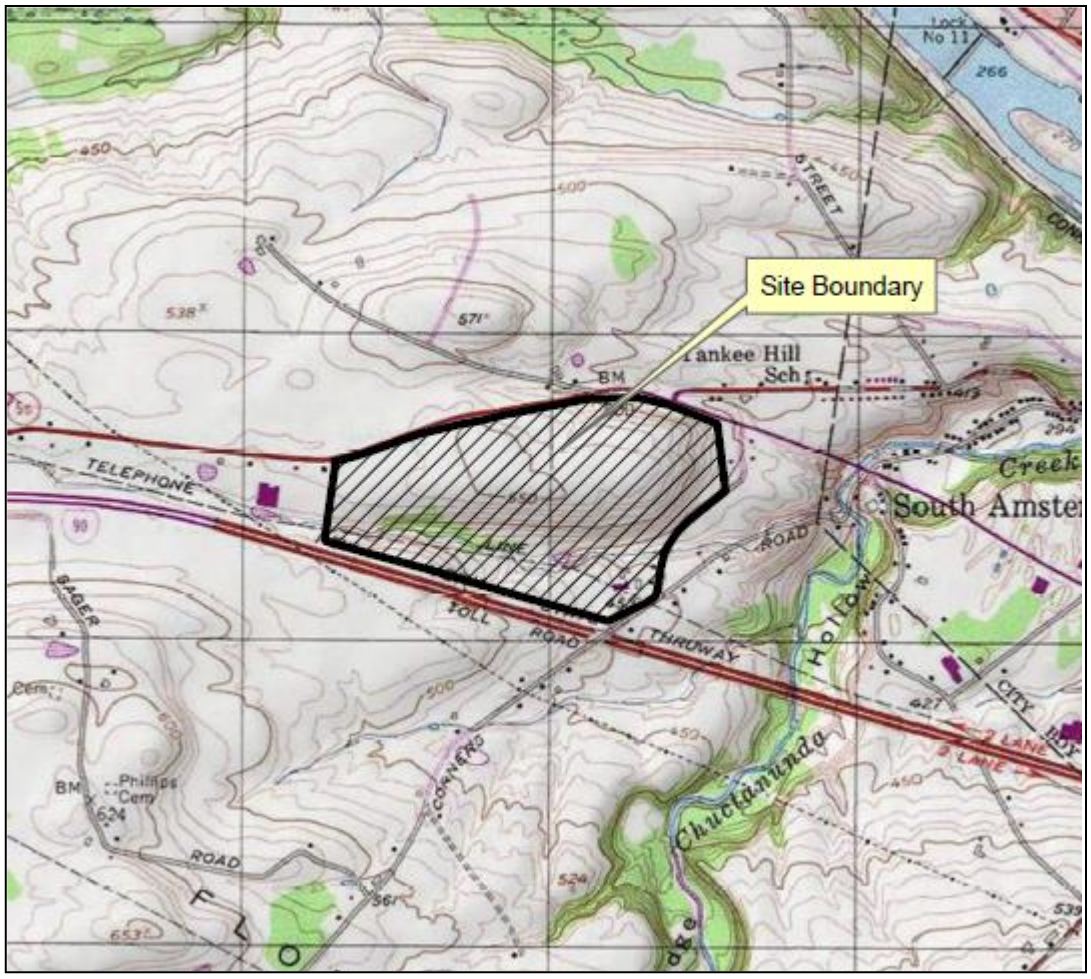
Upland area to be disturbed - field and mesophytic forest



Wetland at front of site near Route 5S



Figure 1 Location Map



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
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In Reply Refer To: 02/07/2025 13:44:34 UTC
Project Code: 2025-0053265
Project Name: Amazon Distribution Center

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

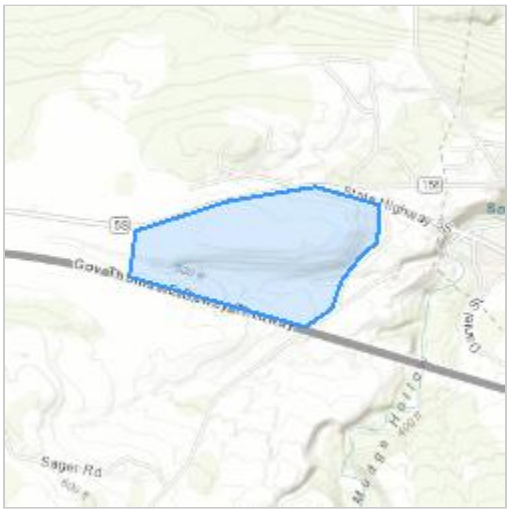
This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

PROJECT SUMMARY

Project Code: 2025-0053265
Project Name: Amazon Distribution Center
Project Type: Commercial Development
Project Description: Distribution Center
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.9328615,-74.22949892276824,14z



Counties: Montgomery County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Ecological Solutions, LLC
Name: Michael Nowicki
Address: 121 Leon Stocker Drive
City: Stratton
State: VT
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APPENDIX "I"

NRCS SOIL SURVEY

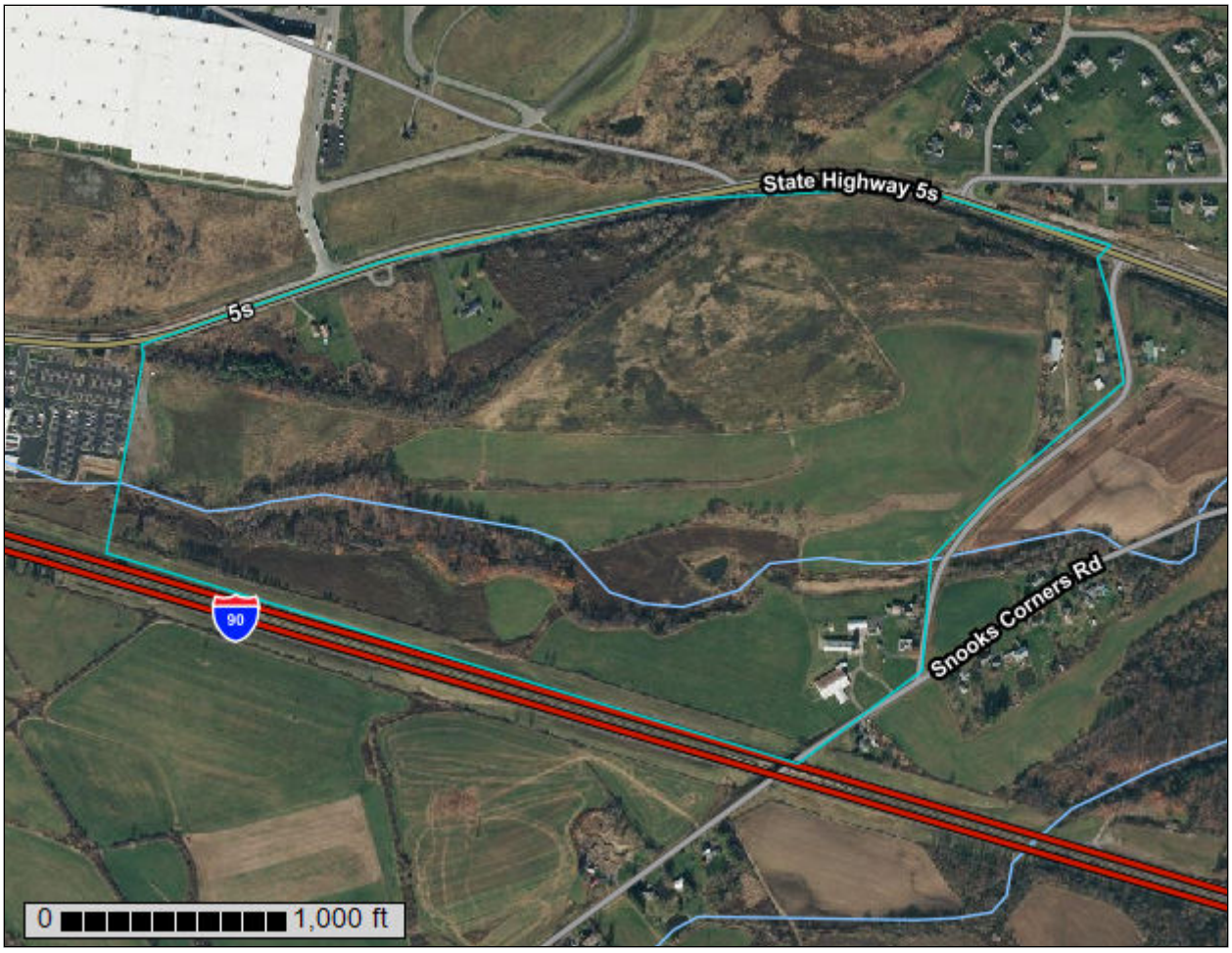
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Montgomery County, New York



January 30, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Montgomery County, New York.....14
AnB—Angola silt loam, 3 to 8 percent slopes.....14
ApB—Appleton silt loam, 3 to 8 percent slopes.....15
CFL—Cut and fill land.....17
ChA—Churchville silty clay loam, 0 to 3 percent slopes.....18
ChB—Churchville silty clay loam, 3 to 8 percent slopes.....19
DaB—Darien silt loam, 3 to 8 percent slopes.....21
LaC—Lansing silt loam, 8 to 15 percent slopes.....22
Ma—Madalin silty clay loam, 0 to 3 percent slopes.....24
MmB—Manheim silt loam, 3 to 8 percent slopes.....26
PaB—Palatine silt loam, 3 to 8 percent slopes.....27
PaC—Palatine silt loam, 8 to 15 percent slopes.....28
PaD—Palatine silt loam, 15 to 25 percent slopes.....30
RhB—Rhinebeck silty clay loam, 3 to 8 percent slopes.....31
W—Water.....32
References.....34

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:7,540 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, New York
Survey Area Data: Version 22, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 4, 2020—Nov 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnB	Angola silt loam, 3 to 8 percent slopes	7.4	4.2%
ApB	Appleton silt loam, 3 to 8 percent slopes	49.4	28.2%
CFL	Cut and fill land	2.1	1.2%
ChA	Churchville silty clay loam, 0 to 3 percent slopes	7.2	4.1%
ChB	Churchville silty clay loam, 3 to 8 percent slopes	8.5	4.8%
DaB	Darien silt loam, 3 to 8 percent slopes	0.4	0.2%
LaC	Lansing silt loam, 8 to 15 percent slopes	12.6	7.2%
Ma	Madalin silty clay loam, 0 to 3 percent slopes	3.0	1.7%
MmB	Manheim silt loam, 3 to 8 percent slopes	6.0	3.5%
PaB	Palatine silt loam, 3 to 8 percent slopes	23.4	13.4%
PaC	Palatine silt loam, 8 to 15 percent slopes	26.6	15.2%
PaD	Palatine silt loam, 15 to 25 percent slopes	25.5	14.5%
RhB	Rhinebeck silty clay loam, 3 to 8 percent slopes	2.5	1.5%
W	Water	0.5	0.3%
Totals for Area of Interest		**175.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made

up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Montgomery County, New York

AnB—Angola silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9tnk
Elevation: 300 to 1,410 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Angola and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Angola

Setting

Landform: Benches, ridges, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till derived mainly from shale and siltstone

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 24 inches: silty clay loam
R - 24 to 28 inches: weathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Ilion

Percent of map unit: 5 percent
Landform: Depressions

Hydric soil rating: Yes

Brockport
Percent of map unit: 5 percent
Hydric soil rating: No

Appleton
Percent of map unit: 5 percent
Hydric soil rating: No

Burdett
Percent of map unit: 5 percent
Hydric soil rating: No

Madalin, variant
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

ApB—Appleton silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w5ht
Elevation: 260 to 1,740 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Appleton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Appleton

Setting

Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: silt loam
E - 8 to 16 inches: loam
Bt - 16 to 30 inches: gravelly silt loam
C1 - 30 to 54 inches: gravelly loam
C2 - 54 to 79 inches: gravelly loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Conesus

Percent of map unit: 7 percent
Landform: Drumlins, hills, till plains
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Lyons

Percent of map unit: 5 percent
Landform: Depressions, drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Darien

Percent of map unit: 4 percent
Landform: Till plains, drainageways
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Churchville

Percent of map unit: 4 percent
Landform: Lake plains, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, rise, talf
Down-slope shape: Concave
Across-slope shape: Linear

Hydric soil rating: No

CFL—Cut and fill land

Map Unit Setting

National map unit symbol: 9tp6
Elevation: 180 to 1,380 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Typical profile

H1 - 0 to 4 inches: gravelly loam
H2 - 4 to 70 inches: very gravelly loam

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Sun

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Angola

Percent of map unit: 5 percent
Hydric soil rating: No

Ilion
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Raynham
Percent of map unit: 5 percent
Hydric soil rating: No

Hudson
Percent of map unit: 5 percent
Hydric soil rating: No

Alton
Percent of map unit: 5 percent
Hydric soil rating: No

ChA—Churchville silty clay loam, 0 to 3 percent slopes

Map Unit Setting
National map unit symbol: 9tp9
Elevation: 460 to 1,070 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Churchville and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Churchville

Setting
Landform: Lake plains, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey glaciolacustrine deposits over loamy till

Typical profile
H1 - 0 to 7 inches: silty clay loam
H2 - 7 to 32 inches: clay
H3 - 32 to 84 inches: channery loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Darien

Percent of map unit: 5 percent
Hydric soil rating: No

Madalin

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Rhinebeck

Percent of map unit: 5 percent
Hydric soil rating: No

Fonda

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

ChB—Churchville silty clay loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9tpb
Elevation: 260 to 1,100 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Churchville and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Churchville

Setting

Landform: Lake plains, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey glaciolacustrine deposits over loamy till

Typical profile

H1 - 0 to 7 inches: silty clay loam
H2 - 7 to 32 inches: clay
H3 - 32 to 84 inches: channery loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Darien

Percent of map unit: 5 percent
Hydric soil rating: No

Madalin

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Fonda

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Rhinebeck

Percent of map unit: 5 percent
Hydric soil rating: No

DaB—Darien silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9tph
Elevation: 300 to 1,250 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Darien and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Darien

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till derived predominantly from calcareous gray shale

Typical profile

H1 - 0 to 7 inches: silt loam
H2 - 7 to 10 inches: silt loam
H3 - 10 to 31 inches: channery silty clay loam
H4 - 31 to 60 inches: channery silty clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Rhinebeck
Percent of map unit: 5 percent
Hydric soil rating: No

Ilion
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Burdett
Percent of map unit: 5 percent
Hydric soil rating: No

Churchville
Percent of map unit: 5 percent
Hydric soil rating: No

Madalin
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

LaC—Lansing silt loam, 8 to 15 percent slopes

Map Unit Setting
National map unit symbol: 2w3mh
Elevation: 330 to 2,130 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Lansing and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lansing

Setting
Landform: Drumlins, hills, till plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: silt loam
E - 8 to 13 inches: gravelly silt loam
Bt/E - 13 to 21 inches: gravelly silt loam
Bt1 - 21 to 28 inches: gravelly silt loam
Bt2 - 28 to 39 inches: gravelly silt loam
C - 39 to 79 inches: gravelly loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Conesus

Percent of map unit: 8 percent
Landform: Drumlins, hills, till plains
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Kendaia

Percent of map unit: 3 percent
Landform: Drumlins, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Appleton

Percent of map unit: 2 percent
Landform: Drumlins, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Danley

Percent of map unit: 1 percent
Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Wassaic

Percent of map unit: 1 percent
Landform: Benches, ridges, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ma—Madalin silty clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2spjz
Elevation: 330 to 1,200 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Madalin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Madalin

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Brown clayey glaciolacustrine deposits derived from calcareous shale

Typical profile

Ap - 0 to 7 inches: silty clay loam
Bg - 7 to 9 inches: silty clay loam
Btg1 - 9 to 21 inches: clay
Btg2 - 21 to 30 inches: silty clay
Cg - 30 to 79 inches: stratified silt to clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 7 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F101XY010NY - Wet Lake Plain Depression
Hydric soil rating: Yes

Minor Components

Rhinebeck

Percent of map unit: 5 percent
Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Fonda

Percent of map unit: 4 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Canandaigua

Percent of map unit: 4 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Barre

Percent of map unit: 2 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave
Across-slope shape: Concave

Hydric soil rating: Yes

MmB—Manheim silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9tqs
Elevation: 500 to 1,800 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Manheim and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manheim

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy till dominated by black or dark gray shale that is neutral or calcareous

Typical profile

H1 - 0 to 9 inches: silt loam
H2 - 9 to 28 inches: gravelly silt loam
H3 - 28 to 50 inches: gravelly silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Darien
Percent of map unit: 5 percent
Hydric soil rating: No

Appleton
Percent of map unit: 5 percent
Hydric soil rating: No

Mohawk
Percent of map unit: 5 percent
Hydric soil rating: No

Ilion
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

PaB—Palatine silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 9trd
Elevation: 600 to 1,800 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Palatine and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Palatine

Setting
Landform: Benches, ridges, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till dominated by calcareous dark shale

Typical profile
H1 - 0 to 11 inches: silt loam
H2 - 11 to 18 inches: channery silt loam
H3 - 18 to 28 inches: very channery silt loam
H4 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Manheim

Percent of map unit: 5 percent
Hydric soil rating: No

Brockport

Percent of map unit: 5 percent
Hydric soil rating: No

Angola

Percent of map unit: 5 percent
Hydric soil rating: No

Broadalbin

Percent of map unit: 5 percent
Hydric soil rating: No

Mohawk

Percent of map unit: 5 percent
Hydric soil rating: No

PaC—Palatine silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9trf
Elevation: 600 to 1,800 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Palatine and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Palatine

Setting

Landform: Benches, ridges, till plains
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till dominated by calcareous dark shale

Typical profile

H1 - 0 to 11 inches: silt loam
H2 - 11 to 18 inches: channery silt loam
H3 - 18 to 28 inches: very channery silt loam
H4 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Mohawk

Percent of map unit: 5 percent
Hydric soil rating: No

Brockport

Percent of map unit: 5 percent
Hydric soil rating: No

Angola

Percent of map unit: 5 percent
Hydric soil rating: No

Darien

Percent of map unit: 5 percent
Hydric soil rating: No

Arnot

Percent of map unit: 5 percent
Hydric soil rating: No

PaD—Palatine silt loam, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 9trg
Elevation: 600 to 1,800 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Palatine and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Palatine

Setting

Landform: Benches, ridges, till plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till dominated by calcareous dark shale

Typical profile

H1 - 0 to 11 inches: silt loam
H2 - 11 to 18 inches: channery silt loam
H3 - 18 to 28 inches: very channery silt loam
H4 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Arnot
Percent of map unit: 5 percent
Hydric soil rating: No

Mohawk
Percent of map unit: 5 percent
Hydric soil rating: No

Farmington
Percent of map unit: 5 percent
Hydric soil rating: No

Angola
Percent of map unit: 5 percent
Hydric soil rating: No

Nellis
Percent of map unit: 5 percent
Hydric soil rating: No

RhB—Rhinebeck silty clay loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 9trx
Elevation: 80 to 1,000 feet
Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Rhinebeck and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rhinebeck

Setting
Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 13 inches: silty clay loam
H2 - 13 to 28 inches: silty clay
H3 - 28 to 70 inches: stratified silt loam to clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Fonda

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Churchville

Percent of map unit: 5 percent
Hydric soil rating: No

Hudson

Percent of map unit: 5 percent
Hydric soil rating: No

Odessa

Percent of map unit: 5 percent
Hydric soil rating: No

Madalin

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

W—Water

Map Unit Setting

National map unit symbol: 9tsc

Mean annual precipitation: 38 to 44 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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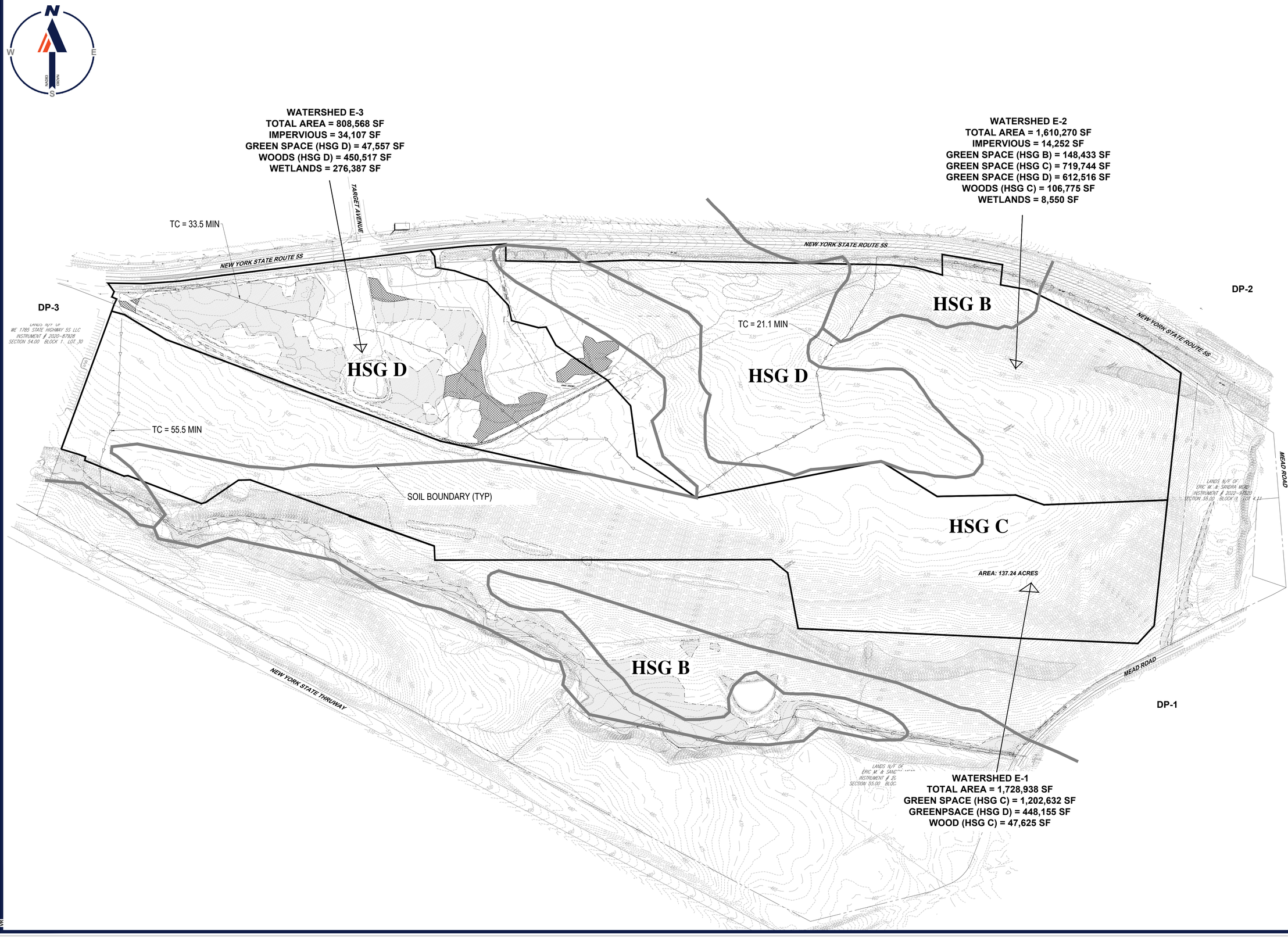
APPENDIX "J"

HYDRAULIC CALCULATIONS



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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	1/28/2025	PER CLIENT COMMENTS	SJR / SRW
2	2/07/2025	REVISED DRIVEWAYS	JRS / SRW
3	2/25/2025	REVISED SUBSTATION LOCATION	JRS / SRW

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DRAWN BY:	SJR
CHECKED BY:	SRW
DATE:	1/10/2025
CAD I.D.:	X-CIVIL-DRNG

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

PRE DEVELOPMENT DRAINAGE AREA MAP

SHEET NUMBER:

REVISION 3 - 2/25/2025

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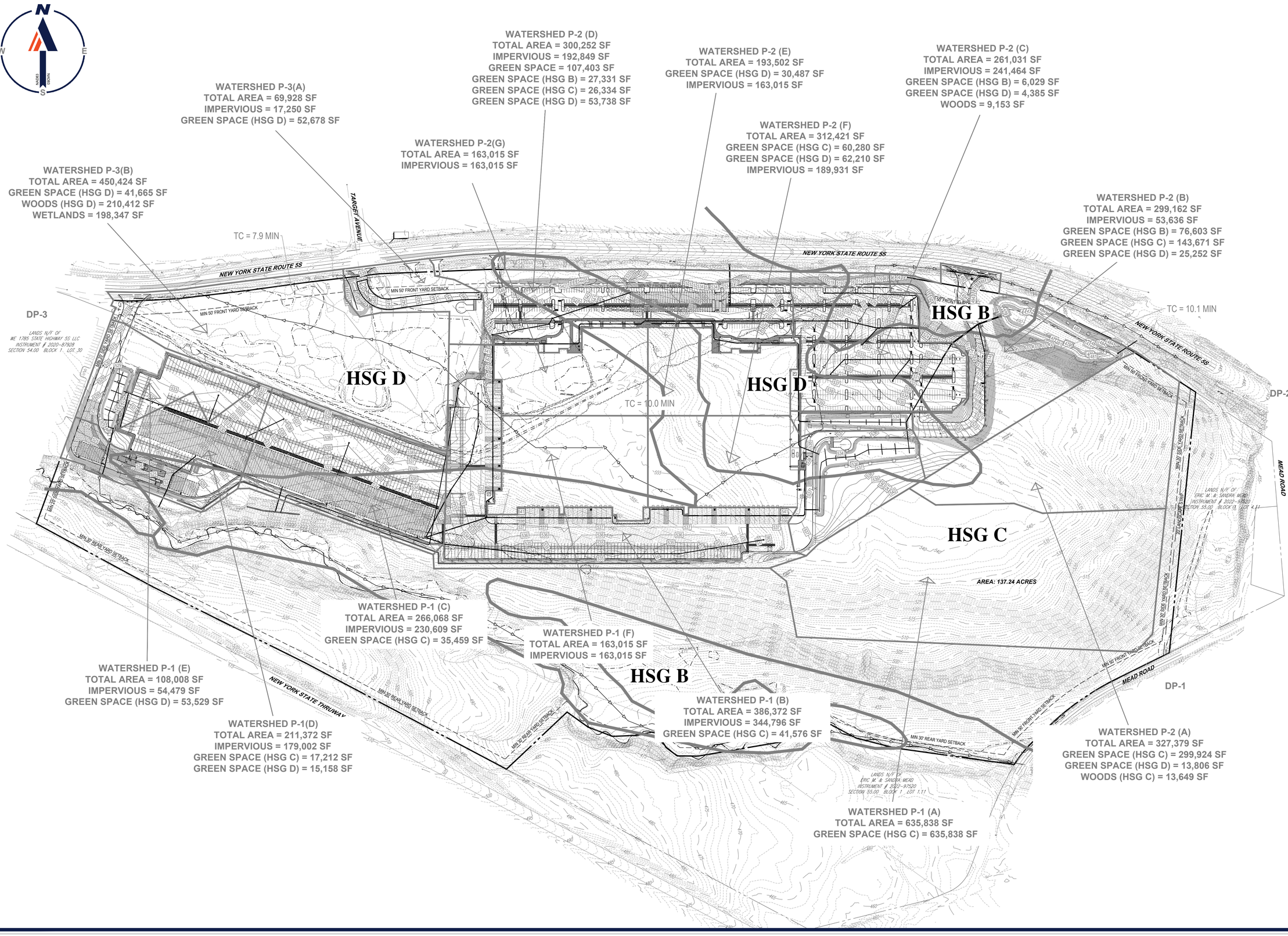
VR



P:\2024\NYB240176.00\CAD\DRAWINGS\XREFS\CIVIL SITE PLANS\X-CIVIL-DRNG-NYB240176.00----LAYOUT: POST VR

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DATE:	1/10/2025
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SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

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MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
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SHEET TITLE:

POST DEVELOPMENT DRAINAGE AREA MAP

SHEET NUMBER:

REVISION 3 - 2/25/2025

THE LOCATION AND ELEVATION OF UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN HEREON WERE DETERMINED BY FIELD SURVEY AND/OR EXISTING RECORDS. BOHLER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES AND/OR STRUCTURES SHOWN COMPRISE ALL SUCH UTILITIES AND/OR STRUCTURES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES AND/OR STRUCTURES AND FOR AVOIDING ANY DAMAGE THERETO. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITIES AND/OR AGENCIES PRIOR TO CONSTRUCTION FOR FIELD MARKOUT OF UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROFESSIONAL ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND BETWEEN THE PLANS AND FIELD CONDITIONS. IF THE CONTRACTOR DOES NOT NOTIFY THE PROFESSIONAL ENGINEER OF ANY DISCREPANCIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CONSTRUCTION REVISIONS REQUIRED AS A RESULT OF THESE DISCREPANCIES.

Filtration Bioretention (F-5)

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	3.74	3.74	100	0.95	18,056	1.40	0

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	10	
Enter depth to bedrock (ft)	3	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	3	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	7523	sf	
Enter Provided Filter Area	Af	11500	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	27600	cf	

Calculate Runoff Reduction			
RRv Provided	**11,040**	***cf***	
WQv Treated	7016	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	4.37	4.37	100	0.95	21,098	1.40	0

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	10	
Enter depth to bedrock (ft)	3	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	3	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	8791	sf	
Enter Provided Filter Area	Af	22000	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	52800	cf	

Calculate Runoff Reduction			
RRv Provided	**21,098**	***cf***	
WQv Treated	0	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
3	1.82	1.82	100	0.95	8,787	1.40	0

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	10	
Enter depth to bedrock (ft)	3	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	3	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	3661	sf	
Enter Provided Filter Area	Af	10000	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	24000	cf	

Calculate Runoff Reduction			
RRv Provided	**8,787**	***cf***	
WQv Treated	0	cf	This is the portion of the WQv that is not reduced in the practice.

Filtration Bioretention (F-5)

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
4	0.37	0.37	100	0.95	1,786	1.40	0

Design Criteria		
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)	0	Underdrains required
Is the contributing area to the practice a stormwater hotspot?	No	
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?	No	
Is contributing area greater than max. contributing area?	No	
Enter depth to seasonal high water table (ft)	10	
Enter depth to bedrock (ft)	3	
Is pretreatment provided, in conformance with Section 6.4.3.1	Yes	
Enter average height of ponding (ft)	0.5	
Enter depth of surface layer (inches)	3	
Enter depth of filter media (ft)	2.5	
Enter depth of drainage layer (inches)	10	
Enter slope of maintenance access (%)	3	
Enter width of maintenance access (ft)	12	

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	744	sf	
Enter Provided Filter Area	Af	1900	sf	
Recalculated Water Quality Volume (based on provided filter area)	WQv calc	4560	cf	

Calculate Runoff Reduction			
RRv Provided	**1,786**	***cf***	
WQv Treated	0	cf	This is the portion of the WQv that is not reduced in the practice.

Stormwater Ponds

Design Point:	

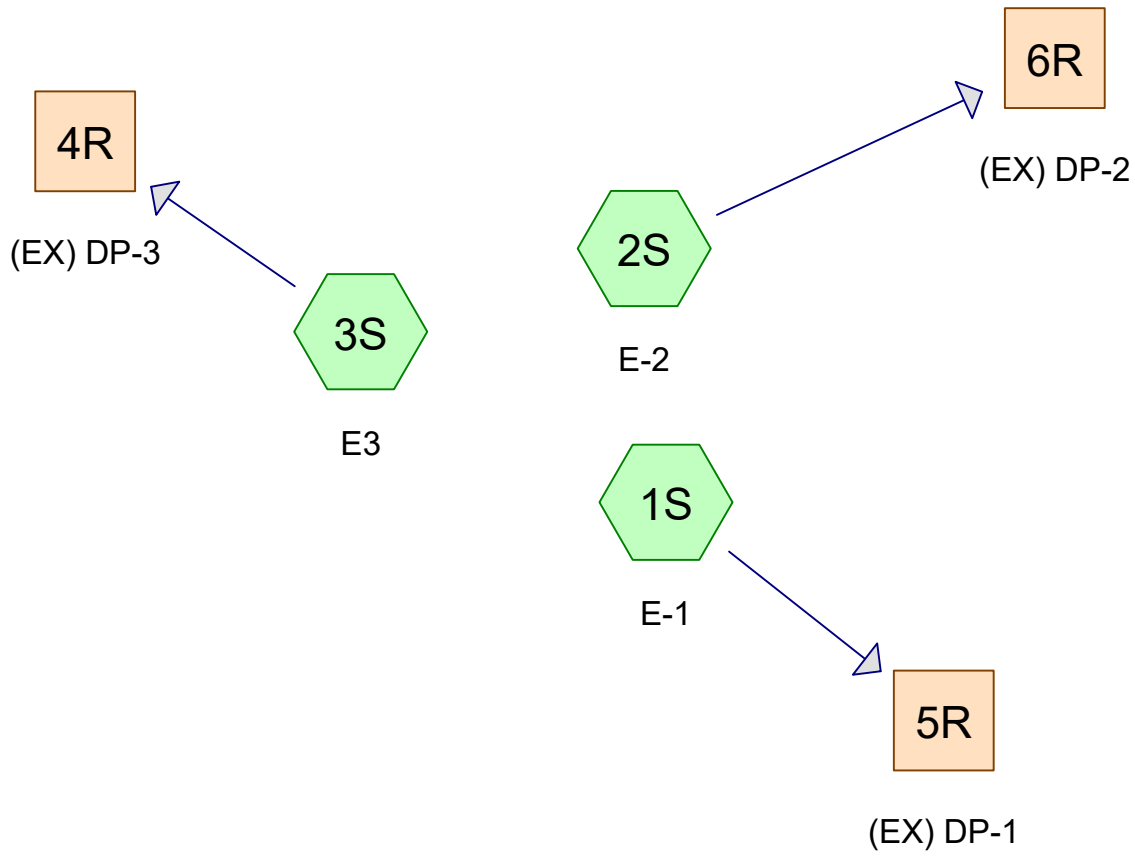
Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
5	10.51	10.51	100	0.95	50,741	1.40	0

Select pond type	

Design Criteria		
Is the pond located within jurisdictional waters?	No	
Enter the natural slope of the pond area (%)	15	
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D).	0	
Has an impermeable liner been provided?	Yes	
Is the pond located within a sole source aquifer?	No	
Is the pond located within a designated hotspot?	No	
Enter depth to seasonal high water table (ft)	0	
Enter depth to sound bedrock (ft)	0	
Is the contributing area less than the minimum contributing area?	No	
Will the pond discharge to trout waters?	No	
Has a controlled outlet been provided?	Yes	
Has an emergency spillway been provided?	Yes	
Has pretreatment been provided per Section 6.1.3?	Yes	
Enter freeboard depth (ft)	1	
Enter side slopes above permanent pool (X:1)	3	
Enter aquatic bench slope (%)	3	
Enter aquatic bench slope to pond floor (X:1)	3	
Enter min. aquatic bench width provided (ft)	10	
Enter aquatic bench average width provided (ft)	15	
Enter aquatic bench depth (inches)	2	
Enter maintenance access slope (%)	5	
Enter maintenance access width (ft)	12	
Enter permanent pool depth (ft)	4	
Minimum permanent pool depth per Water Balance Calculation (ft)	4.00	

Sizing Criteria			
	Value	Units	Notes
Required Water Quality Volume	50741	cf	
Pretreatment WQv Provided	10000	cf	
Permanent Pool WQv Provided	10000	cf	
Extended Detention WQv Provided	50000	cf	

Determine the Water Quality Volume Treated		
Water Quality Volume Treated	**50,741**	**cf**



Subcat Reach Pond Link

Routing Diagram for Mead Rd - Florida - Ex
Prepared by {enter your company name here}, Printed 4/22/2025
HydroCAD® 10.00-21 s/n 08311 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.408	61	>75% Grass cover, Good, HSG B (2S)
44.131	74	>75% Grass cover, Good, HSG C (1S, 2S)
26.142	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S)
1.110	98	Paved parking, HSG D (2S, 3S)
6.541	98	Water Surface, 0% imp, HSG D (2S, 3S)
3.545	70	Woods, Good, HSG C (1S, 2S)
10.342	77	Woods, Good, HSG D (3S)
95.220	**77**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
3.408	HSG B	2S
47.676	HSG C	1S, 2S
44.136	HSG D	1S, 2S, 3S
0.000	Other	
95.220		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	3.408	44.131	26.142	0.000	73.681	>75% Grass cover, Good	1S, 2S, 3S
0.000	0.000	0.000	1.110	0.000	1.110	Paved parking	2S, 3S
0.000	0.000	0.000	6.541	0.000	6.541	Water Surface, 0% imp	2S, 3S
0.000	0.000	3.545	10.342	0.000	13.887	Woods, Good	1S, 2S, 3S
0.000	**3.408**	**47.676**	**44.136**	**0.000**	**95.220**	**TOTAL AREA**	

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: E-1 Runoff Area=1,728,938 sf 0.00% Impervious Runoff Depth=0.51"
Flow Length=4,238' Tc=55.5 min CN=WQ Runoff=9.34 cfs 1.671 af

Subcatchment2S: E-2 Runoff Area=1,610,270 sf 0.89% Impervious Runoff Depth=0.52"
Flow Length=2,427' Tc=21.1 min CN=WQ Runoff=17.71 cfs 1.590 af

Subcatchment3S: E3 Runoff Area=808,568 sf 4.22% Impervious Runoff Depth=1.10"
Flow Length=2,229' Tc=33.5 min CN=WQ Runoff=14.98 cfs 1.705 af

Reach 4R: (EX) DP-3 Inflow=14.98 cfs 1.705 af
Outflow=14.98 cfs 1.705 af

Reach 5R: (EX) DP-1 Inflow=9.34 cfs 1.671 af
Outflow=9.34 cfs 1.671 af

Reach 6R: (EX) DP-2 Inflow=17.71 cfs 1.590 af
Outflow=17.71 cfs 1.590 af

Total Runoff Area = 95.220 ac Runoff Volume = 4.966 af Average Runoff Depth = 0.63"
98.83% Pervious = 94.110 ac 1.17% Impervious = 1.110 ac

Summary for Subcatchment 1S: E-1

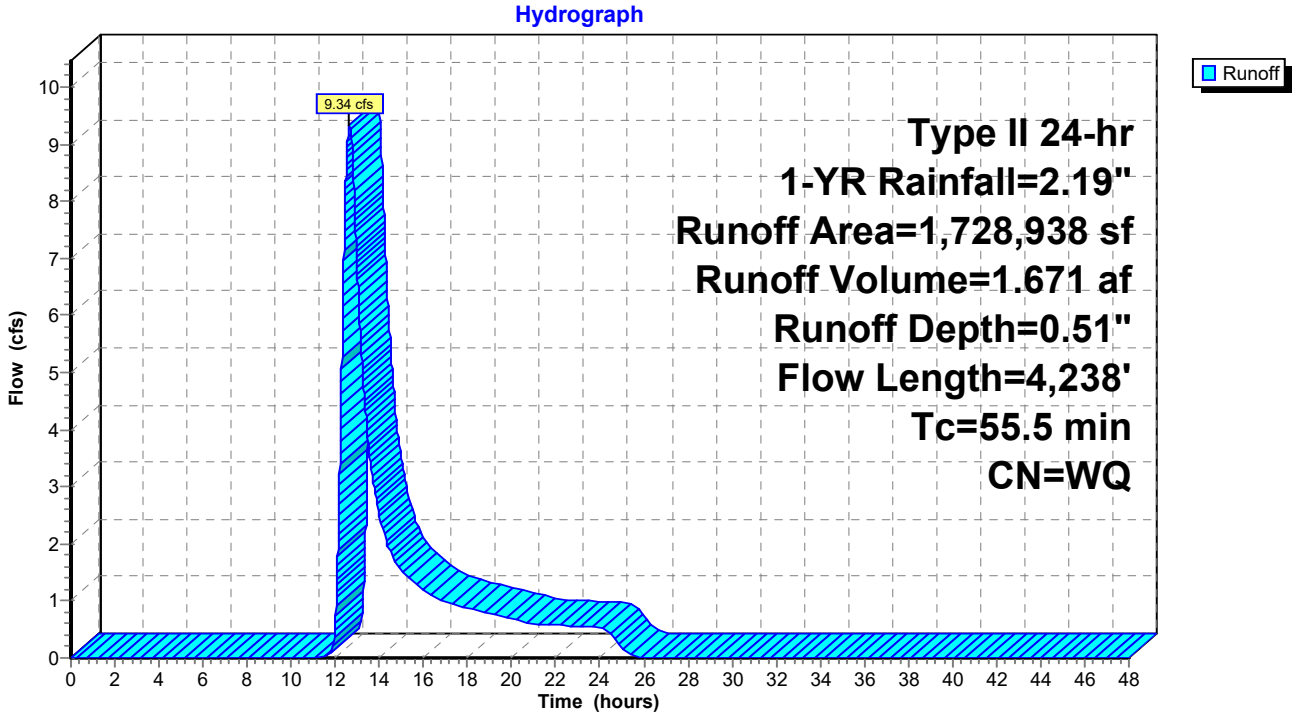
Runoff = 9.34 cfs @ 12.64 hrs, Volume= 1.671 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
478,690	80	>75% Grass cover, Good, HSG D
1,202,623	74	>75% Grass cover, Good, HSG C
47,625	70	Woods, Good, HSG C
1,728,938		Weighted Average
1,728,938		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0450	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
4.3	515	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
40.8	3,623	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040 Winding stream, pools & shoals
55.5	4,238	Total			

Subcatchment 1S: E-1



Summary for Subcatchment 2S: E-2

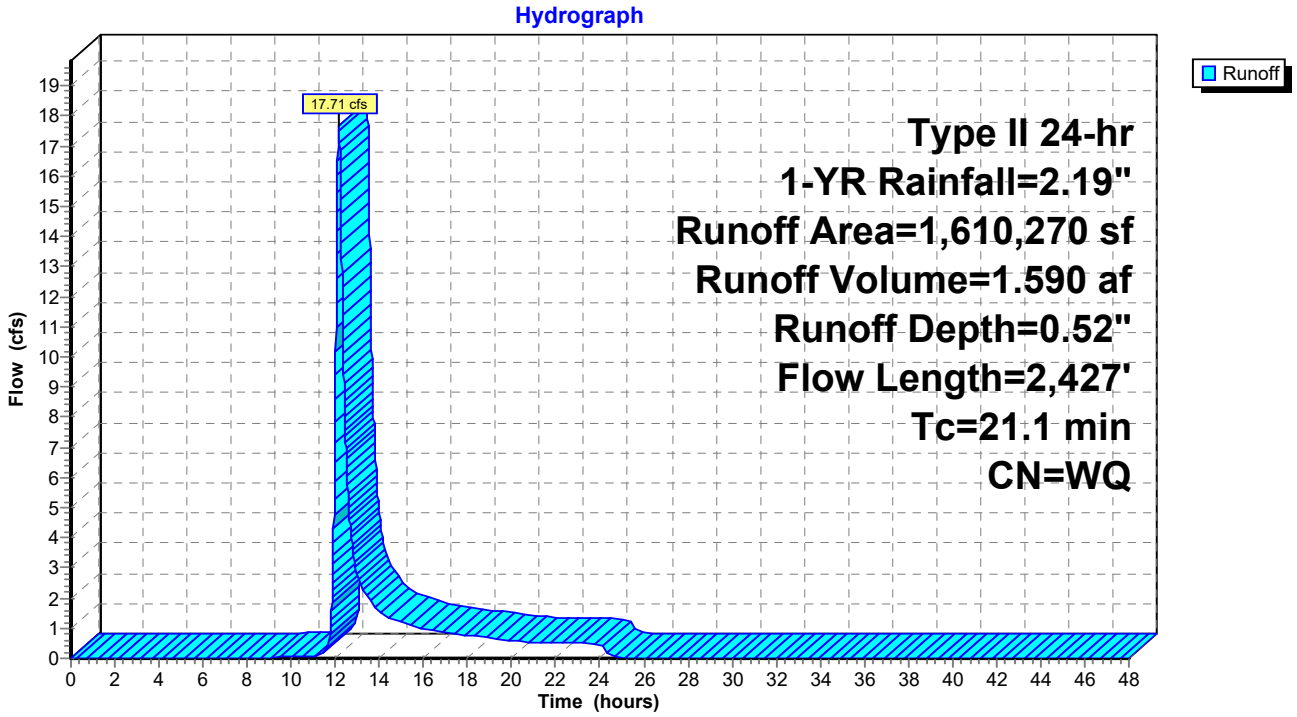
Runoff = 17.71 cfs @ 12.17 hrs, Volume= 1.590 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
14,252	98	Paved parking, HSG D
612,516	80	>75% Grass cover, Good, HSG D
719,744	74	>75% Grass cover, Good, HSG C
148,433	61	>75% Grass cover, Good, HSG B
8,550	98	Water Surface, 0% imp, HSG D
106,775	70	Woods, Good, HSG C
1,610,270		Weighted Average
1,596,018		99.11% Pervious Area
14,252		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0300	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.5	1,106	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.4	1,221	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
21.1	2,427	Total			

Subcatchment 2S: E-2



Summary for Subcatchment 3S: E3

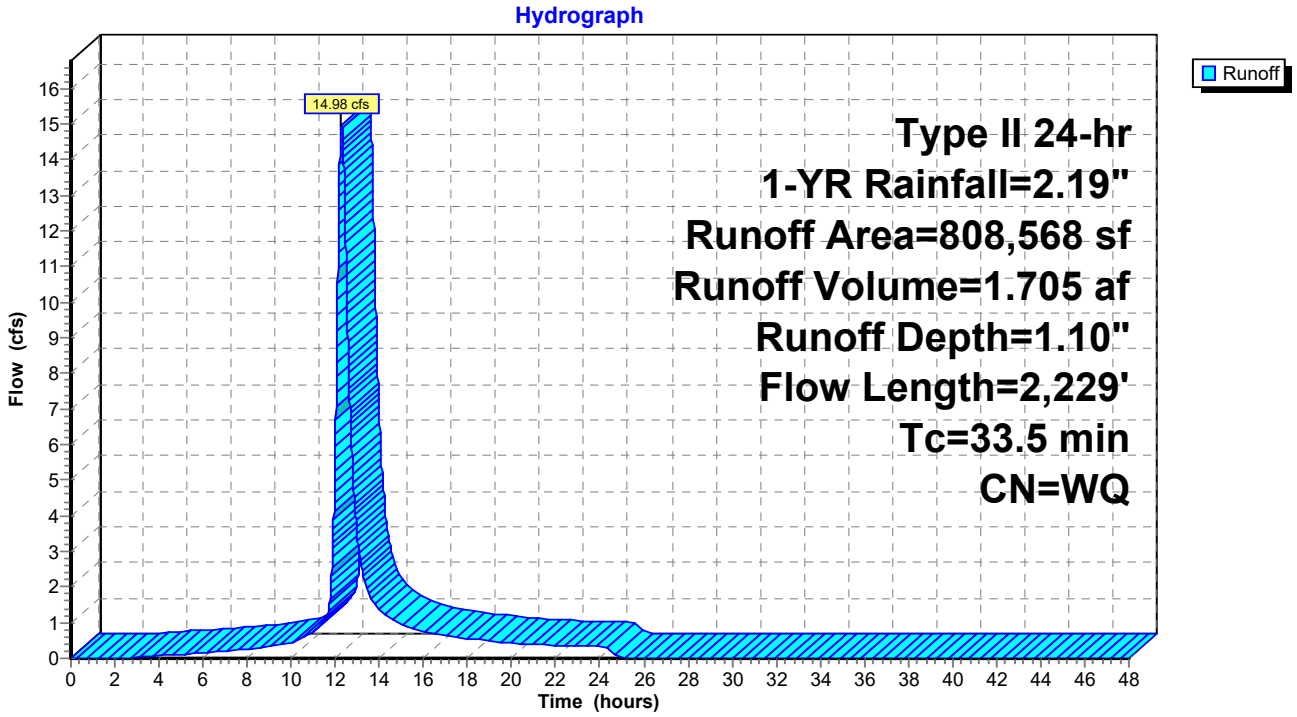
Runoff = 14.98 cfs @ 12.28 hrs, Volume= 1.705 af, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
34,107	98	Paved parking, HSG D
47,557	80	>75% Grass cover, Good, HSG D
450,517	77	Woods, Good, HSG D
276,387	98	Water Surface, 0% imp, HSG D
808,568		Weighted Average
774,461		95.78% Pervious Area
34,107		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.4	486	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
5.0	570	0.0160	1.90		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	435		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
1.0	302	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.4	336		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
33.5	2,229	Total			

Subcatchment 3S: E3

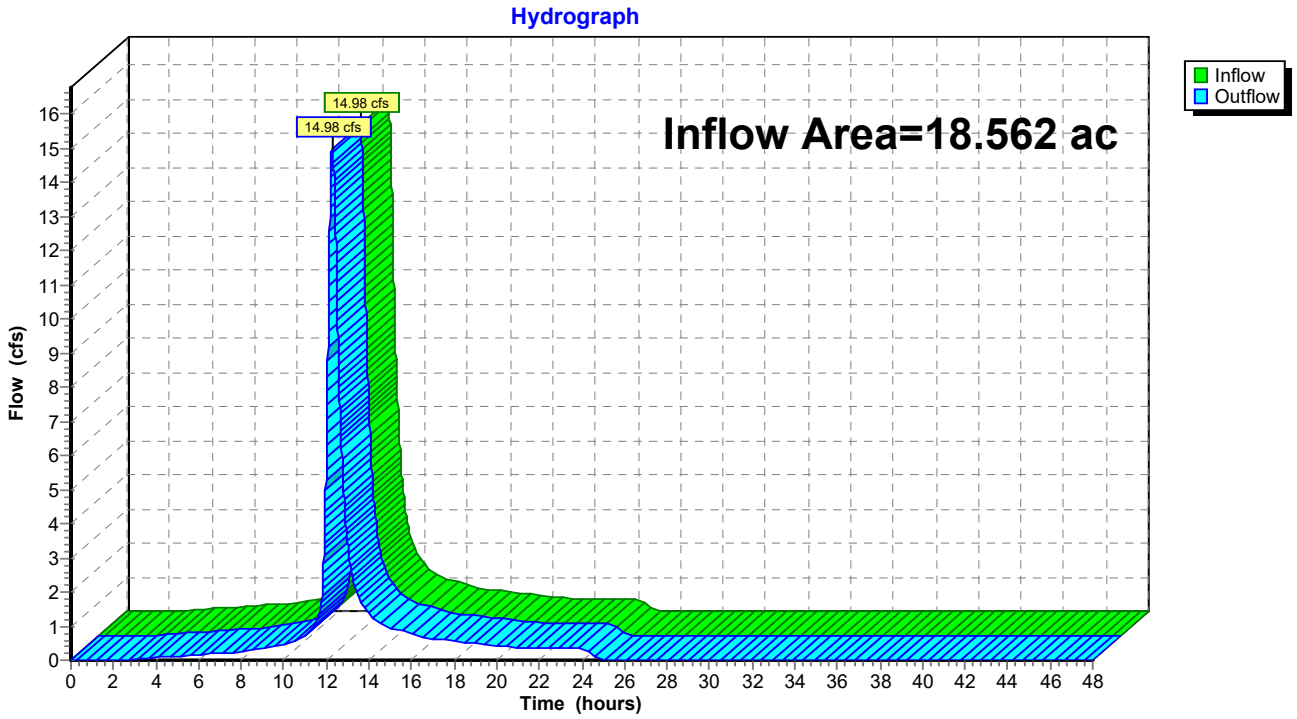


Summary for Reach 4R: (EX) DP-3

Inflow Area = 18.562 ac, 4.22% Impervious, Inflow Depth = 1.10" for 1-YR event
Inflow = 14.98 cfs @ 12.28 hrs, Volume= 1.705 af
Outflow = 14.98 cfs @ 12.28 hrs, Volume= 1.705 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 4R: (EX) DP-3

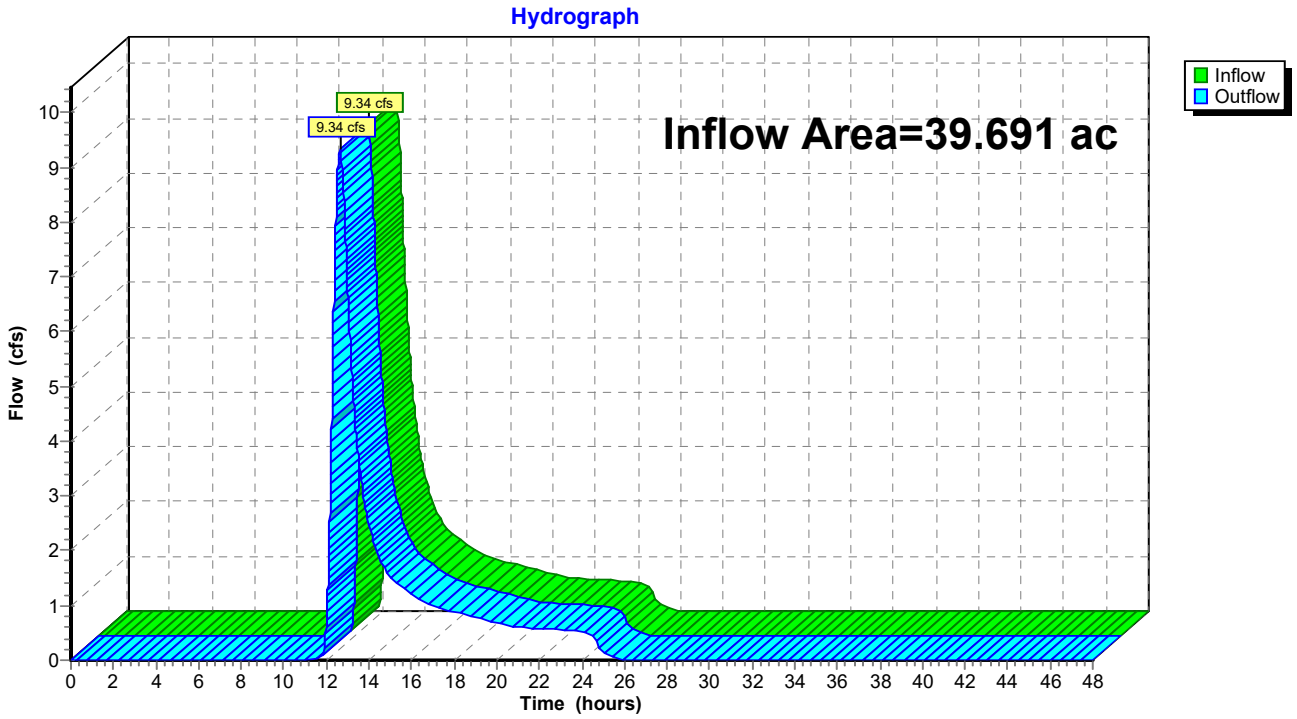


Summary for Reach 5R: (EX) DP-1

Inflow Area = 39.691 ac, 0.00% Impervious, Inflow Depth = 0.51" for 1-YR event
Inflow = 9.34 cfs @ 12.64 hrs, Volume= 1.671 af
Outflow = 9.34 cfs @ 12.64 hrs, Volume= 1.671 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 5R: (EX) DP-1

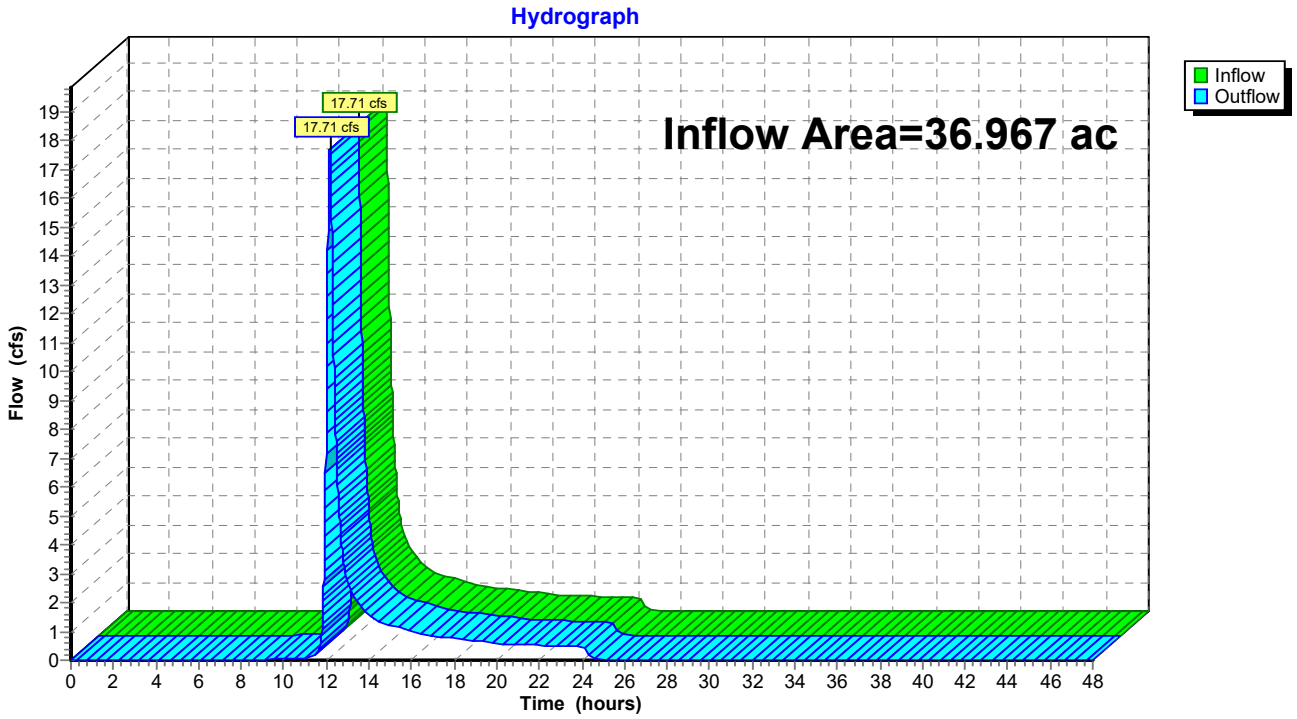


Summary for Reach 6R: (EX) DP-2

Inflow Area = 36.967 ac, 0.89% Impervious, Inflow Depth = 0.52" for 1-YR event
Inflow = 17.71 cfs @ 12.17 hrs, Volume= 1.590 af
Outflow = 17.71 cfs @ 12.17 hrs, Volume= 1.590 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 6R: (EX) DP-2



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: E-1 Runoff Area=1,728,938 sf 0.00% Impervious Runoff Depth=1.34"
Flow Length=4,238' Tc=55.5 min CN=WQ Runoff=28.65 cfs 4.443 af

Subcatchment2S: E-2 Runoff Area=1,610,270 sf 0.89% Impervious Runoff Depth=1.34"
Flow Length=2,427' Tc=21.1 min CN=WQ Runoff=51.43 cfs 4.136 af

Subcatchment3S: E3 Runoff Area=808,568 sf 4.22% Impervious Runoff Depth=2.15"
Flow Length=2,229' Tc=33.5 min CN=WQ Runoff=30.09 cfs 3.322 af

Reach 4R: (EX) DP-3 Inflow=30.09 cfs 3.322 af
Outflow=30.09 cfs 3.322 af

Reach 5R: (EX) DP-1 Inflow=28.65 cfs 4.443 af
Outflow=28.65 cfs 4.443 af

Reach 6R: (EX) DP-2 Inflow=51.43 cfs 4.136 af
Outflow=51.43 cfs 4.136 af

Total Runoff Area = 95.220 ac Runoff Volume = 11.901 af Average Runoff Depth = 1.50"
98.83% Pervious = 94.110 ac 1.17% Impervious = 1.110 ac

Summary for Subcatchment 1S: E-1

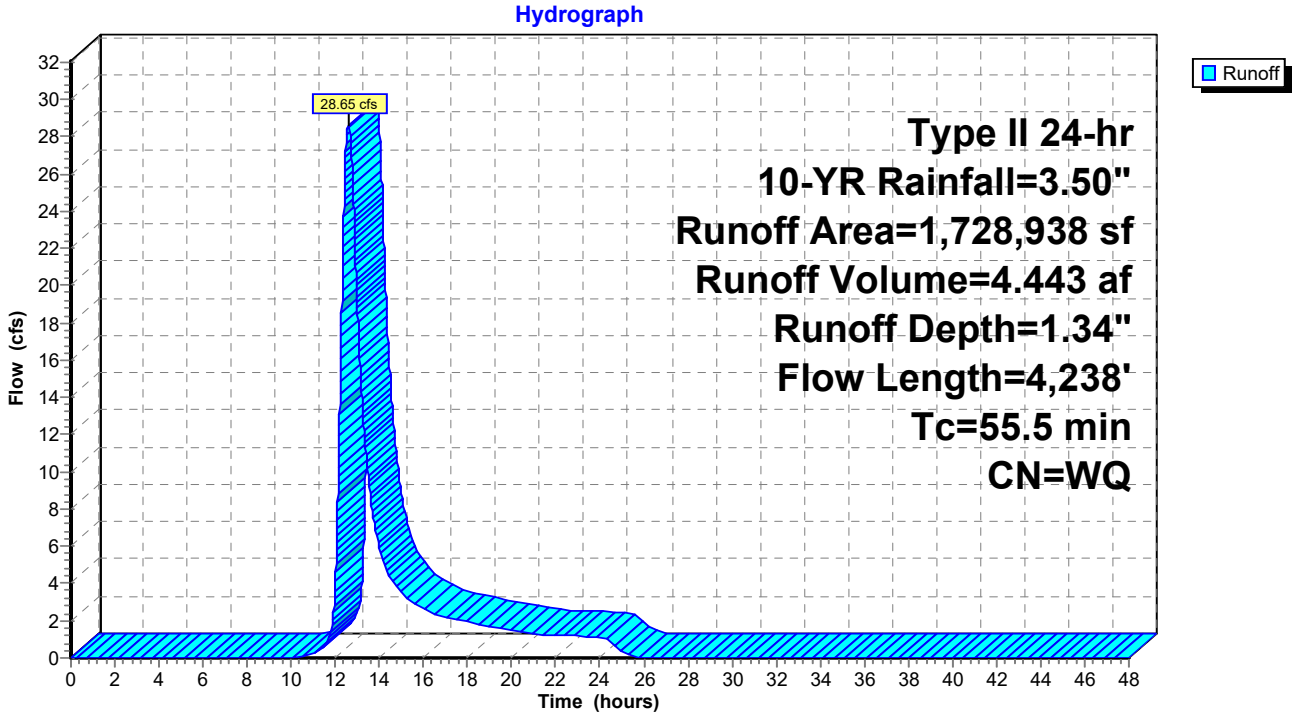
Runoff = 28.65 cfs @ 12.58 hrs, Volume= 4.443 af, Depth= 1.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
478,690	80	>75% Grass cover, Good, HSG D
1,202,623	74	>75% Grass cover, Good, HSG C
47,625	70	Woods, Good, HSG C
1,728,938		Weighted Average
1,728,938		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0450	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
4.3	515	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
40.8	3,623	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040 Winding stream, pools & shoals
55.5	4,238	Total			

Subcatchment 1S: E-1



Summary for Subcatchment 2S: E-2

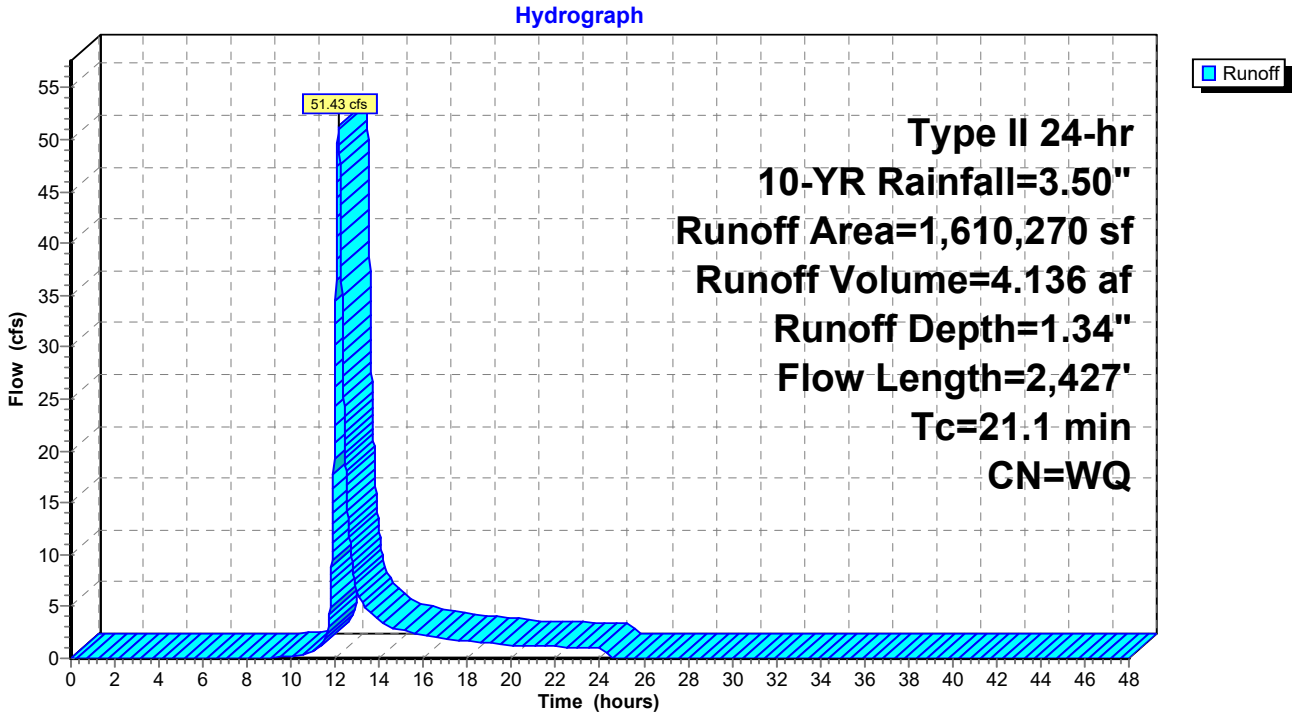
Runoff = 51.43 cfs @ 12.15 hrs, Volume= 4.136 af, Depth= 1.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
14,252	98	Paved parking, HSG D
612,516	80	>75% Grass cover, Good, HSG D
719,744	74	>75% Grass cover, Good, HSG C
148,433	61	>75% Grass cover, Good, HSG B
8,550	98	Water Surface, 0% imp, HSG D
106,775	70	Woods, Good, HSG C
1,610,270		Weighted Average
1,596,018		99.11% Pervious Area
14,252		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0300	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.5	1,106	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.4	1,221	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
21.1	2,427	Total			

Subcatchment 2S: E-2



Summary for Subcatchment 3S: E3

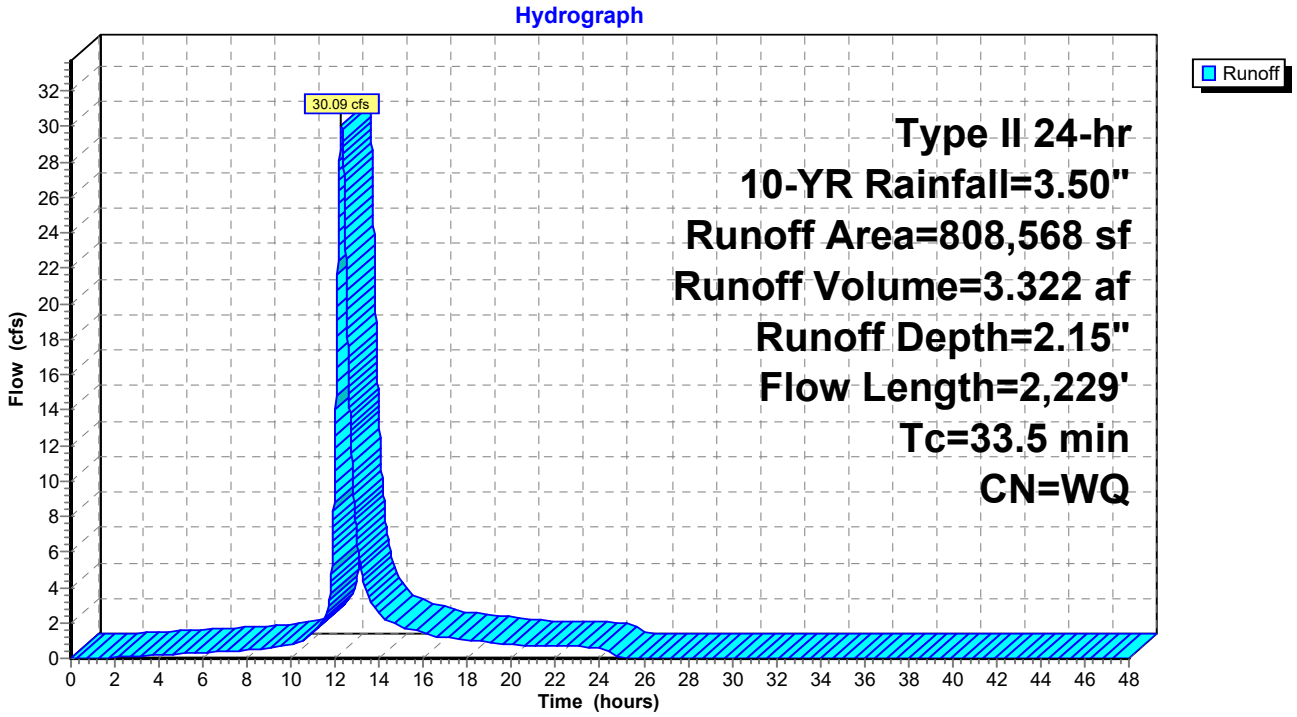
Runoff = 30.09 cfs @ 12.28 hrs, Volume= 3.322 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
34,107	98	Paved parking, HSG D
47,557	80	>75% Grass cover, Good, HSG D
450,517	77	Woods, Good, HSG D
276,387	98	Water Surface, 0% imp, HSG D
808,568		Weighted Average
774,461		95.78% Pervious Area
34,107		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.4	486	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
5.0	570	0.0160	1.90		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	435		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
1.0	302	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.4	336		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
33.5	2,229	Total			

Subcatchment 3S: E3

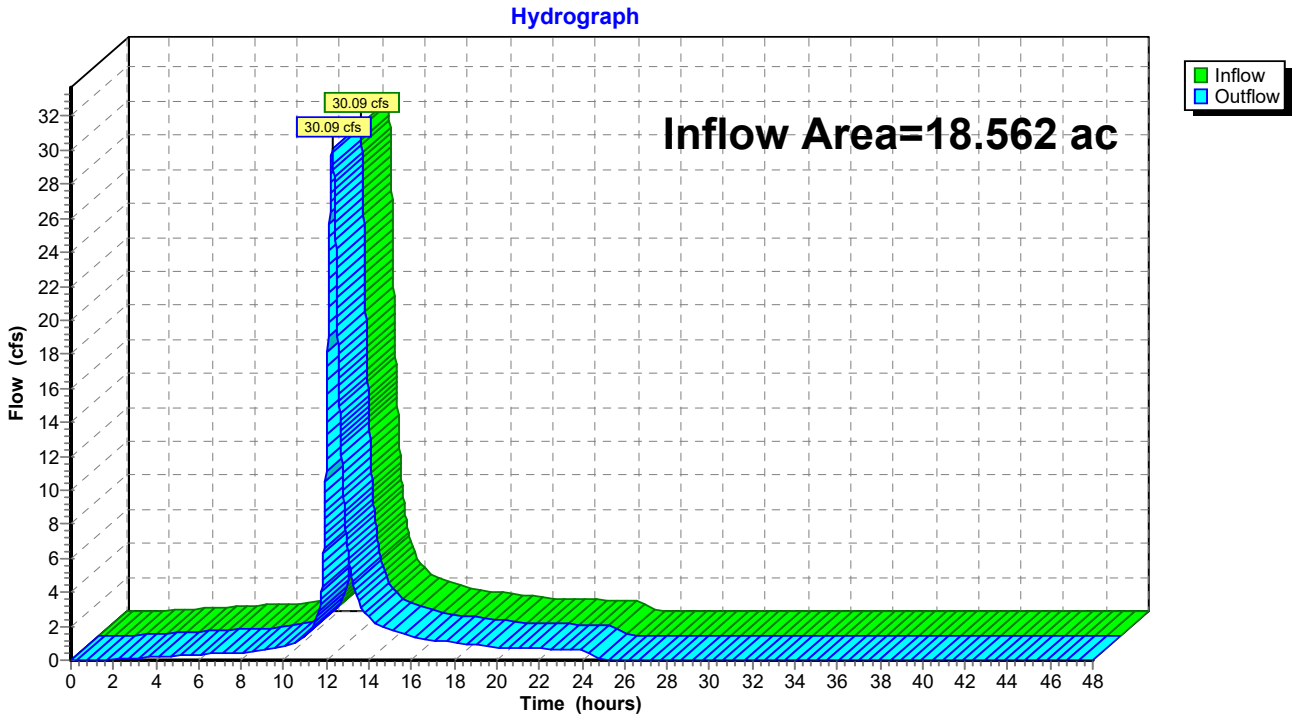


Summary for Reach 4R: (EX) DP-3

Inflow Area = 18.562 ac, 4.22% Impervious, Inflow Depth = 2.15" for 10-YR event
Inflow = 30.09 cfs @ 12.28 hrs, Volume= 3.322 af
Outflow = 30.09 cfs @ 12.28 hrs, Volume= 3.322 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 4R: (EX) DP-3

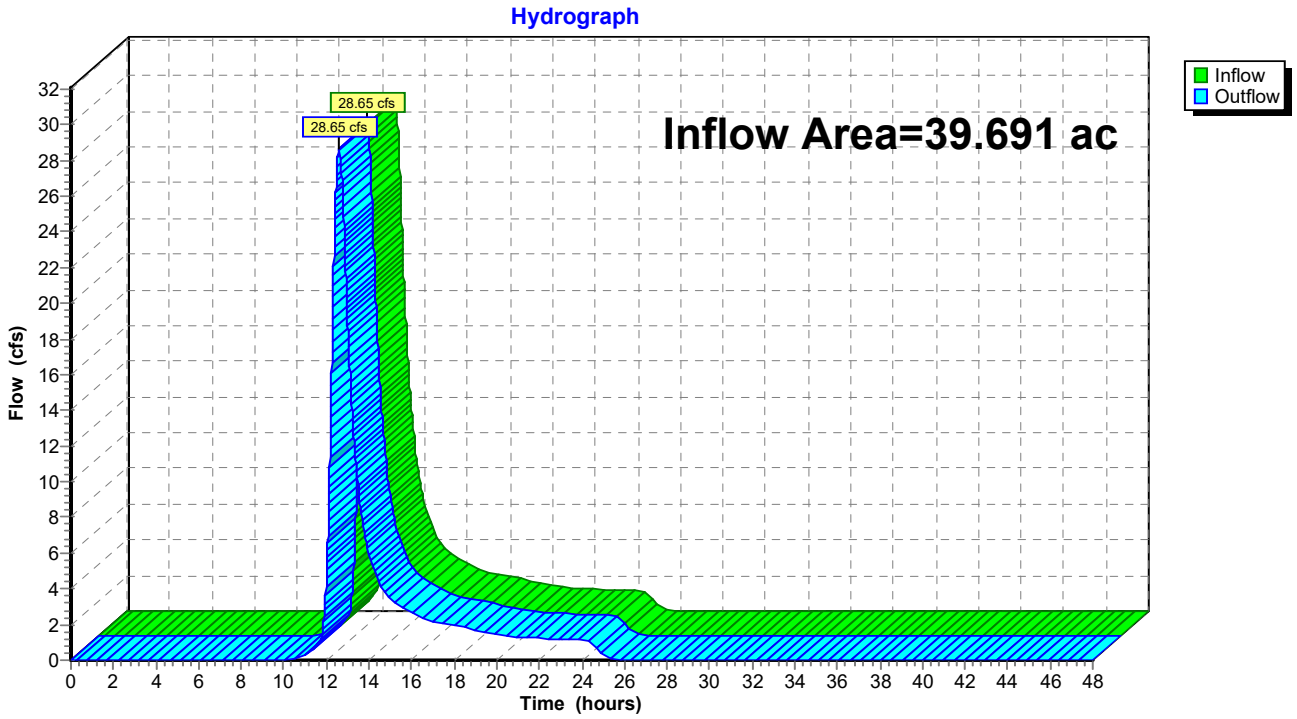


Summary for Reach 5R: (EX) DP-1

Inflow Area = 39.691 ac, 0.00% Impervious, Inflow Depth = 1.34" for 10-YR event
Inflow = 28.65 cfs @ 12.58 hrs, Volume= 4.443 af
Outflow = 28.65 cfs @ 12.58 hrs, Volume= 4.443 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 5R: (EX) DP-1

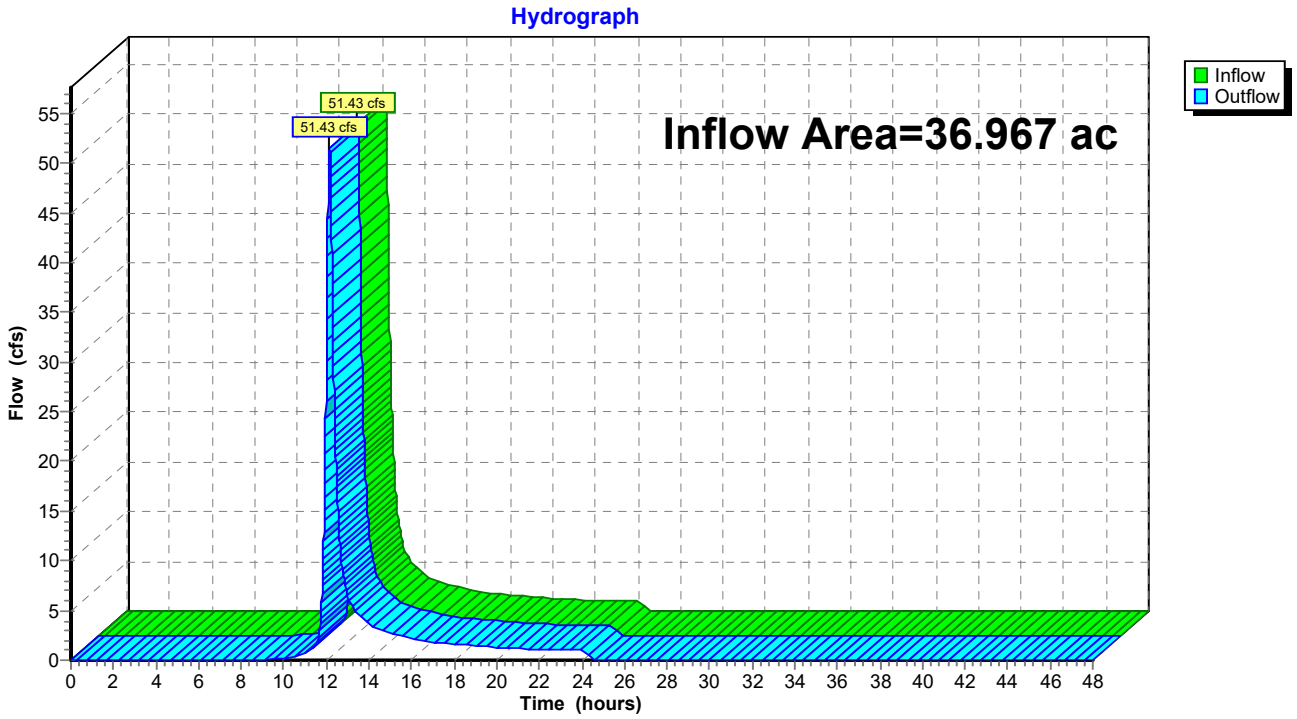


Summary for Reach 6R: (EX) DP-2

Inflow Area = 36.967 ac, 0.89% Impervious, Inflow Depth = 1.34" for 10-YR event
Inflow = 51.43 cfs @ 12.15 hrs, Volume= 4.136 af
Outflow = 51.43 cfs @ 12.15 hrs, Volume= 4.136 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 6R: (EX) DP-2



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: E-1 Runoff Area=1,728,938 sf 0.00% Impervious Runoff Depth=3.07"
Flow Length=4,238' Tc=55.5 min CN=WQ Runoff=68.44 cfs 10.145 af

Subcatchment2S: E-2 Runoff Area=1,610,270 sf 0.89% Impervious Runoff Depth=3.04"
Flow Length=2,427' Tc=21.1 min CN=WQ Runoff=120.32 cfs 9.380 af

Subcatchment3S: E3 Runoff Area=808,568 sf 4.22% Impervious Runoff Depth=4.08"
Flow Length=2,229' Tc=33.5 min CN=WQ Runoff=57.79 cfs 6.310 af

Reach 4R: (EX) DP-3 Inflow=57.79 cfs 6.310 af
Outflow=57.79 cfs 6.310 af

Reach 5R: (EX) DP-1 Inflow=68.44 cfs 10.145 af
Outflow=68.44 cfs 10.145 af

Reach 6R: (EX) DP-2 Inflow=120.32 cfs 9.380 af
Outflow=120.32 cfs 9.380 af

Total Runoff Area = 95.220 ac Runoff Volume = 25.834 af Average Runoff Depth = 3.26"
98.83% Pervious = 94.110 ac 1.17% Impervious = 1.110 ac

Summary for Subcatchment 1S: E-1

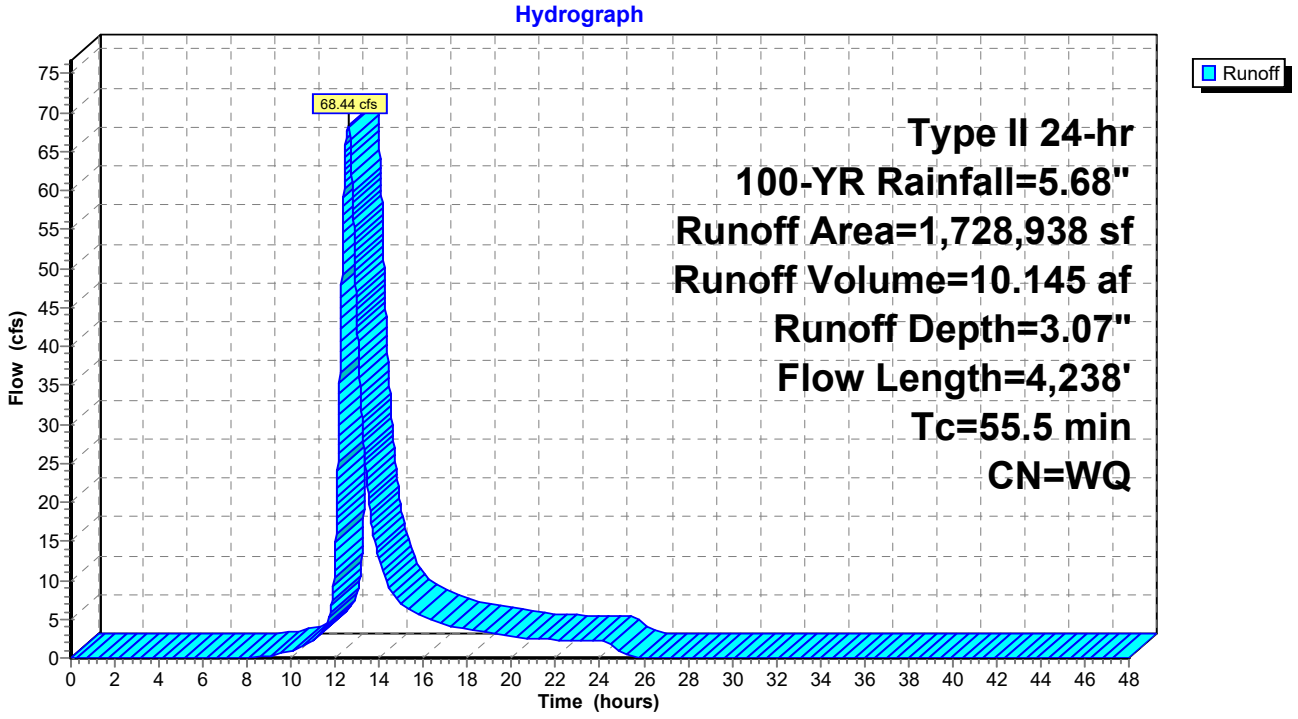
Runoff = 68.44 cfs @ 12.58 hrs, Volume= 10.145 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
478,690	80	>75% Grass cover, Good, HSG D
1,202,623	74	>75% Grass cover, Good, HSG C
47,625	70	Woods, Good, HSG C
1,728,938		Weighted Average
1,728,938		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0450	0.16		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
4.3	515	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
40.8	3,623	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040 Winding stream, pools & shoals
55.5	4,238	Total			

Subcatchment 1S: E-1



Summary for Subcatchment 2S: E-2

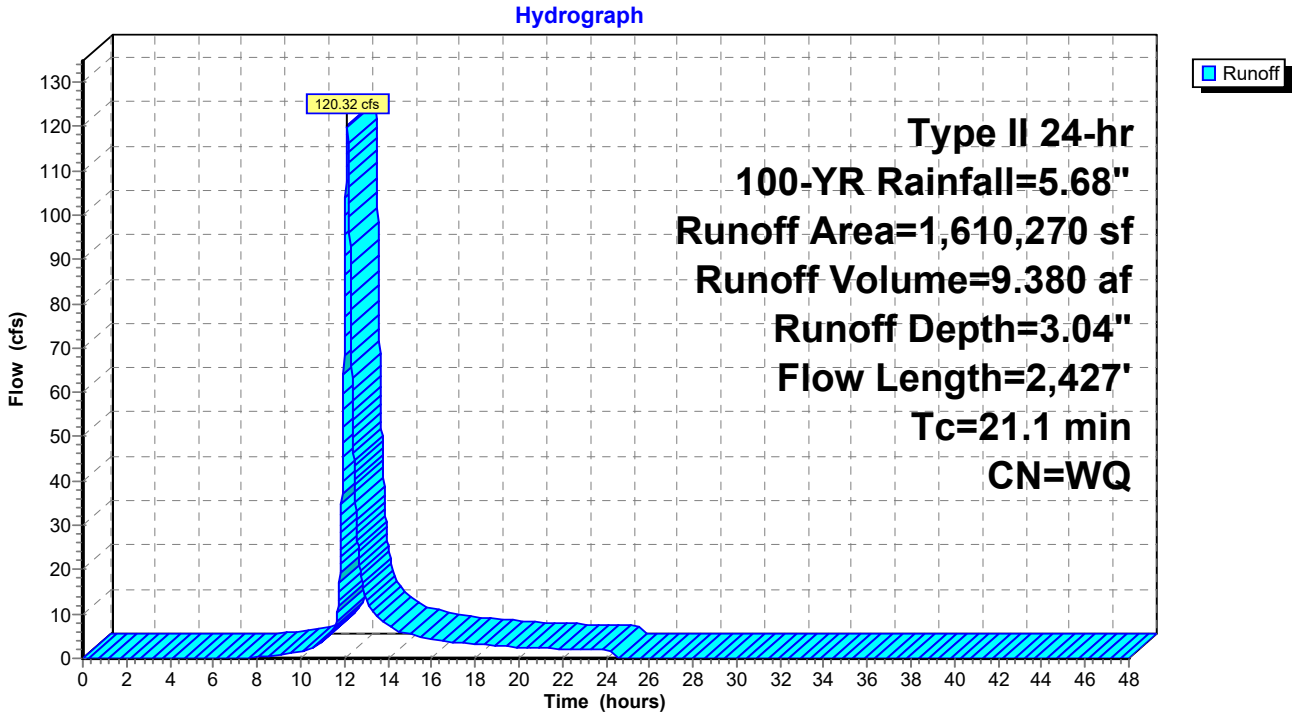
Runoff = 120.32 cfs @ 12.14 hrs, Volume= 9.380 af, Depth= 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
14,252	98	Paved parking, HSG D
612,516	80	>75% Grass cover, Good, HSG D
719,744	74	>75% Grass cover, Good, HSG C
148,433	61	>75% Grass cover, Good, HSG B
8,550	98	Water Surface, 0% imp, HSG D
106,775	70	Woods, Good, HSG C
1,610,270		Weighted Average
1,596,018		99.11% Pervious Area
14,252		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0300	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.5	1,106	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.4	1,221	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
21.1	2,427	Total			

Subcatchment 2S: E-2



Summary for Subcatchment 3S: E3

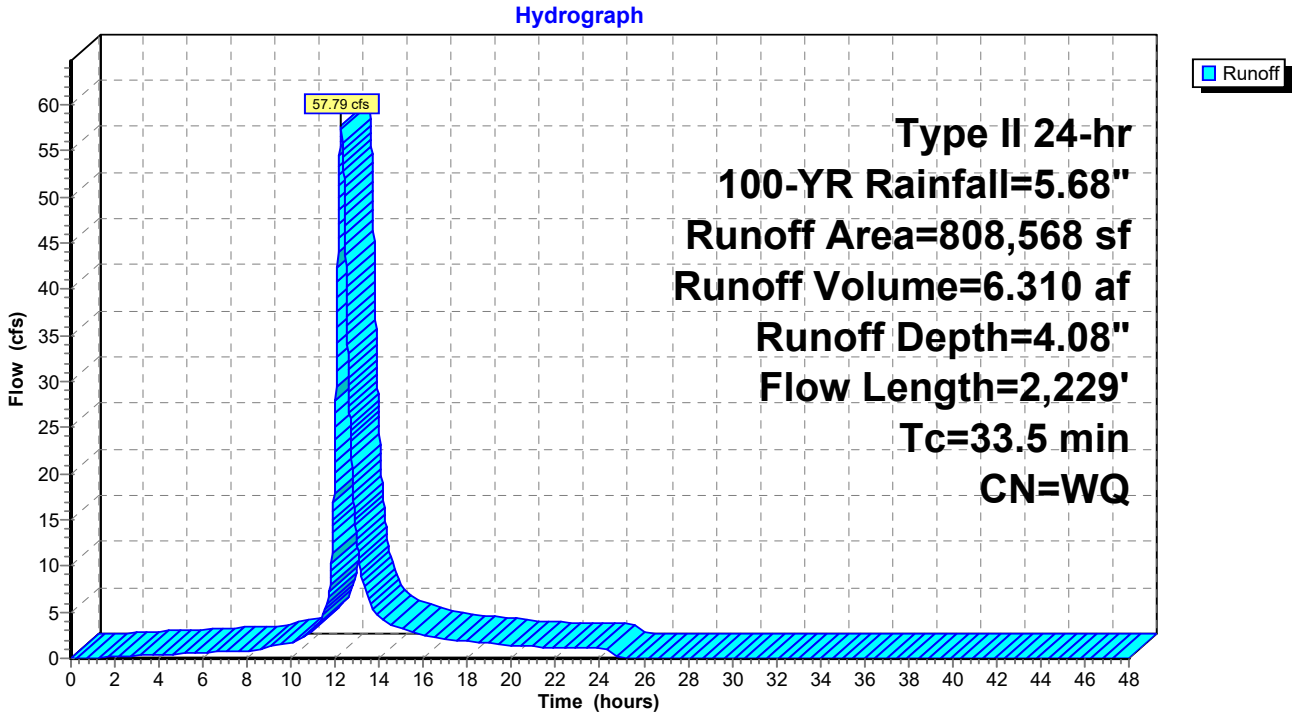
Runoff = 57.79 cfs @ 12.28 hrs, Volume= 6.310 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
34,107	98	Paved parking, HSG D
47,557	80	>75% Grass cover, Good, HSG D
450,517	77	Woods, Good, HSG D
276,387	98	Water Surface, 0% imp, HSG D
808,568		Weighted Average
774,461		95.78% Pervious Area
34,107		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.9	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.4	486	0.0100	1.50		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
5.0	570	0.0160	1.90		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	435		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
1.0	302	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.4	336		4.01		**Lake or Reservoir,** Mean Depth= 0.50'
33.5	2,229	Total			

Subcatchment 3S: E3

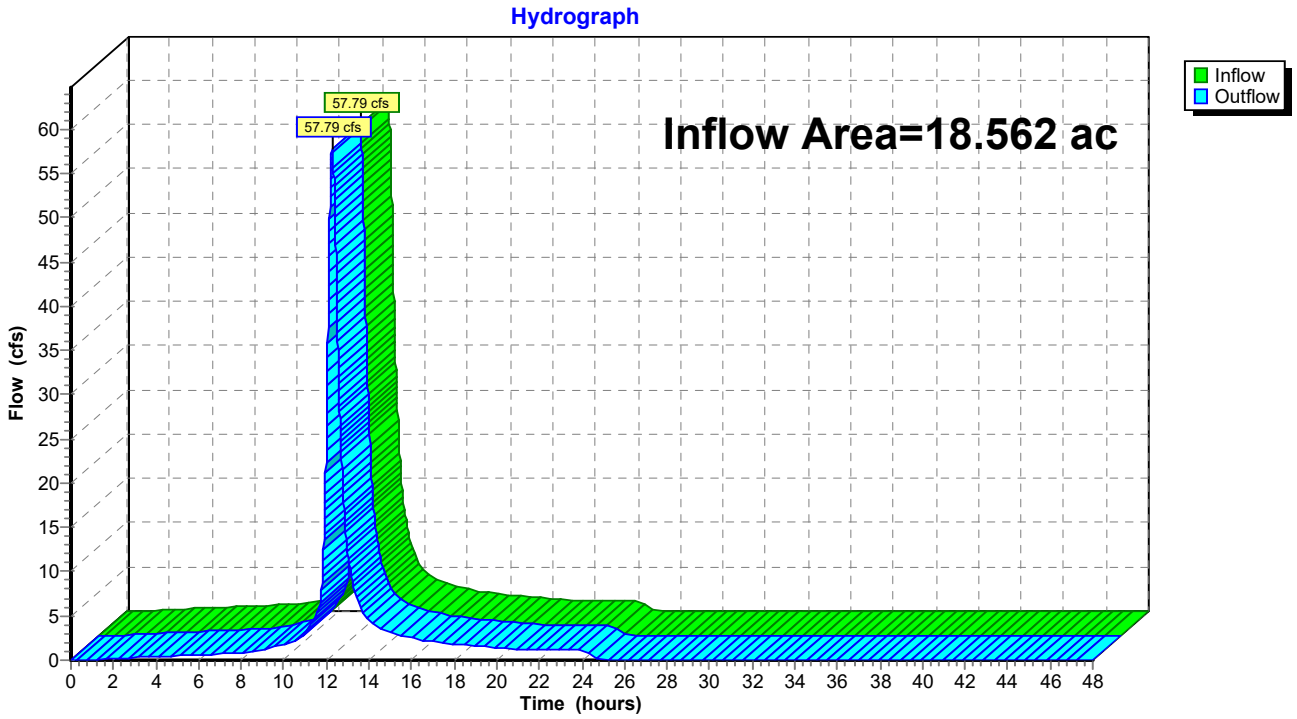


Summary for Reach 4R: (EX) DP-3

Inflow Area = 18.562 ac, 4.22% Impervious, Inflow Depth = 4.08" for 100-YR event
Inflow = 57.79 cfs @ 12.28 hrs, Volume= 6.310 af
Outflow = 57.79 cfs @ 12.28 hrs, Volume= 6.310 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 4R: (EX) DP-3

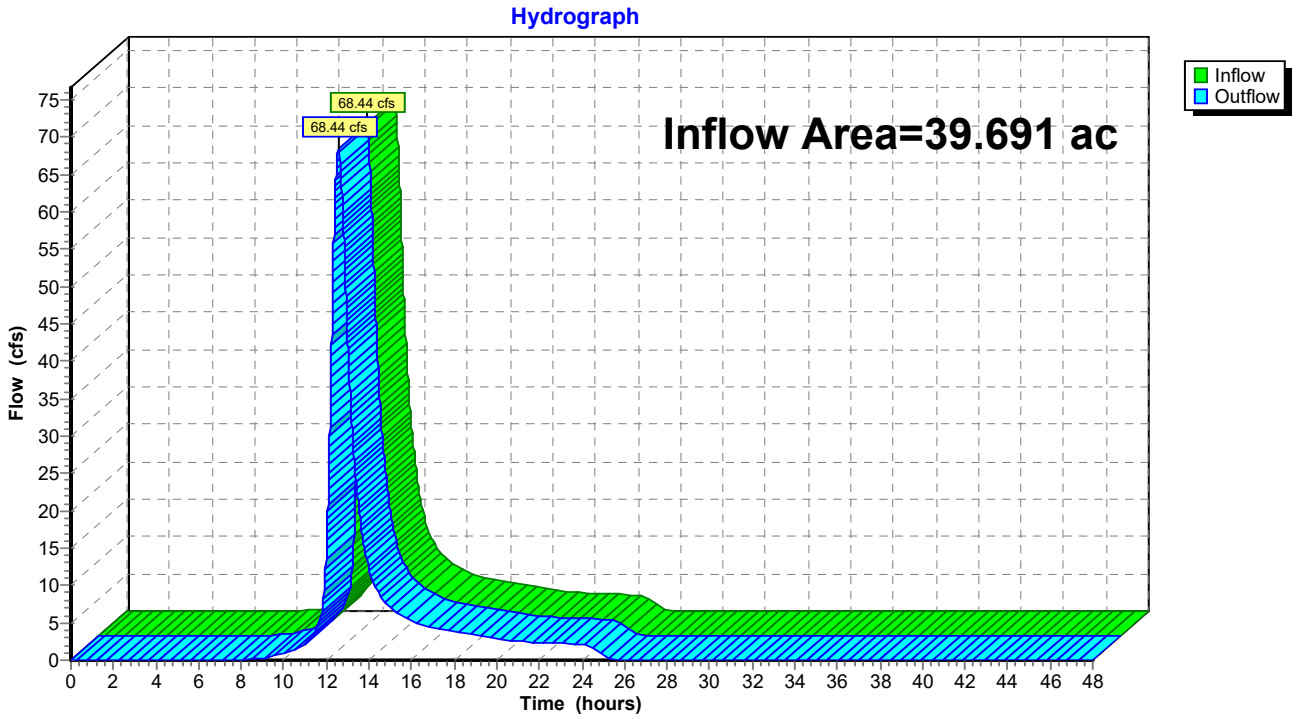


Summary for Reach 5R: (EX) DP-1

Inflow Area = 39.691 ac, 0.00% Impervious, Inflow Depth = 3.07" for 100-YR event
Inflow = 68.44 cfs @ 12.58 hrs, Volume= 10.145 af
Outflow = 68.44 cfs @ 12.58 hrs, Volume= 10.145 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 5R: (EX) DP-1

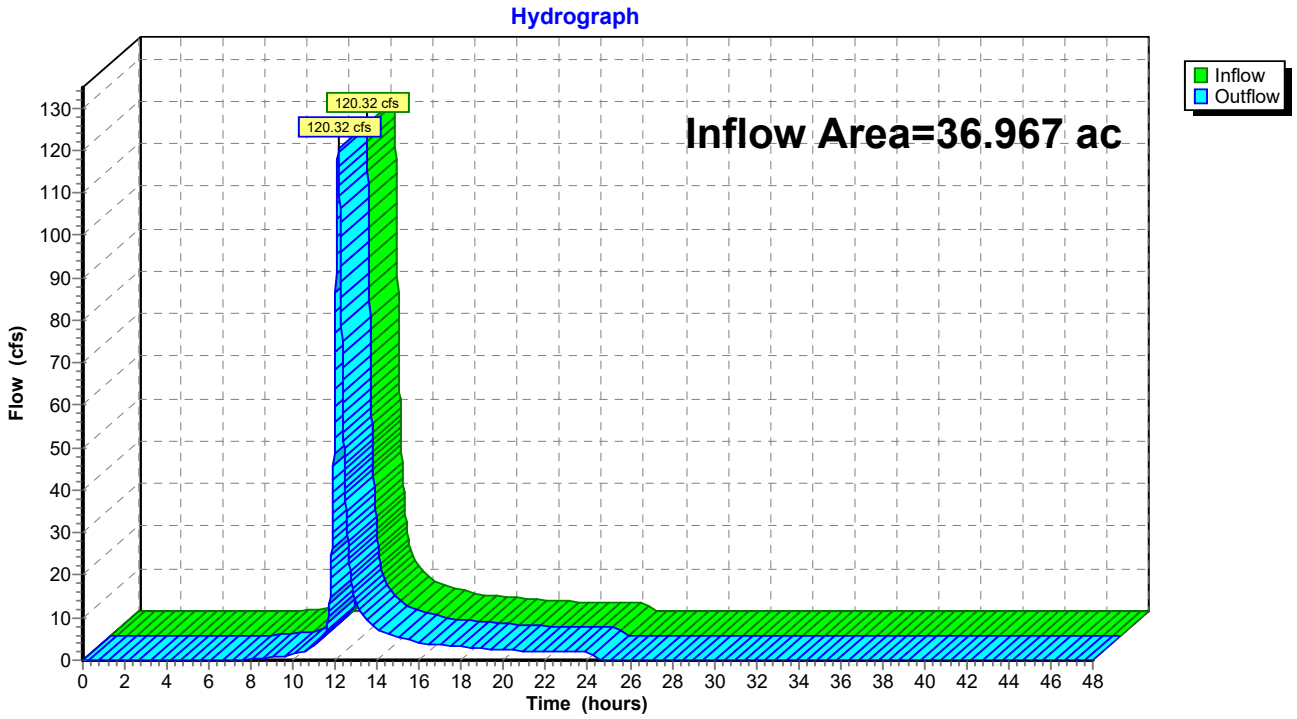


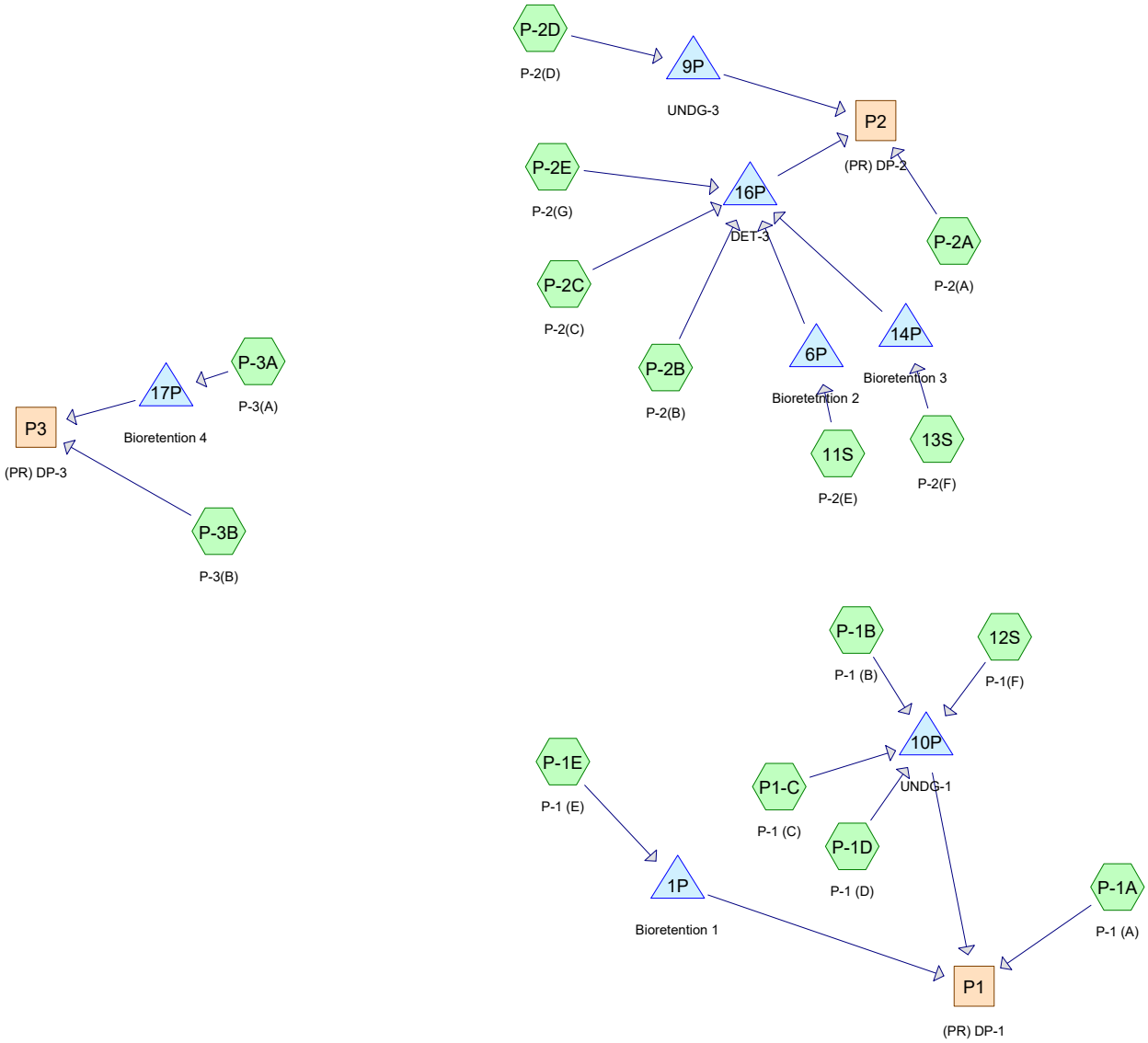
Summary for Reach 6R: (EX) DP-2

Inflow Area = 36.967 ac, 0.89% Impervious, Inflow Depth = 3.04" for 100-YR event
Inflow = 120.32 cfs @ 12.14 hrs, Volume= 9.380 af
Outflow = 120.32 cfs @ 12.14 hrs, Volume= 9.380 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach 6R: (EX) DP-2





Subcat Reach Pond Link

Routing Diagram for Mead Rd - Florida - Prop

Prepared by {enter your company name here}, Printed 4/22/2025

HydroCAD® 10.00-21 s/n 08311 © 2018 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.524	61	>75% Grass cover, Good, HSG B (P-2B, P-2C, P-2D)
28.932	74	>75% Grass cover, Good, HSG C (13S, P-1A, P-1B, P-1D, P-2A, P-2B, P-2D, P1-C)
8.123	80	>75% Grass cover, Good, HSG D (11S, 13S, P-1D, P-1E, P-2A, P-2B, P-2C, P-2D, P-3A, P-3B)
30.145	98	Paved parking, HSG D (P-1B, P-1D, P-1E, P-2B, P-2C, P-2D, P-3A, P1-C)
15.587	98	Unconnected pavement, HSG D (11S, 12S, 13S, P-2E)
4.553	98	Water Surface, 0% imp, HSG D (P-3B)
0.313	70	Woods, Good, HSG C (P-2A)
5.041	77	Woods, Good, HSG D (P-2C, P-3B)
95.220	**87**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.524	HSG B	P-2B, P-2C, P-2D
29.246	HSG C	13S, P-1A, P-1B, P-1D, P-2A, P-2B, P-2D, P1-C
63.450	HSG D	11S, 12S, 13S, P-1B, P-1D, P-1E, P-2A, P-2B, P-2C, P-2D, P-2E, P-3A, P-3B, P1-C
0.000	Other	
95.220		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	2.524	28.932	8.123	0.000	39.580	>75% Grass cover, Good	11S, 13S, P-1A, P-1B, P-1D, P-1E, P-2A, P-2B, P-2C, P-2D, P-3A, P-3B, P1-C
0.000	0.000	0.000	30.145	0.000	30.145	Paved parking	P-1B, P-1D, P-1E, P-2B, P-2C, P-2D, P-3A, P1-C
0.000	0.000	0.000	15.587	0.000	15.587	Unconnected pavement	11S, 12S, 13S, P-2E
0.000	0.000	0.000	4.553	0.000	4.553	Water Surface, 0% imp	P-3B
0.000	0.000	0.313	5.041	0.000	5.354	Woods, Good	P-2A, P-2C, P-3B
0.000	**2.524**	**29.246**	**63.450**	**0.000**	**95.220**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	524.00	519.00	100.0	0.0500	0.012	12.0	0.0	0.0
2	6P	531.00	528.00	100.0	0.0300	0.012	18.0	0.0	0.0
3	9P	521.00	516.00	100.0	0.0500	0.012	36.0	0.0	0.0
4	10P	520.00	515.00	100.0	0.0500	0.012	24.0	0.0	0.0
5	14P	532.00	529.00	100.0	0.0300	0.012	18.0	0.0	0.0

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment11S: P-2(E) Runoff Area=193,502 sf 84.24% Impervious Runoff Depth=1.76"
Tc=6.0 min CN=WQ Runoff=12.28 cfs 0.652 af

Subcatchment12S: P-1(F) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=1.96"
Tc=6.0 min CN=98 Runoff=11.45 cfs 0.612 af

Subcatchment13S: P-2(F) Runoff Area=312,421 sf 60.79% Impervious Runoff Depth=1.41"
Tc=6.0 min CN=WQ Runoff=16.01 cfs 0.845 af

SubcatchmentP-1A: P-1 (A) Runoff Area=635,838 sf 0.00% Impervious Runoff Depth=0.44"
Flow Length=1,786' Tc=44.2 min CN=74 Runoff=3.34 cfs 0.538 af

SubcatchmentP-1B: P-1 (B) Runoff Area=386,372 sf 89.24% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=WQ Runoff=24.88 cfs 1.330 af

SubcatchmentP-1D: P-1 (D) Runoff Area=211,372 sf 84.69% Impervious Runoff Depth=1.75"
Flow Length=476' Tc=6.0 min CN=WQ Runoff=13.26 cfs 0.706 af

SubcatchmentP-1E: P-1 (E) Runoff Area=108,008 sf 49.56% Impervious Runoff Depth=1.32"
Tc=6.0 min CN=WQ Runoff=5.25 cfs 0.272 af

SubcatchmentP-2A: P-2(A) Runoff Area=327,379 sf 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,343' Tc=21.3 min CN=WQ Runoff=2.94 cfs 0.280 af

SubcatchmentP-2B: P-2(B) Runoff Area=299,162 sf 17.93% Impervious Runoff Depth=0.65"
Flow Length=1,456' Tc=18.3 min CN=WQ Runoff=4.41 cfs 0.373 af

SubcatchmentP-2C: P-2(C) Runoff Area=261,031 sf 92.50% Impervious Runoff Depth=1.85"
Flow Length=487' Tc=6.0 min CN=WQ Runoff=17.27 cfs 0.923 af

SubcatchmentP-2D: P-2(D) Runoff Area=300,252 sf 64.23% Impervious Runoff Depth=1.43"
Tc=6.0 min CN=WQ Runoff=15.44 cfs 0.822 af

SubcatchmentP-2E: P-2(G) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=1.96"
Tc=6.0 min CN=98 Runoff=11.45 cfs 0.612 af

SubcatchmentP-3A: P-3(A) Runoff Area=69,928 sf 24.67% Impervious Runoff Depth=1.00"
Tc=6.0 min CN=WQ Runoff=2.66 cfs 0.133 af

SubcatchmentP-3B: P-3(B) Runoff Area=450,424 sf 0.00% Impervious Runoff Depth=1.19"
Tc=20.0 min CN=WQ Runoff=12.39 cfs 1.022 af

SubcatchmentP1-C: P-1 (C) Runoff Area=266,068 sf 86.67% Impervious Runoff Depth=1.76"
Tc=6.0 min CN=WQ Runoff=16.76 cfs 0.896 af

Reach P1: (PR) DP-1 Inflow=3.44 cfs 1.662 af
Outflow=3.44 cfs 1.662 af

Reach P2: (PR) DP-2 Inflow=2.94 cfs 1.497 af
Outflow=2.94 cfs 1.497 af

Reach P3: (PR) DP-3 Inflow=12.39 cfs 1.030 af
Outflow=12.39 cfs 1.030 af

Pond 1P: Bioretention 1 Peak Elev=525.97' Storage=11,850 cf Inflow=5.25 cfs 0.272 af
Outflow=0.00 cfs 0.000 af

Pond 6P: Bioretetntion 2 Peak Elev=534.32' Storage=15,846 cf Inflow=12.28 cfs 0.652 af
Outflow=3.74 cfs 0.382 af

Pond 9P: UNDG-3 Peak Elev=523.74' Storage=29,303 cf Inflow=15.44 cfs 0.822 af
Outflow=0.24 cfs 0.227 af

Pond 10P: UNDG-1 Peak Elev=521.32' Storage=115,992 cf Inflow=66.35 cfs 3.544 af
Outflow=1.75 cfs 1.124 af

Pond 14P: Bioretention 3 Peak Elev=534.09' Storage=25,933 cf Inflow=16.01 cfs 0.845 af
Outflow=0.56 cfs 0.303 af

Pond 16P: DET-3 Peak Elev=481.93' Storage=82,198 cf Inflow=32.29 cfs 2.593 af
Outflow=1.12 cfs 0.989 af

Pond 17P: Bioretention 4 Peak Elev=538.51' Storage=5,544 cf Inflow=2.66 cfs 0.133 af
Outflow=0.03 cfs 0.007 af

Total Runoff Area = 95.220 ac Runoff Volume = 10.018 af Average Runoff Depth = 1.26"
51.97% Pervious = 49.488 ac 48.03% Impervious = 45.733 ac

Summary for Subcatchment 11S: P-2(E)

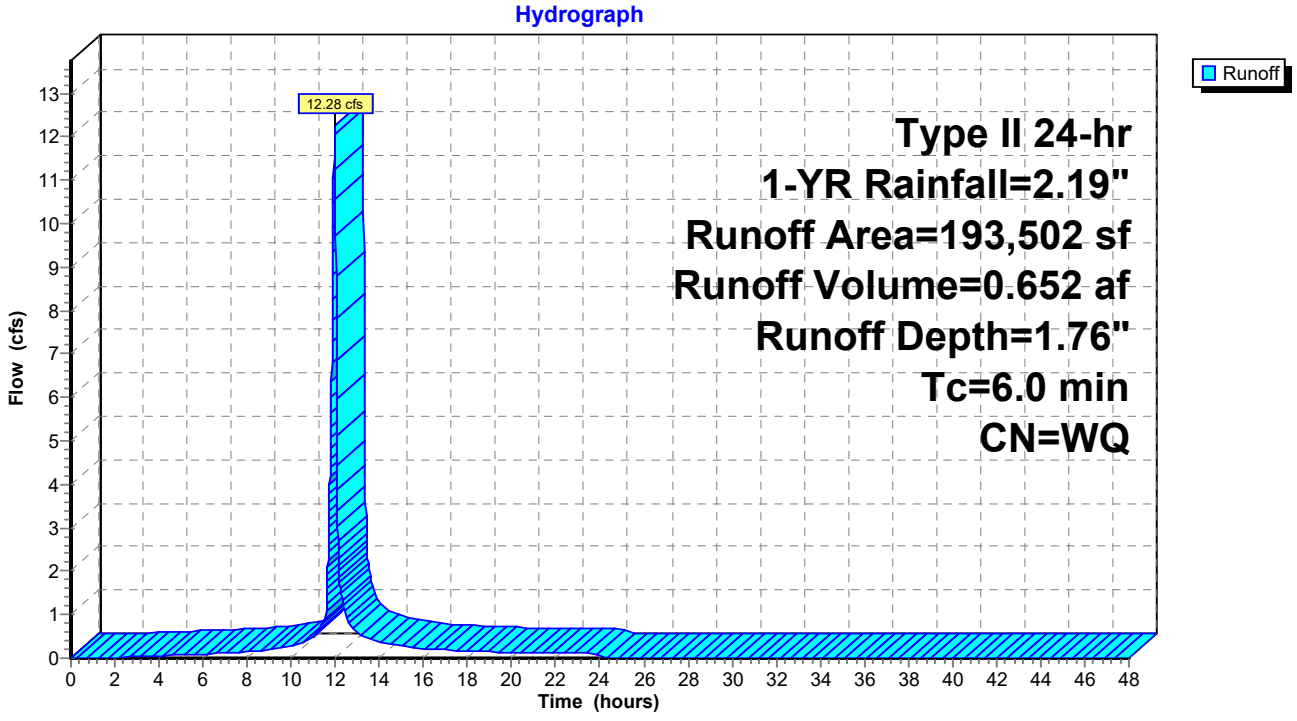
Runoff = 12.28 cfs @ 11.97 hrs, Volume= 0.652 af, Depth= 1.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
30,487	80	>75% Grass cover, Good, HSG D
193,502		Weighted Average
30,487		15.76% Pervious Area
163,015		84.24% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 11S: P-2(E)



Summary for Subcatchment 12S: P-1(F)

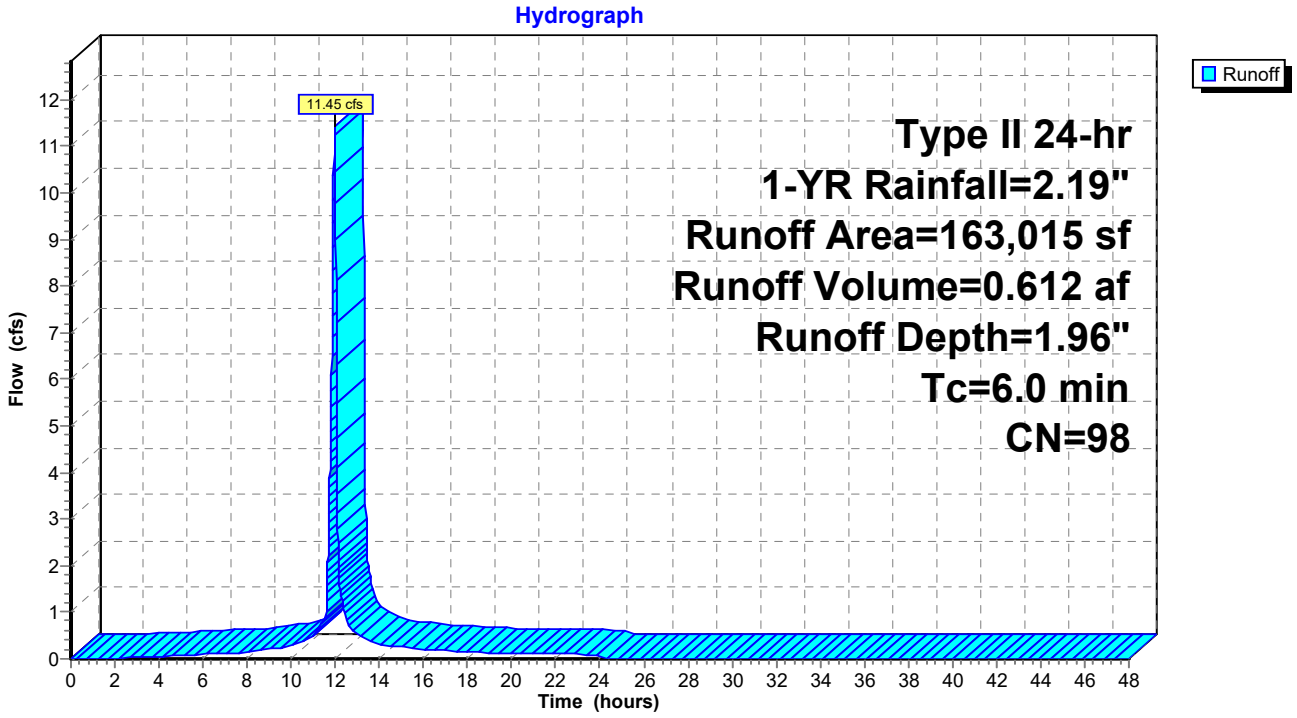
Runoff = 11.45 cfs @ 11.97 hrs, Volume= 0.612 af, Depth= 1.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 12S: P-1(F)



Summary for Subcatchment 13S: P-2(F)

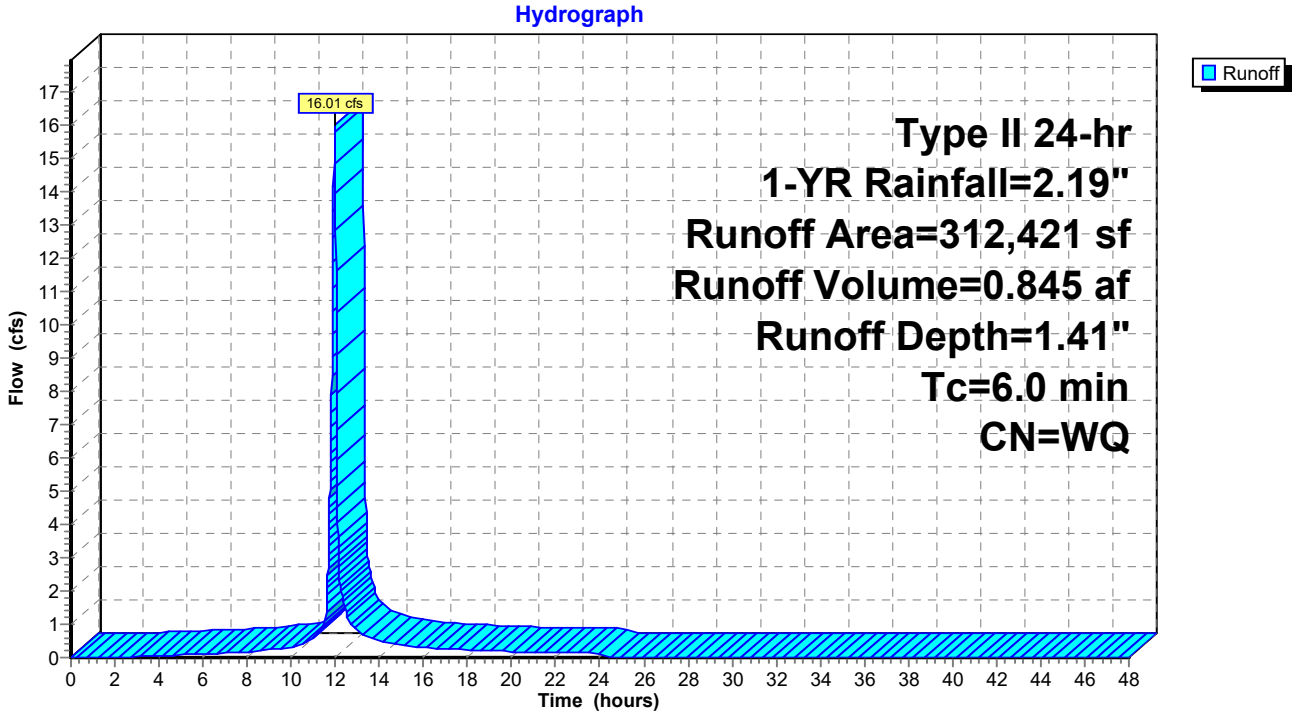
Runoff = 16.01 cfs @ 11.97 hrs, Volume= 0.845 af, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
189,931	98	Unconnected pavement, HSG D
60,280	74	>75% Grass cover, Good, HSG C
62,210	80	>75% Grass cover, Good, HSG D
312,421		Weighted Average
122,490		39.21% Pervious Area
189,931		60.79% Impervious Area
189,931		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 13S: P-2(F)



Summary for Subcatchment P-1A: P-1 (A)

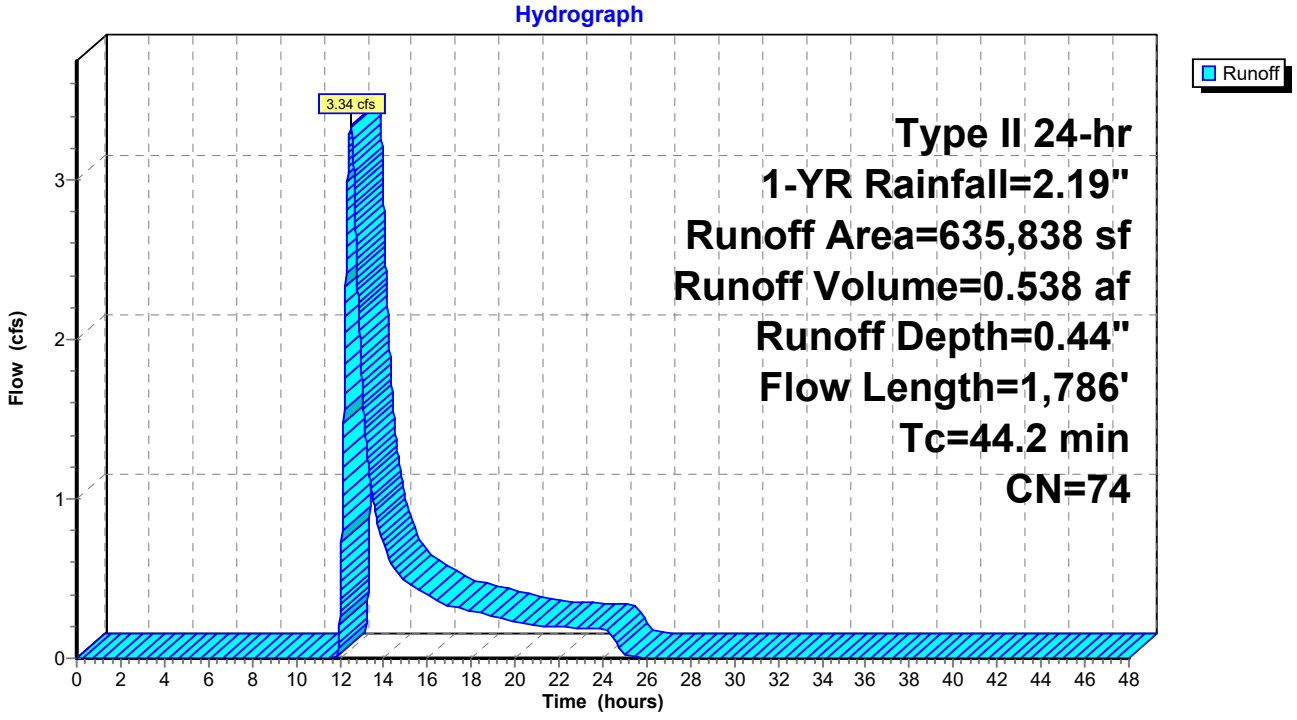
Runoff = 3.34 cfs @ 12.52 hrs, Volume= 0.538 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
635,838	74	>75% Grass cover, Good, HSG C
635,838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.6	100	0.0030	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
2.3	686	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
11.3	1,000	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040
44.2	1,786	Total			

Subcatchment P-1A: P-1 (A)



Summary for Subcatchment P-1B: P-1 (B)

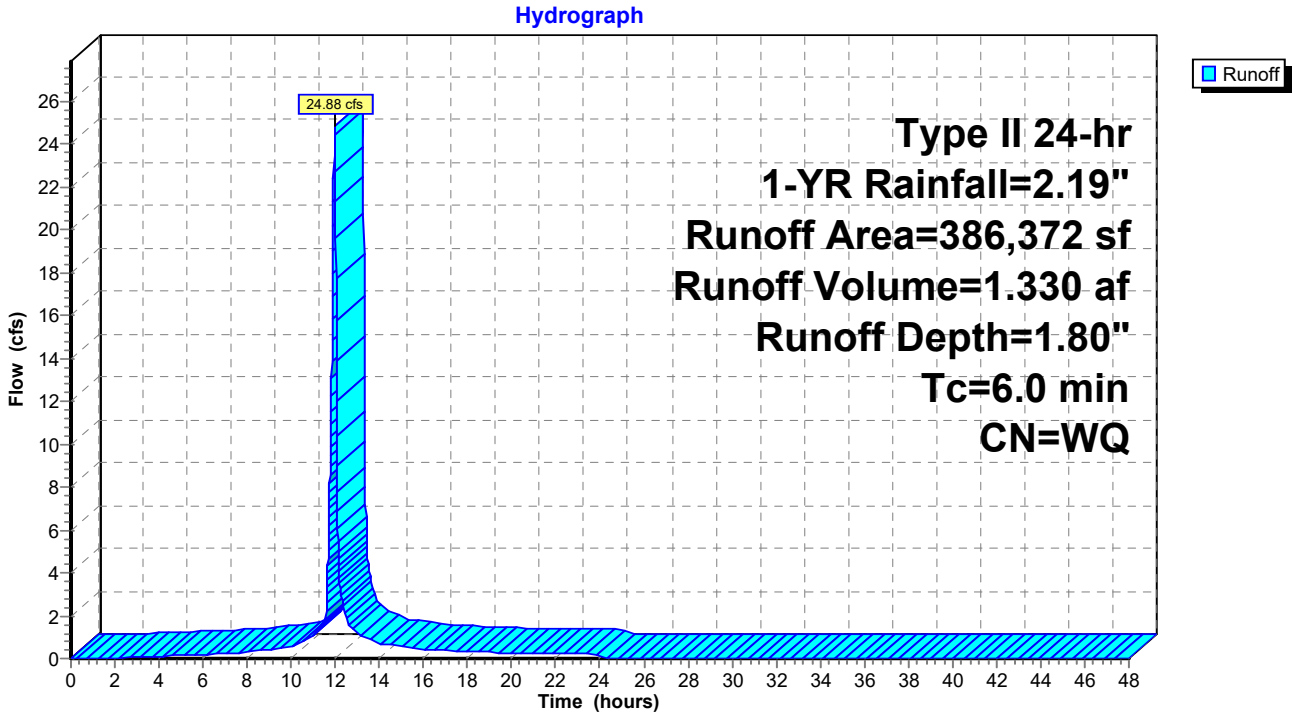
Runoff = 24.88 cfs @ 11.97 hrs, Volume= 1.330 af, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
41,576	74	>75% Grass cover, Good, HSG C
344,796	98	Paved parking, HSG D
386,372		Weighted Average
41,576		10.76% Pervious Area
344,796		89.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1B: P-1 (B)



Summary for Subcatchment P-1D: P-1 (D)

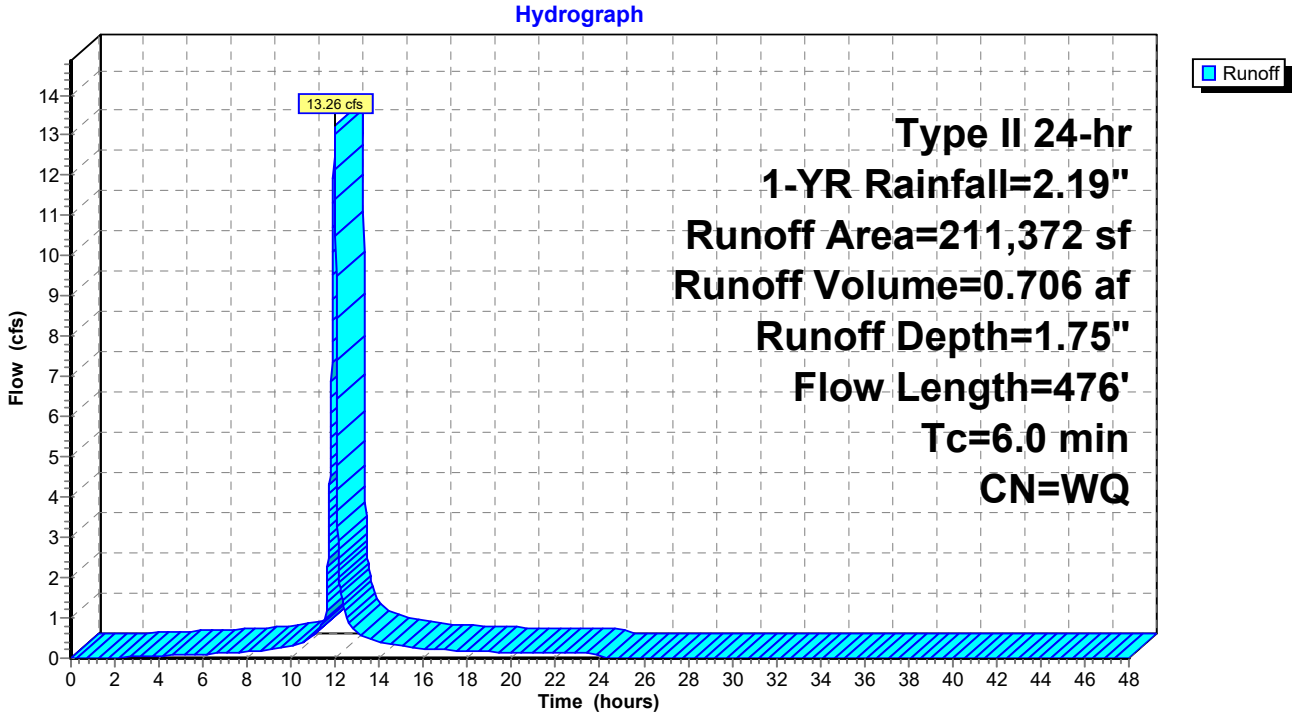
Runoff = 13.26 cfs @ 11.97 hrs, Volume= 0.706 af, Depth= 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
17,212	74	>75% Grass cover, Good, HSG C
15,158	80	>75% Grass cover, Good, HSG D
179,002	98	Paved parking, HSG D
211,372		Weighted Average
32,370		15.31% Pervious Area
179,002		84.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	476		1.32		**Direct Entry,**

Subcatchment P-1D: P-1 (D)



Summary for Subcatchment P-1E: P-1 (E)

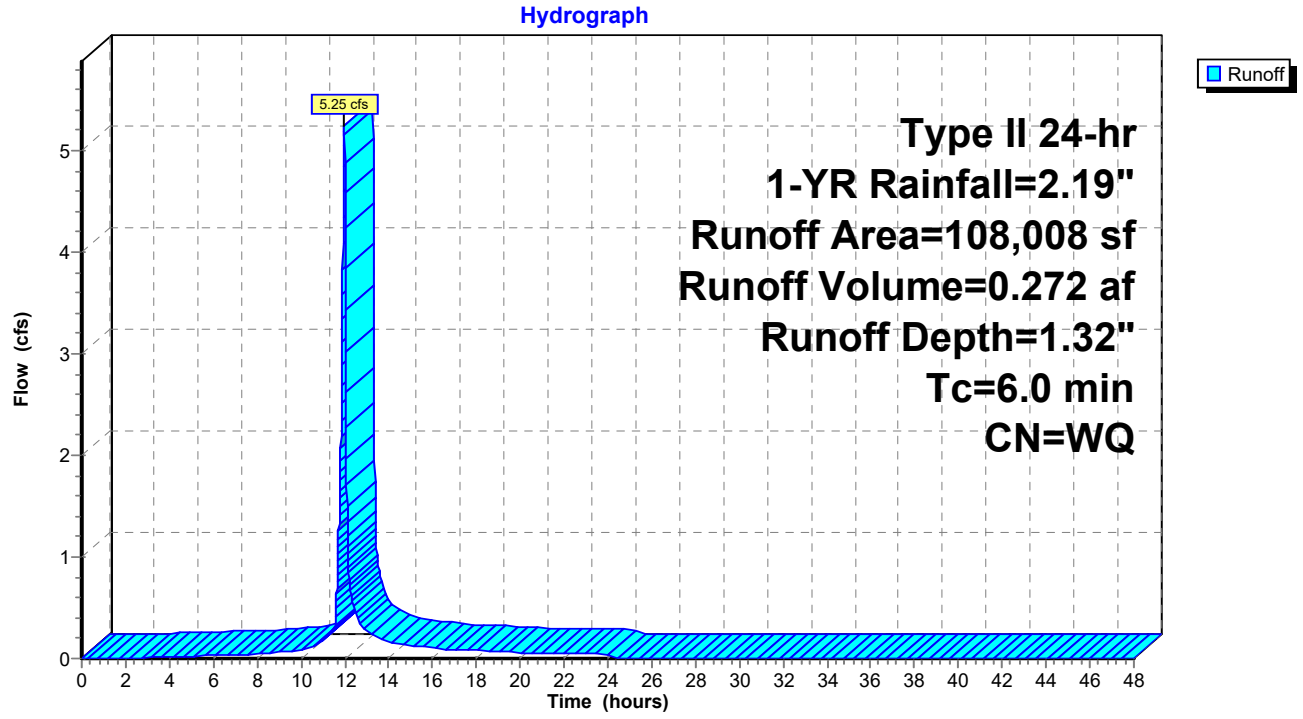
Runoff = 5.25 cfs @ 11.97 hrs, Volume= 0.272 af, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
54,479	80	>75% Grass cover, Good, HSG D
53,529	98	Paved parking, HSG D
108,008		Weighted Average
54,479		50.44% Pervious Area
53,529		49.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1E: P-1 (E)



Summary for Subcatchment P-2A: P-2(A)

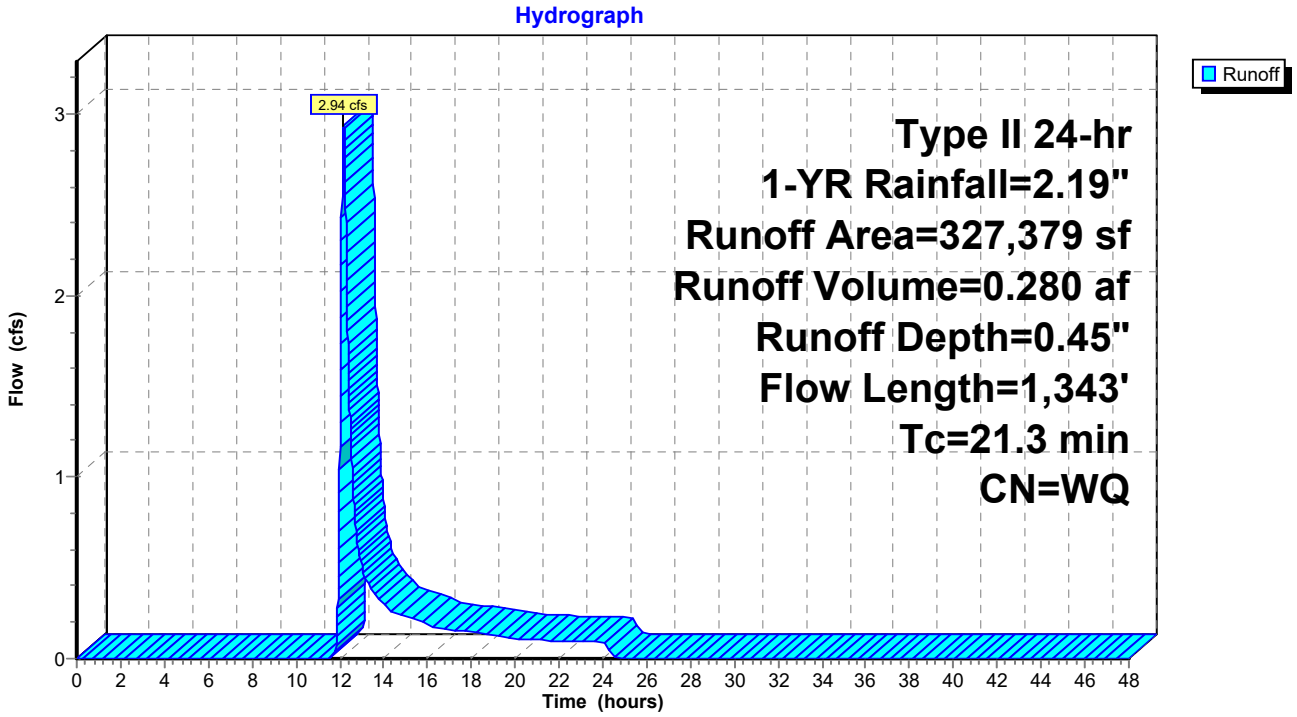
Runoff = 2.94 cfs @ 12.18 hrs, Volume= 0.280 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
13,649	70	Woods, Good, HSG C
299,924	74	>75% Grass cover, Good, HSG C
13,806	80	>75% Grass cover, Good, HSG D
327,379		Weighted Average
327,379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0150	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.2	1,243	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
21.3	1,343	Total			

Subcatchment P-2A: P-2(A)



Summary for Subcatchment P-2B: P-2(B)

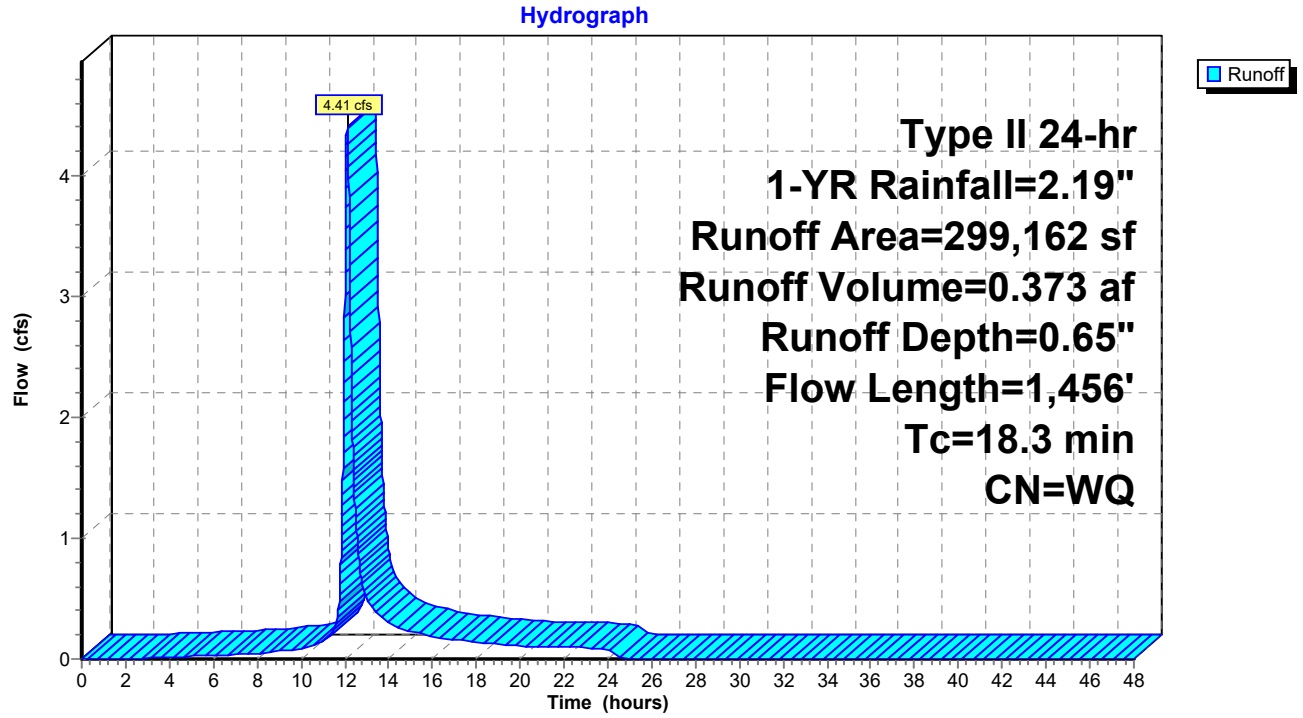
Runoff = 4.41 cfs @ 12.12 hrs, Volume= 0.373 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
76,603	61	>75% Grass cover, Good, HSG B
143,671	74	>75% Grass cover, Good, HSG C
25,252	80	>75% Grass cover, Good, HSG D
53,636	98	Paved parking, HSG D
299,162		Weighted Average
245,526		82.07% Pervious Area
53,636		17.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.17"
1.5	443	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	913	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
18.3	1,456	Total			

Subcatchment P-2B: P-2(B)



Summary for Subcatchment P-2C: P-2(C)

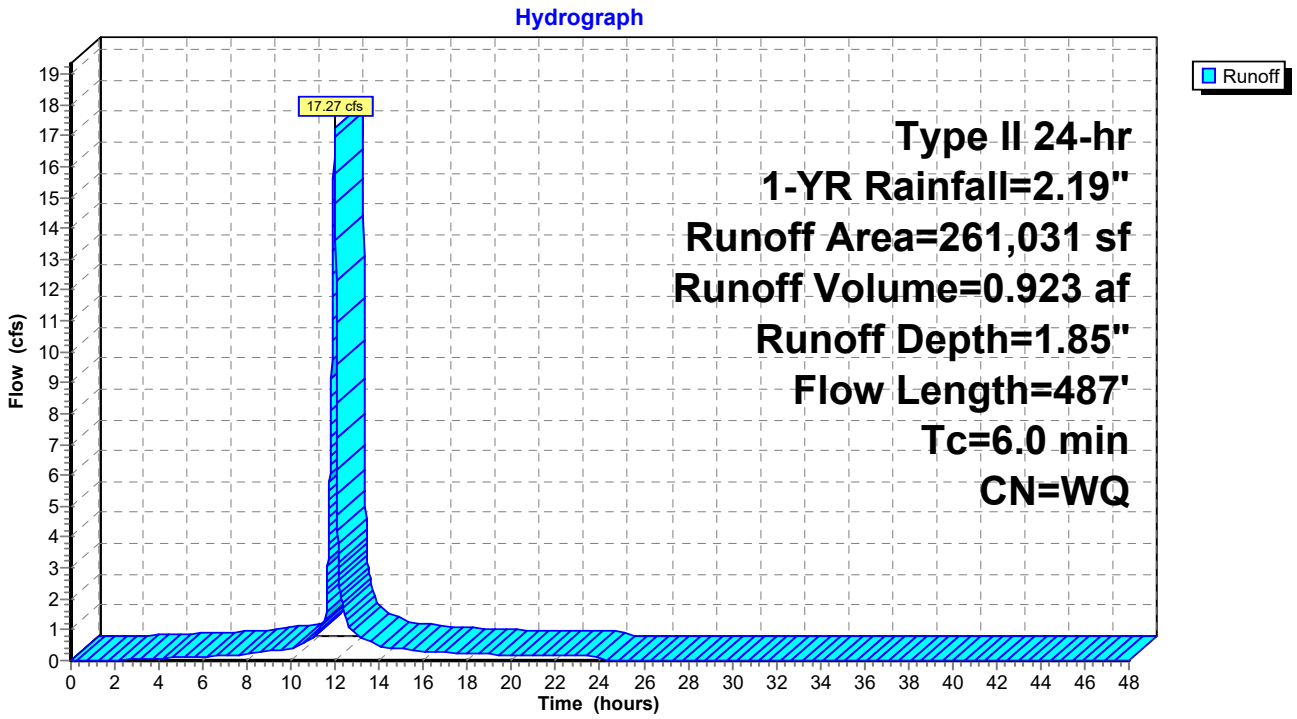
Runoff = 17.27 cfs @ 11.97 hrs, Volume= 0.923 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
9,153	77	Woods, Good, HSG D
6,029	61	>75% Grass cover, Good, HSG B
4,385	80	>75% Grass cover, Good, HSG D
241,464	98	Paved parking, HSG D
261,031		Weighted Average
19,567		7.50% Pervious Area
241,464		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	487		1.35		**Direct Entry,**

Subcatchment P-2C: P-2(C)



Summary for Subcatchment P-2D: P-2(D)

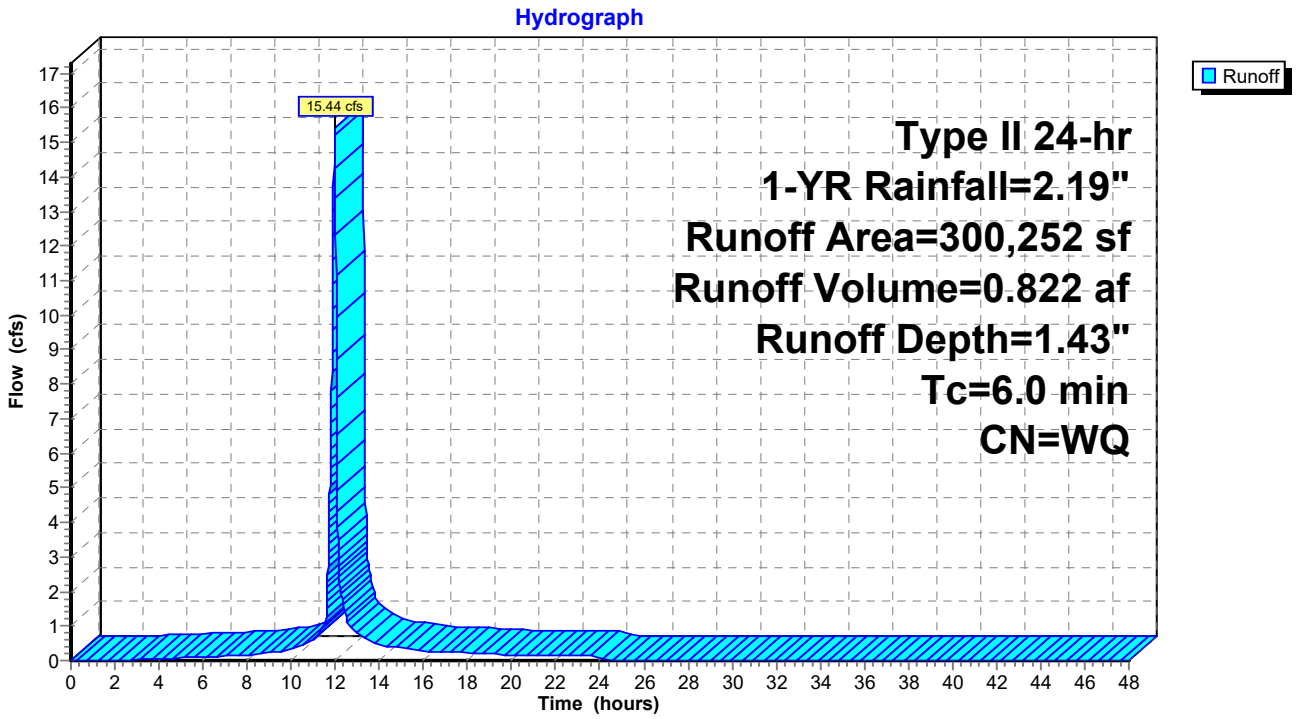
Runoff = 15.44 cfs @ 11.97 hrs, Volume= 0.822 af, Depth= 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
27,331	61	>75% Grass cover, Good, HSG B
26,334	74	>75% Grass cover, Good, HSG C
53,738	80	>75% Grass cover, Good, HSG D
192,849	98	Paved parking, HSG D
300,252		Weighted Average
107,403		35.77% Pervious Area
192,849		64.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2D: P-2(D)



Summary for Subcatchment P-2E: P-2(G)

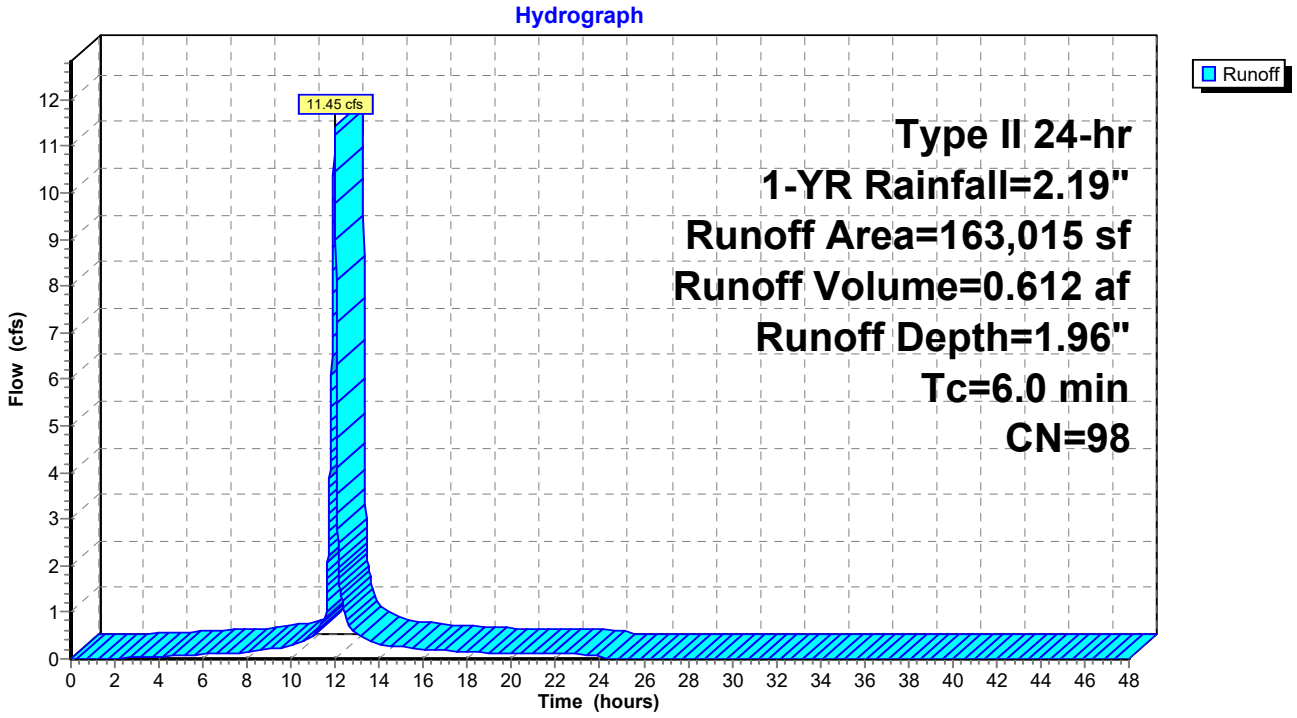
Runoff = 11.45 cfs @ 11.97 hrs, Volume= 0.612 af, Depth= 1.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2E: P-2(G)



Summary for Subcatchment P-3A: P-3(A)

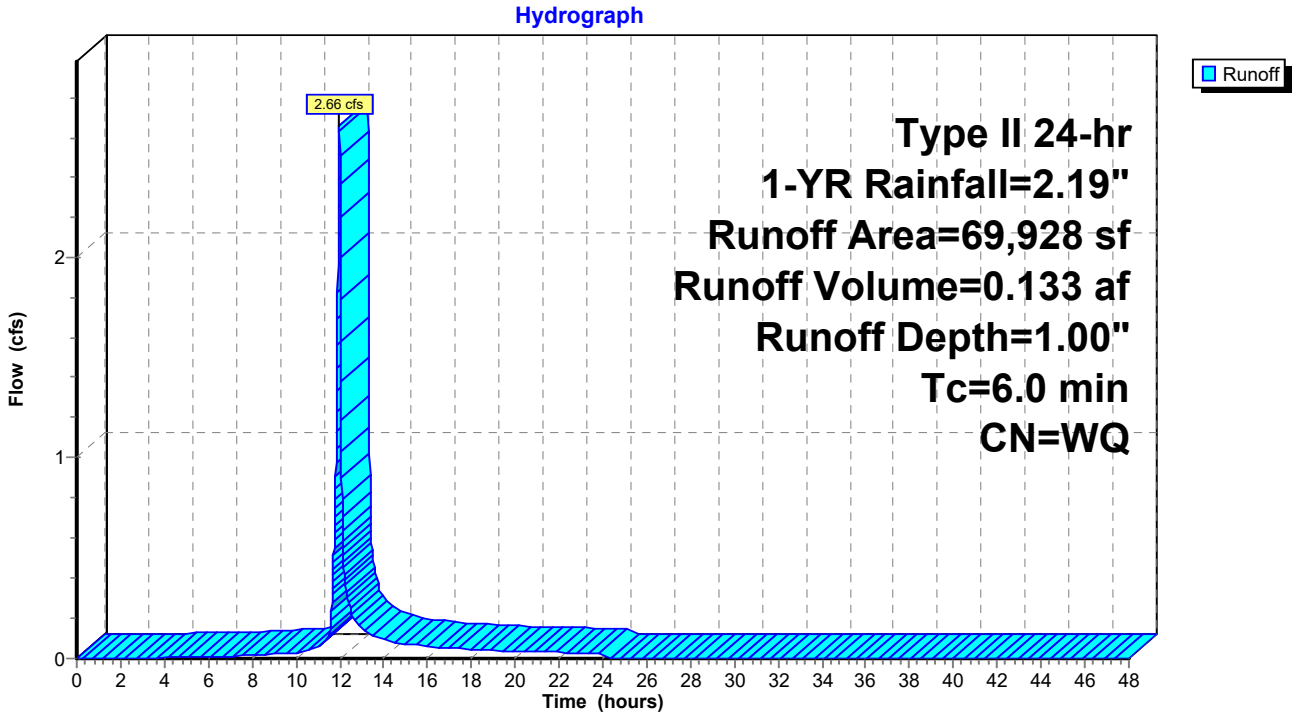
Runoff = 2.66 cfs @ 11.97 hrs, Volume= 0.133 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
52,678	80	>75% Grass cover, Good, HSG D
17,250	98	Paved parking, HSG D
69,928		Weighted Average
52,678		75.33% Pervious Area
17,250		24.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-3A: P-3(A)



Summary for Subcatchment P-3B: P-3(B)

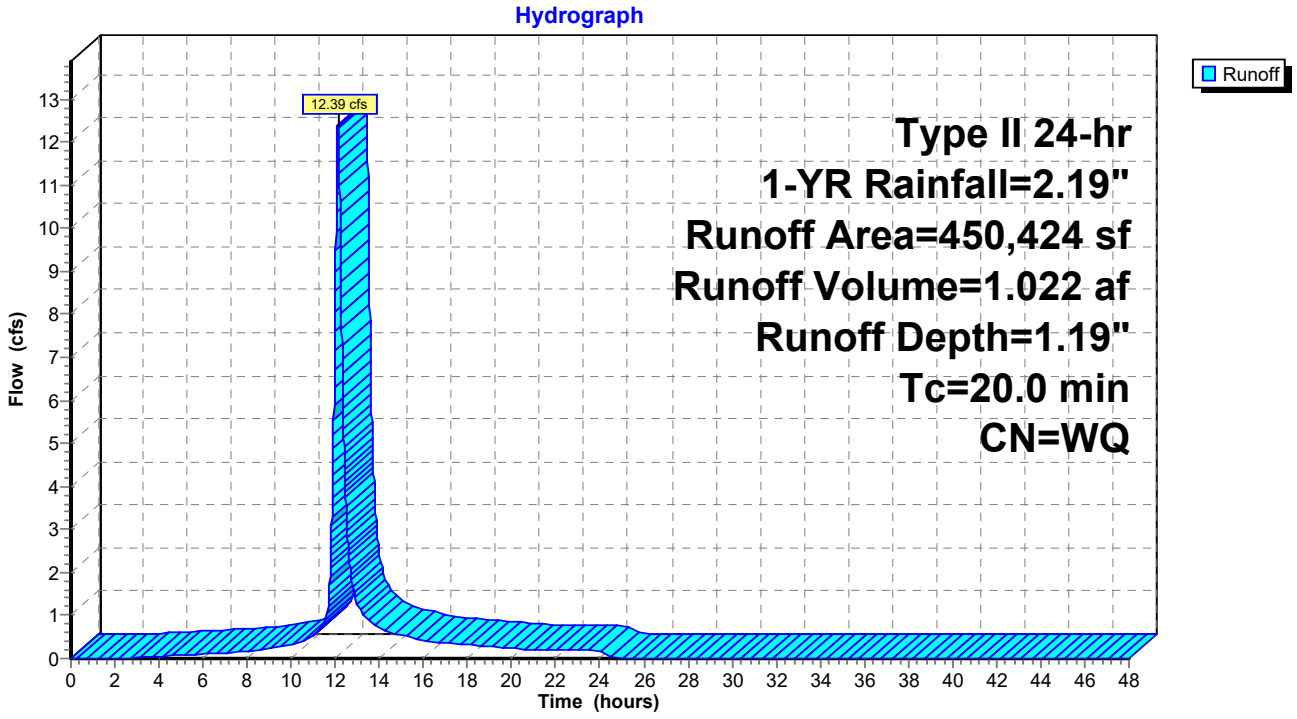
Runoff = 12.39 cfs @ 12.12 hrs, Volume= 1.022 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
41,665	80	>75% Grass cover, Good, HSG D
210,412	77	Woods, Good, HSG D
198,347	98	Water Surface, 0% imp, HSG D
450,424		Weighted Average
450,424		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0					**Direct Entry,**

Subcatchment P-3B: P-3(B)



Summary for Subcatchment P1-C: P-1 (C)

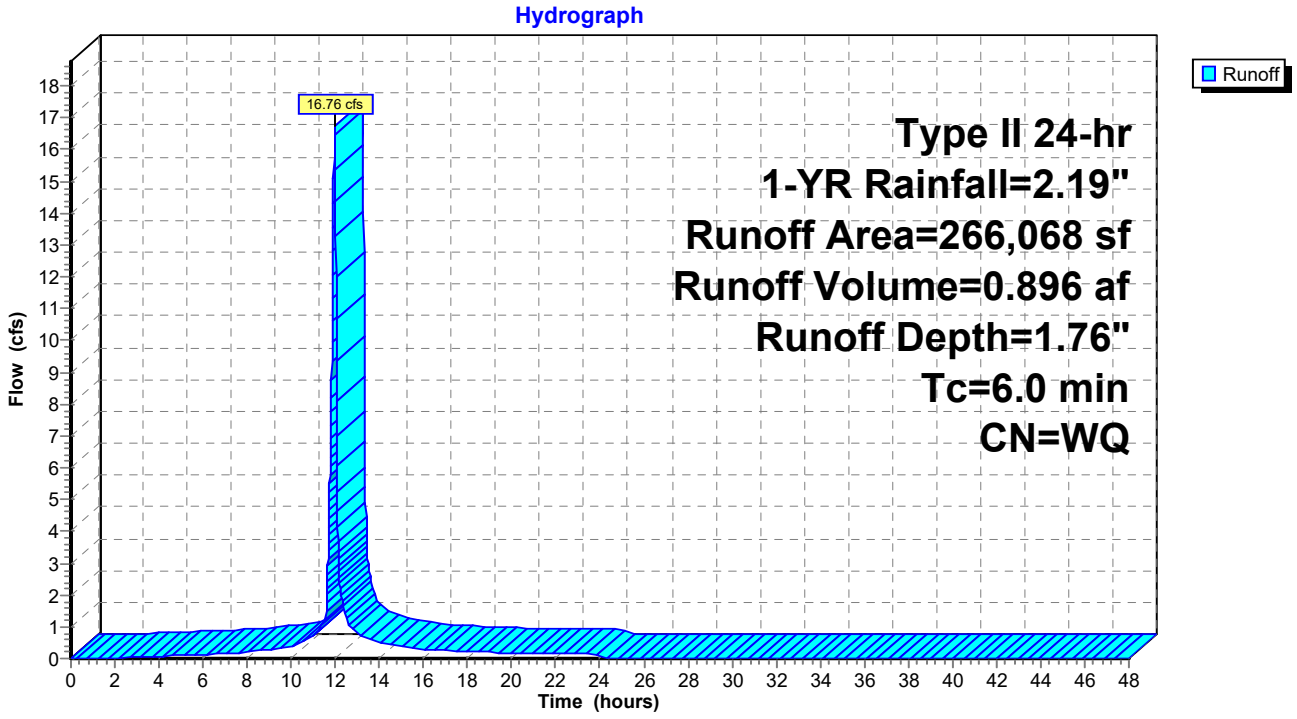
Runoff = 16.76 cfs @ 11.97 hrs, Volume= 0.896 af, Depth= 1.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.19"

Area (sf)	CN	Description
35,459	74	>75% Grass cover, Good, HSG C
230,609	98	Paved parking, HSG D
266,068		Weighted Average
35,459		13.33% Pervious Area
230,609		86.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P1-C: P-1 (C)

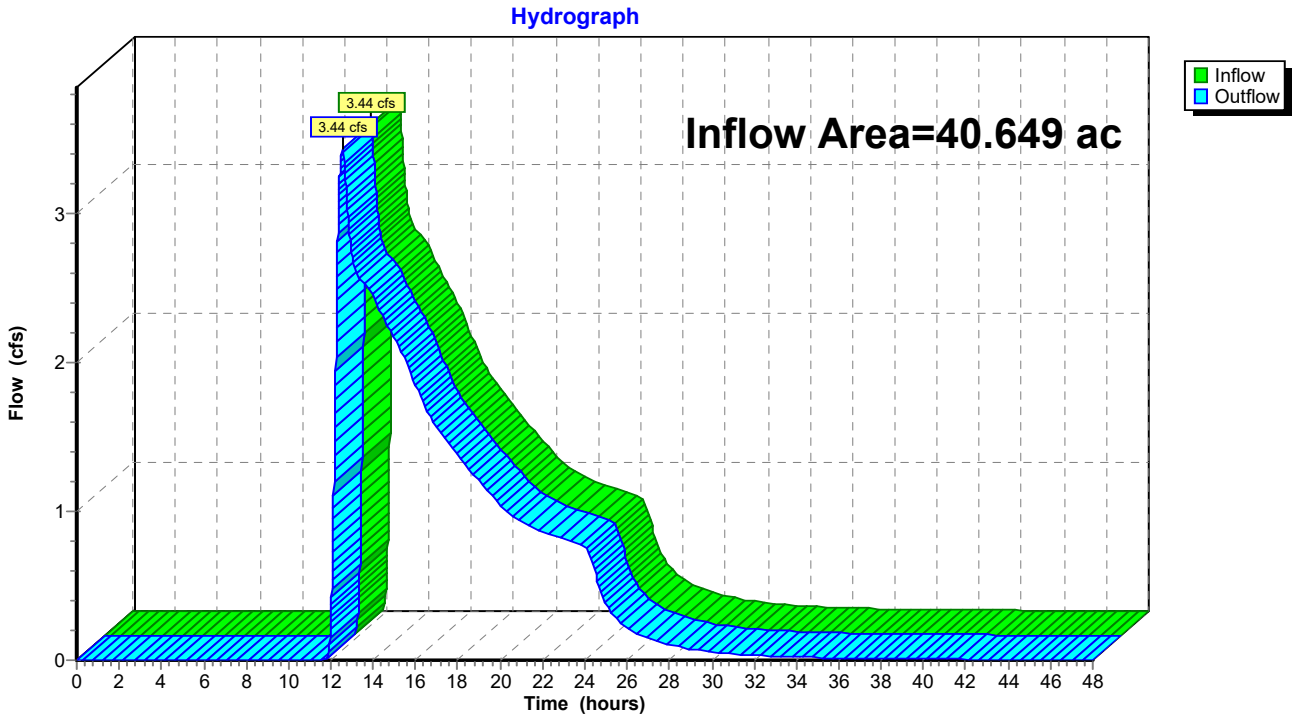


Summary for Reach P1: (PR) DP-1

Inflow Area = 40.649 ac, 54.84% Impervious, Inflow Depth > 0.49" for 1-YR event
Inflow = 3.44 cfs @ 12.53 hrs, Volume= 1.662 af
Outflow = 3.44 cfs @ 12.53 hrs, Volume= 1.662 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P1: (PR) DP-1

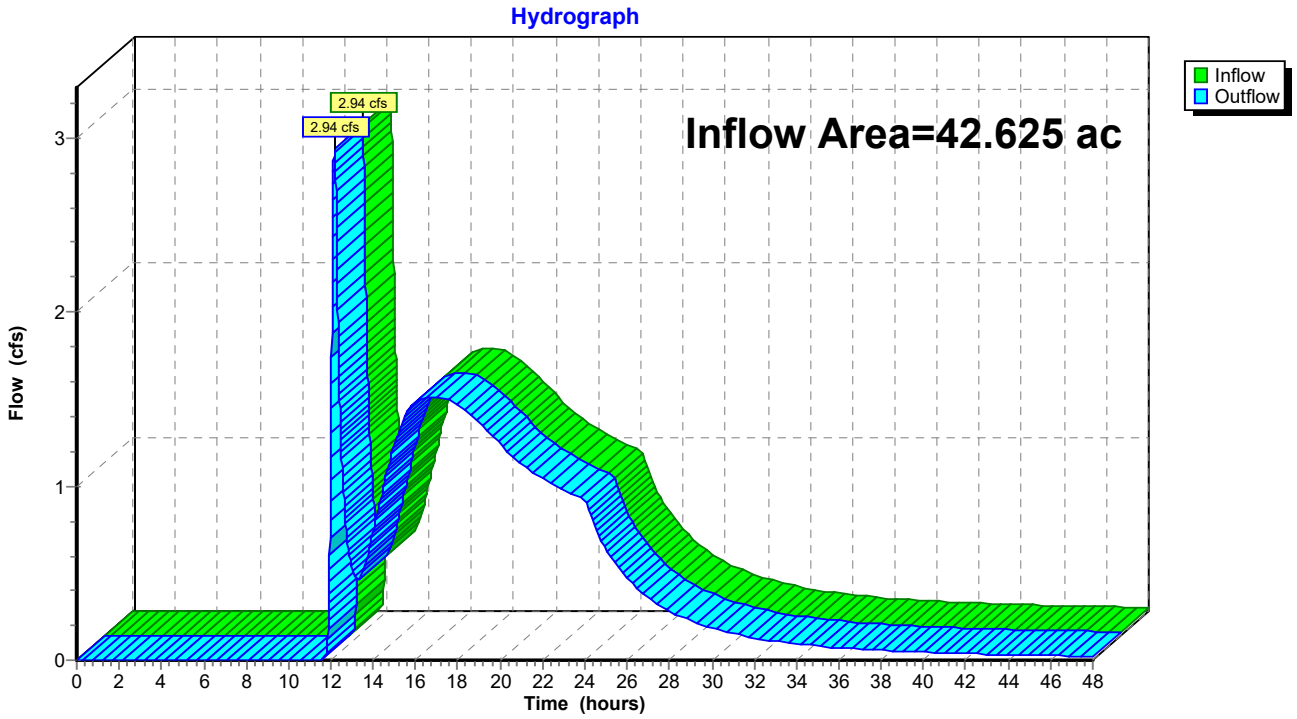


Summary for Reach P2: (PR) DP-2

Inflow Area = 42.625 ac, 54.07% Impervious, Inflow Depth > 0.42" for 1-YR event
Inflow = 2.94 cfs @ 12.18 hrs, Volume= 1.497 af
Outflow = 2.94 cfs @ 12.18 hrs, Volume= 1.497 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P2: (PR) DP-2

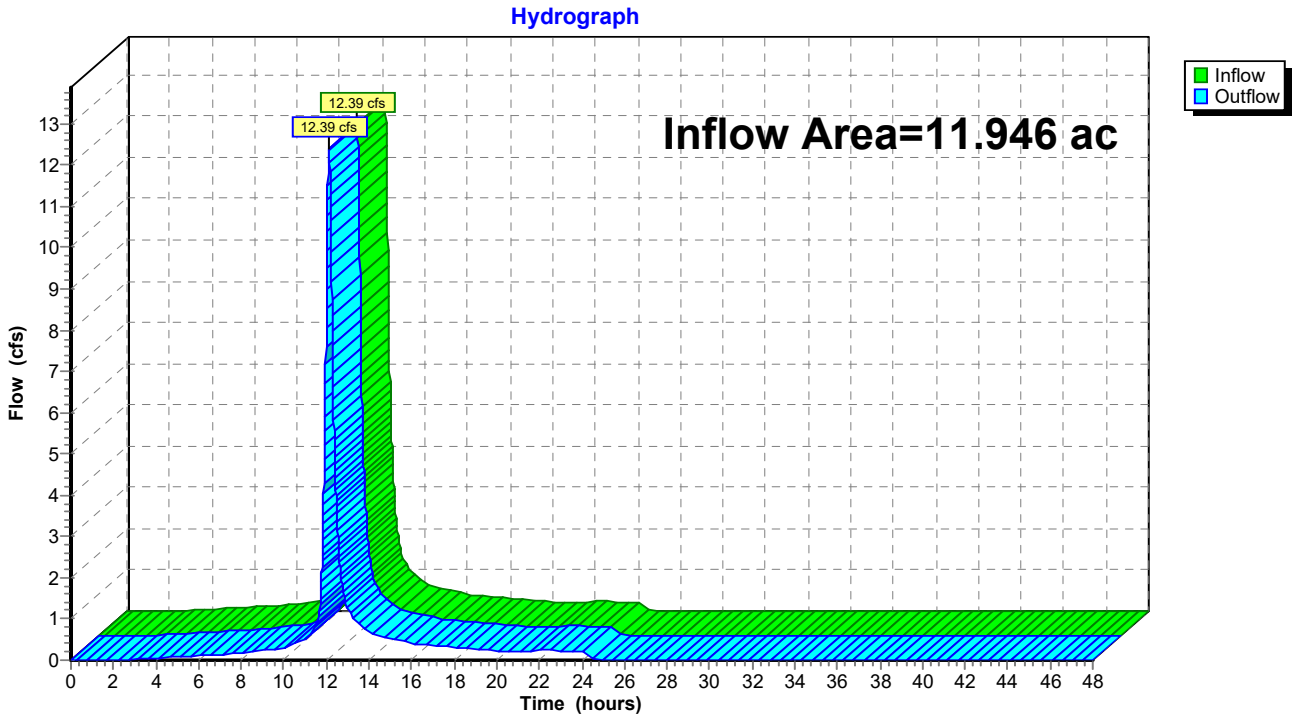


Summary for Reach P3: (PR) DP-3

Inflow Area = 11.946 ac, 3.32% Impervious, Inflow Depth = 1.03" for 1-YR event
Inflow = 12.39 cfs @ 12.12 hrs, Volume= 1.030 af
Outflow = 12.39 cfs @ 12.12 hrs, Volume= 1.030 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P3: (PR) DP-3



Summary for Pond 1P: Bioretention 1

Inflow Area = 2.480 ac, 49.56% Impervious, Inflow Depth = 1.32" for 1-YR event
Inflow = 5.25 cfs @ 11.97 hrs, Volume= 0.272 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 525.97' @ 24.34 hrs Surf.Area= 13,900 sf Storage= 11,850 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

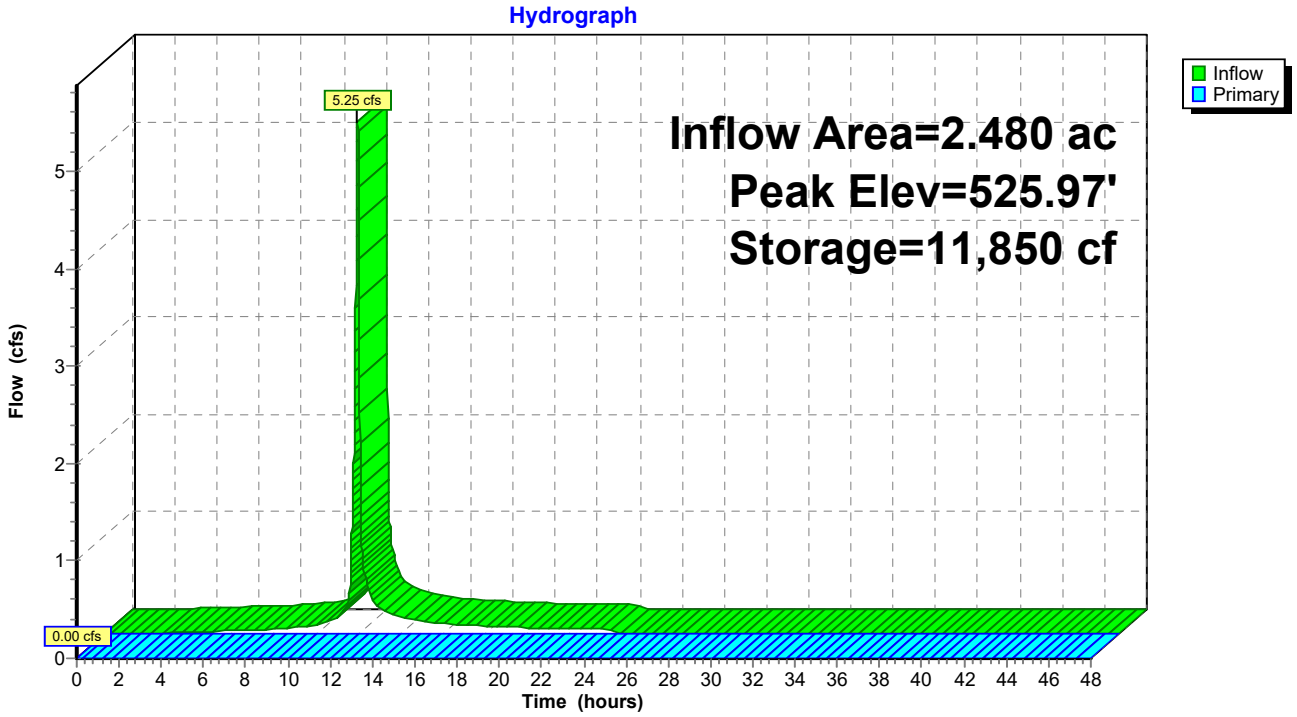
Volume	Invert	Avail.Storage	Storage Description
#1	525.00'	52,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
525.00	10,500	0	0
526.00	14,000	12,250	12,250
527.00	20,000	17,000	29,250
528.00	26,000	23,000	52,250

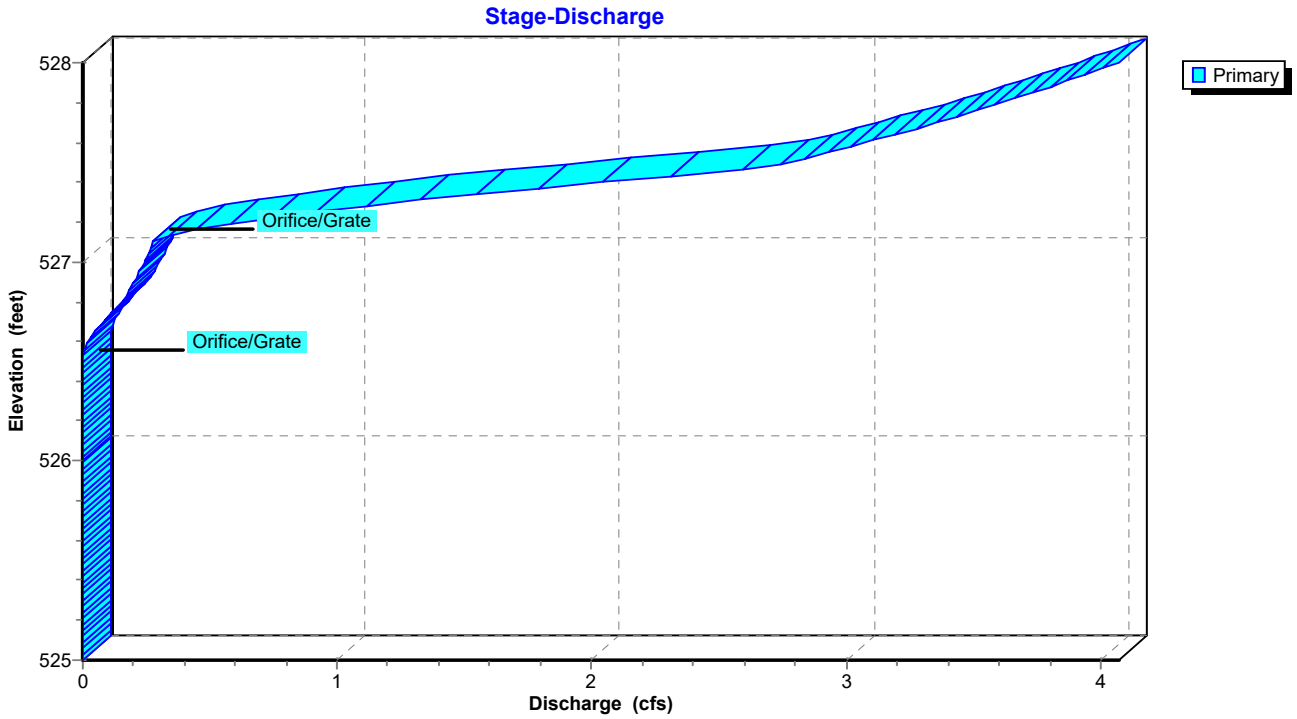
Device	Routing	Invert	Outlet Devices
#1	Primary	524.00'	**12.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 524.00' / 519.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	526.50'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	527.10'	**12.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=525.00' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.00 cfs of 2.67 cfs potential flow)
↑**2=Orifice/Grate** (Controls 0.00 cfs)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 1P: Bioretention 1



Pond 1P: Bioretention 1



Summary for Pond 6P: Bioretetntion 2

Inflow Area = 4.442 ac, 84.24% Impervious, Inflow Depth = 1.76" for 1-YR event
Inflow = 12.28 cfs @ 11.97 hrs, Volume= 0.652 af
Outflow = 3.74 cfs @ 12.09 hrs, Volume= 0.382 af, Atten= 70%, Lag= 7.5 min
Primary = 3.74 cfs @ 12.09 hrs, Volume= 0.382 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 534.32' @ 12.09 hrs Surf.Area= 12,982 sf Storage= 15,846 cf

Plug-Flow detention time= 242.6 min calculated for 0.382 af (59% of inflow)
Center-of-Mass det. time= 132.2 min (899.7 - 767.5)

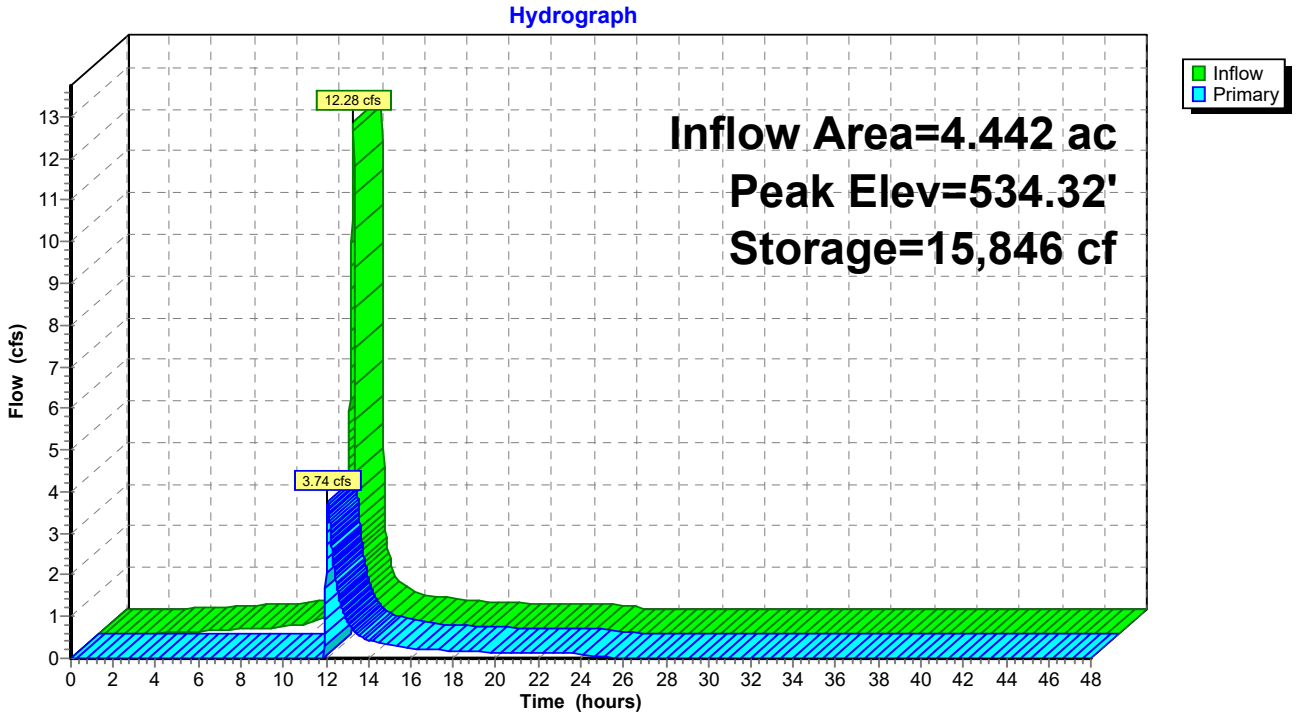
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	41,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	11,000	0	0
534.00	12,500	11,750	11,750
535.00	14,000	13,250	25,000
536.00	19,000	16,500	41,500

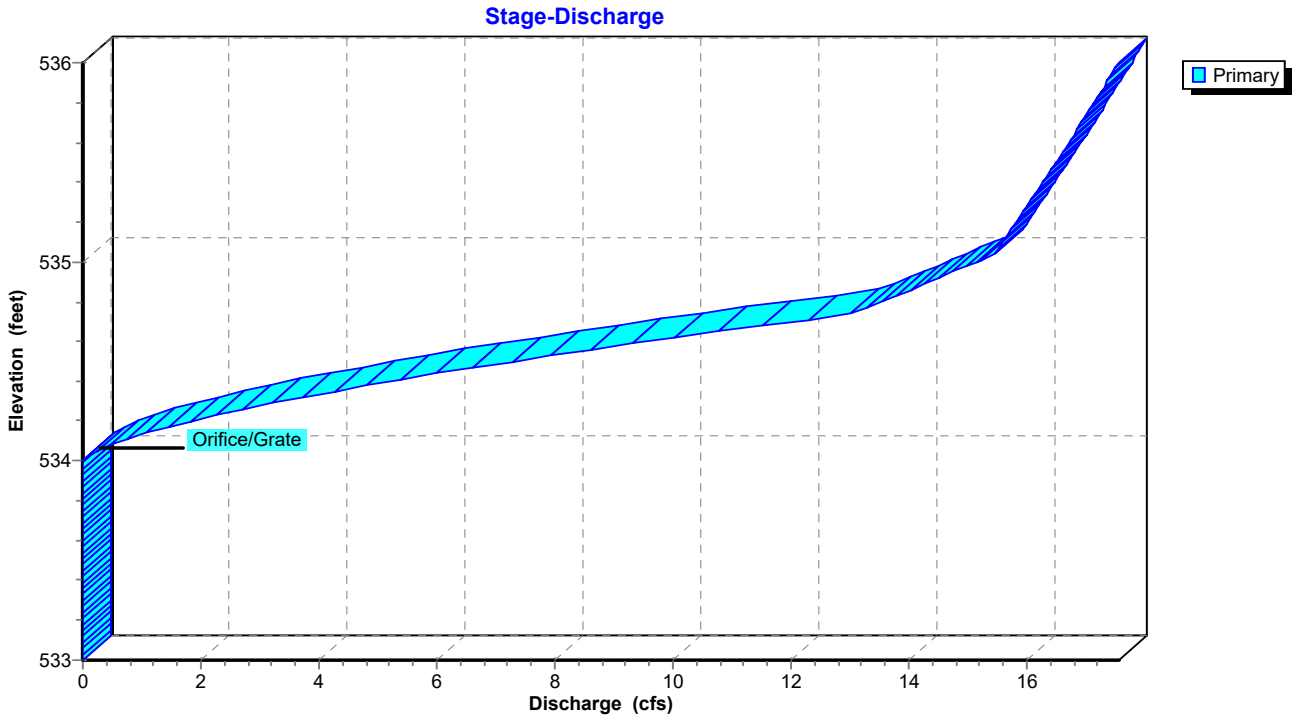
Device	Routing	Invert	Outlet Devices
#1	Primary	531.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 531.00' / 528.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.74 cfs @ 12.09 hrs HW=534.32' TW=480.68' (Dynamic Tailwater)
↑**1=Culvert** (Passes 3.74 cfs of 13.64 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 3.74 cfs @ 1.85 fps)

Pond 6P: Bioretetntion 2



Pond 6P: Bioretetntion 2



Summary for Pond 9P: UNDG-3

Inflow Area = 6.893 ac, 64.23% Impervious, Inflow Depth = 1.43" for 1-YR event
Inflow = 15.44 cfs @ 11.97 hrs, Volume= 0.822 af
Outflow = 0.24 cfs @ 17.61 hrs, Volume= 0.227 af, Atten= 98%, Lag= 338.4 min
Primary = 0.24 cfs @ 17.61 hrs, Volume= 0.227 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 523.74' @ 17.61 hrs Surf.Area= 25,000 sf Storage= 29,303 cf

Plug-Flow detention time= 716.8 min calculated for 0.227 af (28% of inflow)
Center-of-Mass det. time= 539.3 min (1,314.3 - 775.0)

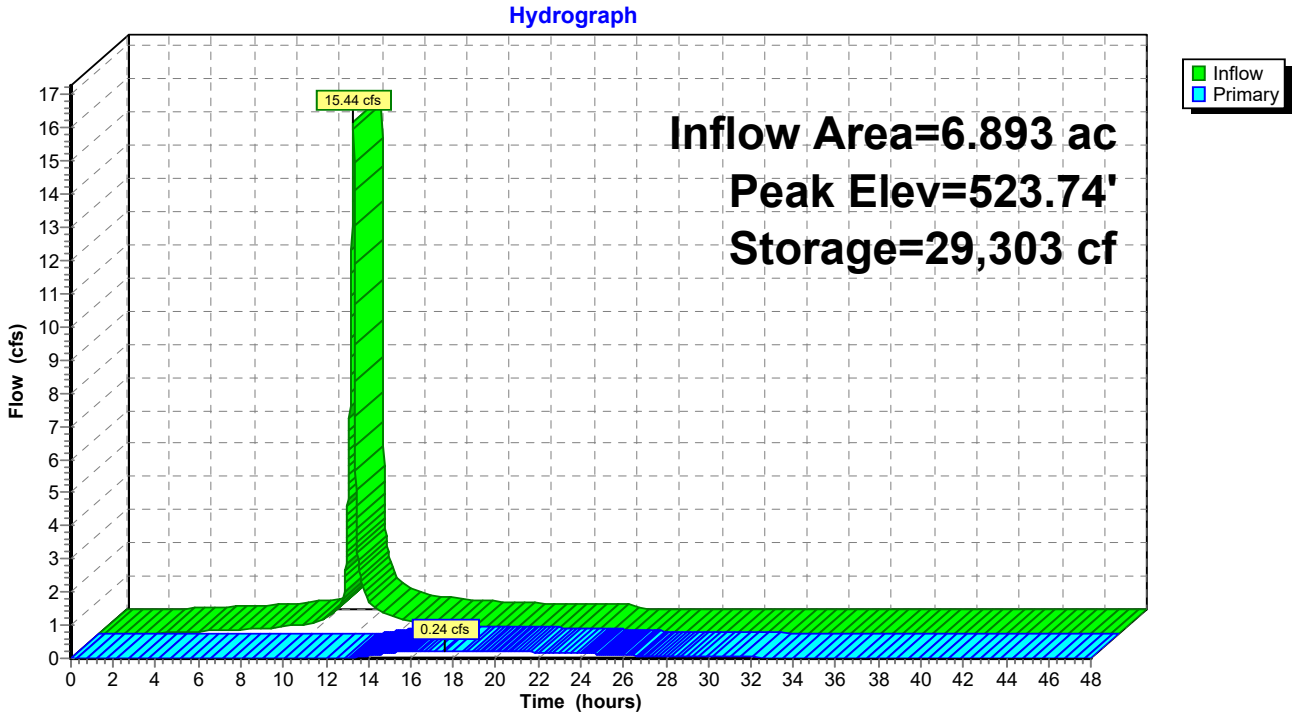
Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	50,625 cf	**Custom Stage Data (Prismatic)** Listed below 75,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	25,000	0	0
525.00	25,000	75,000	75,000

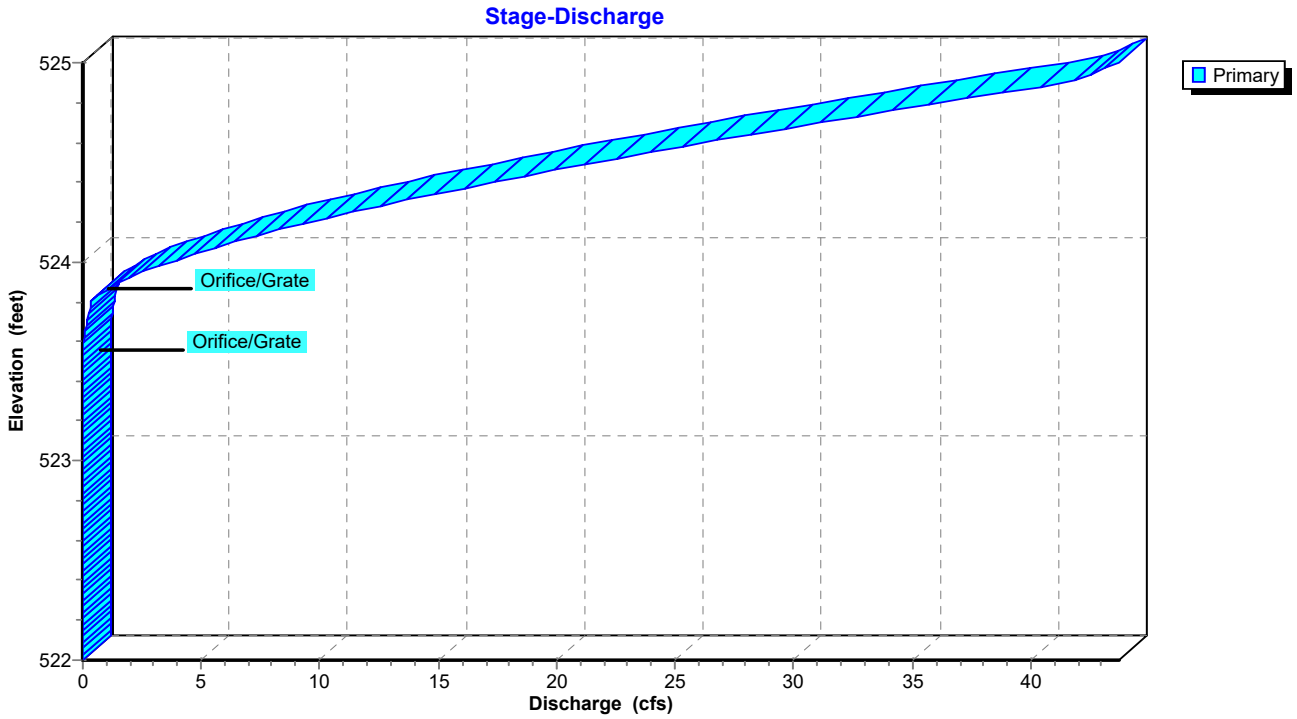
Device	Routing	Invert	Outlet Devices
#1	Primary	521.00'	**36.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 521.00' / 516.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#2	Device 1	523.50'	**12.0" Vert. Orifice/Grate** X 2 rows with 6.0" cc spacing C= 0.600
#3	Device 1	523.80'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.24 cfs @ 17.61 hrs HW=523.74' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.24 cfs of 38.10 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.24 cfs @ 1.66 fps)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 9P: UNDG-3



Pond 9P: UNDG-3



Summary for Pond 10P: UNDG-1

Inflow Area = 23.573 ac, 89.35% Impervious, Inflow Depth = 1.80" for 1-YR event
Inflow = 66.35 cfs @ 11.97 hrs, Volume= 3.544 af
Outflow = 1.75 cfs @ 14.23 hrs, Volume= 1.124 af, Atten= 97%, Lag= 135.6 min
Primary = 1.75 cfs @ 14.23 hrs, Volume= 1.124 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 521.32' @ 14.23 hrs Surf.Area= 130,000 sf Storage= 115,992 cf

Plug-Flow detention time= 502.7 min calculated for 1.124 af (32% of inflow)
Center-of-Mass det. time= 339.6 min (1,104.5 - 764.8)

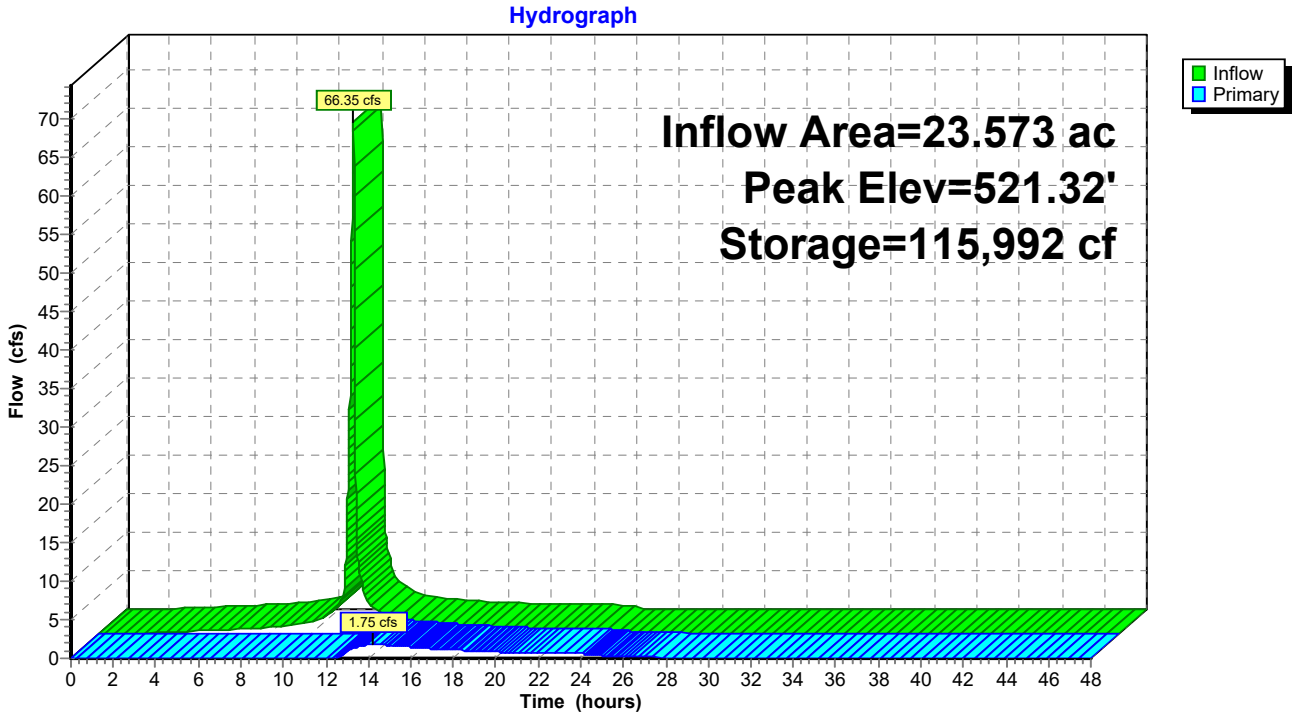
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	263,250 cf	**Custom Stage Data (Prismatic)** Listed below 390,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	130,000	0	0
523.00	130,000	390,000	390,000

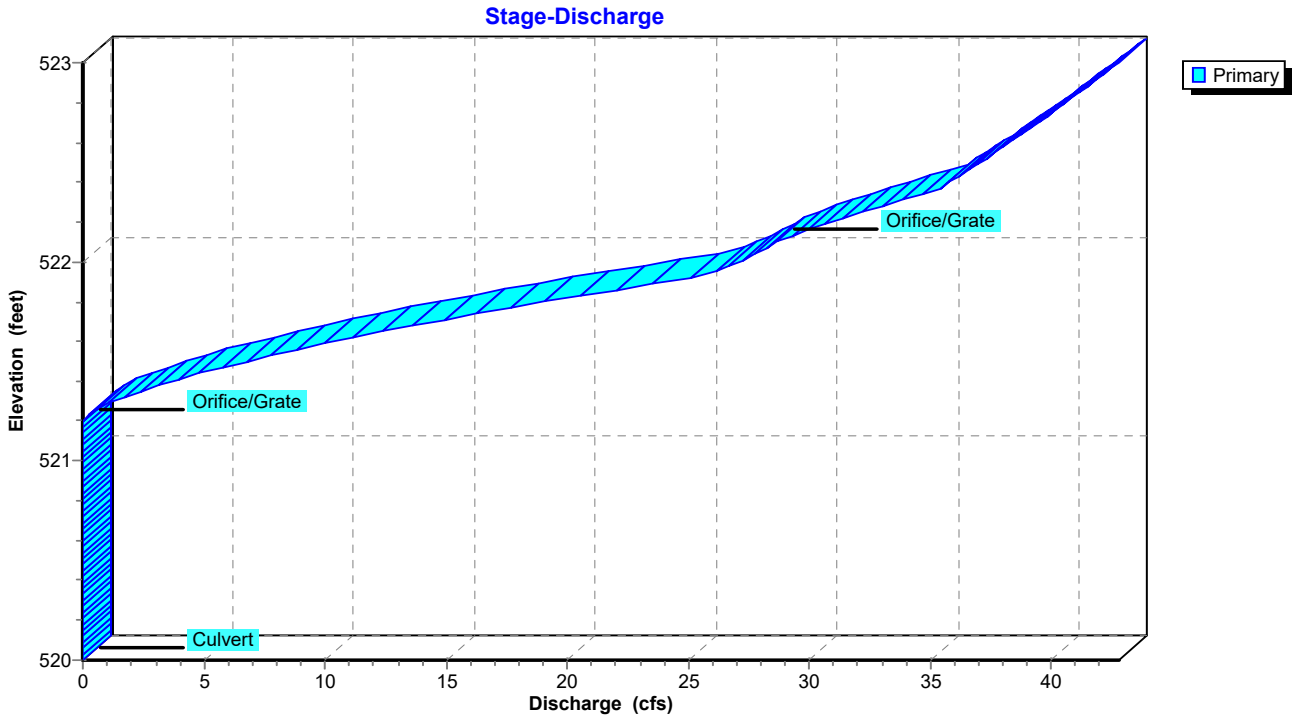
Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	**24.0" Round Culvert X 2.00** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 520.00' / 515.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	521.20'	**24.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	522.10'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.75 cfs @ 14.23 hrs HW=521.32' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 1.75 cfs of 17.25 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 1.75 cfs @ 1.14 fps)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 10P: UNDG-1



Pond 10P: UNDG-1



Summary for Pond 14P: Bioretention 3

Inflow Area = 7.172 ac, 60.79% Impervious, Inflow Depth = 1.41" for 1-YR event
Inflow = 16.01 cfs @ 11.97 hrs, Volume= 0.845 af
Outflow = 0.56 cfs @ 13.70 hrs, Volume= 0.303 af, Atten= 96%, Lag= 103.8 min
Primary = 0.56 cfs @ 13.70 hrs, Volume= 0.303 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 534.09' @ 13.70 hrs Surf.Area= 25,590 sf Storage= 25,933 cf

Plug-Flow detention time= 435.4 min calculated for 0.303 af (36% of inflow)
Center-of-Mass det. time= 284.0 min (1,062.7 - 778.6)

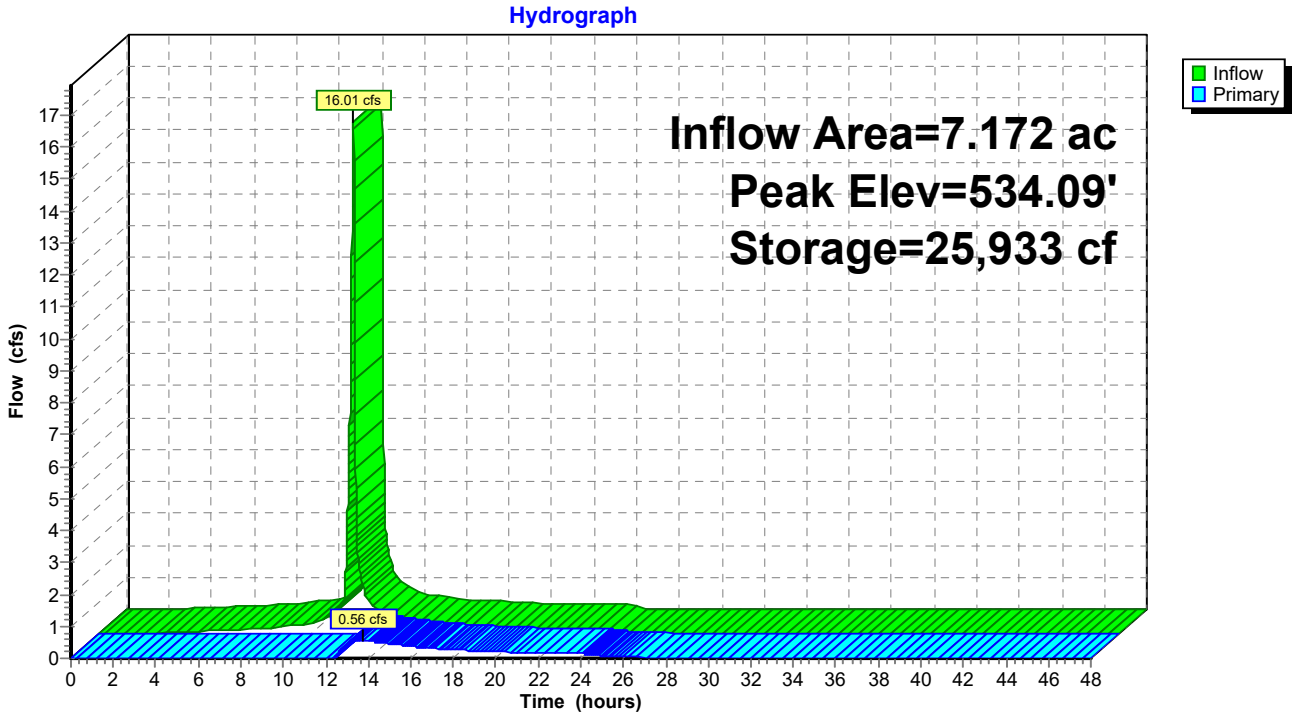
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	81,750 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	22,000	0	0
534.00	25,250	23,625	23,625
535.00	29,000	27,125	50,750
536.00	33,000	31,000	81,750

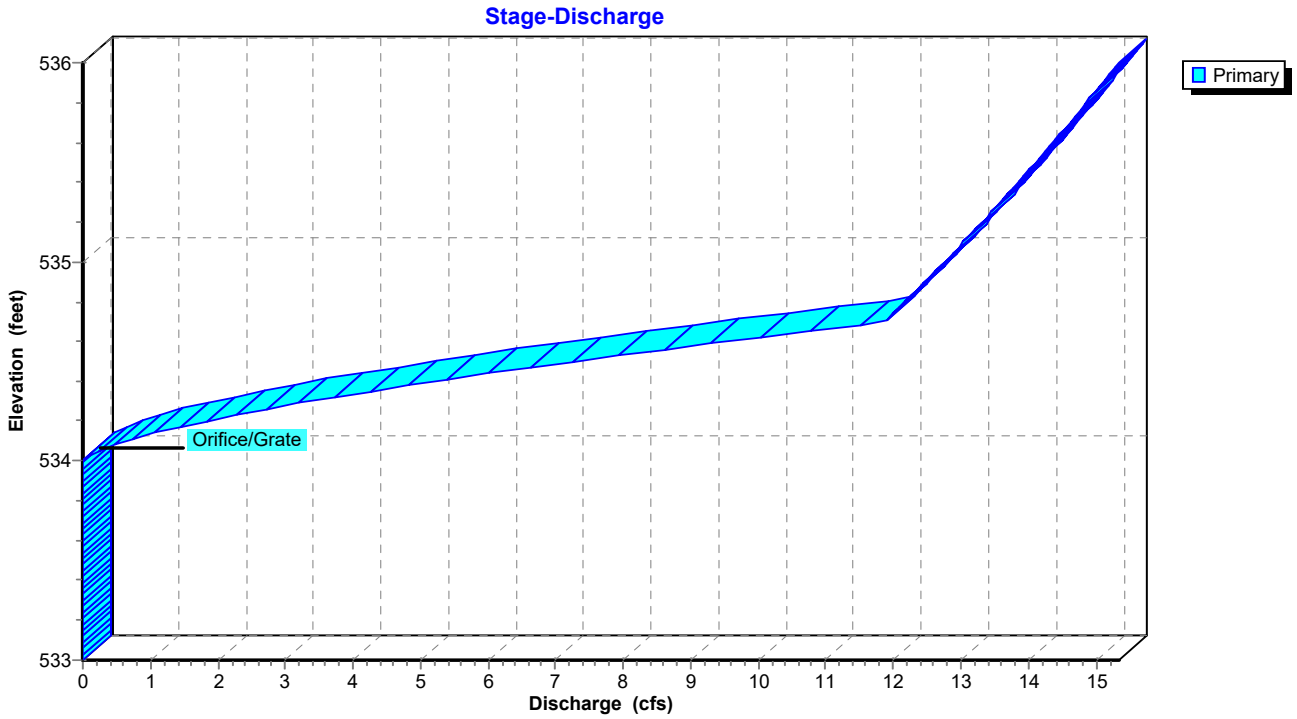
Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 532.00' / 529.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.56 cfs @ 13.70 hrs HW=534.09' TW=481.68' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.56 cfs of 9.85 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.56 cfs @ 0.99 fps)

Pond 14P: Bioretention 3



Pond 14P: Bioretention 3



Summary for Pond 16P: DET-3

Inflow Area = 28.217 ac, 65.99% Impervious, Inflow Depth = 1.10" for 1-YR event
Inflow = 32.29 cfs @ 11.98 hrs, Volume= 2.593 af
Outflow = 1.12 cfs @ 16.88 hrs, Volume= 0.989 af, Atten= 97%, Lag= 294.2 min
Primary = 1.12 cfs @ 16.88 hrs, Volume= 0.989 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 481.93' @ 16.88 hrs Surf.Area= 34,212 sf Storage= 82,198 cf

Plug-Flow detention time= 625.2 min calculated for 0.989 af (38% of inflow)
Center-of-Mass det. time= 449.8 min (1,277.9 - 828.0)

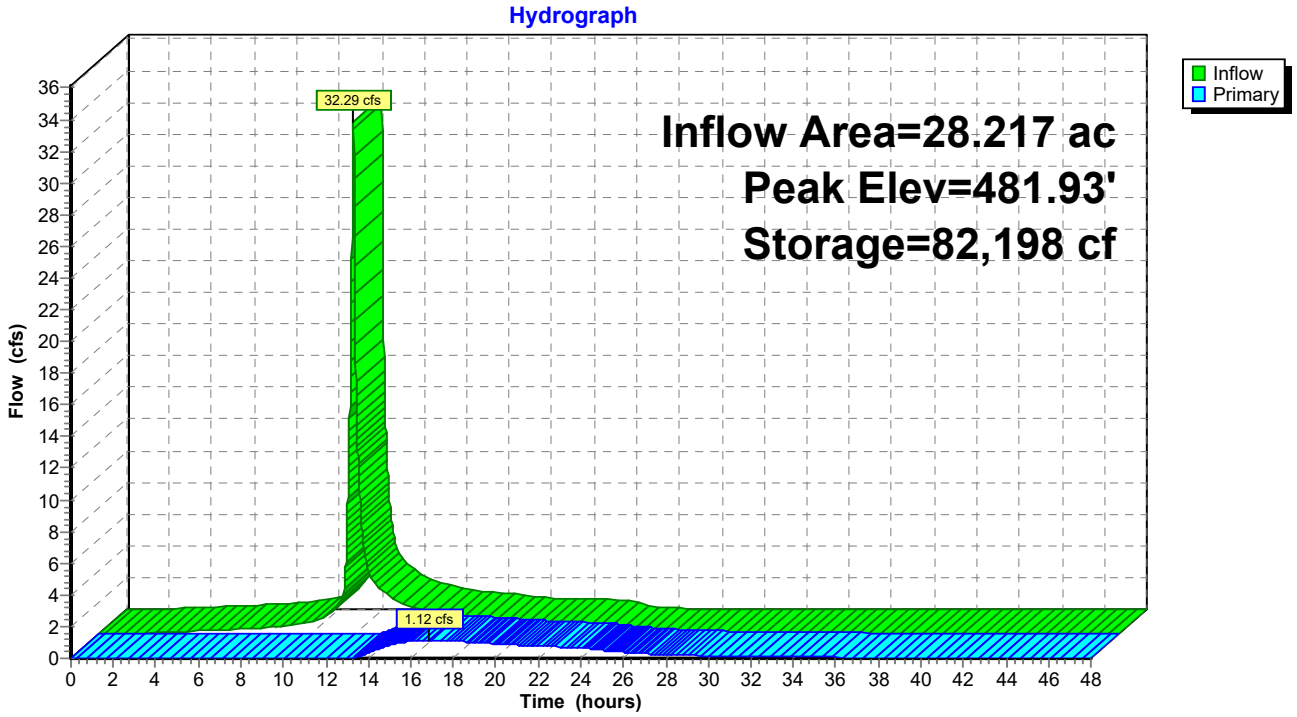
Volume	Invert	Avail.Storage	Storage Description
#1	478.00'	203,233 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
478.00	14,000	0	0
479.00	16,500	15,250	15,250
480.50	20,500	27,750	43,000
482.00	34,854	41,516	84,516
483.00	38,000	36,427	120,943
484.00	41,040	39,520	160,463
485.00	44,500	42,770	203,233

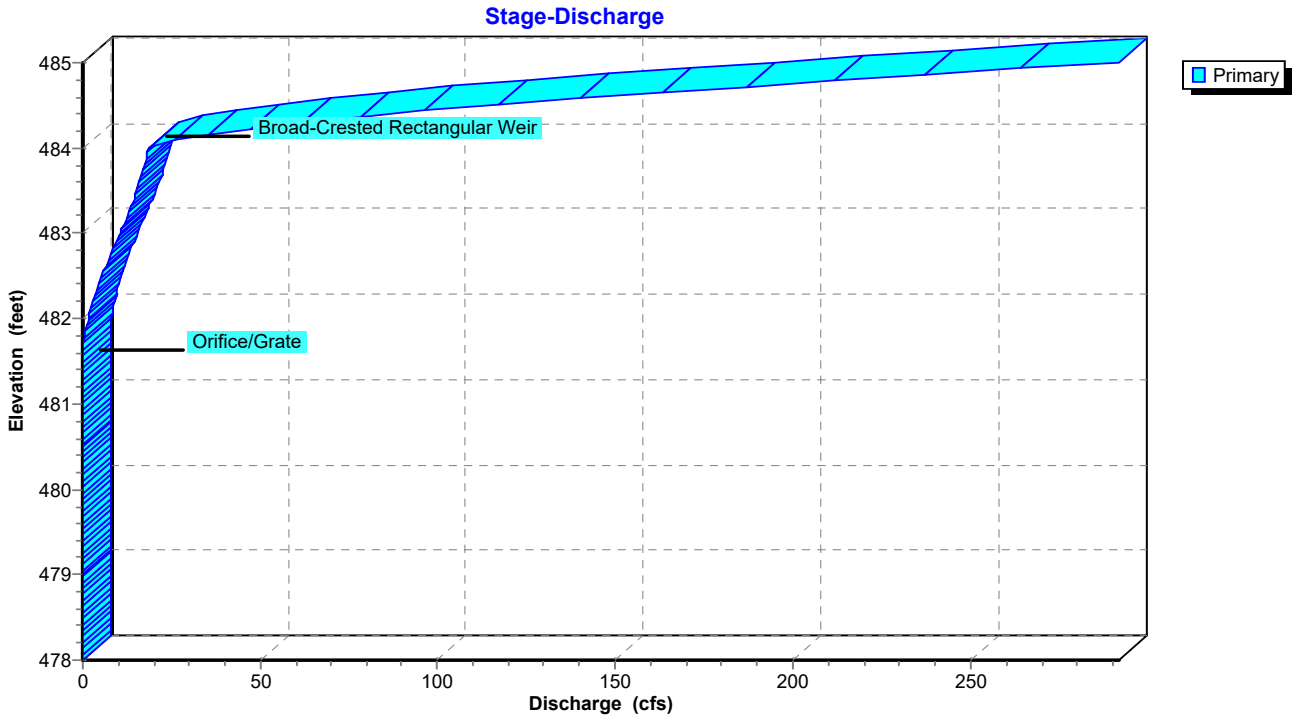
Device	Routing	Invert	Outlet Devices
#1	Primary	481.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	484.00'	**100.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.12 cfs @ 16.88 hrs HW=481.93' TW=0.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 1.12 cfs @ 2.24 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 16P: DET-3



Pond 16P: DET-3



Summary for Pond 17P: Bioretention 4

Inflow Area = 1.605 ac, 24.67% Impervious, Inflow Depth = 1.00" for 1-YR event
Inflow = 2.66 cfs @ 11.97 hrs, Volume= 0.133 af
Outflow = 0.03 cfs @ 22.84 hrs, Volume= 0.007 af, Atten= 99%, Lag= 652.0 min
Primary = 0.03 cfs @ 22.84 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 538.51' @ 22.84 hrs Surf.Area= 4,768 sf Storage= 5,544 cf

Plug-Flow detention time= 936.0 min calculated for 0.007 af (6% of inflow)
Center-of-Mass det. time= 577.9 min (1,390.7 - 812.8)

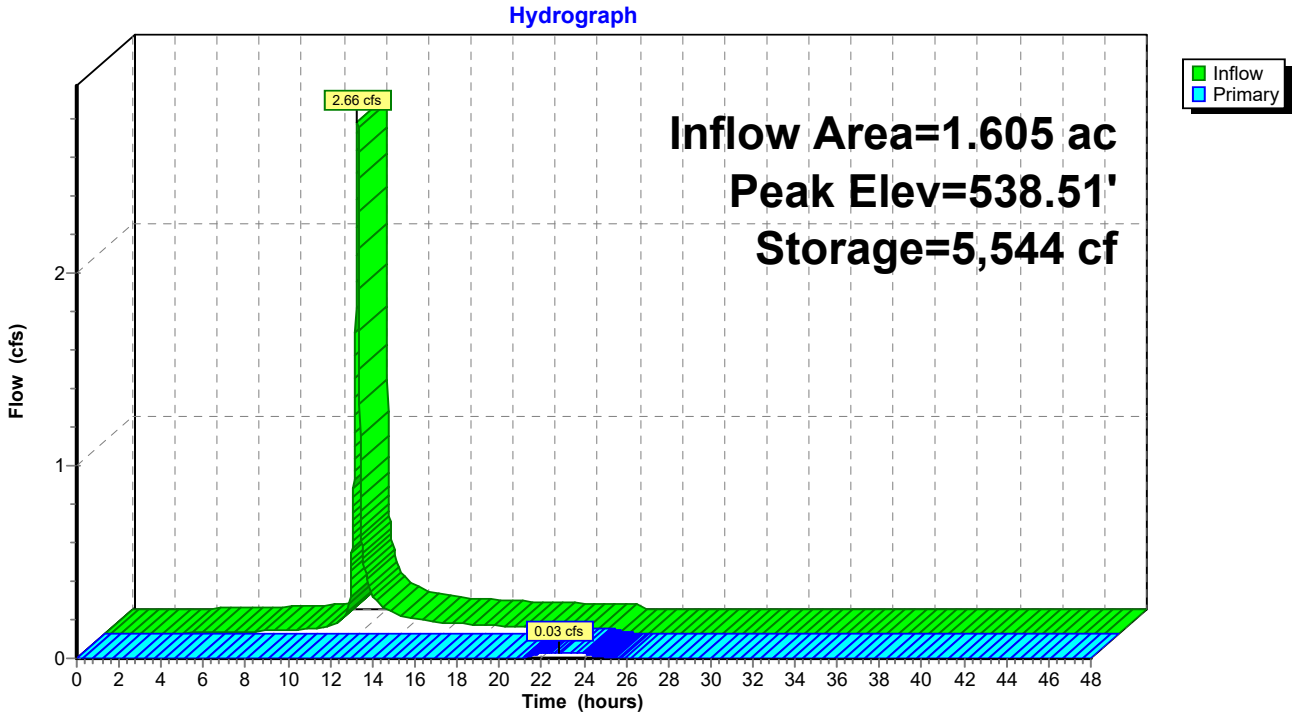
Volume	Invert	Avail.Storage	Storage Description
#1	537.00'	8,050 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
537.00	2,600	0	0
538.00	4,000	3,300	3,300
539.00	5,500	4,750	8,050

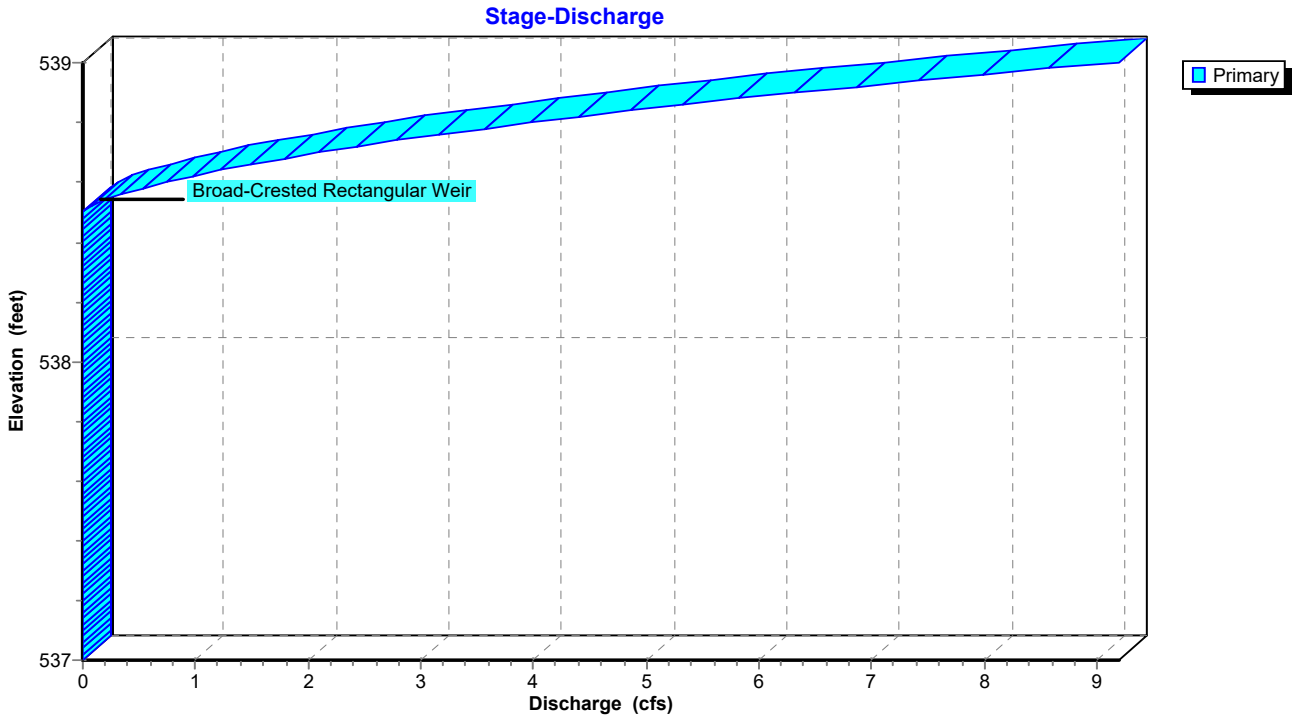
Device	Routing	Invert	Outlet Devices
#1	Primary	538.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.03 cfs @ 22.84 hrs HW=538.51' TW=0.00' (Dynamic Tailwater)
1=Broad-Crested Rectangular Weir (Weir Controls 0.03 cfs @ 0.25 fps)

Pond 17P: Bioretention 4



Pond 17P: Bioretention 4



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment11S: P-2(E) Runoff Area=193,502 sf 84.24% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=WQ Runoff=20.59 cfs 1.114 af

Subcatchment12S: P-1(F) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=3.27"
Tc=6.0 min CN=98 Runoff=18.55 cfs 1.019 af

Subcatchment13S: P-2(F) Runoff Area=312,421 sf 60.79% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=WQ Runoff=28.81 cfs 1.525 af

SubcatchmentP-1A: P-1 (A) Runoff Area=635,838 sf 0.00% Impervious Runoff Depth=1.24"
Flow Length=1,786' Tc=44.2 min CN=74 Runoff=11.35 cfs 1.508 af

SubcatchmentP-1B: P-1 (B) Runoff Area=386,372 sf 89.24% Impervious Runoff Depth=3.05"
Tc=6.0 min CN=WQ Runoff=41.32 cfs 2.253 af

SubcatchmentP-1D: P-1 (D) Runoff Area=211,372 sf 84.69% Impervious Runoff Depth=2.98"
Flow Length=476' Tc=6.0 min CN=WQ Runoff=22.25 cfs 1.207 af

SubcatchmentP-1E: P-1 (E) Runoff Area=108,008 sf 49.56% Impervious Runoff Depth=2.44"
Tc=6.0 min CN=WQ Runoff=9.74 cfs 0.505 af

SubcatchmentP-2A: P-2(A) Runoff Area=327,379 sf 0.00% Impervious Runoff Depth=1.25"
Flow Length=1,343' Tc=21.3 min CN=WQ Runoff=9.66 cfs 0.781 af

SubcatchmentP-2B: P-2(B) Runoff Area=299,162 sf 17.93% Impervious Runoff Depth=1.47"
Flow Length=1,456' Tc=18.3 min CN=WQ Runoff=10.73 cfs 0.839 af

SubcatchmentP-2C: P-2(C) Runoff Area=261,031 sf 92.50% Impervious Runoff Depth=3.11"
Flow Length=487' Tc=6.0 min CN=WQ Runoff=28.42 cfs 1.554 af

SubcatchmentP-2D: P-2(D) Runoff Area=300,252 sf 64.23% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=WQ Runoff=27.38 cfs 1.466 af

SubcatchmentP-2E: P-2(G) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=3.27"
Tc=6.0 min CN=98 Runoff=18.55 cfs 1.019 af

SubcatchmentP-3A: P-3(A) Runoff Area=69,928 sf 24.67% Impervious Runoff Depth=2.04"
Tc=6.0 min CN=WQ Runoff=5.50 cfs 0.273 af

SubcatchmentP-3B: P-3(B) Runoff Area=450,424 sf 0.00% Impervious Runoff Depth=2.26"
Tc=20.0 min CN=WQ Runoff=24.06 cfs 1.946 af

SubcatchmentP1-C: P-1 (C) Runoff Area=266,068 sf 86.67% Impervious Runoff Depth=3.00"
Tc=6.0 min CN=WQ Runoff=28.02 cfs 1.525 af

Reach P1: (PR) DP-1 Inflow=27.84 cfs 5.119 af
Outflow=27.84 cfs 5.119 af

Reach P2: (PR) DP-2 Inflow=21.34 cfs 5.284 af
Outflow=21.34 cfs 5.284 af

Reach P3: (PR) DP-3 Inflow=25.20 cfs 2.092 af
Outflow=25.20 cfs 2.092 af

Pond 1P: Bioretention 1 Peak Elev=526.60' Storage=21,788 cf Inflow=9.74 cfs 0.505 af
Outflow=0.03 cfs 0.028 af

Pond 6P: Bioretetntion 2 Peak Elev=534.74' Storage=21,410 cf Inflow=20.59 cfs 1.114 af
Outflow=13.01 cfs 0.844 af

Pond 9P: UNDG-3 Peak Elev=524.13' Storage=35,989 cf Inflow=27.38 cfs 1.466 af
Outflow=7.41 cfs 0.870 af

Pond 10P: UNDG-1 Peak Elev=521.79' Storage=157,313 cf Inflow=110.14 cfs 6.004 af
Outflow=18.75 cfs 3.583 af

Pond 14P: Bioretention 3 Peak Elev=534.49' Storage=36,435 cf Inflow=28.81 cfs 1.525 af
Outflow=7.04 cfs 0.982 af

Pond 16P: DET-3 Peak Elev=482.94' Storage=118,650 cf Inflow=67.25 cfs 5.238 af
Outflow=9.89 cfs 3.633 af

Pond 17P: Bioretention 4 Peak Elev=538.63' Storage=6,138 cf Inflow=5.50 cfs 0.273 af
Outflow=1.15 cfs 0.147 af

Total Runoff Area = 95.220 ac Runoff Volume = 18.533 af Average Runoff Depth = 2.34"
51.97% Pervious = 49.488 ac 48.03% Impervious = 45.733 ac

Summary for Subcatchment 11S: P-2(E)

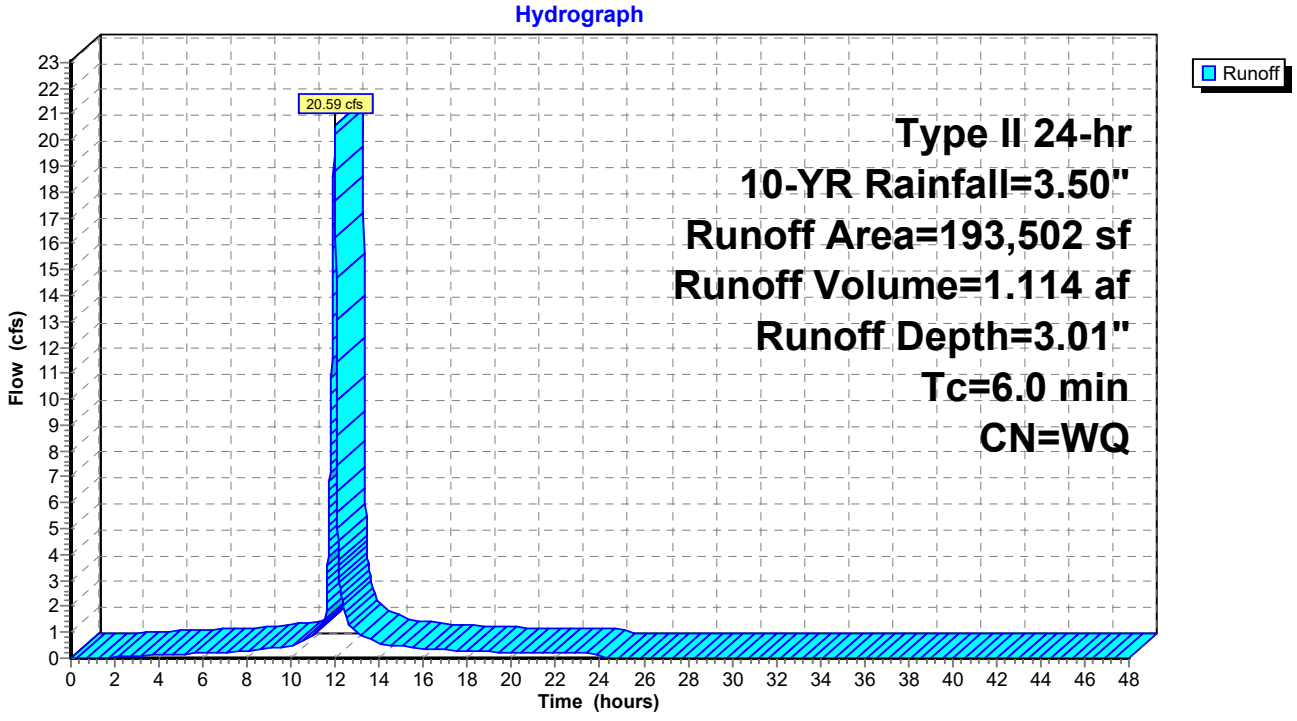
Runoff = 20.59 cfs @ 11.97 hrs, Volume= 1.114 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
30,487	80	>75% Grass cover, Good, HSG D
193,502		Weighted Average
30,487		15.76% Pervious Area
163,015		84.24% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 11S: P-2(E)



Summary for Subcatchment 12S: P-1(F)

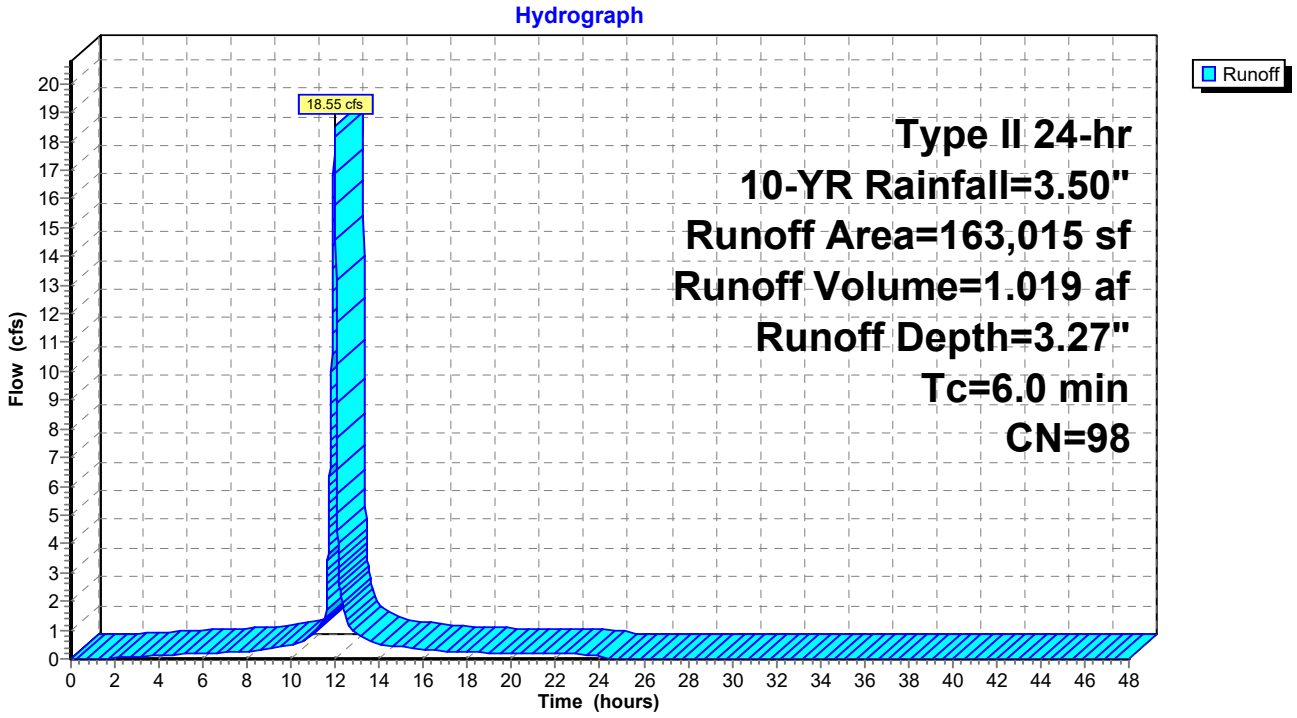
Runoff = 18.55 cfs @ 11.97 hrs, Volume= 1.019 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 12S: P-1(F)



Summary for Subcatchment 13S: P-2(F)

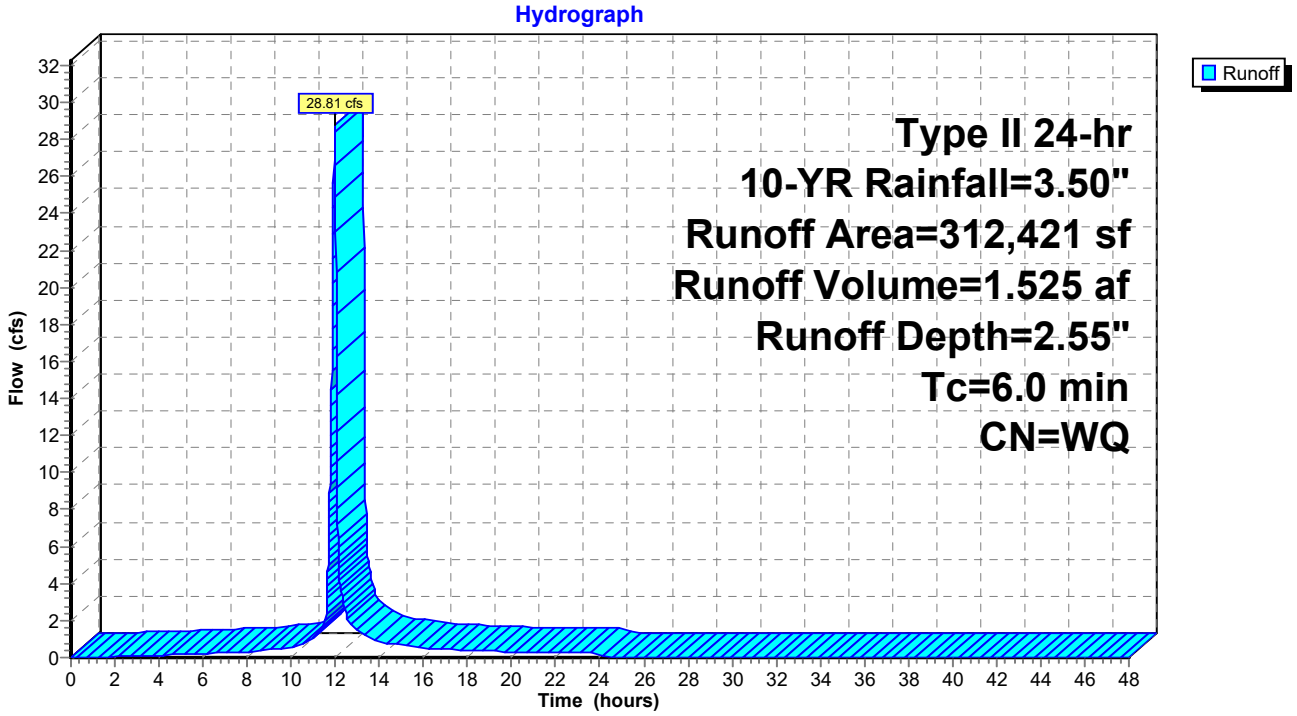
Runoff = 28.81 cfs @ 11.97 hrs, Volume= 1.525 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
189,931	98	Unconnected pavement, HSG D
60,280	74	>75% Grass cover, Good, HSG C
62,210	80	>75% Grass cover, Good, HSG D
312,421		Weighted Average
122,490		39.21% Pervious Area
189,931		60.79% Impervious Area
189,931		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 13S: P-2(F)



Summary for Subcatchment P-1A: P-1 (A)

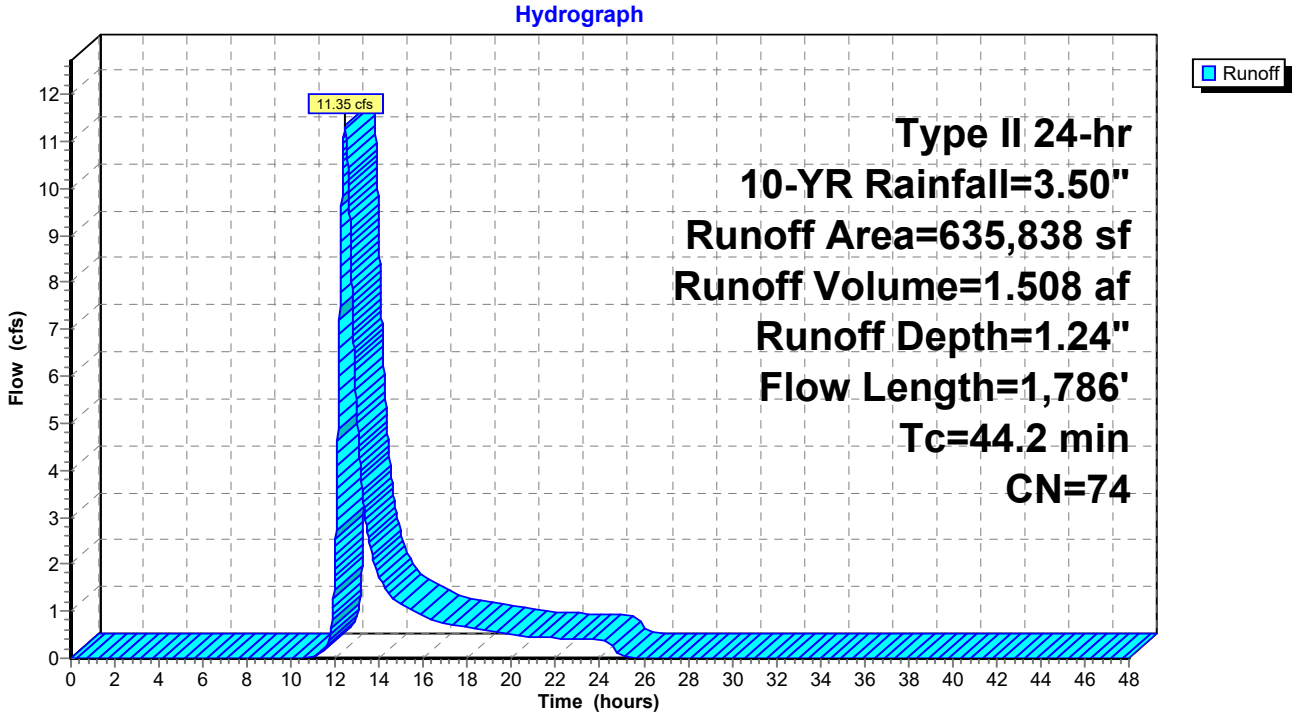
Runoff = 11.35 cfs @ 12.43 hrs, Volume= 1.508 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
635,838	74	>75% Grass cover, Good, HSG C
635,838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.6	100	0.0030	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
2.3	686	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
11.3	1,000	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040
44.2	1,786	Total			

Subcatchment P-1A: P-1 (A)



Summary for Subcatchment P-1B: P-1 (B)

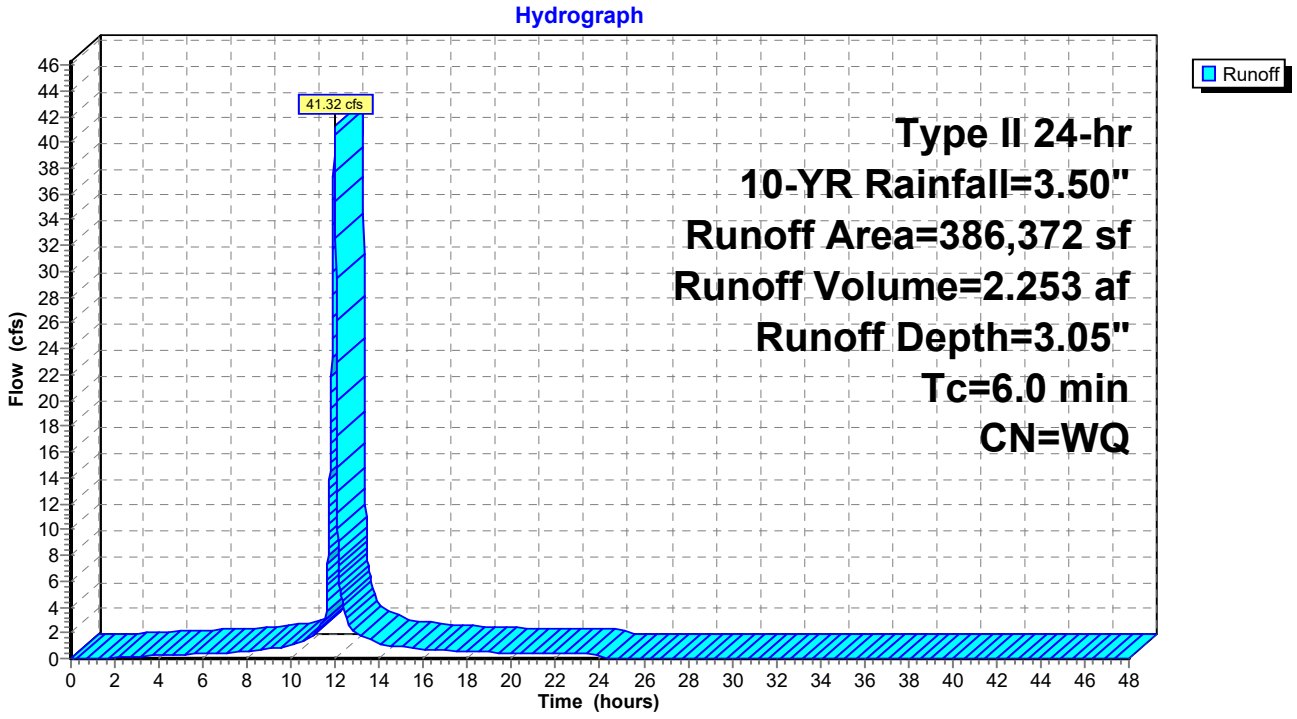
Runoff = 41.32 cfs @ 11.97 hrs, Volume= 2.253 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
41,576	74	>75% Grass cover, Good, HSG C
344,796	98	Paved parking, HSG D
386,372		Weighted Average
41,576		10.76% Pervious Area
344,796		89.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1B: P-1 (B)



Summary for Subcatchment P-1D: P-1 (D)

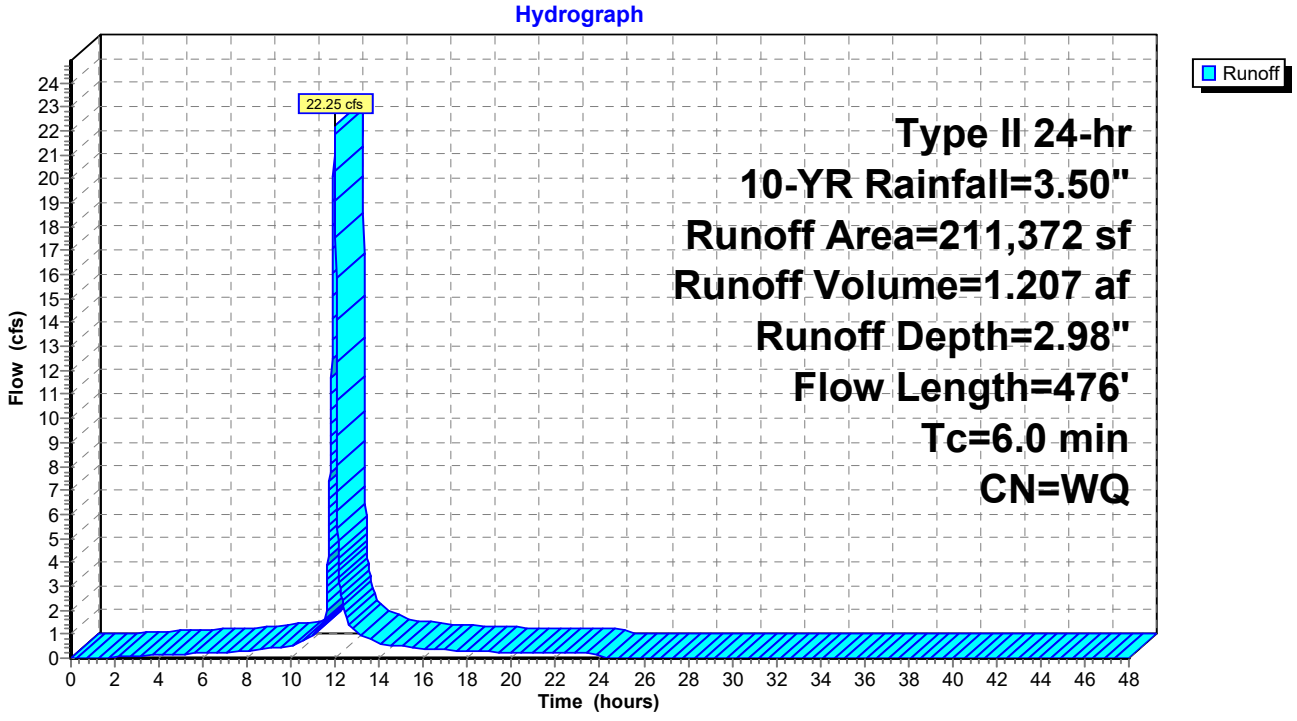
Runoff = 22.25 cfs @ 11.97 hrs, Volume= 1.207 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
17,212	74	>75% Grass cover, Good, HSG C
15,158	80	>75% Grass cover, Good, HSG D
179,002	98	Paved parking, HSG D
211,372		Weighted Average
32,370		15.31% Pervious Area
179,002		84.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	476		1.32		**Direct Entry,**

Subcatchment P-1D: P-1 (D)



Summary for Subcatchment P-1E: P-1 (E)

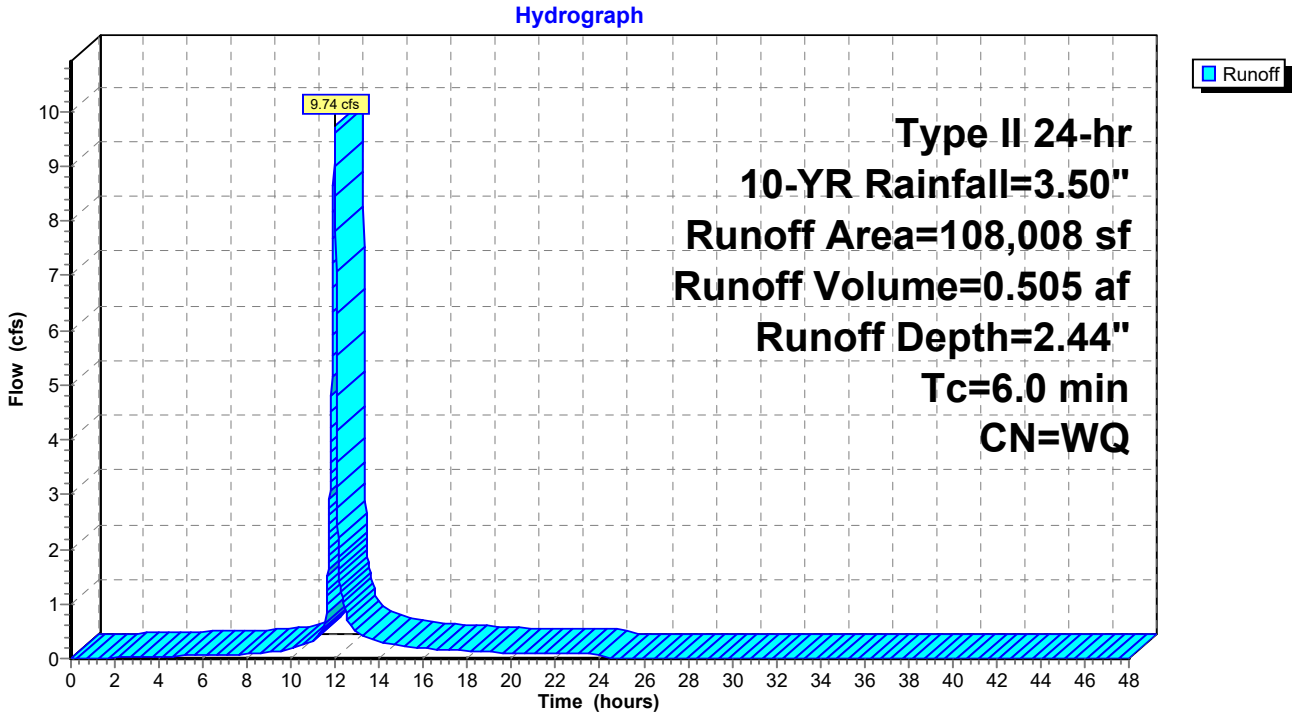
Runoff = 9.74 cfs @ 11.97 hrs, Volume= 0.505 af, Depth= 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
54,479	80	>75% Grass cover, Good, HSG D
53,529	98	Paved parking, HSG D
108,008		Weighted Average
54,479		50.44% Pervious Area
53,529		49.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1E: P-1 (E)



Summary for Subcatchment P-2A: P-2(A)

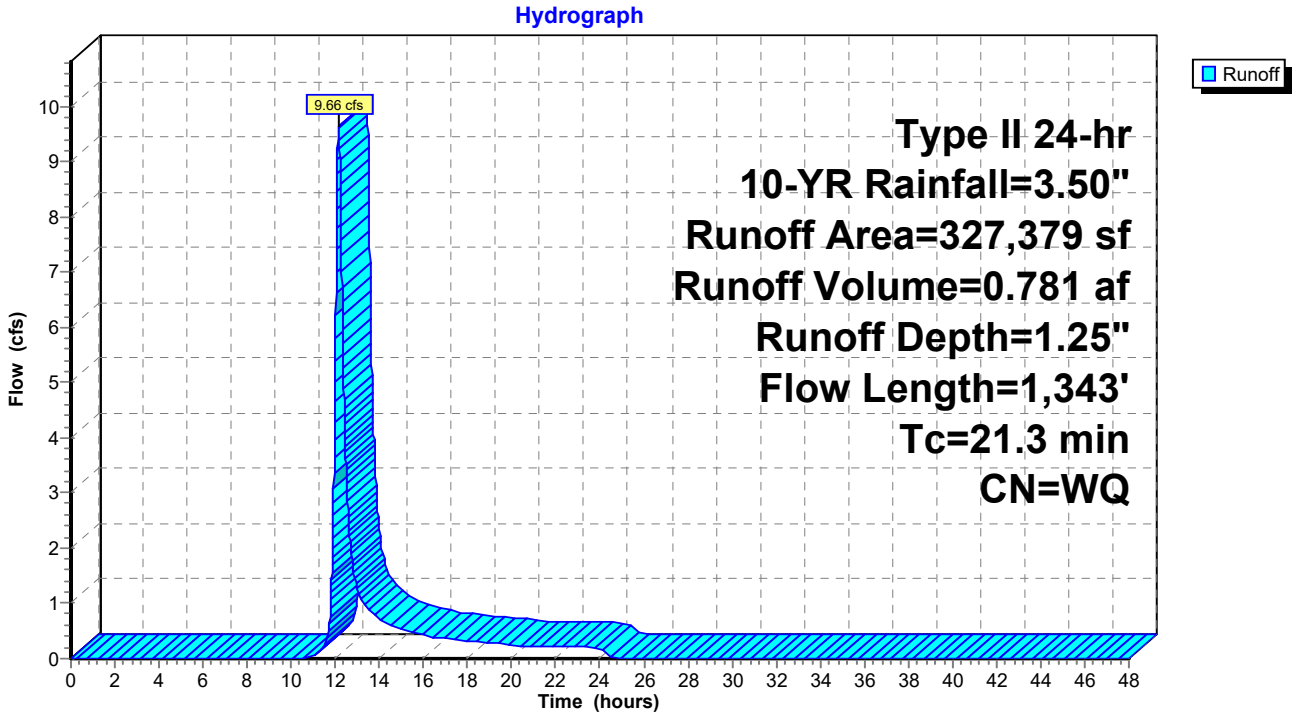
Runoff = 9.66 cfs @ 12.15 hrs, Volume= 0.781 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
13,649	70	Woods, Good, HSG C
299,924	74	>75% Grass cover, Good, HSG C
13,806	80	>75% Grass cover, Good, HSG D
327,379		Weighted Average
327,379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0150	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.2	1,243	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
21.3	1,343	Total			

Subcatchment P-2A: P-2(A)



Summary for Subcatchment P-2B: P-2(B)

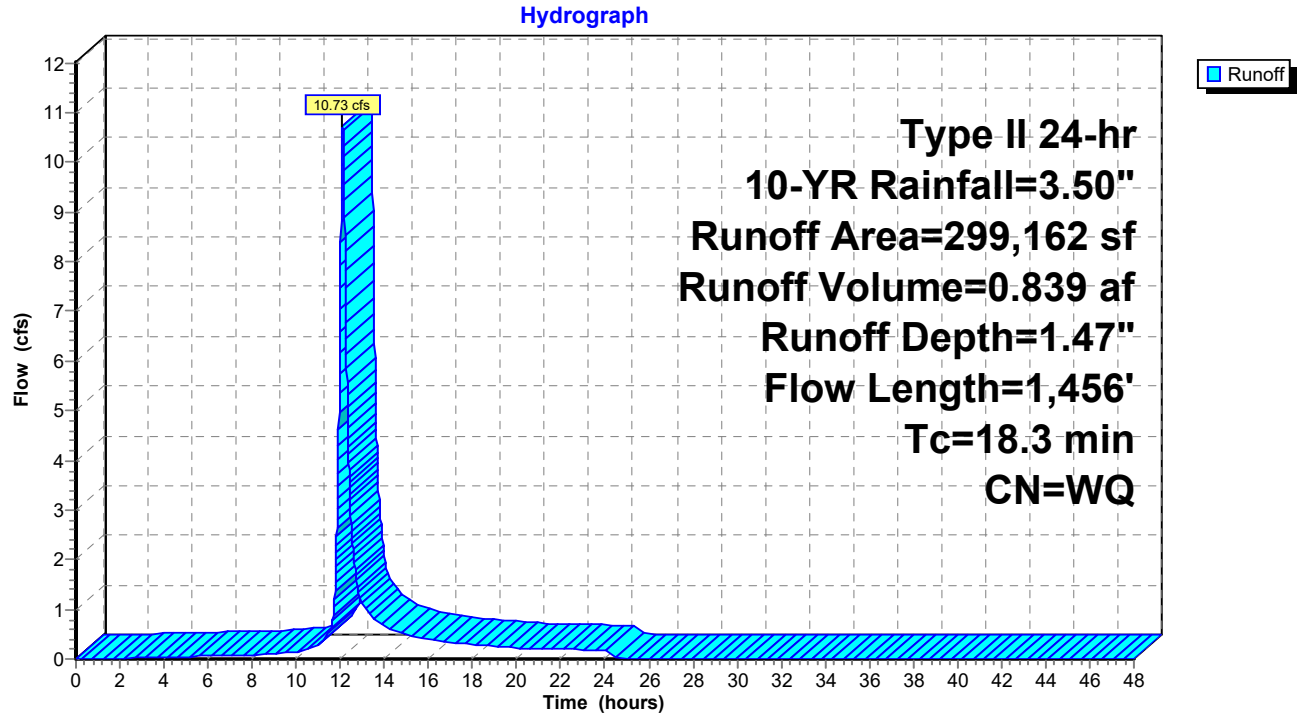
Runoff = 10.73 cfs @ 12.11 hrs, Volume= 0.839 af, Depth= 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
76,603	61	>75% Grass cover, Good, HSG B
143,671	74	>75% Grass cover, Good, HSG C
25,252	80	>75% Grass cover, Good, HSG D
53,636	98	Paved parking, HSG D
299,162		Weighted Average
245,526		82.07% Pervious Area
53,636		17.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.17"
1.5	443	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	913	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
18.3	1,456	Total			

Subcatchment P-2B: P-2(B)



Summary for Subcatchment P-2C: P-2(C)

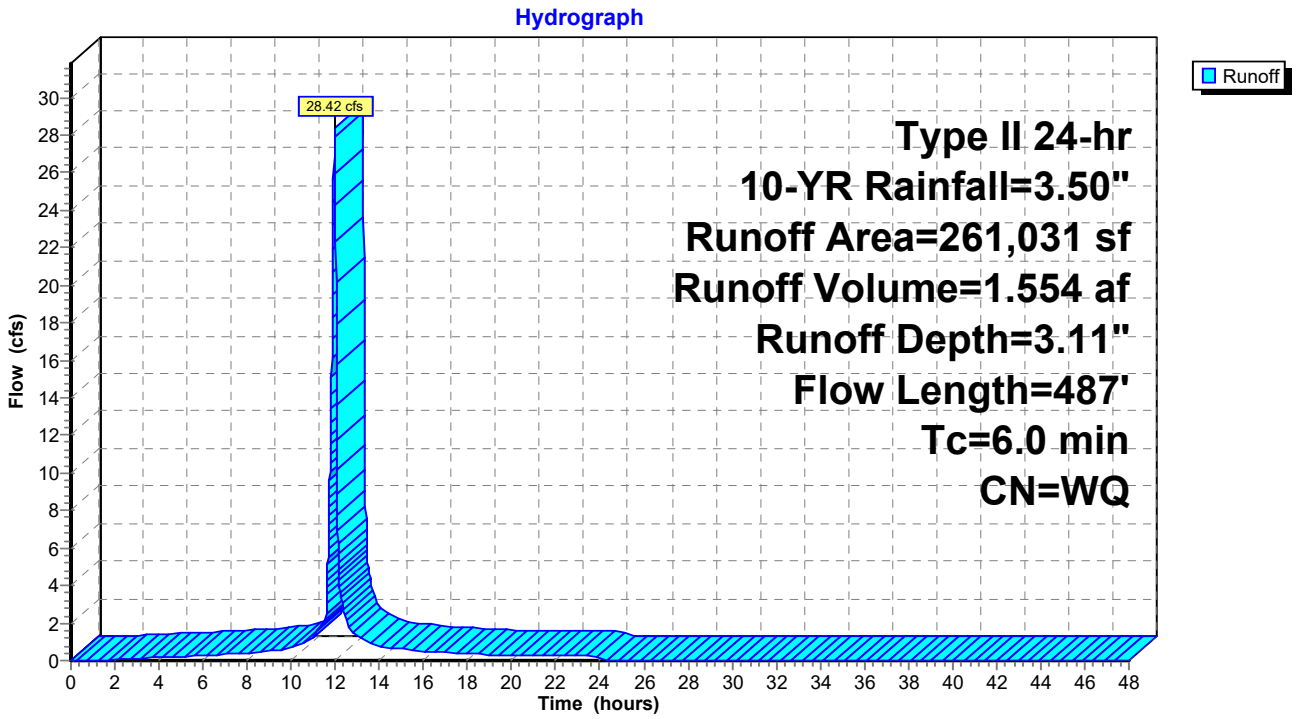
Runoff = 28.42 cfs @ 11.97 hrs, Volume= 1.554 af, Depth= 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
9,153	77	Woods, Good, HSG D
6,029	61	>75% Grass cover, Good, HSG B
4,385	80	>75% Grass cover, Good, HSG D
241,464	98	Paved parking, HSG D
261,031		Weighted Average
19,567		7.50% Pervious Area
241,464		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	487		1.35		**Direct Entry,**

Subcatchment P-2C: P-2(C)



Summary for Subcatchment P-2D: P-2(D)

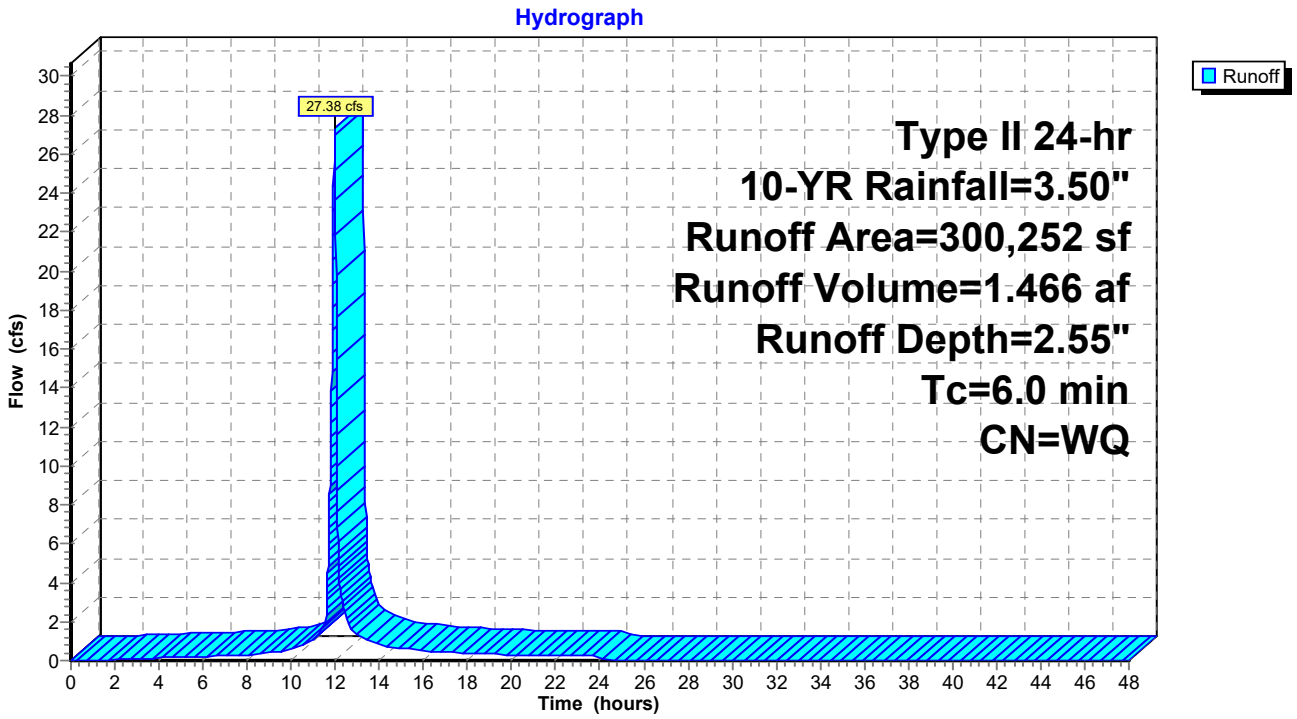
Runoff = 27.38 cfs @ 11.97 hrs, Volume= 1.466 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
27,331	61	>75% Grass cover, Good, HSG B
26,334	74	>75% Grass cover, Good, HSG C
53,738	80	>75% Grass cover, Good, HSG D
192,849	98	Paved parking, HSG D
300,252		Weighted Average
107,403		35.77% Pervious Area
192,849		64.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2D: P-2(D)



Summary for Subcatchment P-2E: P-2(G)

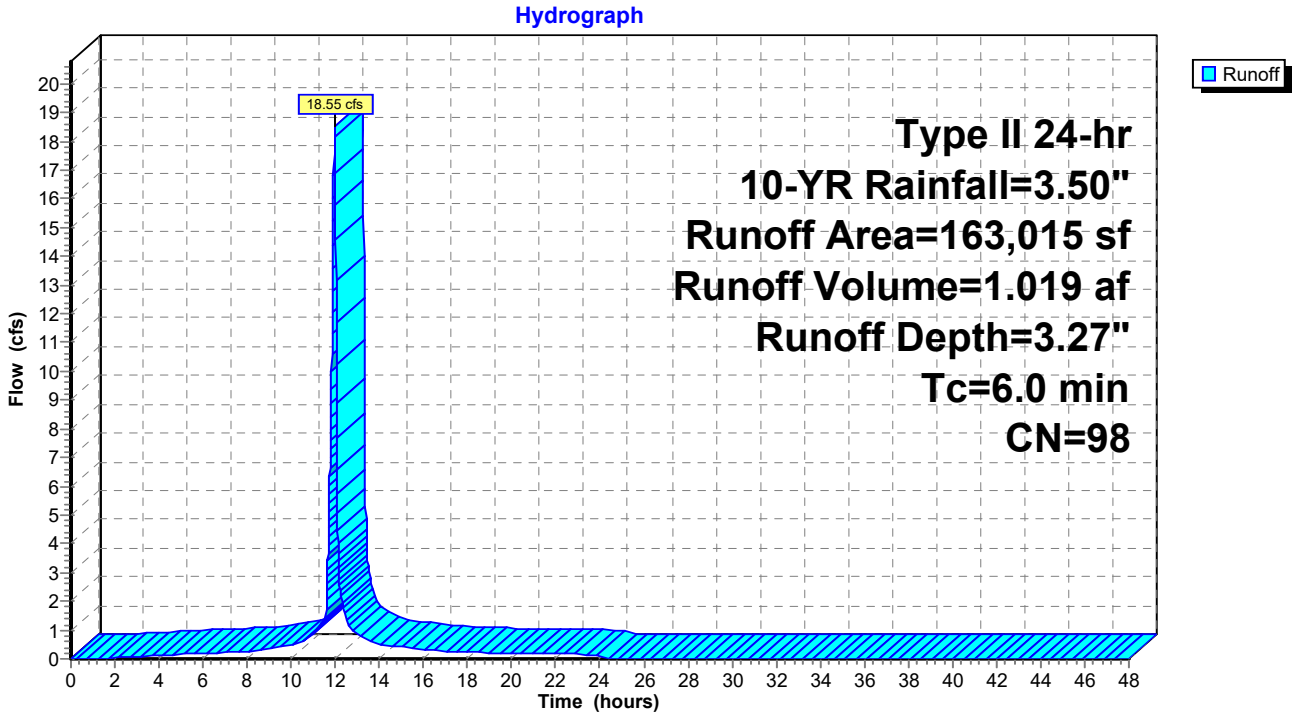
Runoff = 18.55 cfs @ 11.97 hrs, Volume= 1.019 af, Depth= 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2E: P-2(G)



Summary for Subcatchment P-3A: P-3(A)

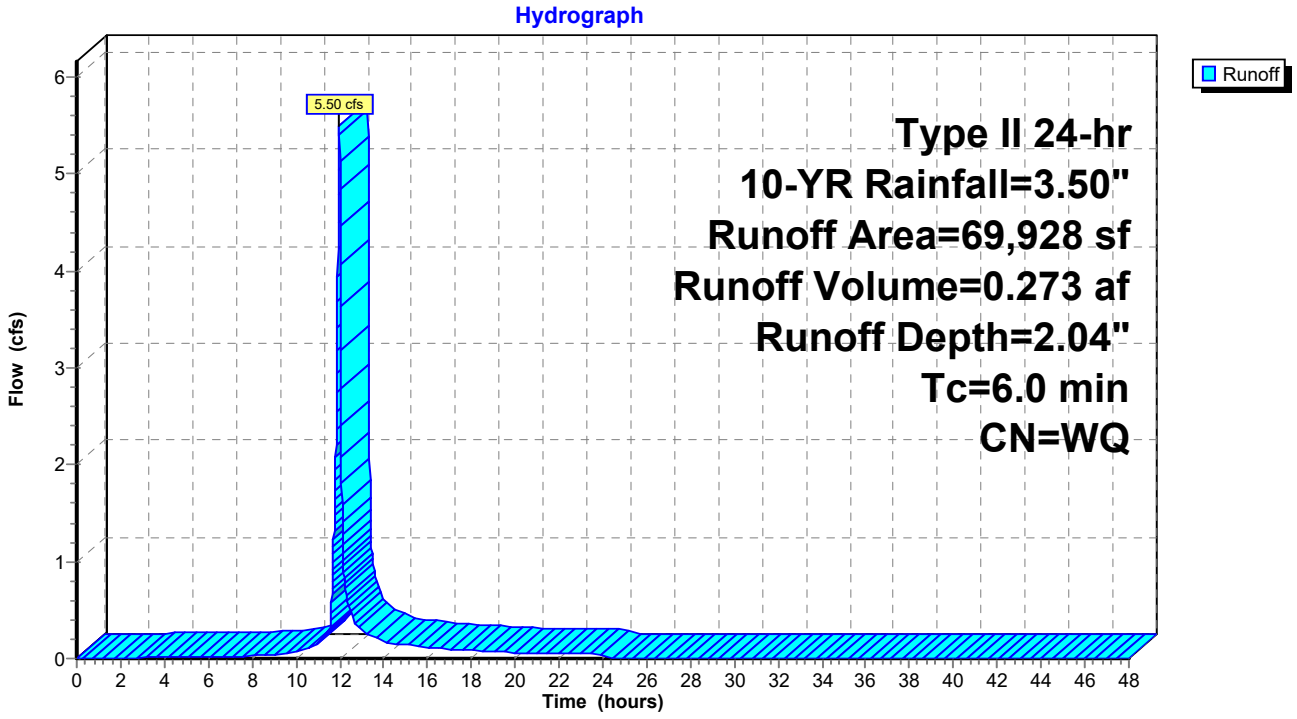
Runoff = 5.50 cfs @ 11.97 hrs, Volume= 0.273 af, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
52,678	80	>75% Grass cover, Good, HSG D
17,250	98	Paved parking, HSG D
69,928		Weighted Average
52,678		75.33% Pervious Area
17,250		24.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-3A: P-3(A)



Summary for Subcatchment P-3B: P-3(B)

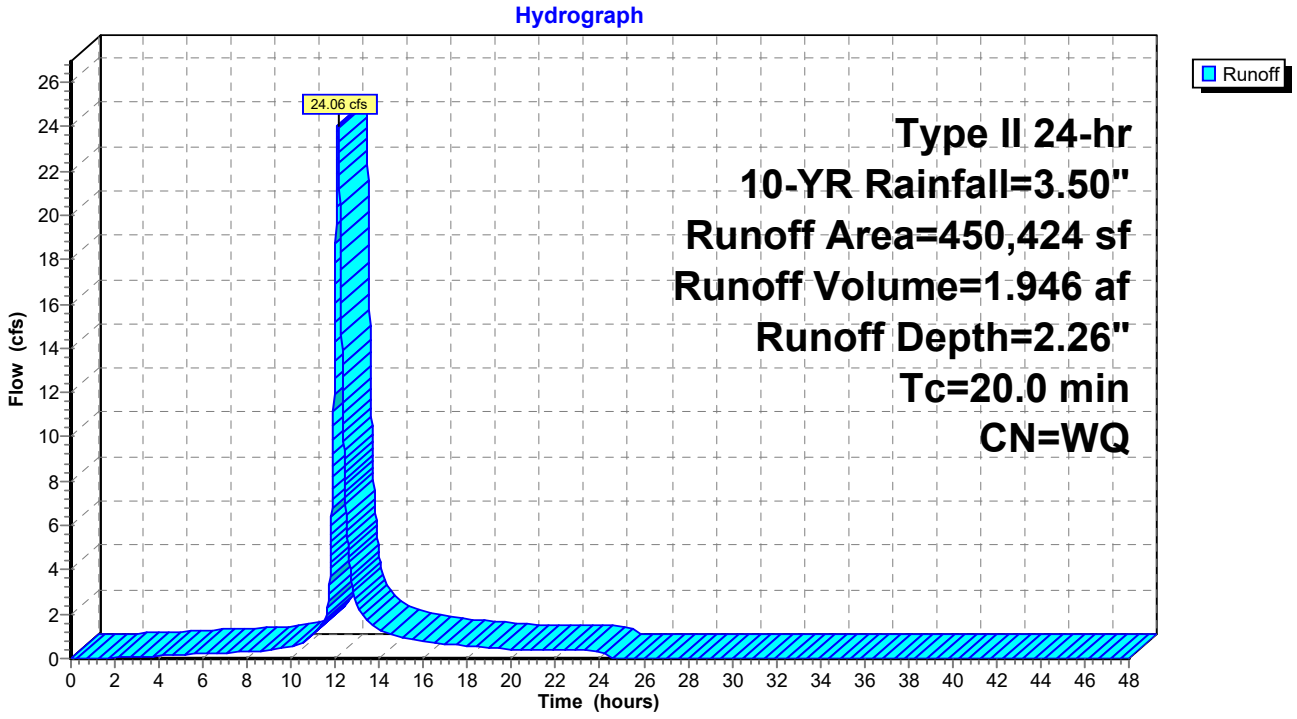
Runoff = 24.06 cfs @ 12.12 hrs, Volume= 1.946 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
41,665	80	>75% Grass cover, Good, HSG D
210,412	77	Woods, Good, HSG D
198,347	98	Water Surface, 0% imp, HSG D
450,424		Weighted Average
450,424		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0					**Direct Entry,**

Subcatchment P-3B: P-3(B)



Summary for Subcatchment P1-C: P-1 (C)

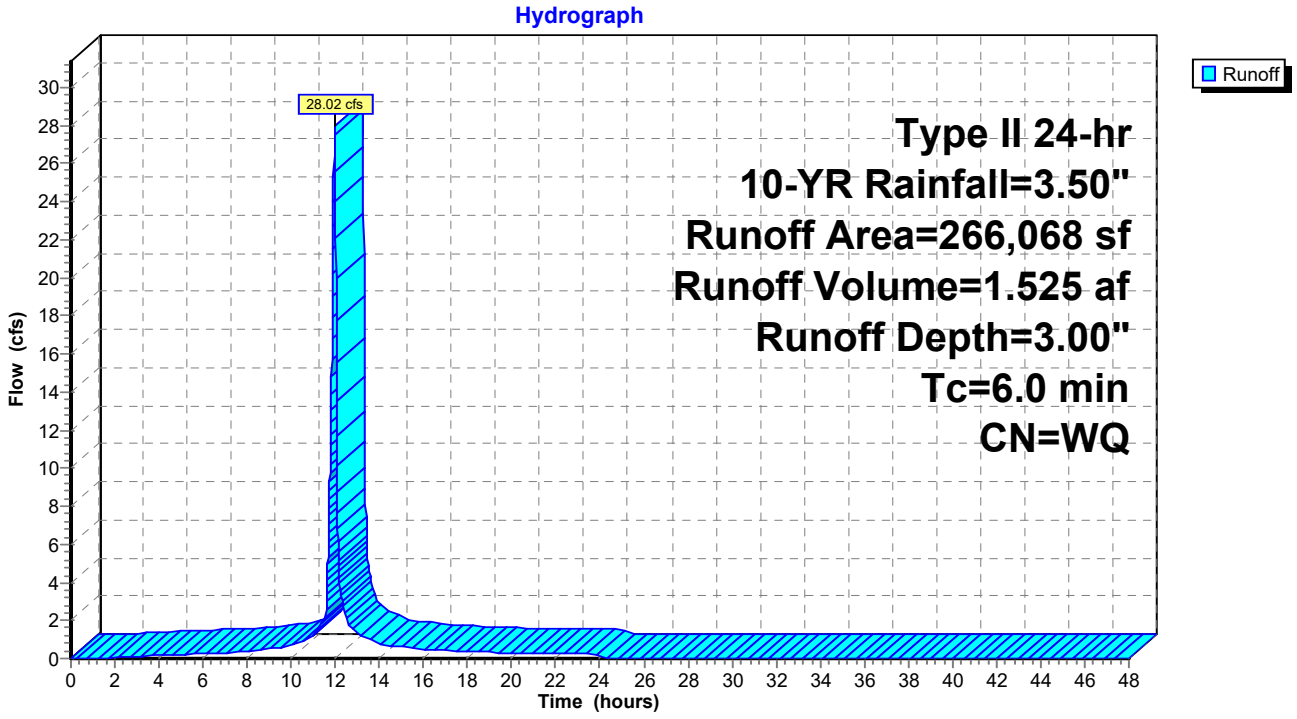
Runoff = 28.02 cfs @ 11.97 hrs, Volume= 1.525 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=3.50"

Area (sf)	CN	Description
35,459	74	>75% Grass cover, Good, HSG C
230,609	98	Paved parking, HSG D
266,068		Weighted Average
35,459		13.33% Pervious Area
230,609		86.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P1-C: P-1 (C)

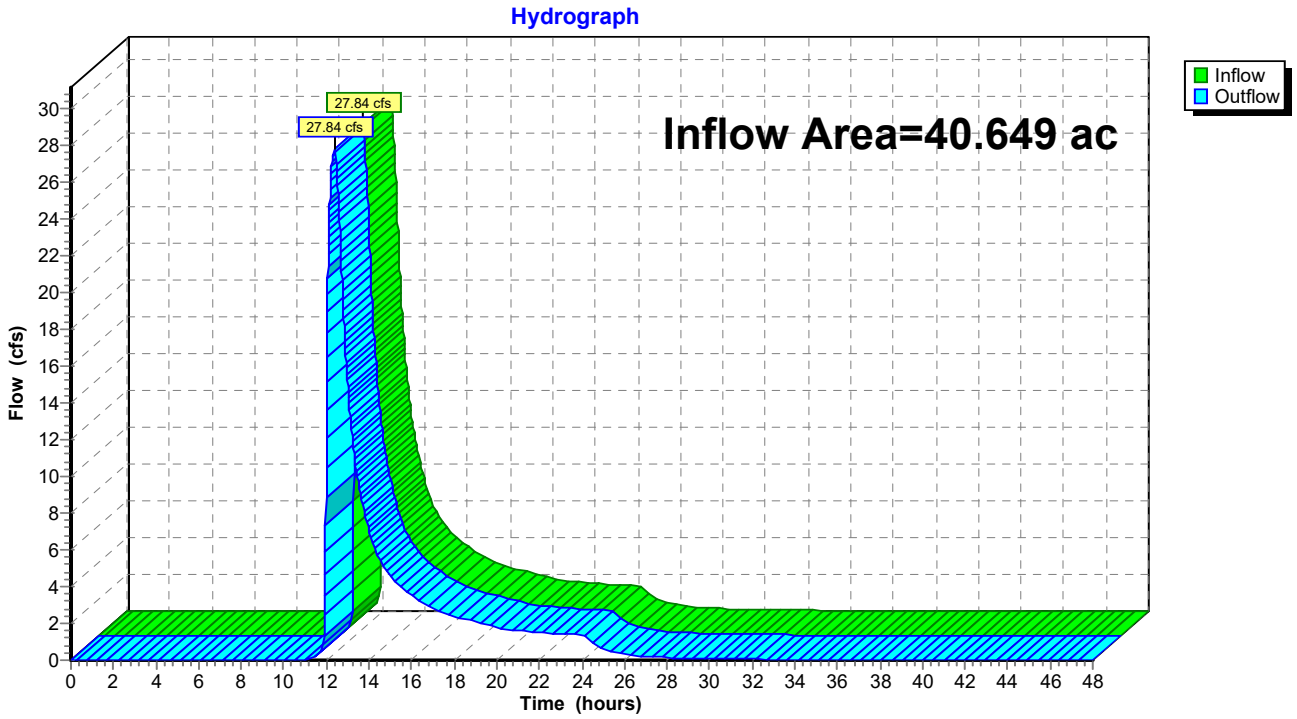


Summary for Reach P1: (PR) DP-1

Inflow Area = 40.649 ac, 54.84% Impervious, Inflow Depth > 1.51" for 10-YR event
Inflow = 27.84 cfs @ 12.37 hrs, Volume= 5.119 af
Outflow = 27.84 cfs @ 12.37 hrs, Volume= 5.119 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P1: (PR) DP-1

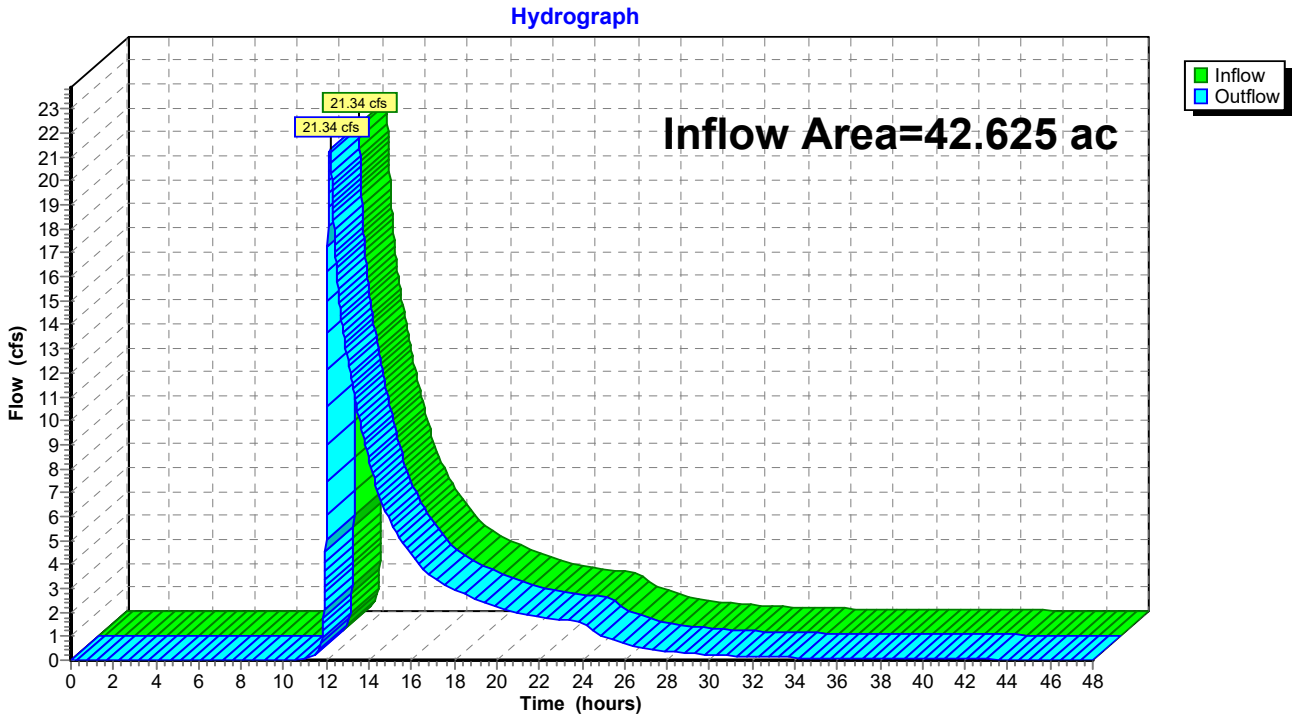


Summary for Reach P2: (PR) DP-2

Inflow Area = 42.625 ac, 54.07% Impervious, Inflow Depth > 1.49" for 10-YR event
Inflow = 21.34 cfs @ 12.18 hrs, Volume= 5.284 af
Outflow = 21.34 cfs @ 12.18 hrs, Volume= 5.284 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P2: (PR) DP-2

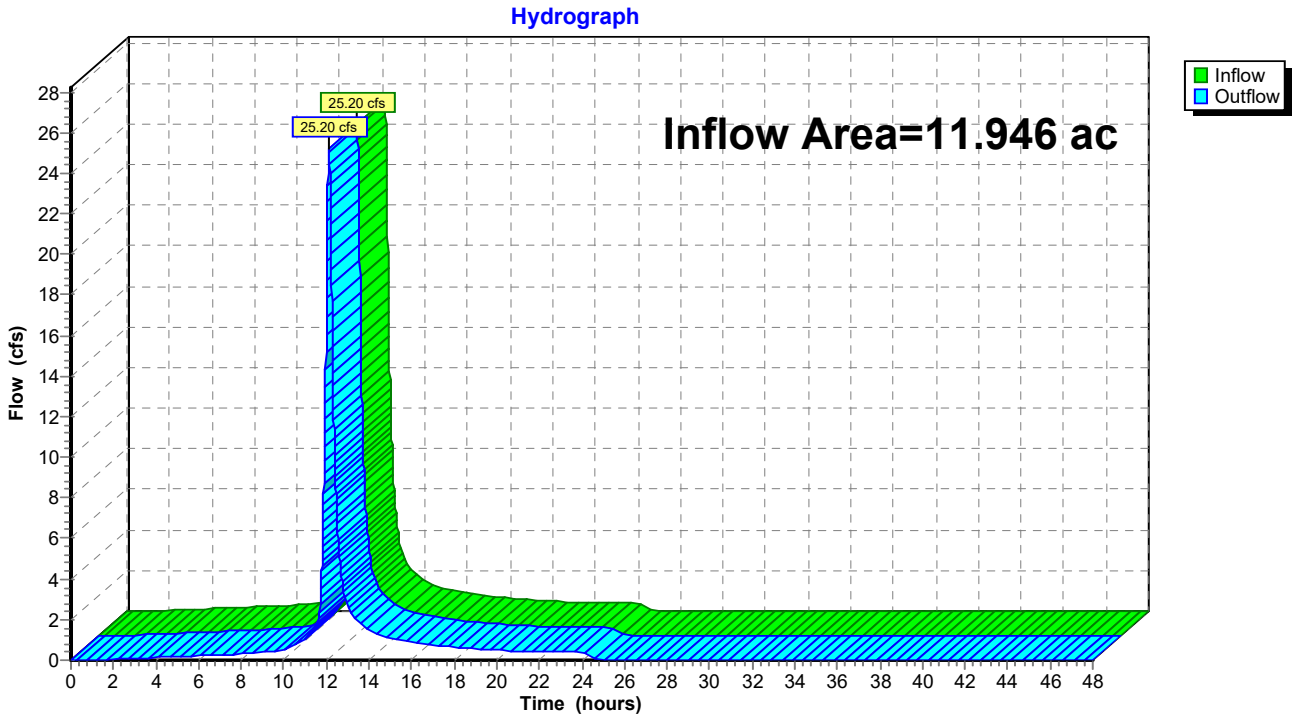


Summary for Reach P3: (PR) DP-3

Inflow Area = 11.946 ac, 3.32% Impervious, Inflow Depth = 2.10" for 10-YR event
Inflow = 25.20 cfs @ 12.12 hrs, Volume= 2.092 af
Outflow = 25.20 cfs @ 12.12 hrs, Volume= 2.092 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P3: (PR) DP-3



Summary for Pond 1P: Bioretention 1

Inflow Area = 2.480 ac, 49.56% Impervious, Inflow Depth = 2.44" for 10-YR event
Inflow = 9.74 cfs @ 11.97 hrs, Volume= 0.505 af
Outflow = 0.03 cfs @ 24.11 hrs, Volume= 0.028 af, Atten= 100%, Lag= 728.2 min
Primary = 0.03 cfs @ 24.11 hrs, Volume= 0.028 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 526.60' @ 24.11 hrs Surf.Area= 17,620 sf Storage= 21,788 cf

Plug-Flow detention time= 1,515.6 min calculated for 0.028 af (6% of inflow)
Center-of-Mass det. time= 1,092.9 min (1,872.0 - 779.1)

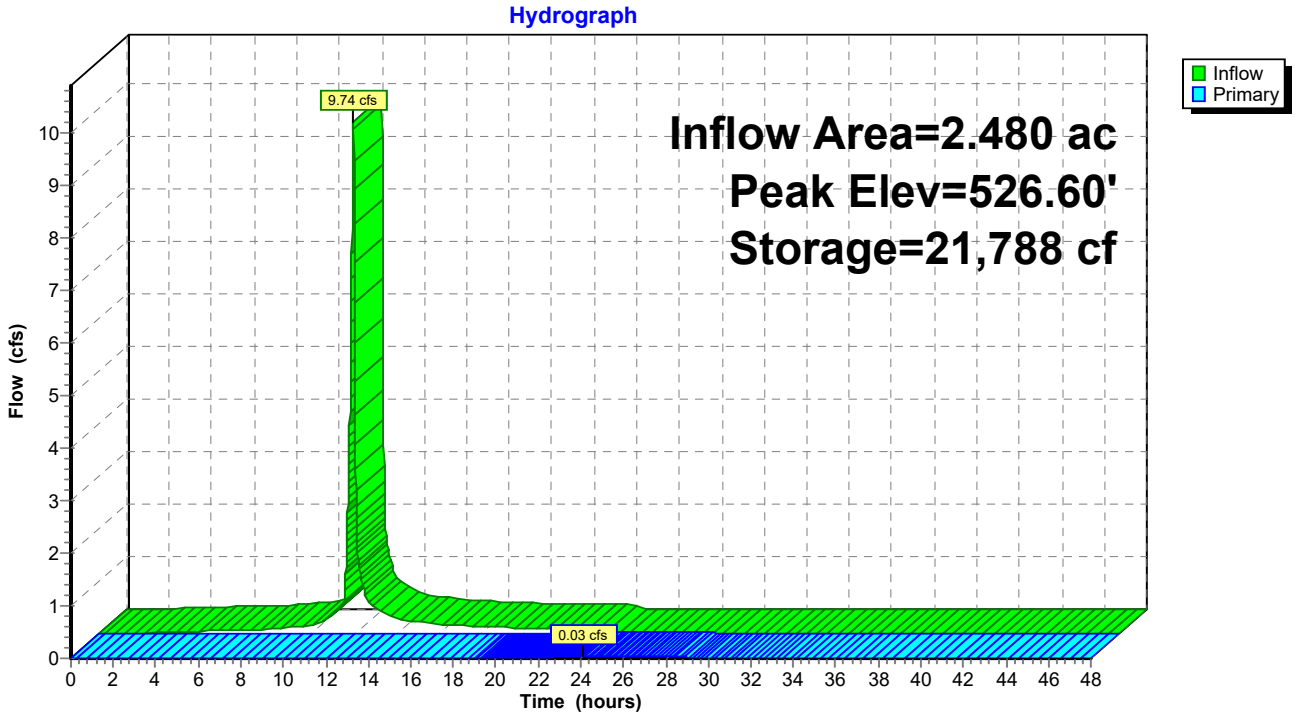
Volume	Invert	Avail.Storage	Storage Description
#1	525.00'	52,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
525.00	10,500	0	0
526.00	14,000	12,250	12,250
527.00	20,000	17,000	29,250
528.00	26,000	23,000	52,250

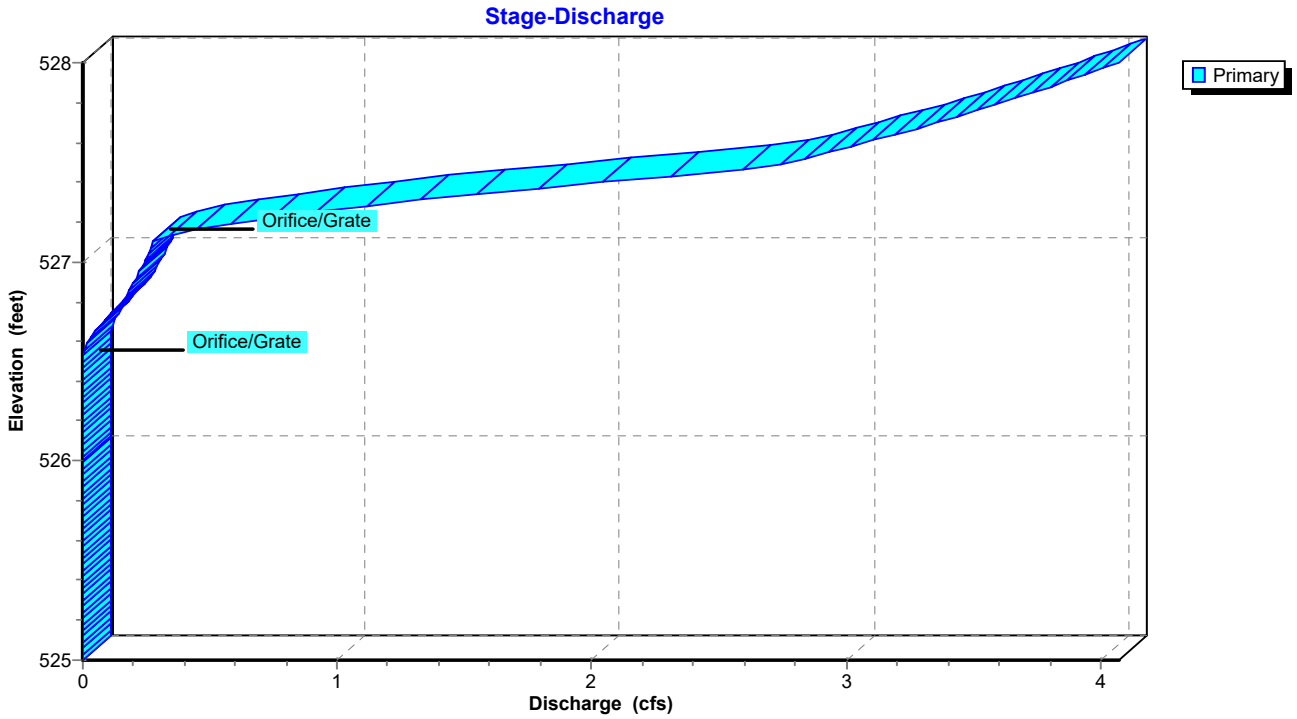
Device	Routing	Invert	Outlet Devices
#1	Primary	524.00'	**12.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 524.00' / 519.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	526.50'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	527.10'	**12.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 24.11 hrs HW=526.60' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.03 cfs of 5.48 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.03 cfs @ 1.09 fps)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 1P: Bioretention 1



Pond 1P: Bioretention 1



Summary for Pond 6P: Bioretetntion 2

Inflow Area = 4.442 ac, 84.24% Impervious, Inflow Depth = 3.01" for 10-YR event
Inflow = 20.59 cfs @ 11.97 hrs, Volume= 1.114 af
Outflow = 13.01 cfs @ 12.04 hrs, Volume= 0.844 af, Atten= 37%, Lag= 4.3 min
Primary = 13.01 cfs @ 12.04 hrs, Volume= 0.844 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 534.74' @ 12.04 hrs Surf.Area= 13,610 sf Storage= 21,410 cf

Plug-Flow detention time= 182.3 min calculated for 0.844 af (76% of inflow)
Center-of-Mass det. time= 92.7 min (850.5 - 757.8)

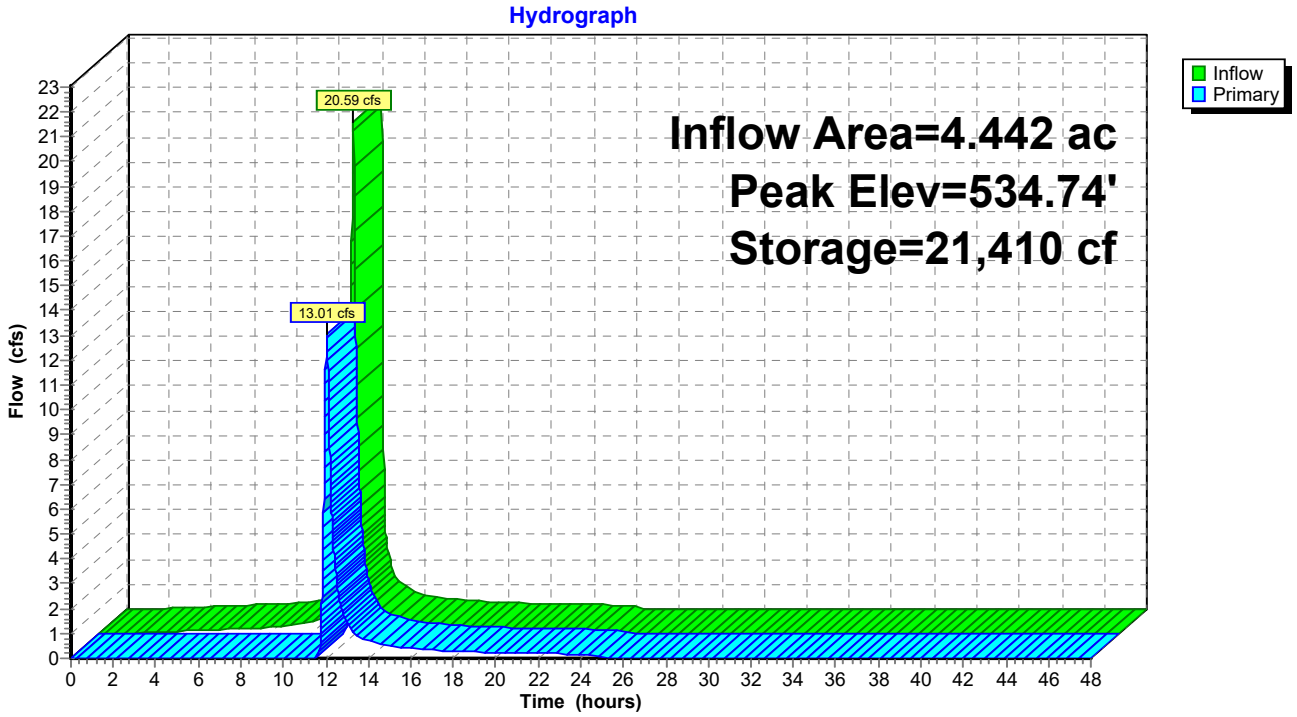
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	41,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	11,000	0	0
534.00	12,500	11,750	11,750
535.00	14,000	13,250	25,000
536.00	19,000	16,500	41,500

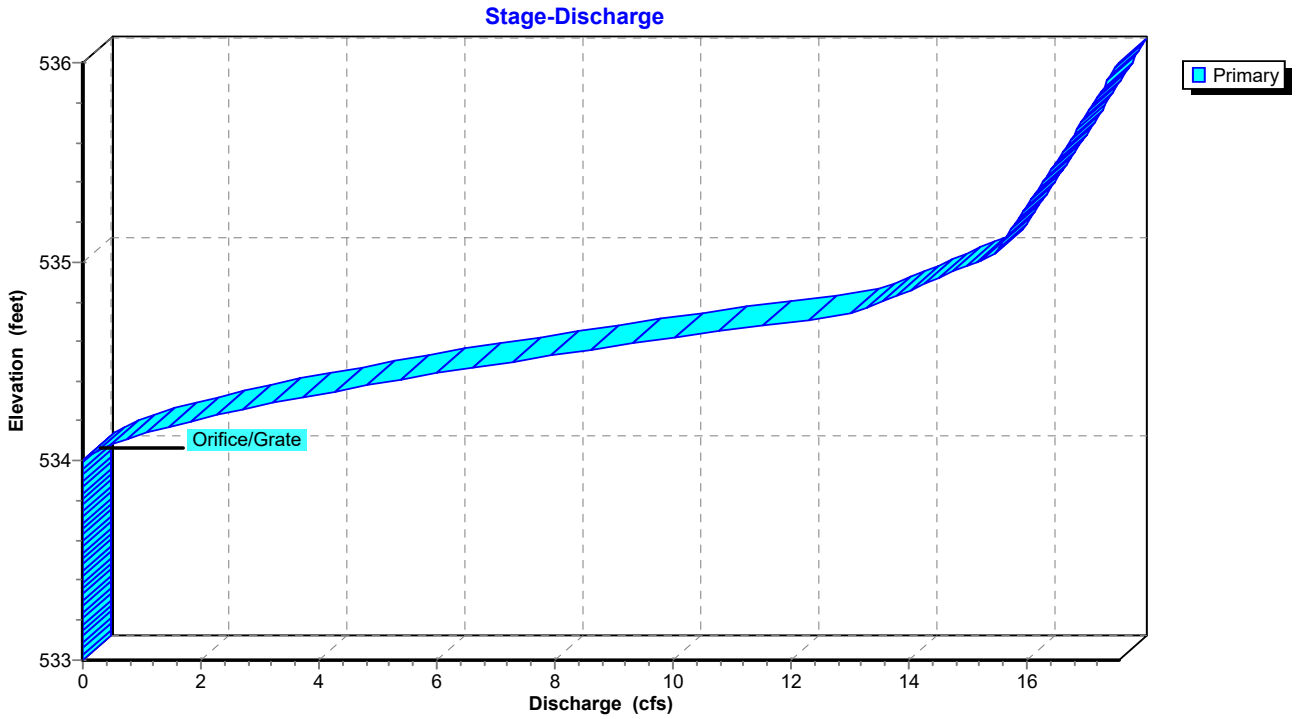
Device	Routing	Invert	Outlet Devices
#1	Primary	531.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 531.00' / 528.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=13.01 cfs @ 12.04 hrs HW=534.74' TW=481.95' (Dynamic Tailwater)
↑**1=Culvert** (Passes 13.01 cfs of 14.71 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 13.01 cfs @ 4.14 fps)

Pond 6P: Bioretetntion 2



Pond 6P: Bioretetntion 2



Summary for Pond 9P: UNDG-3

Inflow Area = 6.893 ac, 64.23% Impervious, Inflow Depth = 2.55" for 10-YR event
Inflow = 27.38 cfs @ 11.97 hrs, Volume= 1.466 af
Outflow = 7.41 cfs @ 12.10 hrs, Volume= 0.870 af, Atten= 73%, Lag= 8.0 min
Primary = 7.41 cfs @ 12.10 hrs, Volume= 0.870 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 524.13' @ 12.10 hrs Surf.Area= 25,000 sf Storage= 35,989 cf

Plug-Flow detention time= 335.9 min calculated for 0.870 af (59% of inflow)
Center-of-Mass det. time= 221.9 min (989.7 - 767.8)

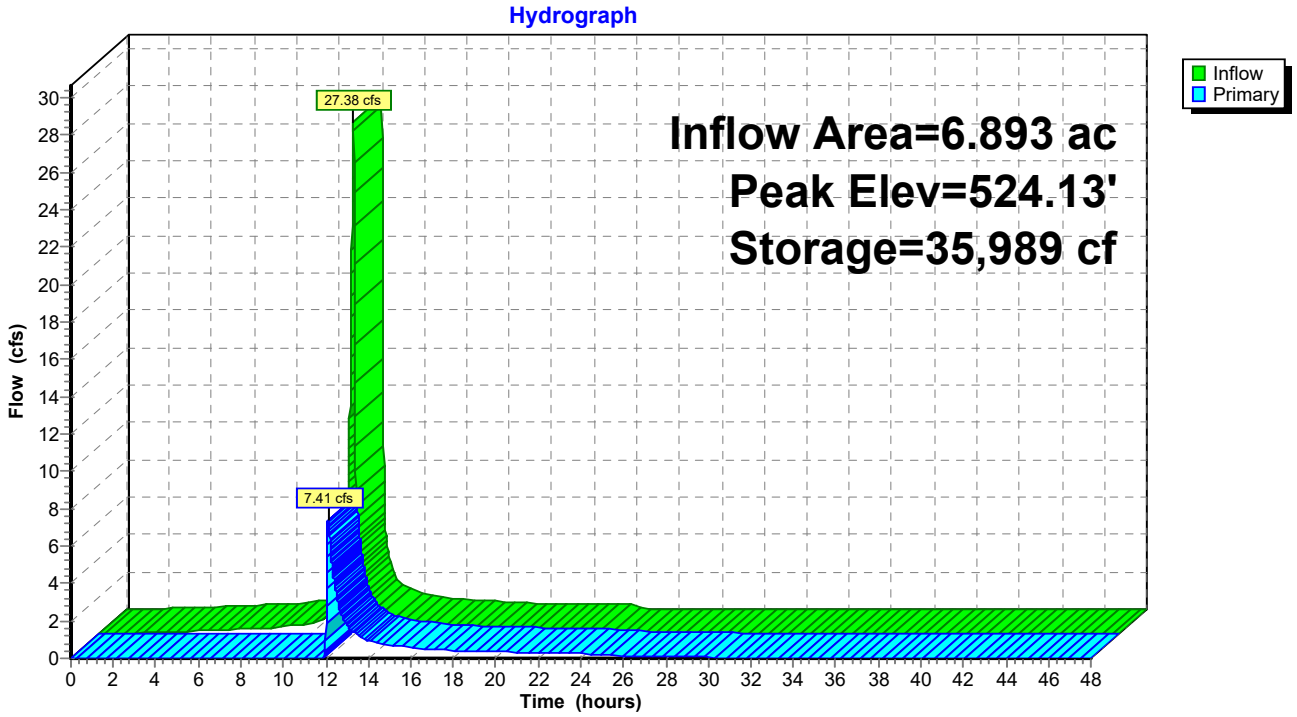
Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	50,625 cf	**Custom Stage Data (Prismatic)** Listed below 75,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	25,000	0	0
525.00	25,000	75,000	75,000

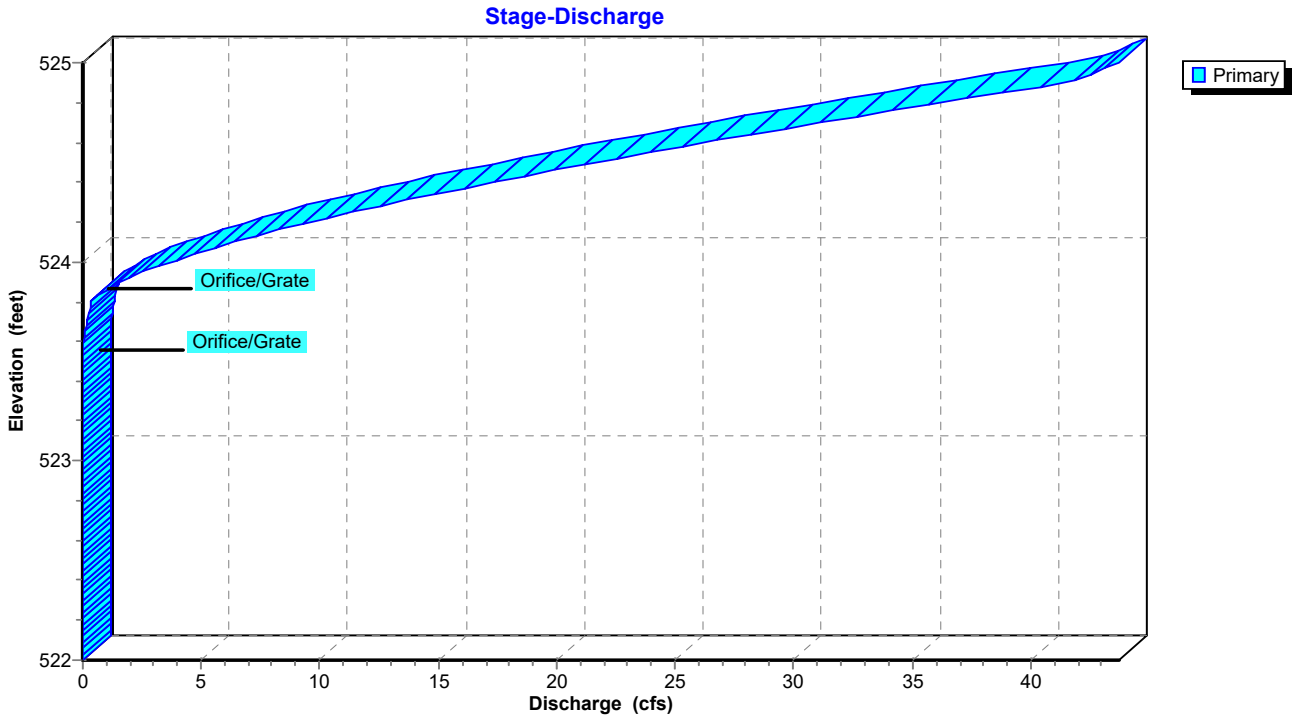
Device	Routing	Invert	Outlet Devices
#1	Primary	521.00'	**36.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 521.00' / 516.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#2	Device 1	523.50'	**12.0" Vert. Orifice/Grate** X 2 rows with 6.0" cc spacing C= 0.600
#3	Device 1	523.80'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.40 cfs @ 12.10 hrs HW=524.13' TW=0.00' (Dynamic Tailwater)
↑└─**1=Culvert** (Passes 7.40 cfs of 43.49 cfs potential flow)
↑ ├─**2=Orifice/Grate** (Orifice Controls 1.49 cfs @ 2.55 fps)
└─**3=Orifice/Grate** (Weir Controls 5.91 cfs @ 1.89 fps)

Pond 9P: UNDG-3



Pond 9P: UNDG-3



Summary for Pond 10P: UNDG-1

Inflow Area = 23.573 ac, 89.35% Impervious, Inflow Depth = 3.06" for 10-YR event
Inflow = 110.14 cfs @ 11.97 hrs, Volume= 6.004 af
Outflow = 18.75 cfs @ 12.15 hrs, Volume= 3.583 af, Atten= 83%, Lag= 11.1 min
Primary = 18.75 cfs @ 12.15 hrs, Volume= 3.583 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 521.79' @ 12.15 hrs Surf.Area= 130,000 sf Storage= 157,313 cf

Plug-Flow detention time= 288.2 min calculated for 3.582 af (60% of inflow)
Center-of-Mass det. time= 177.4 min (932.5 - 755.1)

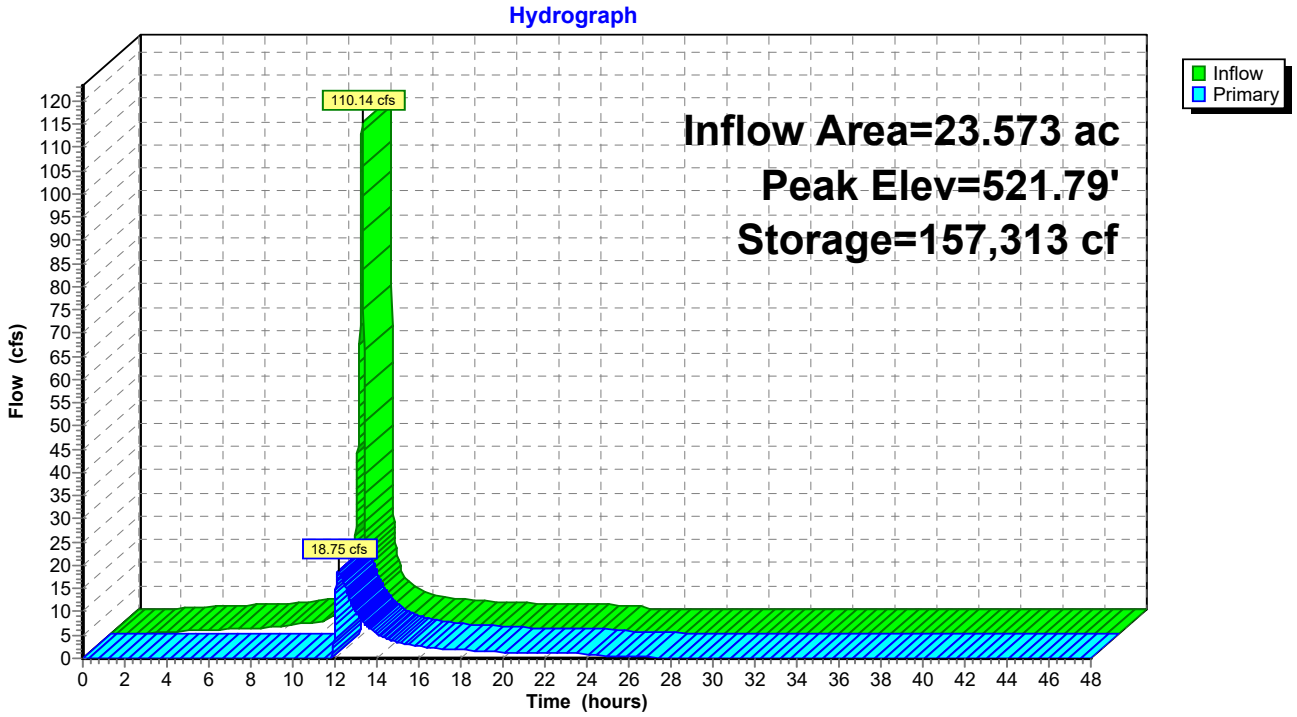
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	263,250 cf	**Custom Stage Data (Prismatic)** Listed below 390,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	130,000	0	0
523.00	130,000	390,000	390,000

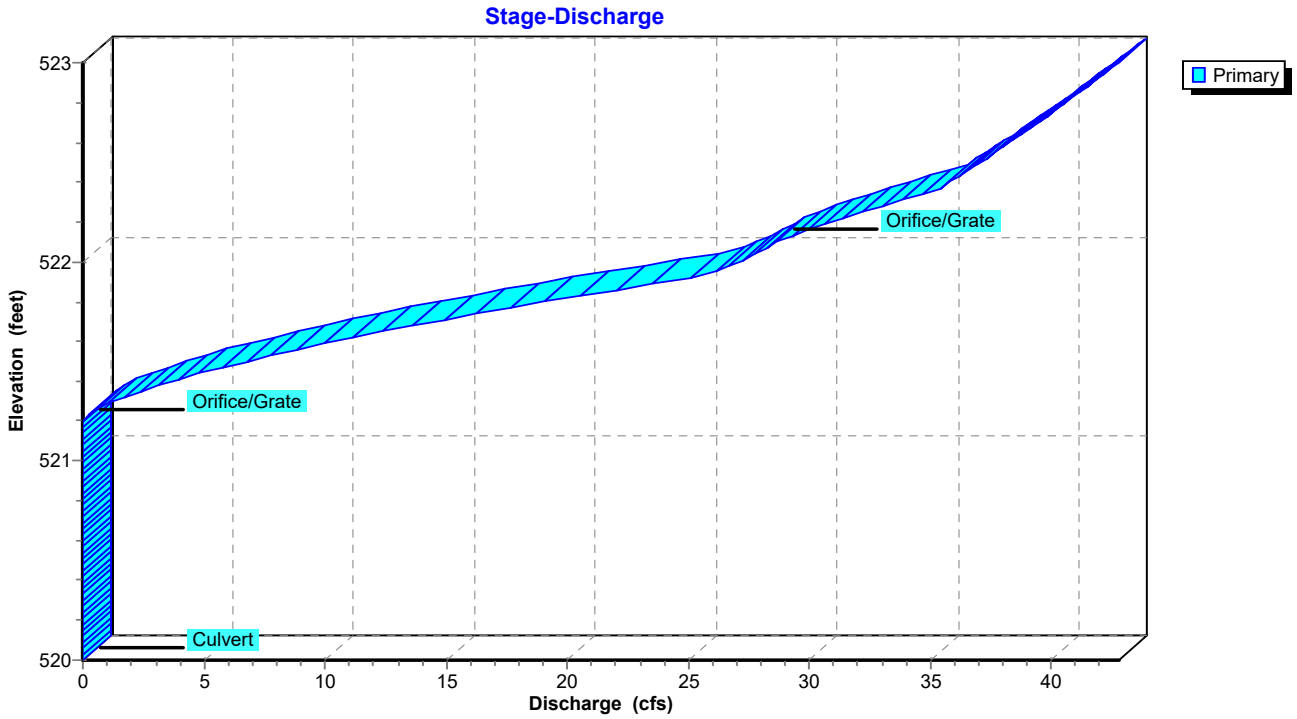
Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	**24.0" Round Culvert X 2.00** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 520.00' / 515.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	521.20'	**24.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	522.10'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=18.75 cfs @ 12.15 hrs HW=521.79' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 18.75 cfs of 27.07 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 18.75 cfs @ 2.52 fps)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 10P: UNDG-1



Pond 10P: UNDG-1



Summary for Pond 14P: Bioretention 3

Inflow Area = 7.172 ac, 60.79% Impervious, Inflow Depth = 2.55" for 10-YR event
Inflow = 28.81 cfs @ 11.97 hrs, Volume= 1.525 af
Outflow = 7.04 cfs @ 12.11 hrs, Volume= 0.982 af, Atten= 76%, Lag= 8.6 min
Primary = 7.04 cfs @ 12.11 hrs, Volume= 0.982 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 534.49' @ 12.11 hrs Surf.Area= 27,086 sf Storage= 36,435 cf

Plug-Flow detention time= 248.9 min calculated for 0.982 af (64% of inflow)
Center-of-Mass det. time= 140.5 min (911.5 - 771.0)

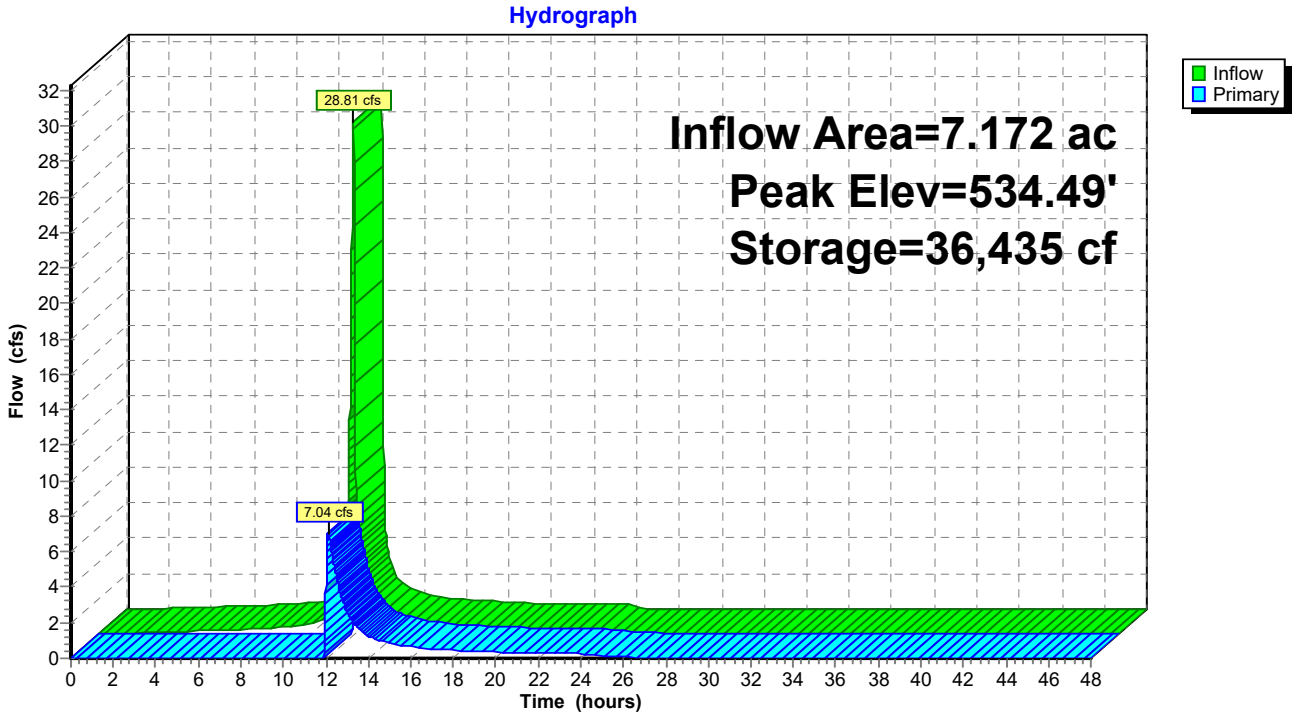
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	81,750 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	22,000	0	0
534.00	25,250	23,625	23,625
535.00	29,000	27,125	50,750
536.00	33,000	31,000	81,750

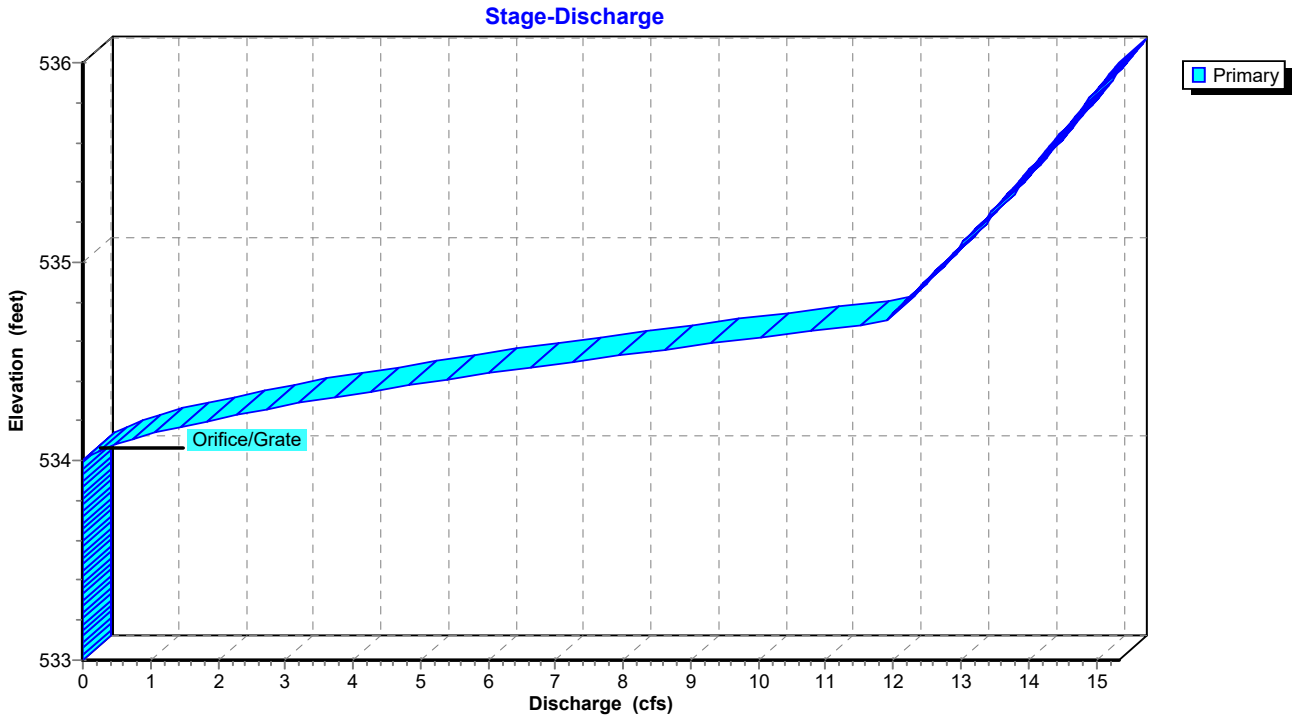
Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 532.00' / 529.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.03 cfs @ 12.11 hrs HW=534.49' TW=482.28' (Dynamic Tailwater)
↑**1=Culvert** (Passes 7.03 cfs of 11.22 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 7.03 cfs @ 2.29 fps)

Pond 14P: Bioretention 3



Pond 14P: Bioretention 3



Summary for Pond 16P: DET-3

Inflow Area = 28.217 ac, 65.99% Impervious, Inflow Depth = 2.23" for 10-YR event
Inflow = 67.25 cfs @ 11.99 hrs, Volume= 5.238 af
Outflow = 9.89 cfs @ 12.72 hrs, Volume= 3.633 af, Atten= 85%, Lag= 43.8 min
Primary = 9.89 cfs @ 12.72 hrs, Volume= 3.633 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 482.94' @ 12.72 hrs Surf.Area= 37,810 sf Storage= 118,650 cf

Plug-Flow detention time= 317.5 min calculated for 3.633 af (69% of inflow)
Center-of-Mass det. time= 205.0 min (1,014.9 - 809.9)

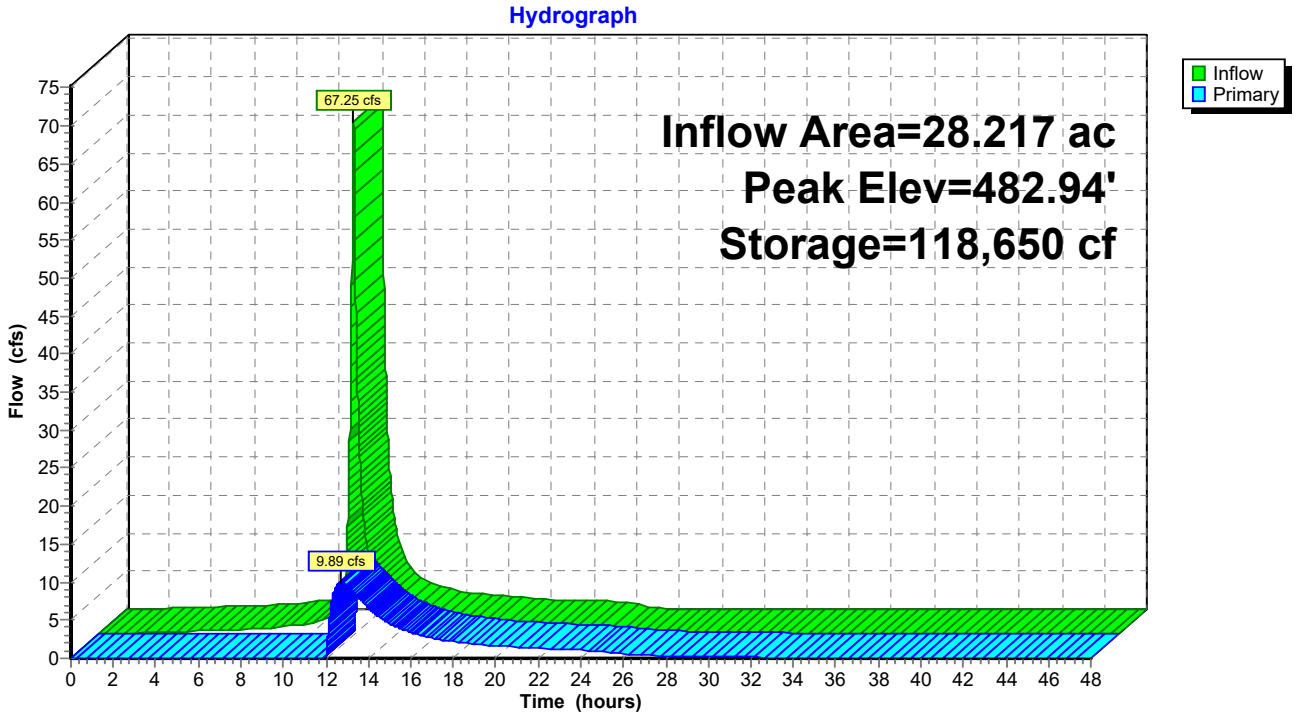
Volume	Invert	Avail.Storage	Storage Description
#1	478.00'	203,233 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
478.00	14,000	0	0
479.00	16,500	15,250	15,250
480.50	20,500	27,750	43,000
482.00	34,854	41,516	84,516
483.00	38,000	36,427	120,943
484.00	41,040	39,520	160,463
485.00	44,500	42,770	203,233

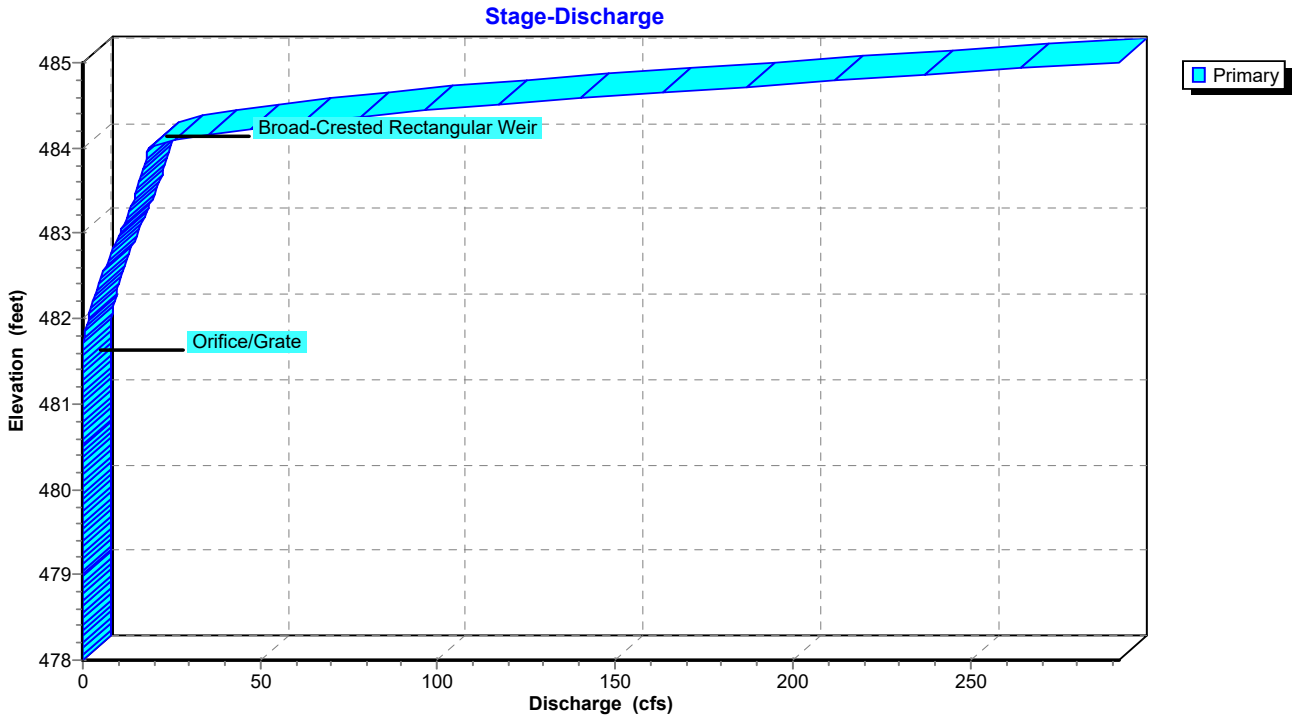
Device	Routing	Invert	Outlet Devices
#1	Primary	481.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	484.00'	**100.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=9.89 cfs @ 12.72 hrs HW=482.94' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Orifice Controls 9.89 cfs @ 4.08 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 16P: DET-3



Pond 16P: DET-3



Summary for Pond 17P: Bioretention 4

Inflow Area = 1.605 ac, 24.67% Impervious, Inflow Depth = 2.04" for 10-YR event
Inflow = 5.50 cfs @ 11.97 hrs, Volume= 0.273 af
Outflow = 1.15 cfs @ 12.13 hrs, Volume= 0.147 af, Atten= 79%, Lag= 9.7 min
Primary = 1.15 cfs @ 12.13 hrs, Volume= 0.147 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 538.63' @ 12.13 hrs Surf.Area= 4,951 sf Storage= 6,138 cf

Plug-Flow detention time= 250.0 min calculated for 0.147 af (54% of inflow)
Center-of-Mass det. time= 128.2 min (929.9 - 801.6)

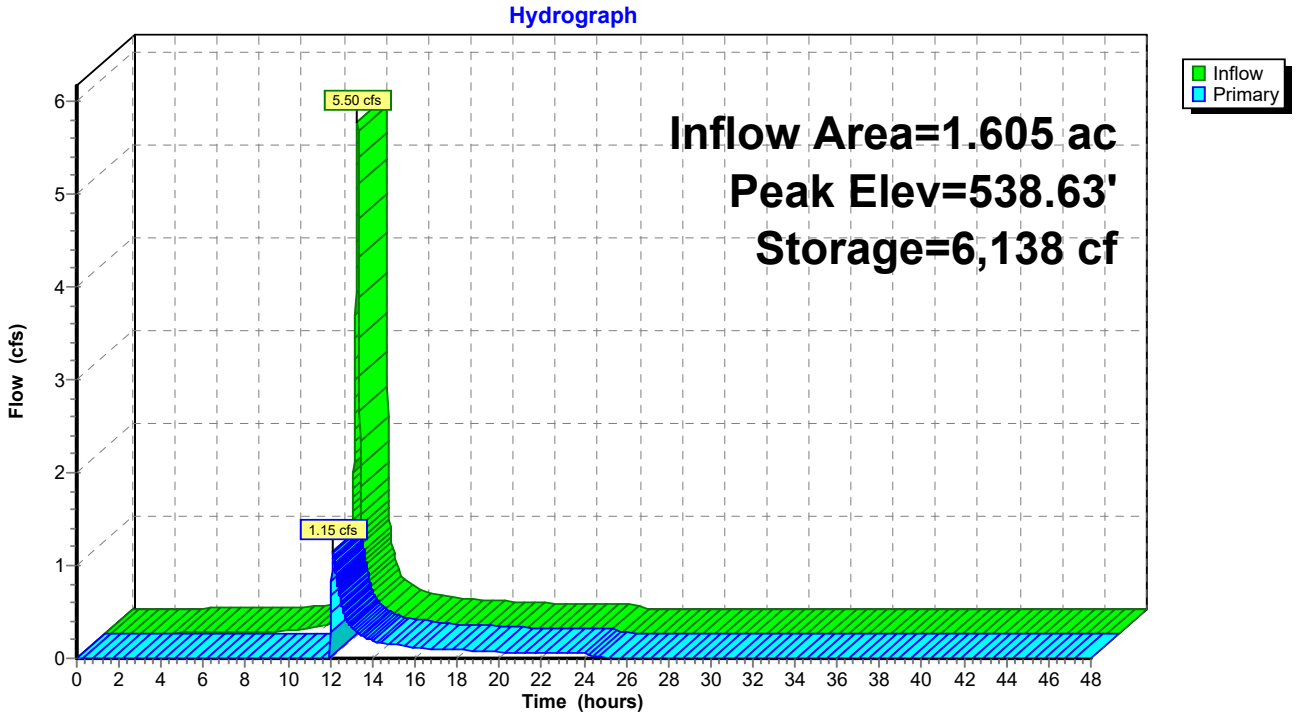
Volume	Invert	Avail.Storage	Storage Description
#1	537.00'	8,050 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
537.00	2,600	0	0
538.00	4,000	3,300	3,300
539.00	5,500	4,750	8,050

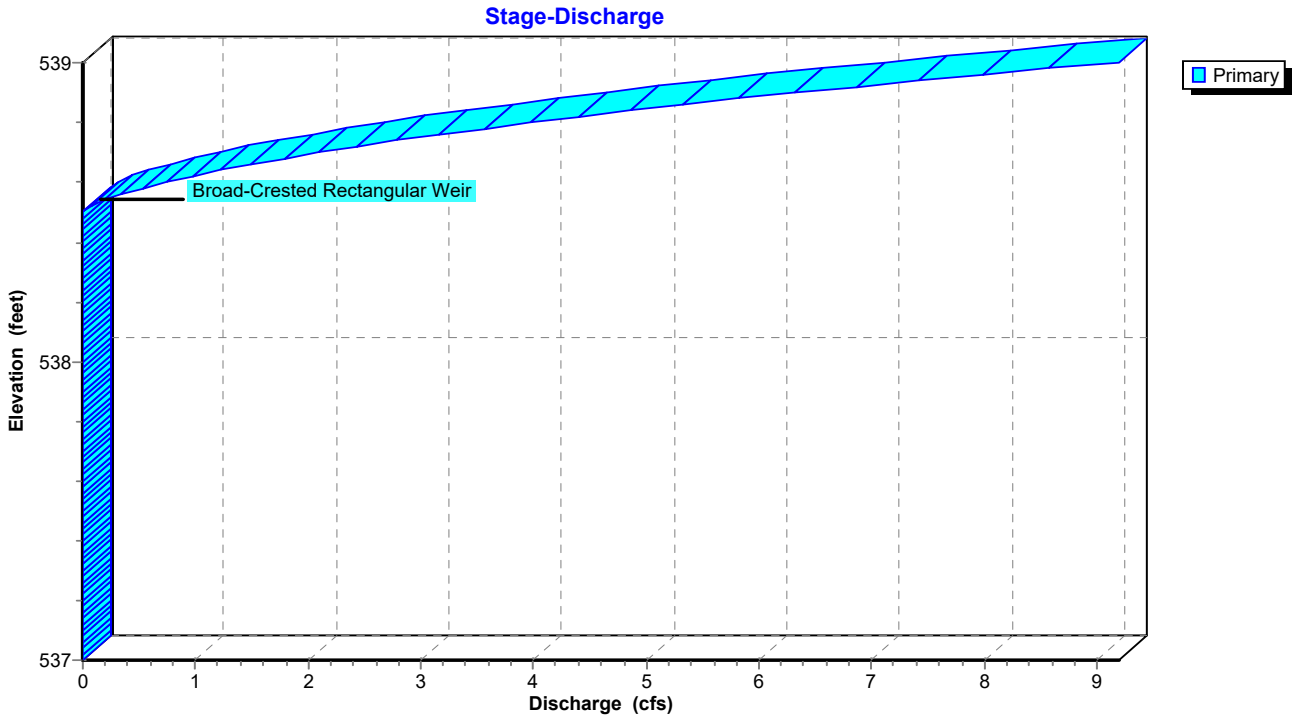
Device	Routing	Invert	Outlet Devices
#1	Primary	538.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.15 cfs @ 12.13 hrs HW=538.63' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 1.15 cfs @ 0.86 fps)

Pond 17P: Bioretention 4



Pond 17P: Bioretention 4



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment11S: P-2(E) Runoff Area=193,502 sf 84.24% Impervious Runoff Depth=5.14"
Tc=6.0 min CN=WQ Runoff=34.57 cfs 1.901 af

Subcatchment12S: P-1(F) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=98 Runoff=30.29 cfs 1.697 af

Subcatchment13S: P-2(F) Runoff Area=312,421 sf 60.79% Impervious Runoff Depth=4.57"
Tc=6.0 min CN=WQ Runoff=51.21 cfs 2.730 af

SubcatchmentP-1A: P-1 (A) Runoff Area=635,838 sf 0.00% Impervious Runoff Depth=2.92"
Flow Length=1,786' Tc=44.2 min CN=74 Runoff=28.28 cfs 3.549 af

SubcatchmentP-1B: P-1 (B) Runoff Area=386,372 sf 89.24% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=WQ Runoff=69.01 cfs 3.822 af

SubcatchmentP-1D: P-1 (D) Runoff Area=211,372 sf 84.69% Impervious Runoff Depth=5.10"
Flow Length=476' Tc=6.0 min CN=WQ Runoff=37.44 cfs 2.061 af

SubcatchmentP-1E: P-1 (E) Runoff Area=108,008 sf 49.56% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=WQ Runoff=17.60 cfs 0.921 af

SubcatchmentP-2A: P-2(A) Runoff Area=327,379 sf 0.00% Impervious Runoff Depth=2.93"
Flow Length=1,343' Tc=21.3 min CN=WQ Runoff=23.61 cfs 1.833 af

SubcatchmentP-2B: P-2(B) Runoff Area=299,162 sf 17.93% Impervious Runoff Depth=3.13"
Flow Length=1,456' Tc=18.3 min CN=WQ Runoff=23.96 cfs 1.792 af

SubcatchmentP-2C: P-2(C) Runoff Area=261,031 sf 92.50% Impervious Runoff Depth=5.25"
Flow Length=487' Tc=6.0 min CN=WQ Runoff=47.10 cfs 2.620 af

SubcatchmentP-2D: P-2(D) Runoff Area=300,252 sf 64.23% Impervious Runoff Depth=4.54"
Tc=6.0 min CN=WQ Runoff=48.48 cfs 2.608 af

SubcatchmentP-2E: P-2(G) Runoff Area=163,015 sf 100.00% Impervious Runoff Depth=5.44"
Tc=6.0 min CN=98 Runoff=30.29 cfs 1.697 af

SubcatchmentP-3A: P-3(A) Runoff Area=69,928 sf 24.67% Impervious Runoff Depth=3.97"
Tc=6.0 min CN=WQ Runoff=10.61 cfs 0.532 af

SubcatchmentP-3B: P-3(B) Runoff Area=450,424 sf 0.00% Impervious Runoff Depth=4.22"
Tc=20.0 min CN=WQ Runoff=45.19 cfs 3.632 af

SubcatchmentP1-C: P-1 (C) Runoff Area=266,068 sf 86.67% Impervious Runoff Depth=5.11"
Tc=6.0 min CN=WQ Runoff=47.07 cfs 2.599 af

Reach P1: (PR) DP-1 Inflow=66.72 cfs 11.735 af
Outflow=66.72 cfs 11.735 af

Reach P2: (PR) DP-2 Inflow=100.49 cfs 12.166 af
Outflow=100.49 cfs 12.166 af

Reach P3: (PR) DP-3 Inflow=50.47 cfs 4.038 af
Outflow=50.47 cfs 4.038 af

Pond 1P: Bioretention 1 Peak Elev=527.08' Storage=30,948 cf Inflow=17.60 cfs 0.921 af
Outflow=0.27 cfs 0.428 af

Pond 6P: Bioretetntion 2 Peak Elev=535.32' Storage=29,791 cf Inflow=34.57 cfs 1.901 af
Outflow=16.08 cfs 1.631 af

Pond 9P: UNDG-3 Peak Elev=524.80' Storage=47,167 cf Inflow=48.48 cfs 2.608 af
Outflow=36.00 cfs 2.012 af

Pond 10P: UNDG-1 Peak Elev=522.80' Storage=246,097 cf Inflow=183.81 cfs 10.179 af
Outflow=40.64 cfs 7.758 af

Pond 14P: Bioretention 3 Peak Elev=535.28' Storage=58,947 cf Inflow=51.21 cfs 2.730 af
Outflow=13.53 cfs 2.187 af

Pond 16P: DET-3 Peak Elev=484.29' Storage=172,403 cf Inflow=120.30 cfs 9.928 af
Outflow=59.07 cfs 8.321 af

Pond 17P: Bioretention 4 Peak Elev=539.00' Storage=8,028 cf Inflow=10.61 cfs 0.532 af
Outflow=9.07 cfs 0.406 af

Total Runoff Area = 95.220 ac Runoff Volume = 33.994 af Average Runoff Depth = 4.28"
51.97% Pervious = 49.488 ac 48.03% Impervious = 45.733 ac

Summary for Subcatchment 11S: P-2(E)

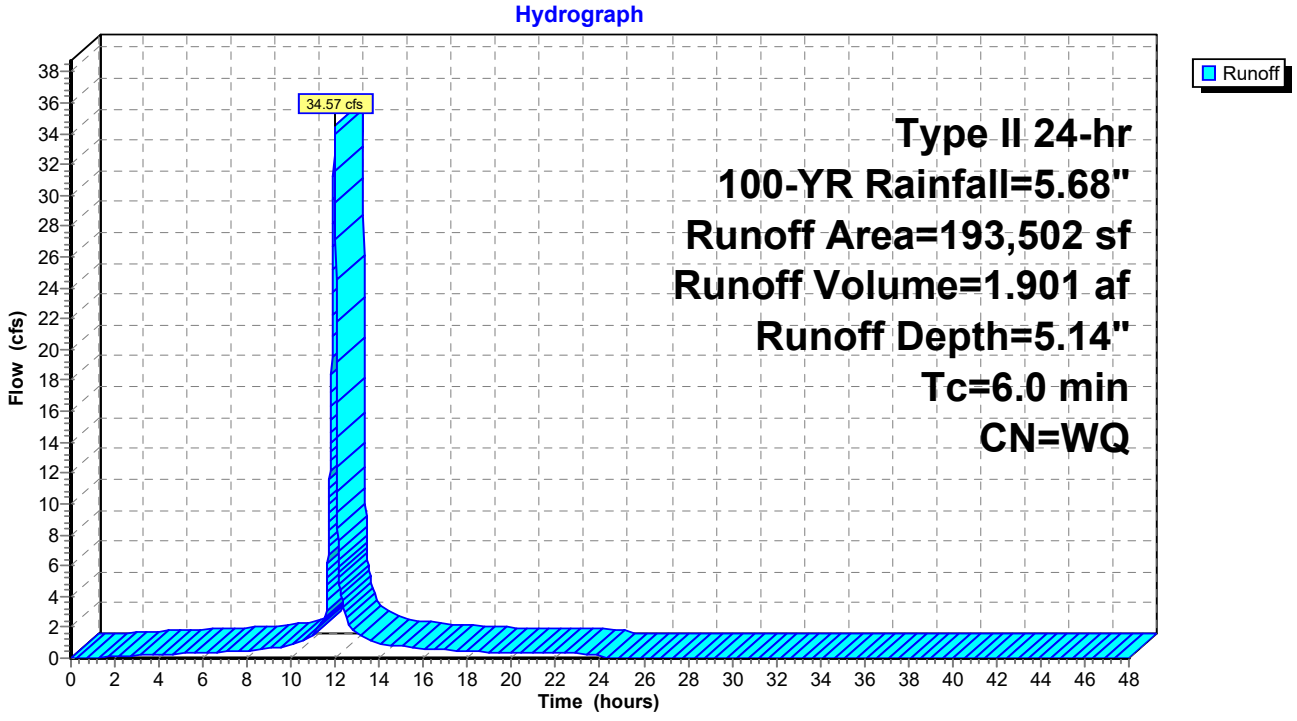
Runoff = 34.57 cfs @ 11.97 hrs, Volume= 1.901 af, Depth= 5.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
30,487	80	>75% Grass cover, Good, HSG D
193,502		Weighted Average
30,487		15.76% Pervious Area
163,015		84.24% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 11S: P-2(E)



Summary for Subcatchment 12S: P-1(F)

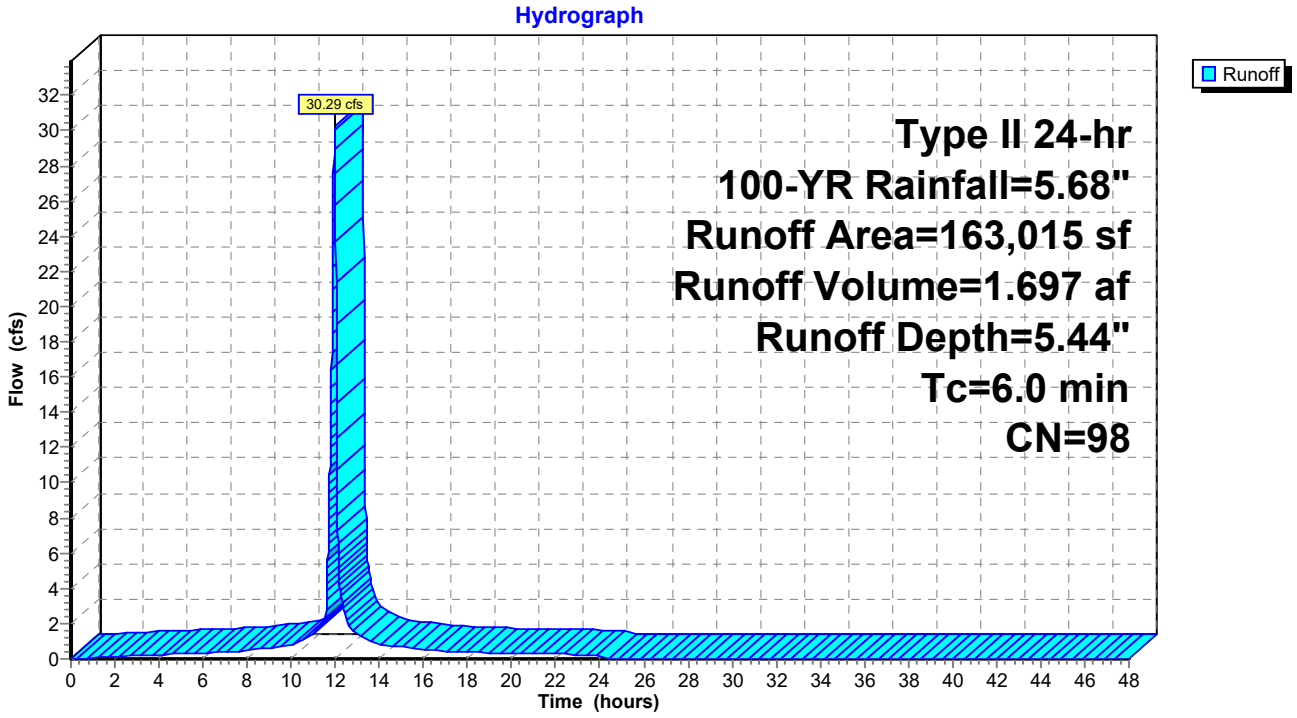
Runoff = 30.29 cfs @ 11.97 hrs, Volume= 1.697 af, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 12S: P-1(F)



Summary for Subcatchment 13S: P-2(F)

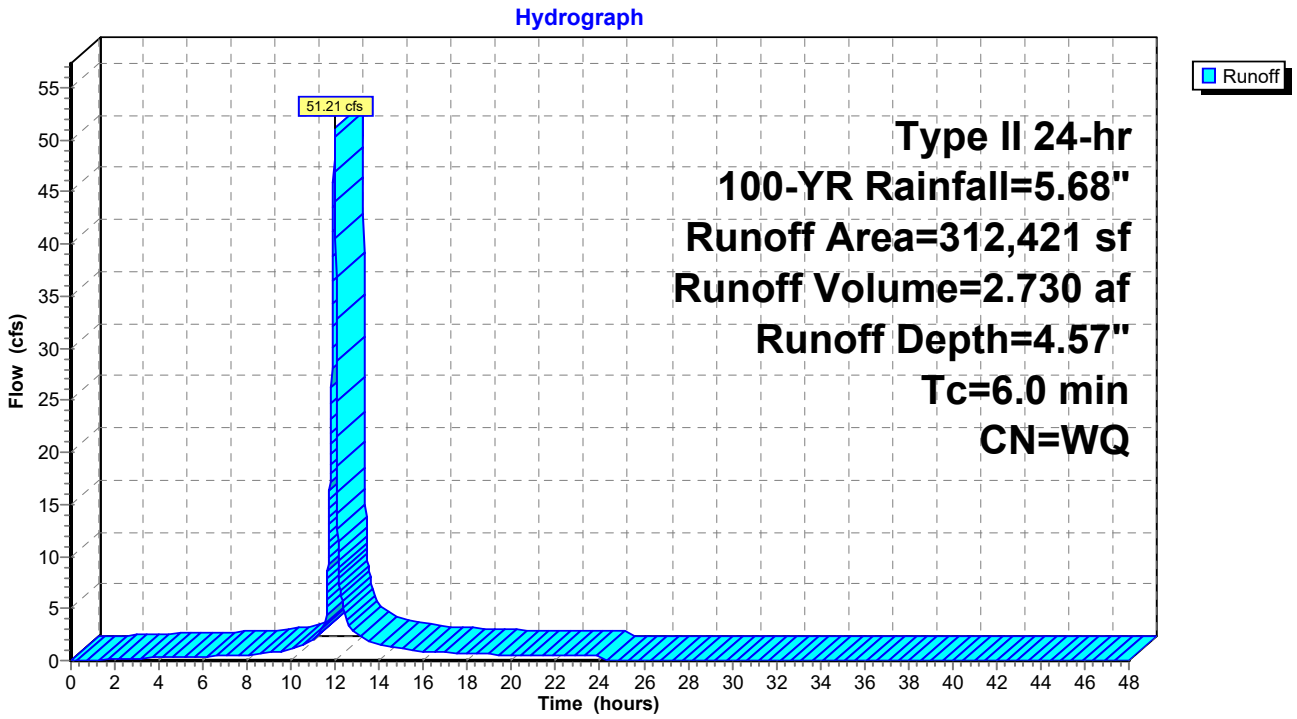
Runoff = 51.21 cfs @ 11.97 hrs, Volume= 2.730 af, Depth= 4.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
189,931	98	Unconnected pavement, HSG D
60,280	74	>75% Grass cover, Good, HSG C
62,210	80	>75% Grass cover, Good, HSG D
312,421		Weighted Average
122,490		39.21% Pervious Area
189,931		60.79% Impervious Area
189,931		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 13S: P-2(F)



Summary for Subcatchment P-1A: P-1 (A)

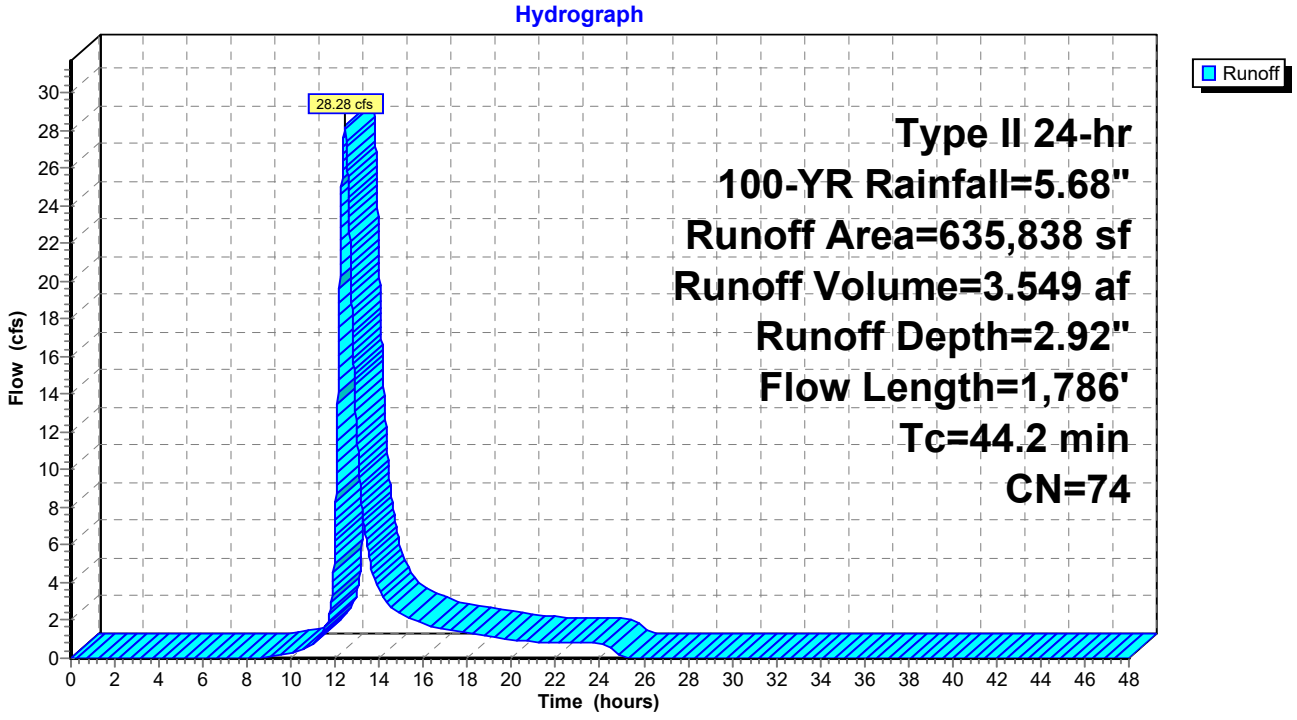
Runoff = 28.28 cfs @ 12.42 hrs, Volume= 3.549 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
635,838	74	>75% Grass cover, Good, HSG C
635,838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.6	100	0.0030	0.05		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
2.3	686	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
11.3	1,000	0.0010	1.48	243.19	**Channel Flow,** Area= 164.2 sf Perim= 116.0' r= 1.42' n= 0.040
44.2	1,786	Total			

Subcatchment P-1A: P-1 (A)



Summary for Subcatchment P-1B: P-1 (B)

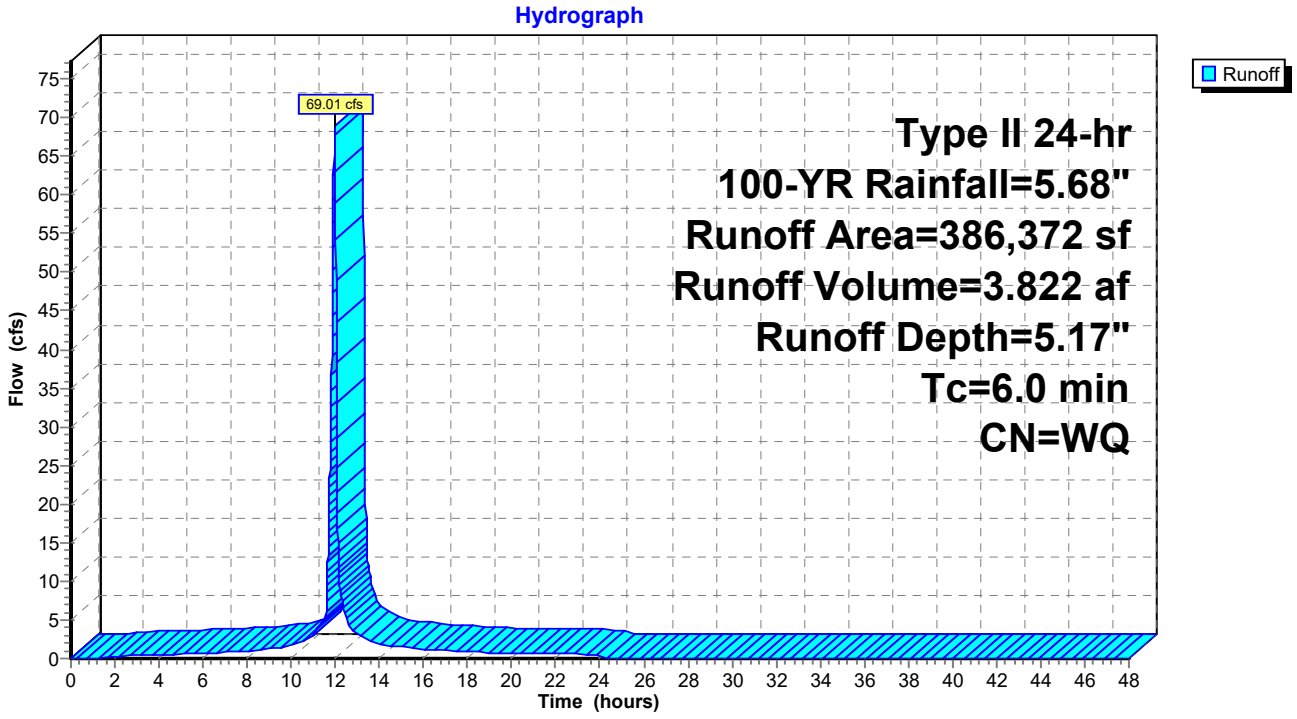
Runoff = 69.01 cfs @ 11.97 hrs, Volume= 3.822 af, Depth= 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
41,576	74	>75% Grass cover, Good, HSG C
344,796	98	Paved parking, HSG D
386,372		Weighted Average
41,576		10.76% Pervious Area
344,796		89.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1B: P-1 (B)



Summary for Subcatchment P-1D: P-1 (D)

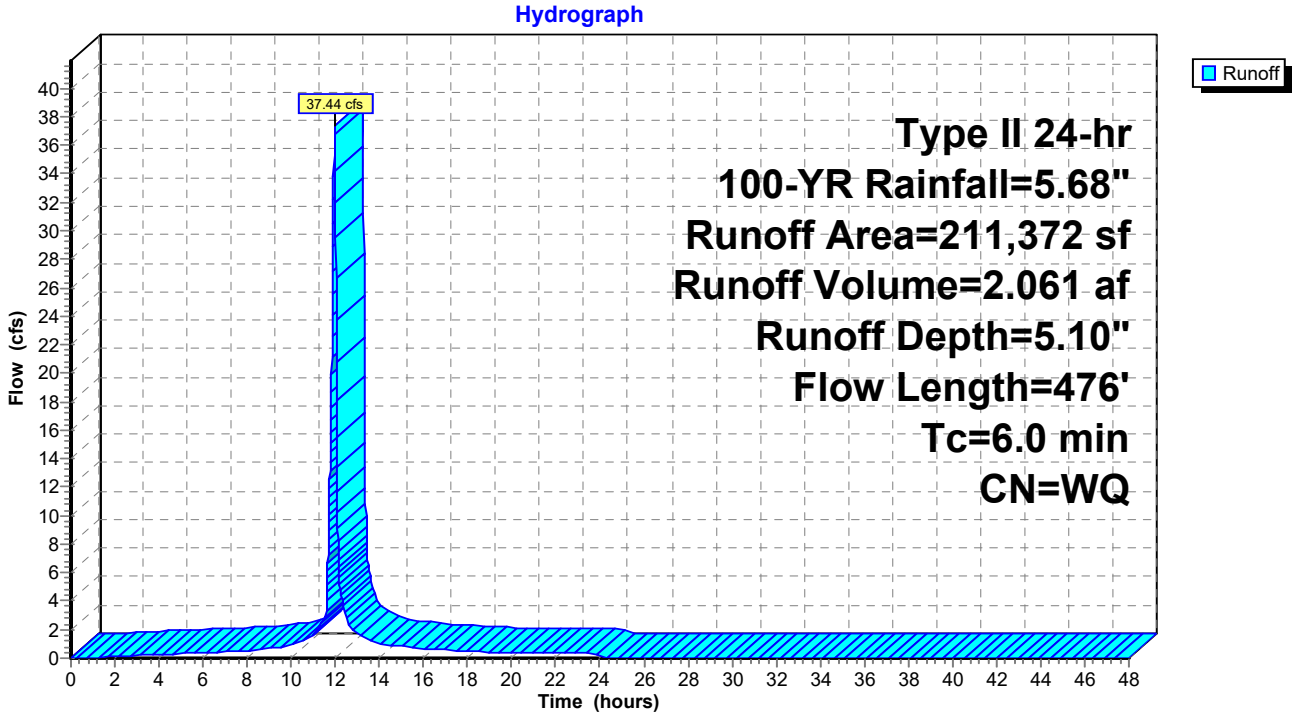
Runoff = 37.44 cfs @ 11.97 hrs, Volume= 2.061 af, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
17,212	74	>75% Grass cover, Good, HSG C
15,158	80	>75% Grass cover, Good, HSG D
179,002	98	Paved parking, HSG D
211,372		Weighted Average
32,370		15.31% Pervious Area
179,002		84.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	476		1.32		**Direct Entry,**

Subcatchment P-1D: P-1 (D)



Summary for Subcatchment P-1E: P-1 (E)

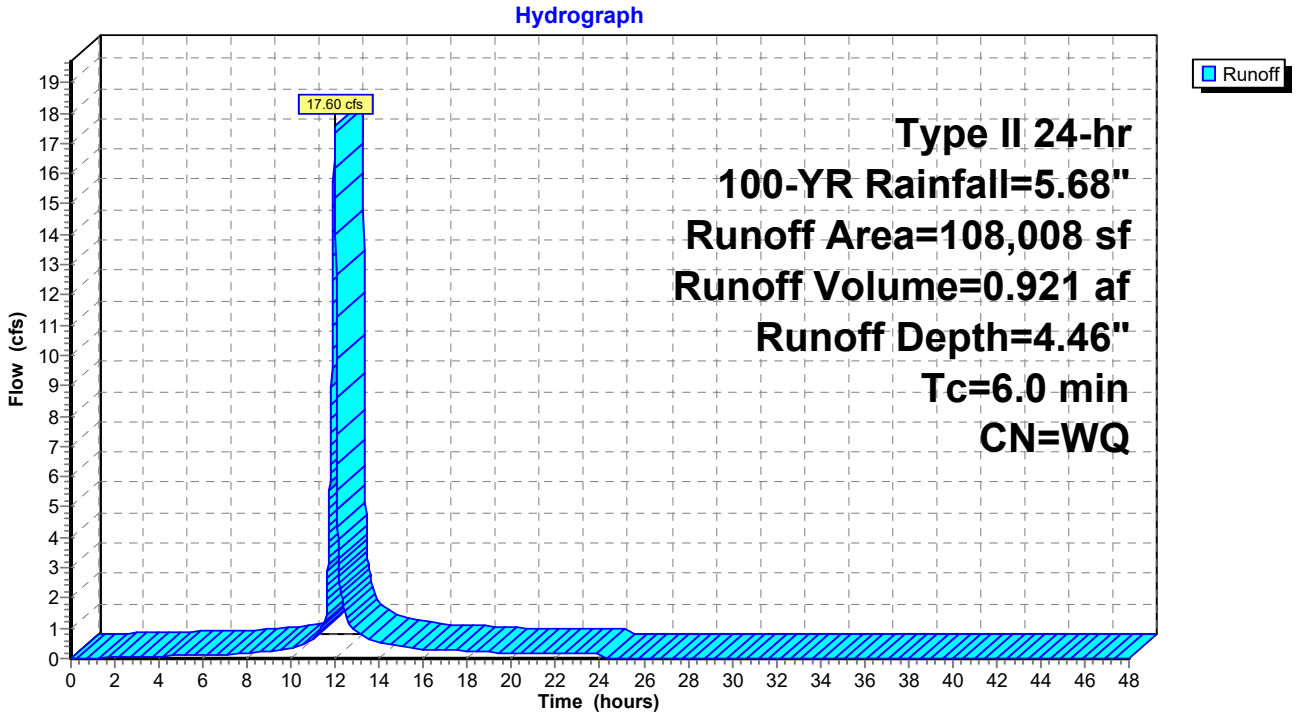
Runoff = 17.60 cfs @ 11.97 hrs, Volume= 0.921 af, Depth= 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
54,479	80	>75% Grass cover, Good, HSG D
53,529	98	Paved parking, HSG D
108,008		Weighted Average
54,479		50.44% Pervious Area
53,529		49.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-1E: P-1 (E)



Summary for Subcatchment P-2A: P-2(A)

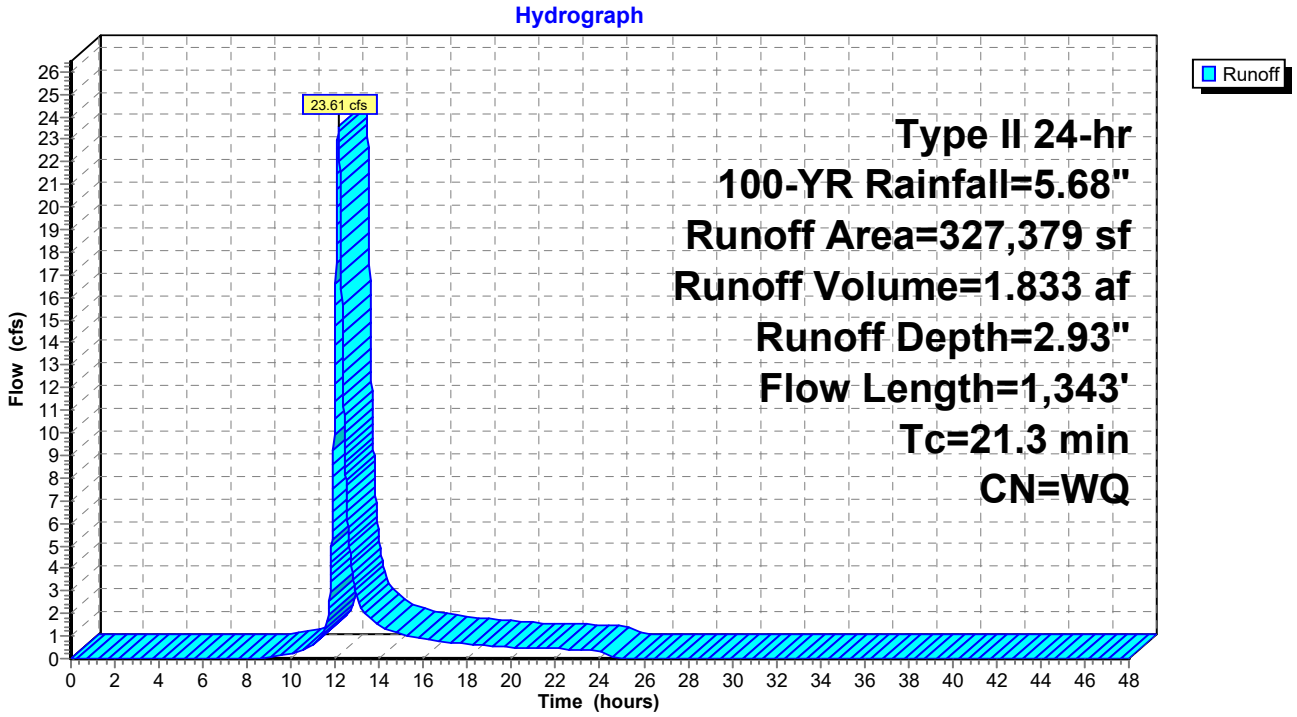
Runoff = 23.61 cfs @ 12.14 hrs, Volume= 1.833 af, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
13,649	70	Woods, Good, HSG C
299,924	74	>75% Grass cover, Good, HSG C
13,806	80	>75% Grass cover, Good, HSG D
327,379		Weighted Average
327,379		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.1	100	0.0150	0.10		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.17"
5.2	1,243	0.0700	3.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
21.3	1,343	Total			

Subcatchment P-2A: P-2(A)



Summary for Subcatchment P-2B: P-2(B)

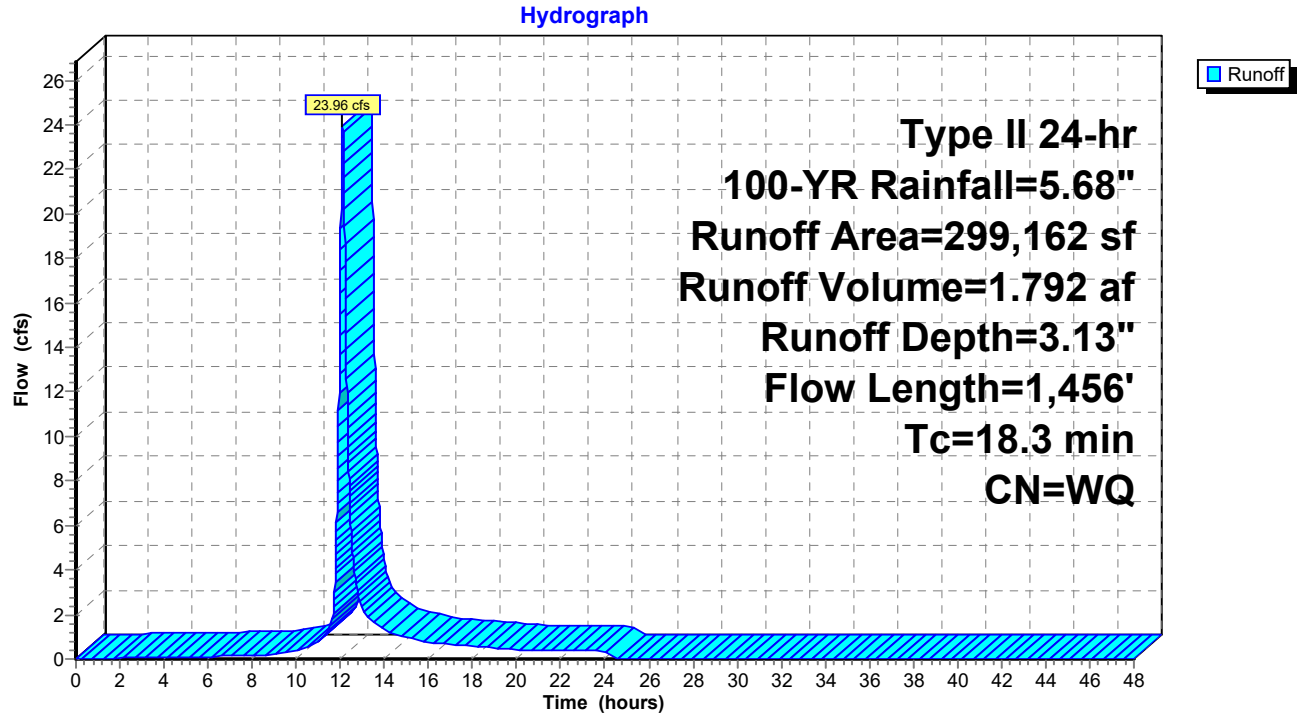
Runoff = 23.96 cfs @ 12.10 hrs, Volume= 1.792 af, Depth= 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
76,603	61	>75% Grass cover, Good, HSG B
143,671	74	>75% Grass cover, Good, HSG C
25,252	80	>75% Grass cover, Good, HSG D
53,636	98	Paved parking, HSG D
299,162		Weighted Average
245,526		82.07% Pervious Area
53,636		17.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0080	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.17"
1.5	443	0.1100	4.97		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	913	0.0400	5.96	38.72	**Channel Flow,** Area= 6.5 sf Perim= 22.2' r= 0.29' n= 0.022 Earth, clean & straight
18.3	1,456	Total			

Subcatchment P-2B: P-2(B)



Summary for Subcatchment P-2C: P-2(C)

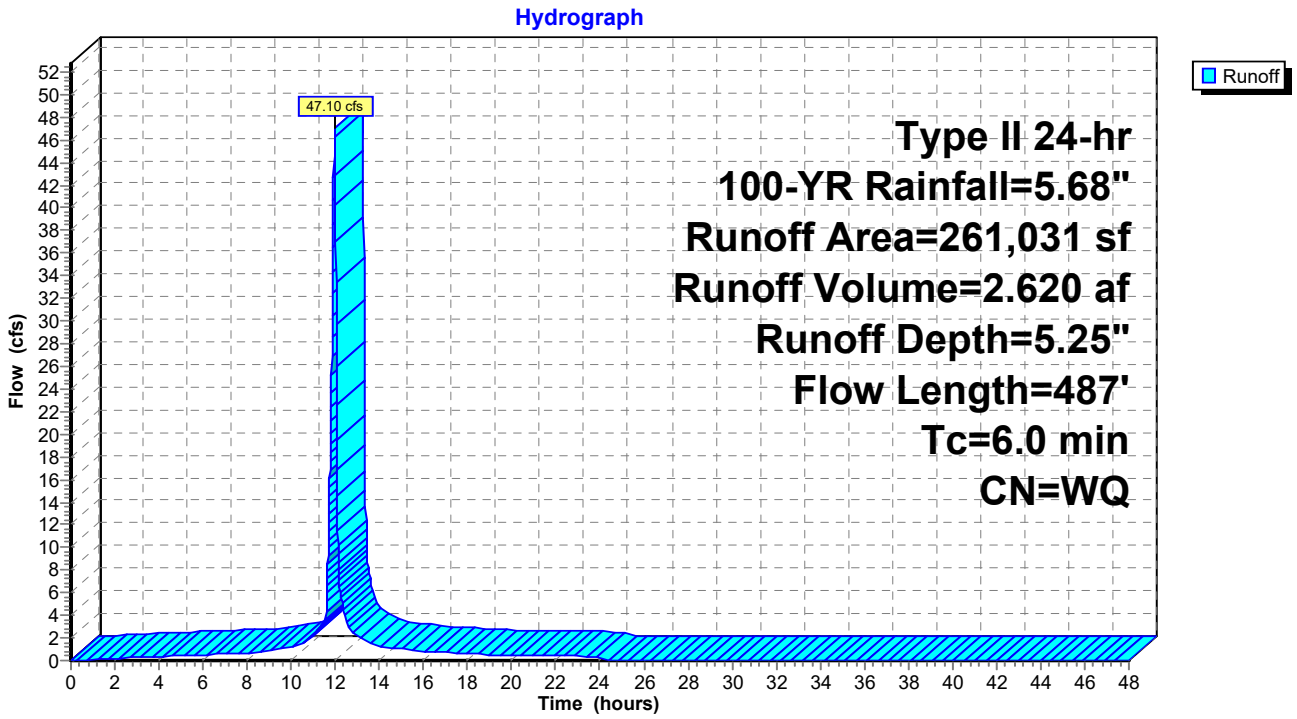
Runoff = 47.10 cfs @ 11.97 hrs, Volume= 2.620 af, Depth= 5.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
9,153	77	Woods, Good, HSG D
6,029	61	>75% Grass cover, Good, HSG B
4,385	80	>75% Grass cover, Good, HSG D
241,464	98	Paved parking, HSG D
261,031		Weighted Average
19,567		7.50% Pervious Area
241,464		92.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	487		1.35		**Direct Entry,**

Subcatchment P-2C: P-2(C)



Summary for Subcatchment P-2D: P-2(D)

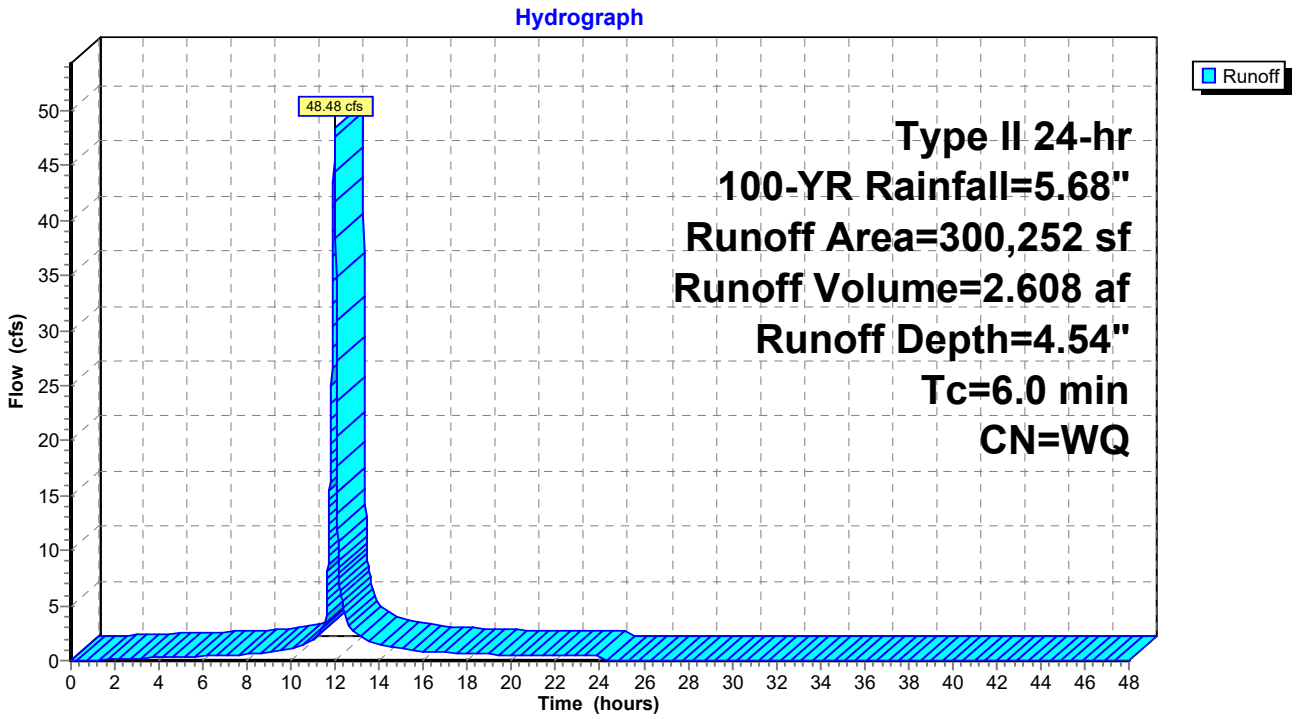
Runoff = 48.48 cfs @ 11.97 hrs, Volume= 2.608 af, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
27,331	61	>75% Grass cover, Good, HSG B
26,334	74	>75% Grass cover, Good, HSG C
53,738	80	>75% Grass cover, Good, HSG D
192,849	98	Paved parking, HSG D
300,252		Weighted Average
107,403		35.77% Pervious Area
192,849		64.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2D: P-2(D)



Summary for Subcatchment P-2E: P-2(G)

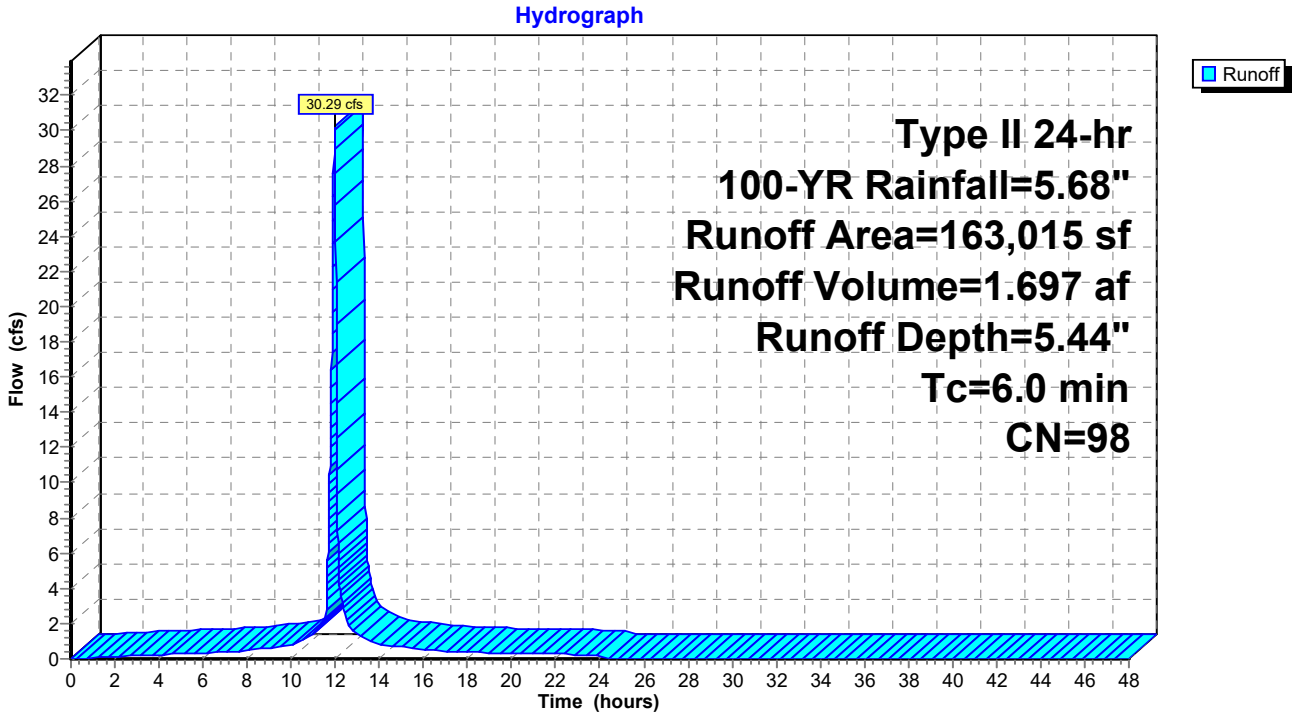
Runoff = 30.29 cfs @ 11.97 hrs, Volume= 1.697 af, Depth= 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
163,015	98	Unconnected pavement, HSG D
163,015		100.00% Impervious Area
163,015		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-2E: P-2(G)



Summary for Subcatchment P-3A: P-3(A)

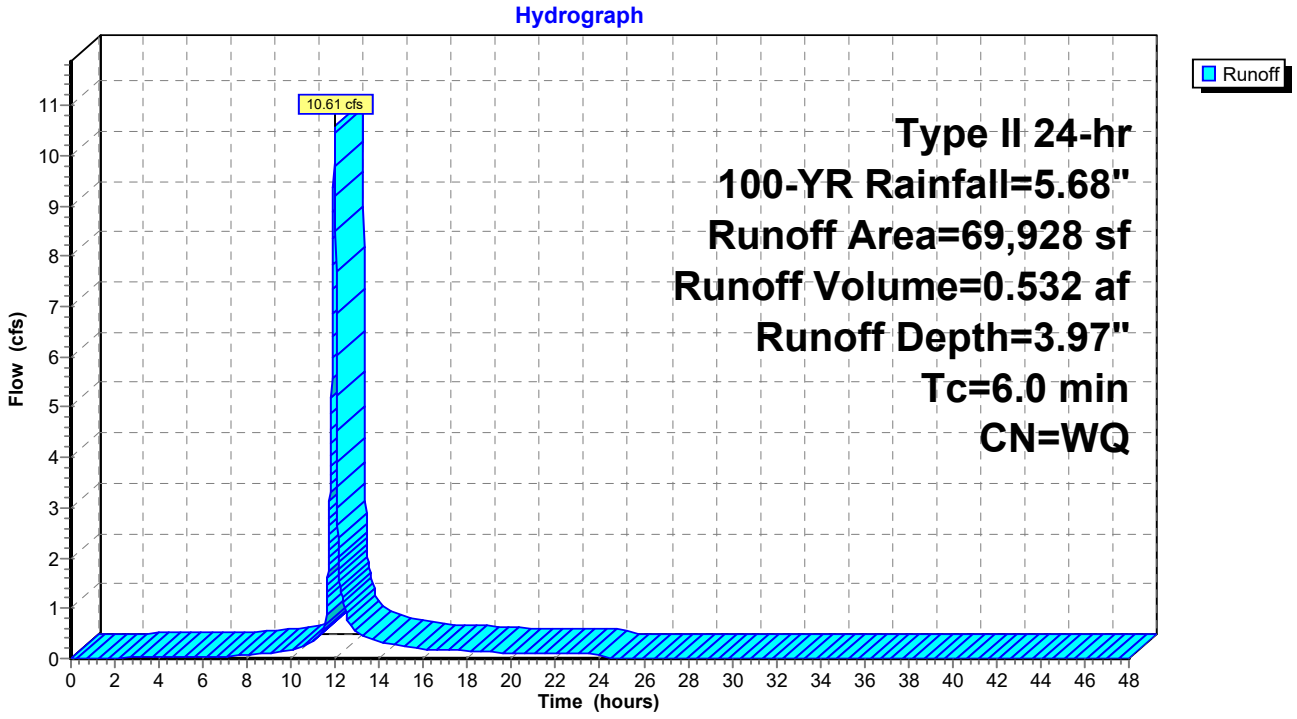
Runoff = 10.61 cfs @ 11.97 hrs, Volume= 0.532 af, Depth= 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
52,678	80	>75% Grass cover, Good, HSG D
17,250	98	Paved parking, HSG D
69,928		Weighted Average
52,678		75.33% Pervious Area
17,250		24.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P-3A: P-3(A)



Summary for Subcatchment P-3B: P-3(B)

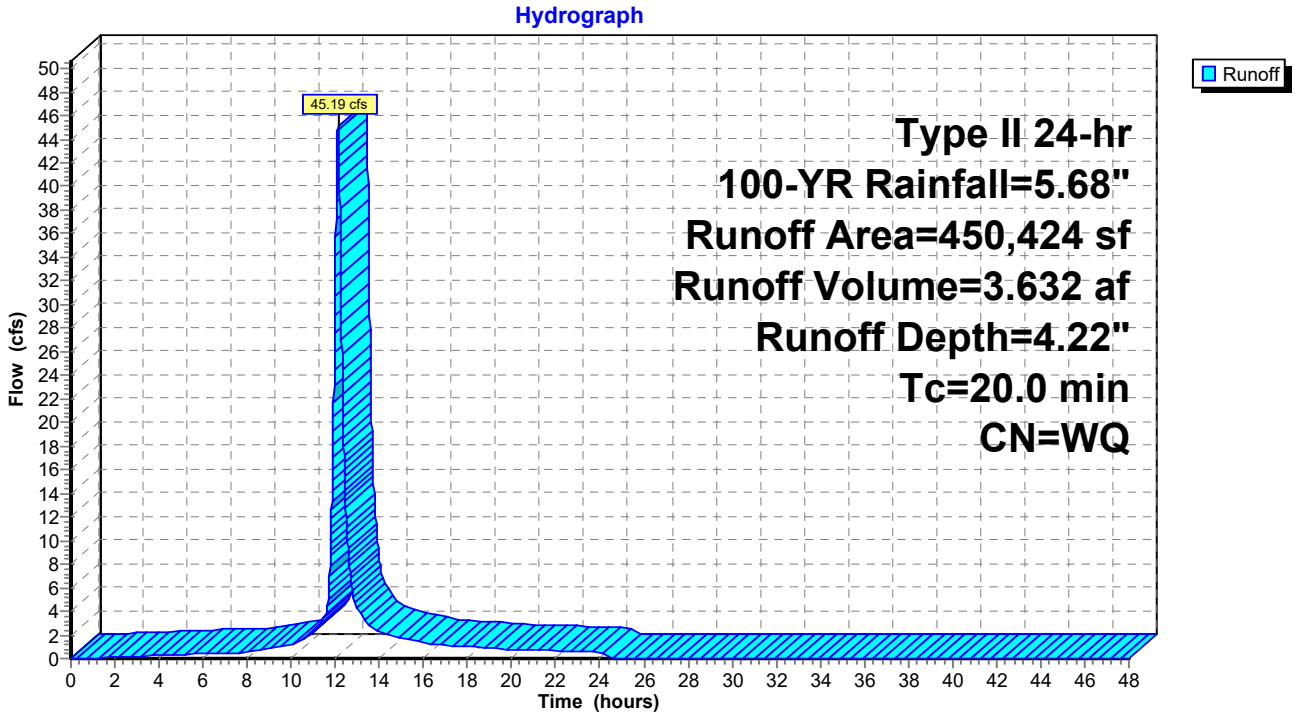
Runoff = 45.19 cfs @ 12.11 hrs, Volume= 3.632 af, Depth= 4.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
41,665	80	>75% Grass cover, Good, HSG D
210,412	77	Woods, Good, HSG D
198,347	98	Water Surface, 0% imp, HSG D
450,424		Weighted Average
450,424		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0					**Direct Entry,**

Subcatchment P-3B: P-3(B)



Summary for Subcatchment P1-C: P-1 (C)

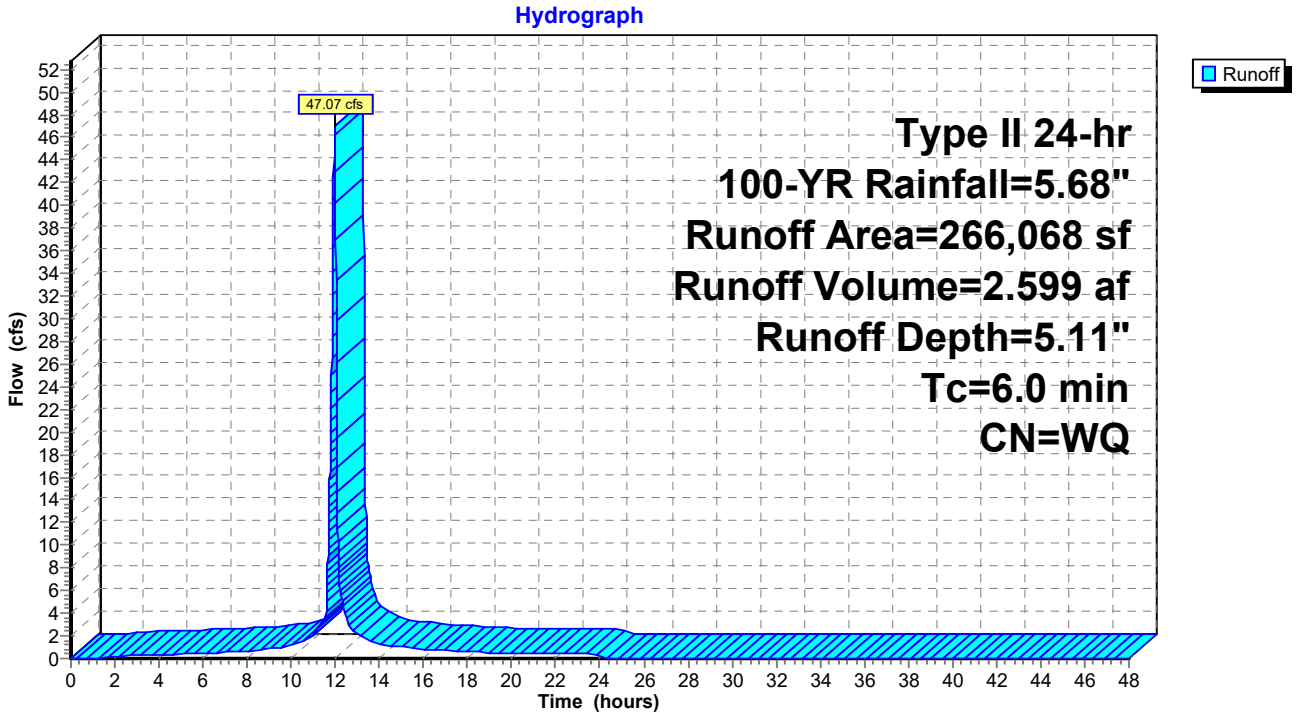
Runoff = 47.07 cfs @ 11.97 hrs, Volume= 2.599 af, Depth= 5.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=5.68"

Area (sf)	CN	Description
35,459	74	>75% Grass cover, Good, HSG C
230,609	98	Paved parking, HSG D
266,068		Weighted Average
35,459		13.33% Pervious Area
230,609		86.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment P1-C: P-1 (C)

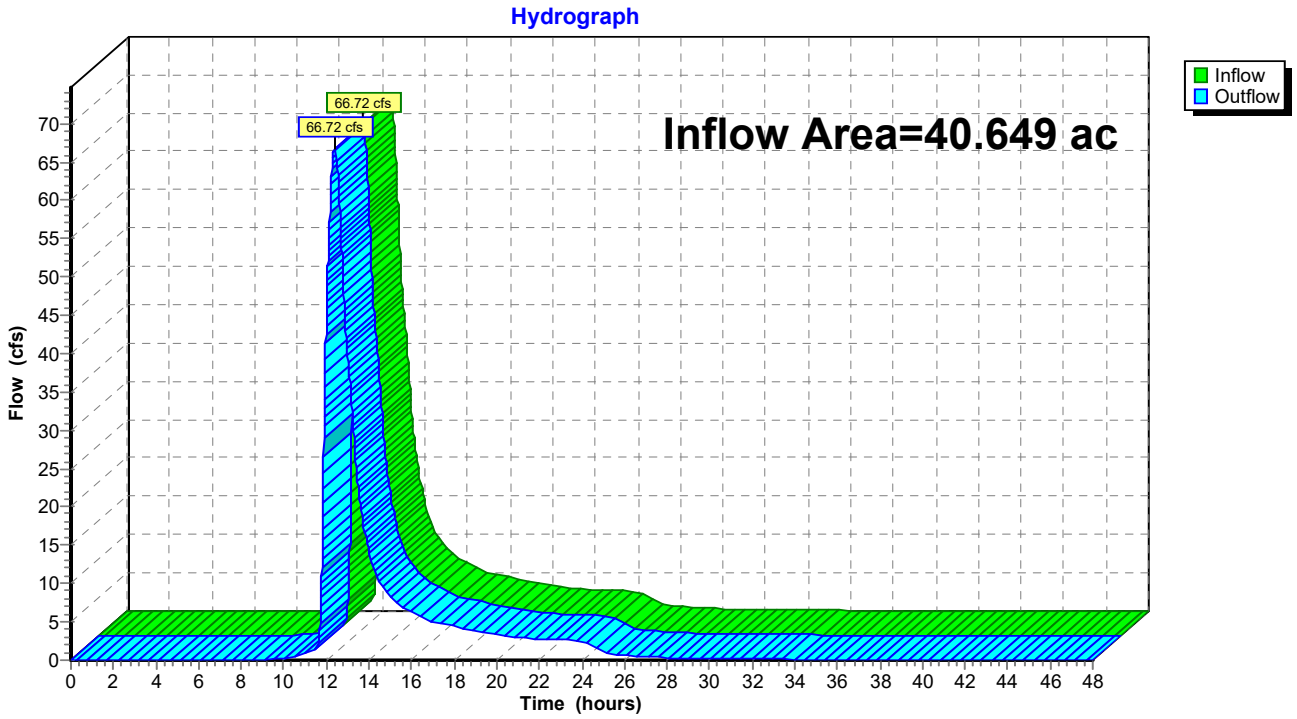


Summary for Reach P1: (PR) DP-1

Inflow Area = 40.649 ac, 54.84% Impervious, Inflow Depth > 3.46" for 100-YR event
Inflow = 66.72 cfs @ 12.38 hrs, Volume= 11.735 af
Outflow = 66.72 cfs @ 12.38 hrs, Volume= 11.735 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P1: (PR) DP-1

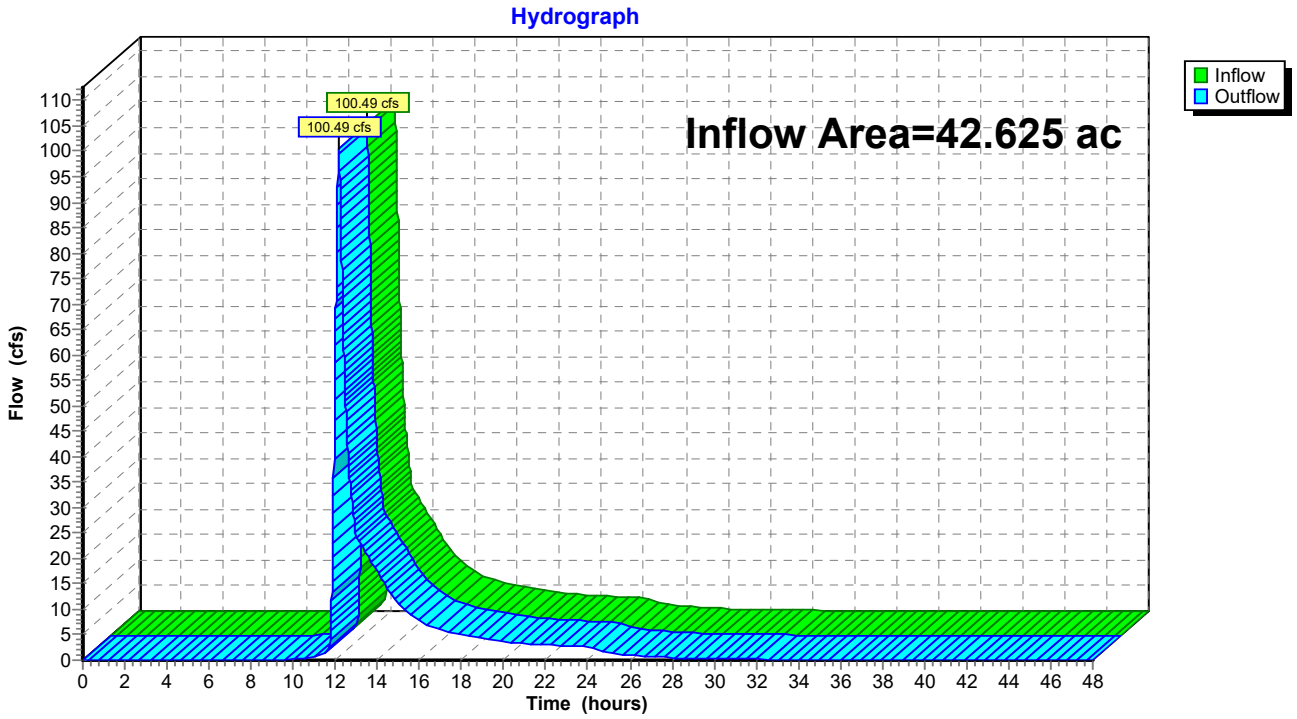


Summary for Reach P2: (PR) DP-2

Inflow Area = 42.625 ac, 54.07% Impervious, Inflow Depth > 3.42" for 100-YR event
Inflow = 100.49 cfs @ 12.16 hrs, Volume= 12.166 af
Outflow = 100.49 cfs @ 12.16 hrs, Volume= 12.166 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P2: (PR) DP-2

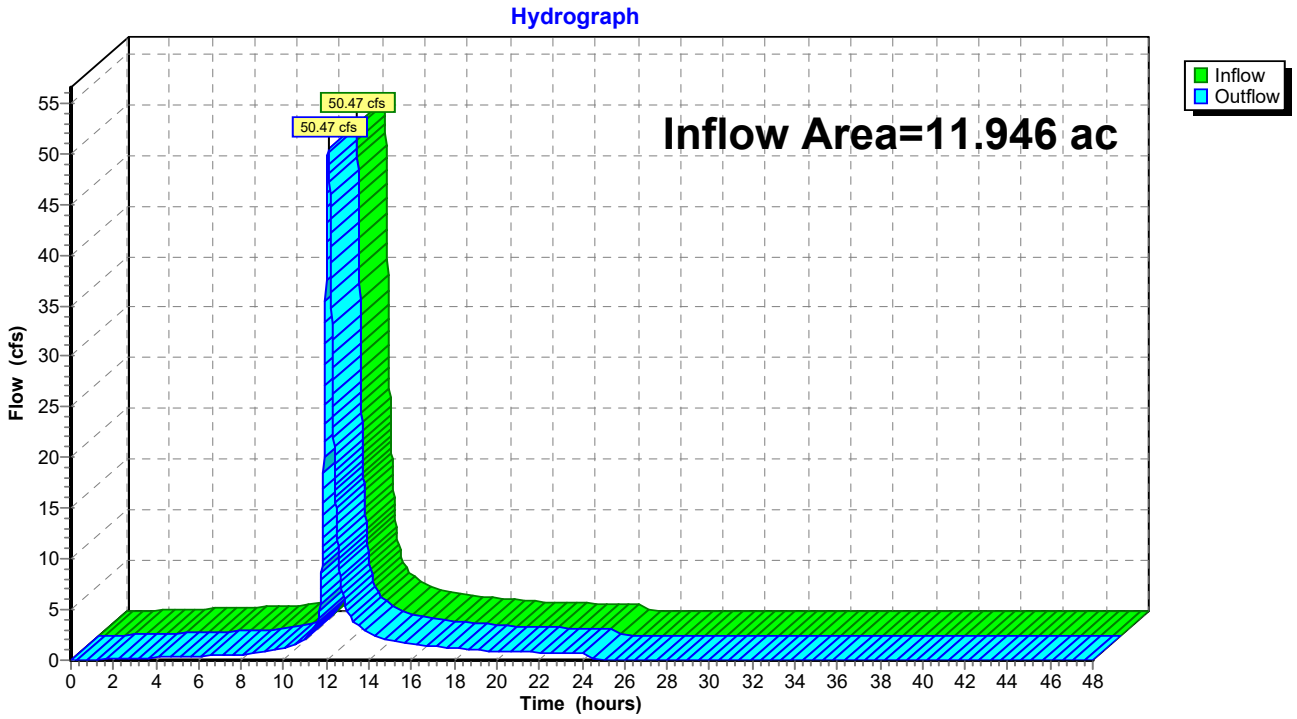


Summary for Reach P3: (PR) DP-3

Inflow Area = 11.946 ac, 3.32% Impervious, Inflow Depth = 4.06" for 100-YR event
Inflow = 50.47 cfs @ 12.10 hrs, Volume= 4.038 af
Outflow = 50.47 cfs @ 12.10 hrs, Volume= 4.038 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2

Reach P3: (PR) DP-3



Summary for Pond 1P: Bioretention 1

Inflow Area = 2.480 ac, 49.56% Impervious, Inflow Depth = 4.46" for 100-YR event
Inflow = 17.60 cfs @ 11.97 hrs, Volume= 0.921 af
Outflow = 0.27 cfs @ 17.14 hrs, Volume= 0.428 af, Atten= 98%, Lag= 310.1 min
Primary = 0.27 cfs @ 17.14 hrs, Volume= 0.428 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 527.08' @ 17.14 hrs Surf.Area= 20,503 sf Storage= 30,948 cf

Plug-Flow detention time= 767.6 min calculated for 0.428 af (46% of inflow)
Center-of-Mass det. time= 637.5 min (1,407.6 - 770.1)

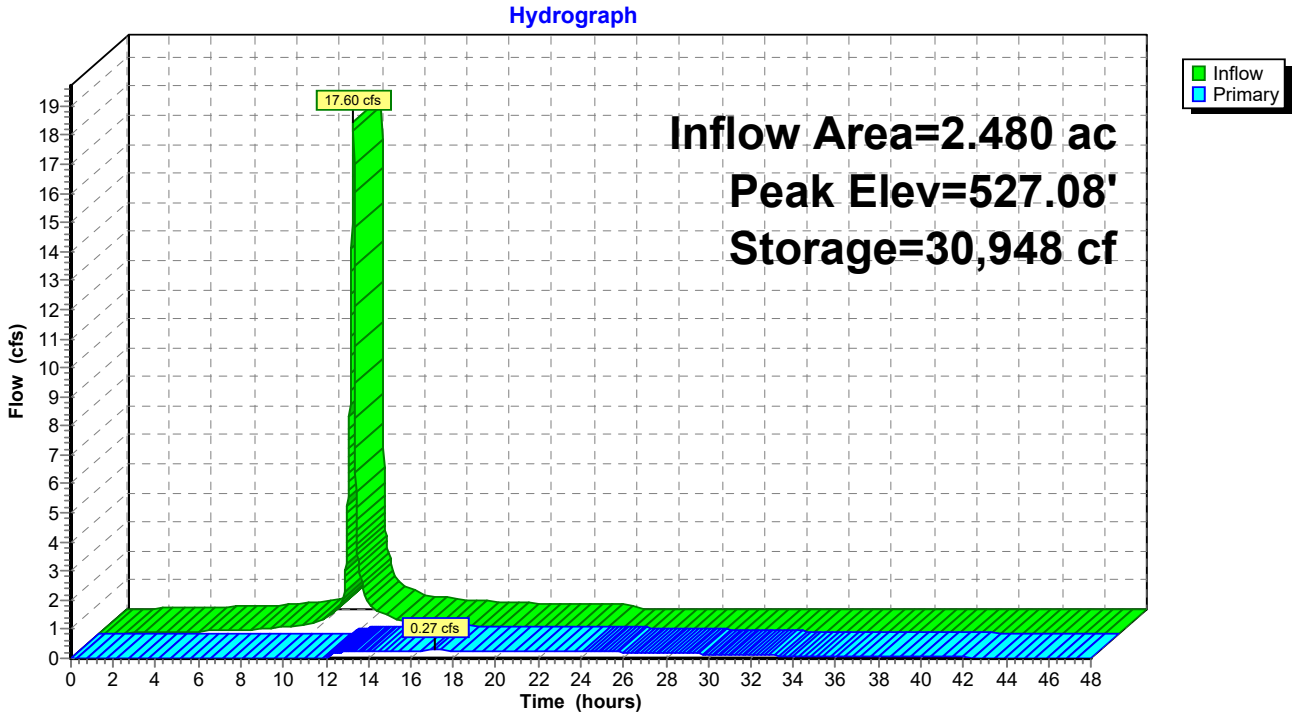
Volume	Invert	Avail.Storage	Storage Description
#1	525.00'	52,250 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
525.00	10,500	0	0
526.00	14,000	12,250	12,250
527.00	20,000	17,000	29,250
528.00	26,000	23,000	52,250

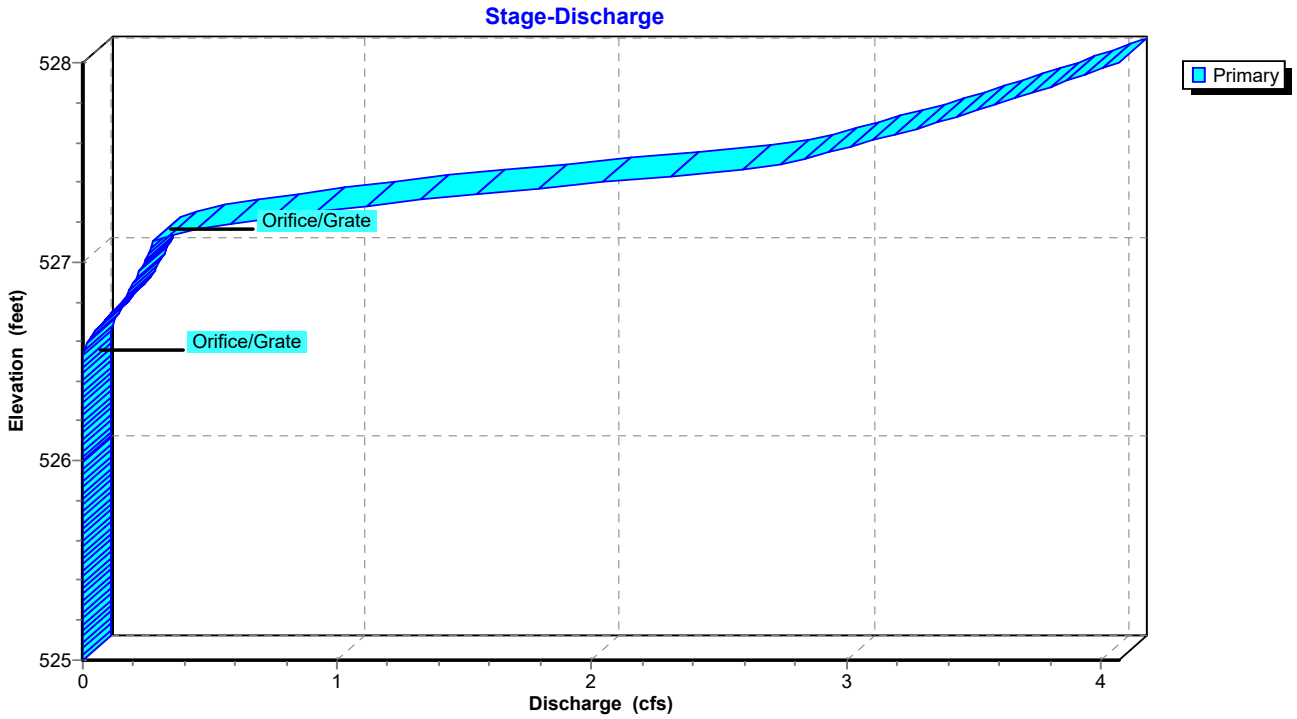
Device	Routing	Invert	Outlet Devices
#1	Primary	524.00'	**12.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 524.00' / 519.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	526.50'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	527.10'	**12.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.27 cfs @ 17.14 hrs HW=527.08' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.27 cfs of 6.08 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 3.11 fps)
3=Orifice/Grate (Controls 0.00 cfs)

Pond 1P: Bioretention 1



Pond 1P: Bioretention 1



Summary for Pond 6P: Bioretetntion 2

Inflow Area = 4.442 ac, 84.24% Impervious, Inflow Depth = 5.14" for 100-YR event
Inflow = 34.57 cfs @ 11.97 hrs, Volume= 1.901 af
Outflow = 16.08 cfs @ 12.06 hrs, Volume= 1.631 af, Atten= 53%, Lag= 5.7 min
Primary = 16.08 cfs @ 12.06 hrs, Volume= 1.631 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 535.32' @ 12.06 hrs Surf.Area= 15,618 sf Storage= 29,791 cf

Plug-Flow detention time= 142.8 min calculated for 1.631 af (86% of inflow)
Center-of-Mass det. time= 76.0 min (825.5 - 749.5)

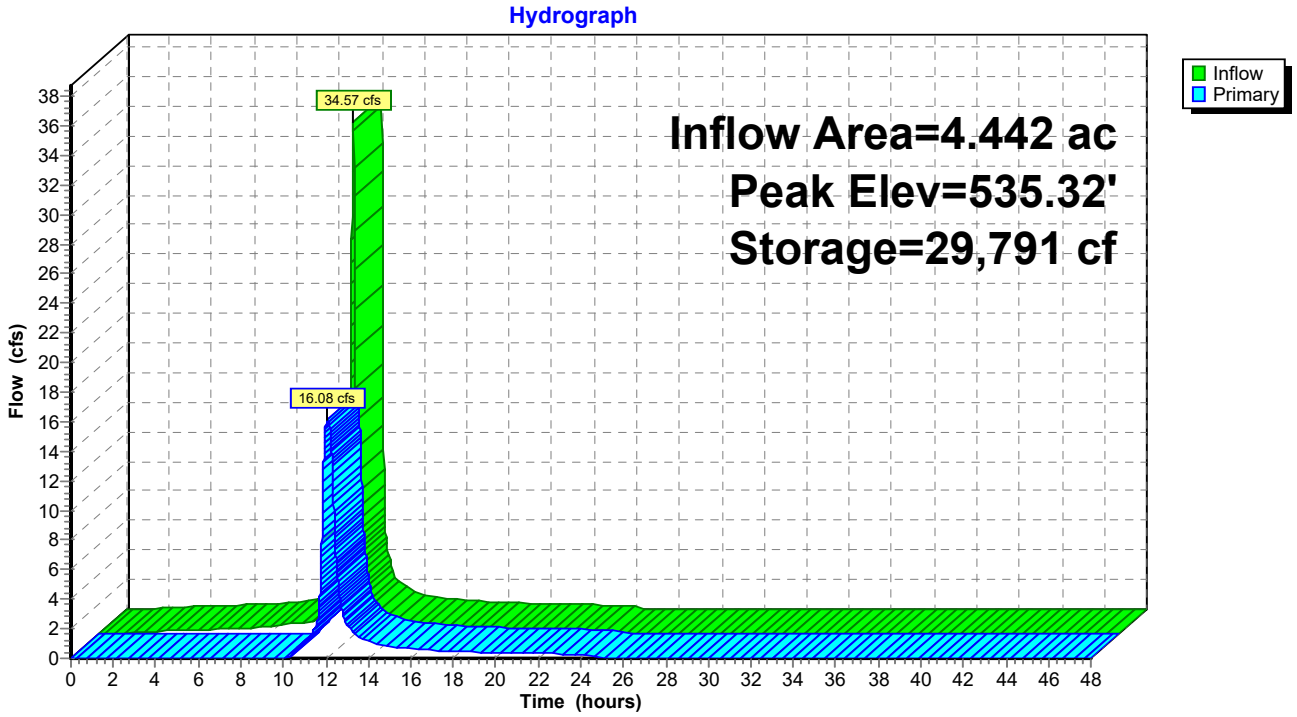
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	41,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	11,000	0	0
534.00	12,500	11,750	11,750
535.00	14,000	13,250	25,000
536.00	19,000	16,500	41,500

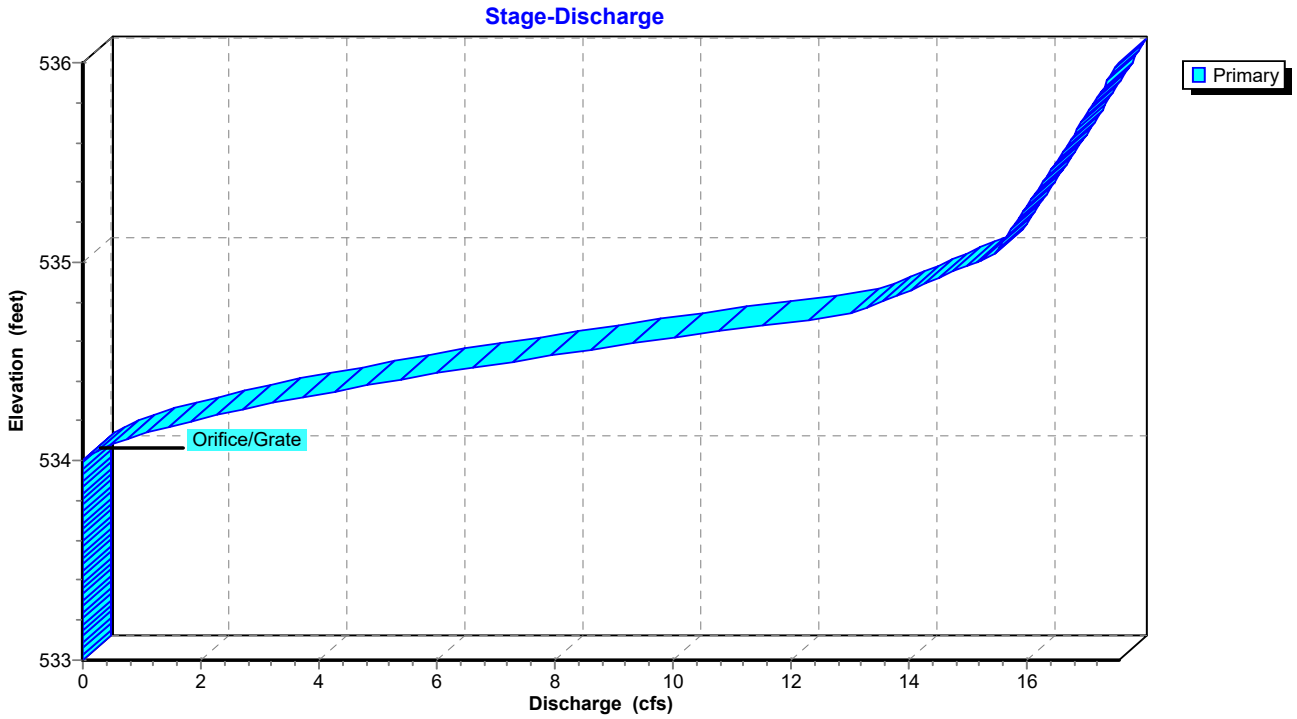
Device	Routing	Invert	Outlet Devices
#1	Primary	531.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 531.00' / 528.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=16.08 cfs @ 12.06 hrs HW=535.32' TW=484.01' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 16.08 cfs @ 9.10 fps)
↑**2=Orifice/Grate** (Passes 16.08 cfs of 17.40 cfs potential flow)

Pond 6P: Bioretetntion 2



Pond 6P: Bioretetntion 2



Summary for Pond 9P: UNDG-3

Inflow Area = 6.893 ac, 64.23% Impervious, Inflow Depth = 4.54" for 100-YR event
Inflow = 48.48 cfs @ 11.97 hrs, Volume= 2.608 af
Outflow = 36.00 cfs @ 12.03 hrs, Volume= 2.012 af, Atten= 26%, Lag= 3.5 min
Primary = 36.00 cfs @ 12.03 hrs, Volume= 2.012 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 524.80' @ 12.03 hrs Surf.Area= 25,000 sf Storage= 47,167 cf

Plug-Flow detention time= 218.7 min calculated for 2.011 af (77% of inflow)
Center-of-Mass det. time= 130.2 min (891.0 - 760.8)

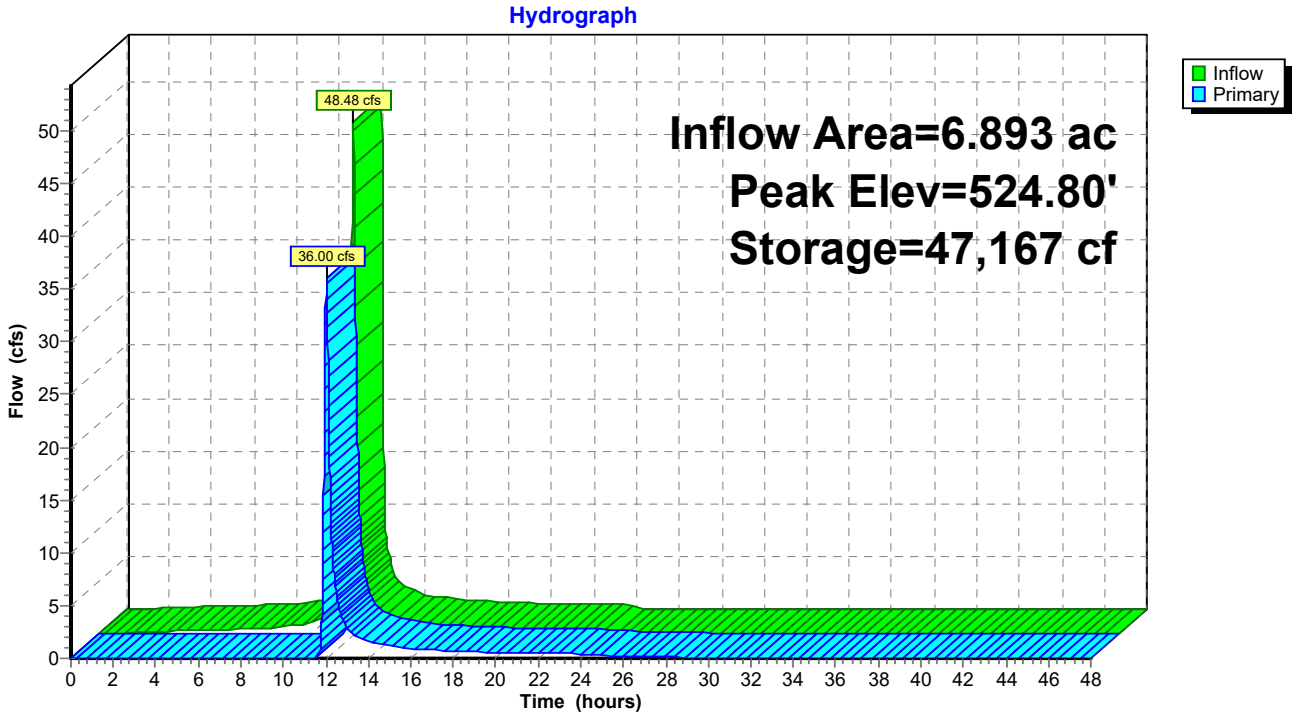
Volume	Invert	Avail.Storage	Storage Description
#1	522.00'	50,625 cf	**Custom Stage Data (Prismatic)** Listed below 75,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
522.00	25,000	0	0
525.00	25,000	75,000	75,000

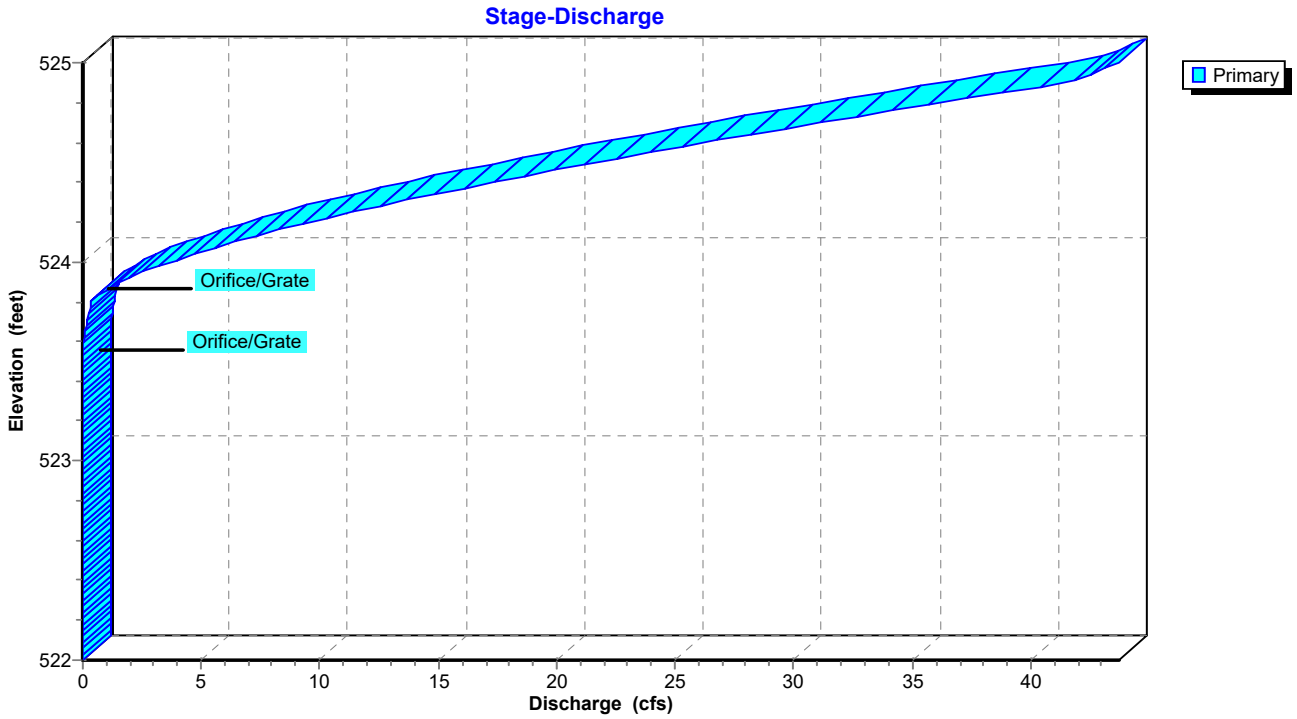
Device	Routing	Invert	Outlet Devices
#1	Primary	521.00'	**36.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 521.00' / 516.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf
#2	Device 1	523.50'	**12.0" Vert. Orifice/Grate** X 2 rows with 6.0" cc spacing C= 0.600
#3	Device 1	523.80'	**36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=35.95 cfs @ 12.03 hrs HW=524.79' TW=0.00' (Dynamic Tailwater)
↑└**1=Culvert** (Passes 35.95 cfs of 51.55 cfs potential flow)
↑└**2=Orifice/Grate** (Orifice Controls 5.40 cfs @ 3.71 fps)
└**3=Orifice/Grate** (Weir Controls 30.55 cfs @ 3.26 fps)

Pond 9P: UNDG-3



Pond 9P: UNDG-3



Summary for Pond 10P: UNDG-1

Inflow Area = 23.573 ac, 89.35% Impervious, Inflow Depth = 5.18" for 100-YR event
Inflow = 183.81 cfs @ 11.97 hrs, Volume= 10.179 af
Outflow = 40.64 cfs @ 12.12 hrs, Volume= 7.758 af, Atten= 78%, Lag= 9.1 min
Primary = 40.64 cfs @ 12.12 hrs, Volume= 7.758 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 522.80' @ 12.12 hrs Surf.Area= 130,000 sf Storage= 246,097 cf

Plug-Flow detention time= 225.1 min calculated for 7.756 af (76% of inflow)
Center-of-Mass det. time= 136.3 min (883.3 - 747.0)

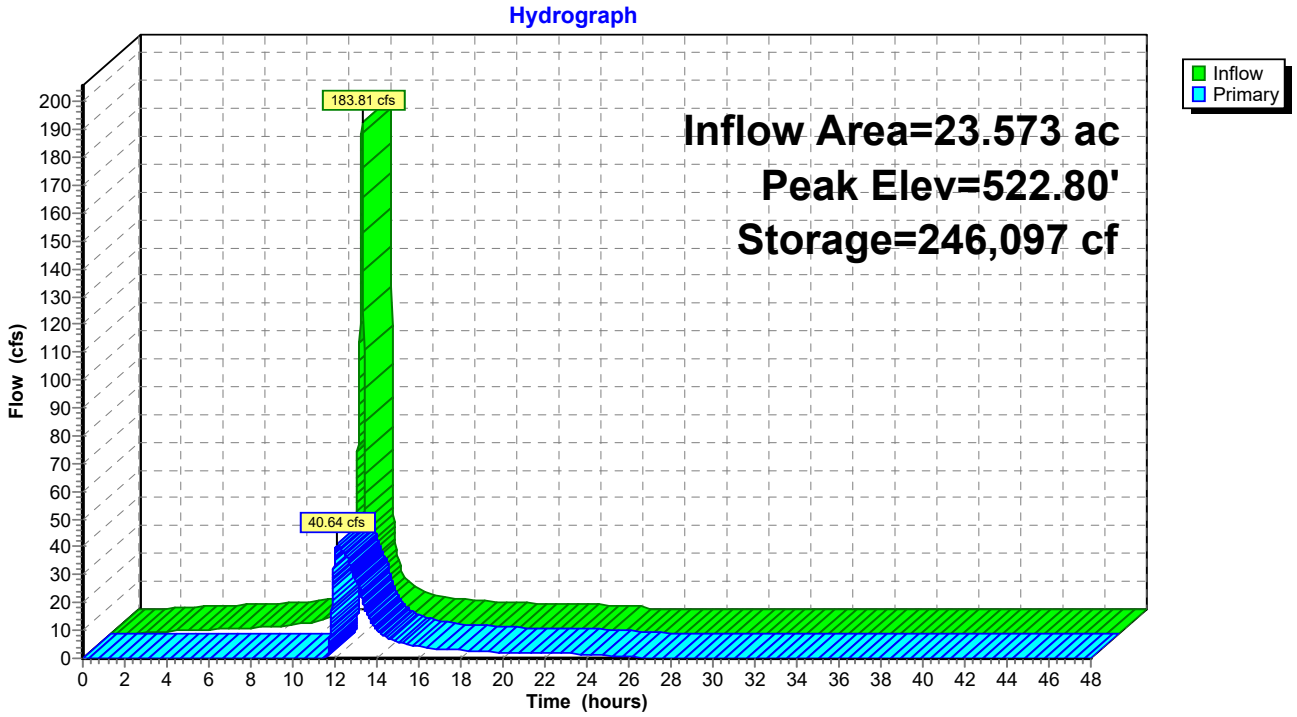
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	263,250 cf	**Custom Stage Data (Prismatic)** Listed below 390,000 cf Overall x 67.5% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	130,000	0	0
523.00	130,000	390,000	390,000

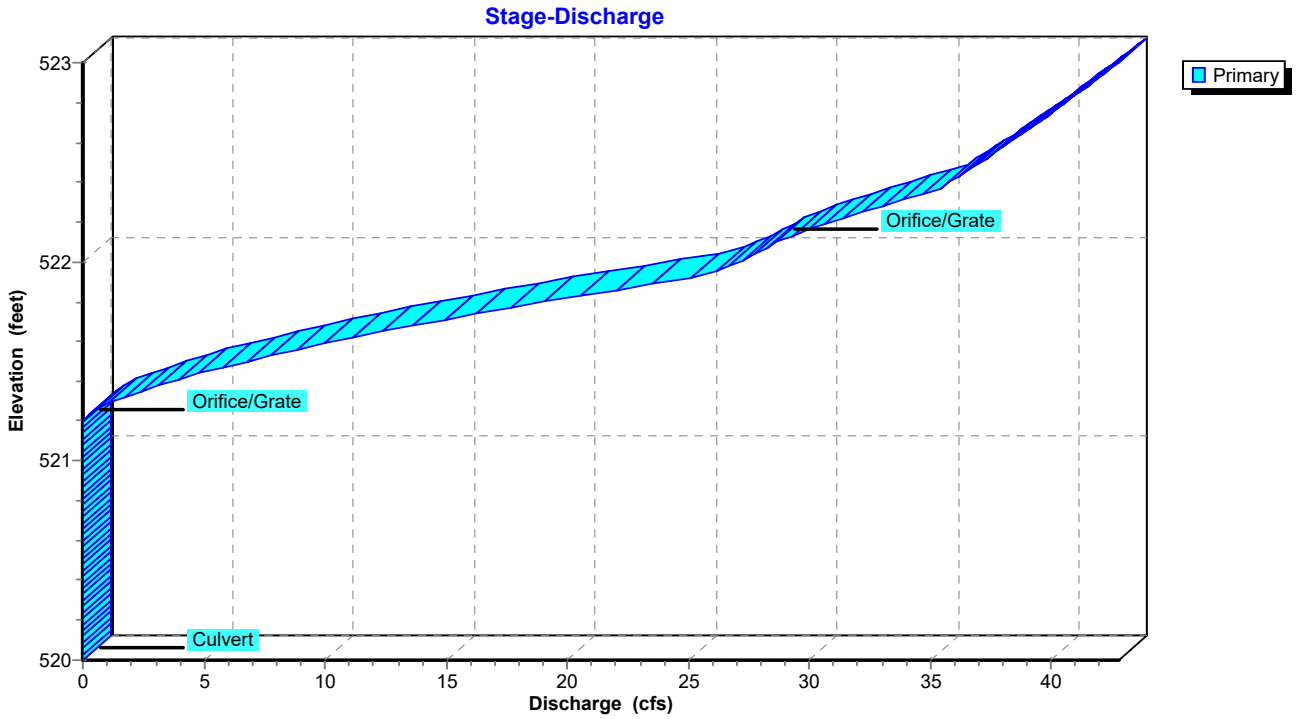
Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	**24.0" Round Culvert X 2.00** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 520.00' / 515.00' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	521.20'	**24.0" Horiz. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	522.10'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=40.64 cfs @ 12.12 hrs HW=522.80' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 40.64 cfs @ 6.47 fps)
↑**2=Orifice/Grate** (Passes < 38.32 cfs potential flow)
3=Orifice/Grate (Passes < 12.15 cfs potential flow)

Pond 10P: UNDG-1



Pond 10P: UNDG-1



Summary for Pond 14P: Bioretention 3

Inflow Area = 7.172 ac, 60.79% Impervious, Inflow Depth = 4.57" for 100-YR event
Inflow = 51.21 cfs @ 11.97 hrs, Volume= 2.730 af
Outflow = 13.53 cfs @ 12.10 hrs, Volume= 2.187 af, Atten= 74%, Lag= 8.1 min
Primary = 13.53 cfs @ 12.10 hrs, Volume= 2.187 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 535.28' @ 12.10 hrs Surf.Area= 30,109 sf Storage= 58,947 cf

Plug-Flow detention time= 186.3 min calculated for 2.187 af (80% of inflow)
Center-of-Mass det. time= 104.1 min (867.5 - 763.4)

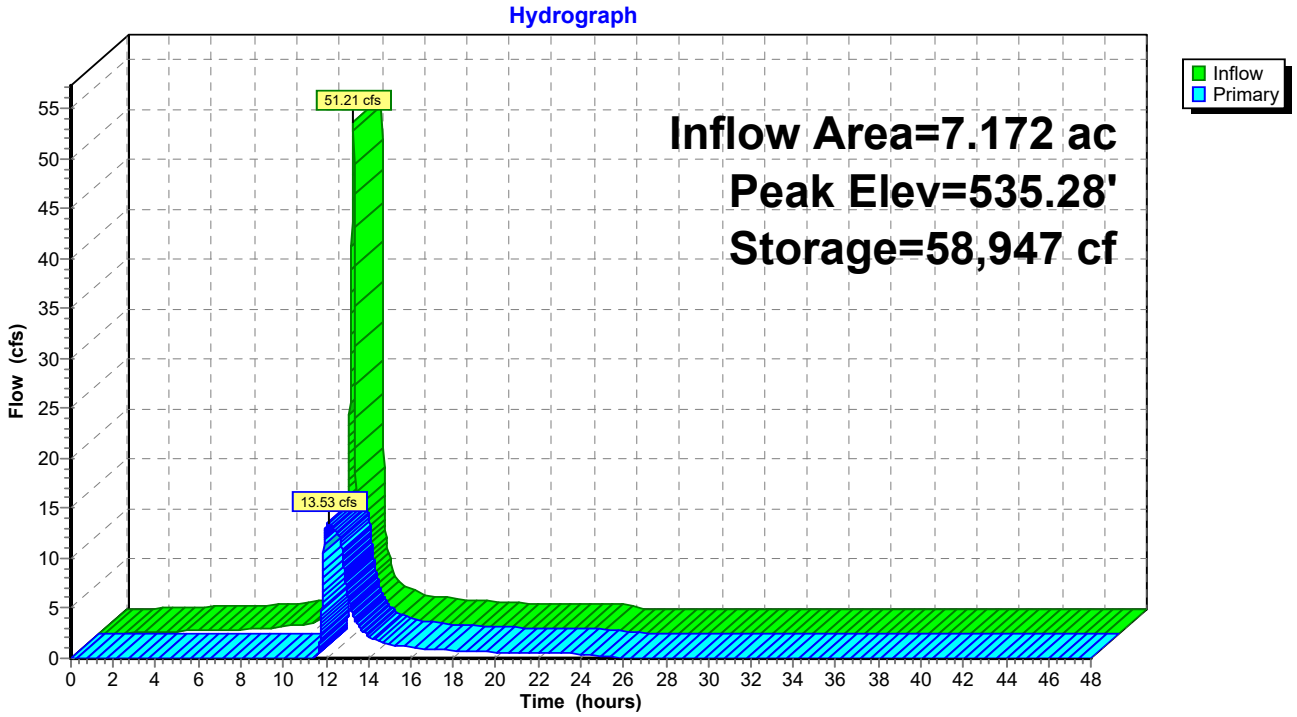
Volume	Invert	Avail.Storage	Storage Description
#1	533.00'	81,750 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
533.00	22,000	0	0
534.00	25,250	23,625	23,625
535.00	29,000	27,125	50,750
536.00	33,000	31,000	81,750

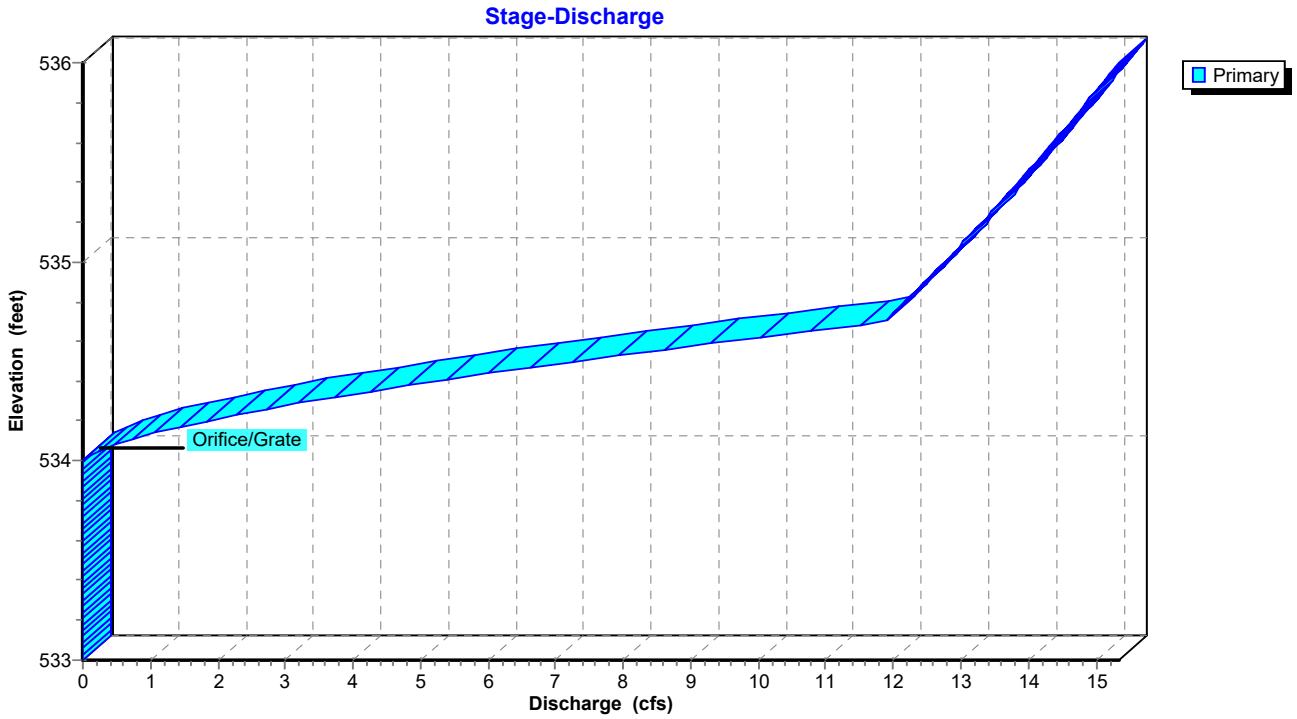
Device	Routing	Invert	Outlet Devices
#1	Primary	532.00'	**18.0" Round Culvert** L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 532.00' / 529.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	534.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=13.53 cfs @ 12.10 hrs HW=535.28' TW=484.19' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 13.53 cfs @ 7.65 fps)
↑**2=Orifice/Grate** (Passes 13.53 cfs of 17.09 cfs potential flow)

Pond 14P: Bioretention 3



Pond 14P: Bioretention 3



Summary for Pond 16P: DET-3

Inflow Area = 28.217 ac, 65.99% Impervious, Inflow Depth = 4.22" for 100-YR event
Inflow = 120.30 cfs @ 11.98 hrs, Volume= 9.928 af
Outflow = 59.07 cfs @ 12.20 hrs, Volume= 8.321 af, Atten= 51%, Lag= 13.3 min
Primary = 59.07 cfs @ 12.20 hrs, Volume= 8.321 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 484.29' @ 12.20 hrs Surf.Area= 42,035 sf Storage= 172,403 cf

Plug-Flow detention time= 209.6 min calculated for 8.321 af (84% of inflow)
Center-of-Mass det. time= 134.2 min (931.7 - 797.5)

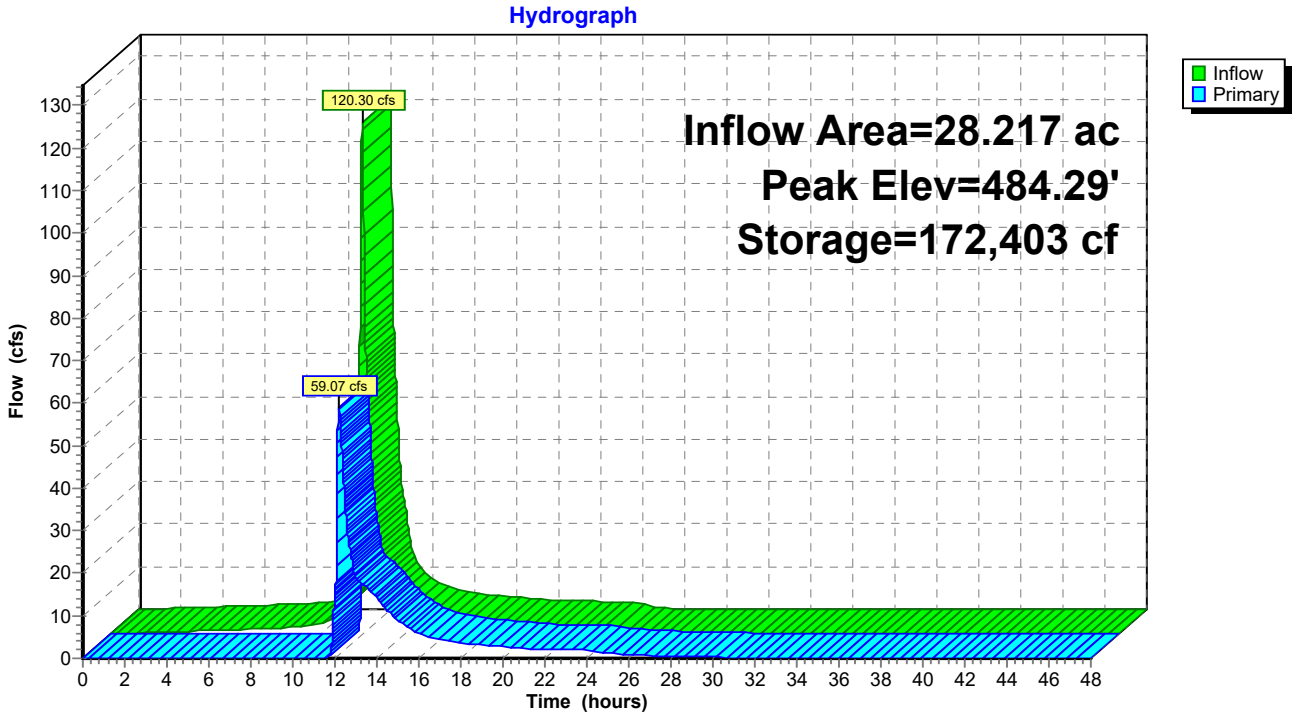
Volume	Invert	Avail.Storage	Storage Description
#1	478.00'	203,233 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
478.00	14,000	0	0
479.00	16,500	15,250	15,250
480.50	20,500	27,750	43,000
482.00	34,854	41,516	84,516
483.00	38,000	36,427	120,943
484.00	41,040	39,520	160,463
485.00	44,500	42,770	203,233

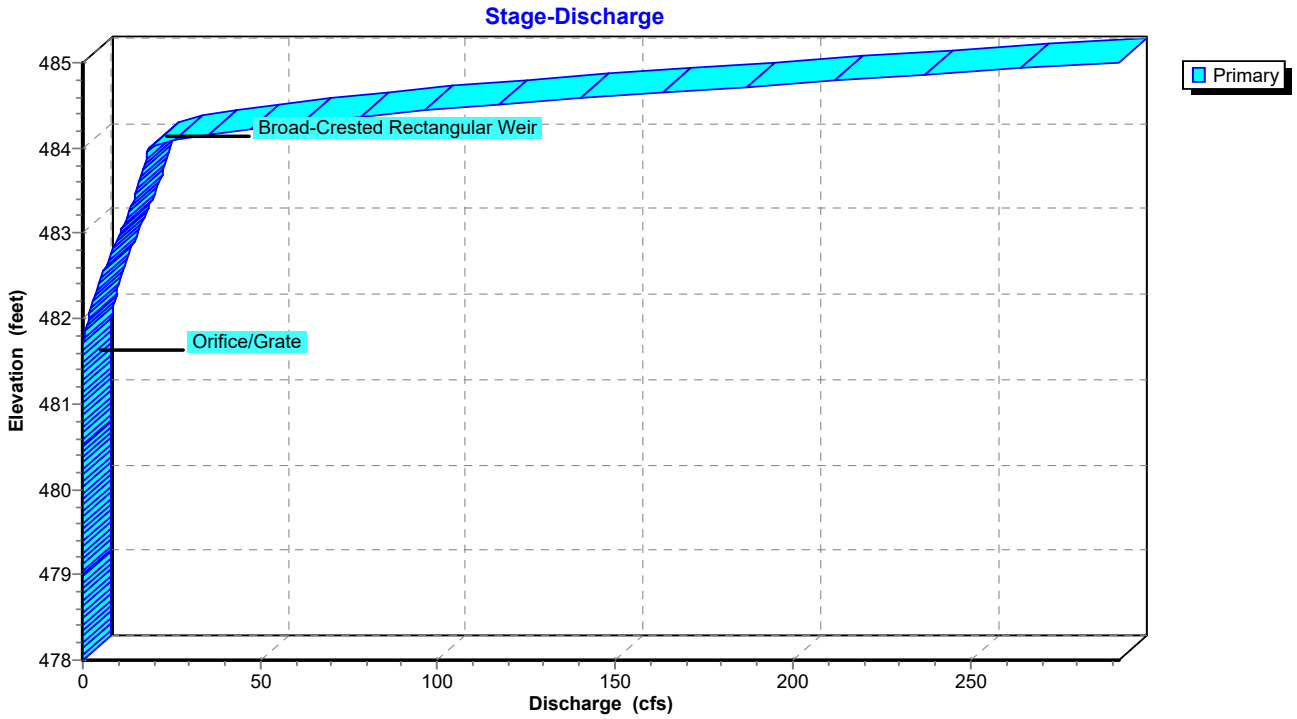
Device	Routing	Invert	Outlet Devices
#1	Primary	481.50'	**24.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	484.00'	**100.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=59.06 cfs @ 12.20 hrs HW=484.29' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Orifice Controls 20.22 cfs @ 6.44 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 38.83 cfs @ 1.35 fps)

Pond 16P: DET-3



Pond 16P: DET-3



Summary for Pond 17P: Bioretention 4

Inflow Area = 1.605 ac, 24.67% Impervious, Inflow Depth = 3.97" for 100-YR event
Inflow = 10.61 cfs @ 11.97 hrs, Volume= 0.532 af
Outflow = 9.07 cfs @ 12.01 hrs, Volume= 0.406 af, Atten= 15%, Lag= 2.5 min
Primary = 9.07 cfs @ 12.01 hrs, Volume= 0.406 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 539.00' @ 12.01 hrs Surf.Area= 5,494 sf Storage= 8,028 cf

Plug-Flow detention time= 155.1 min calculated for 0.406 af (76% of inflow)
Center-of-Mass det. time= 64.9 min (854.1 - 789.2)

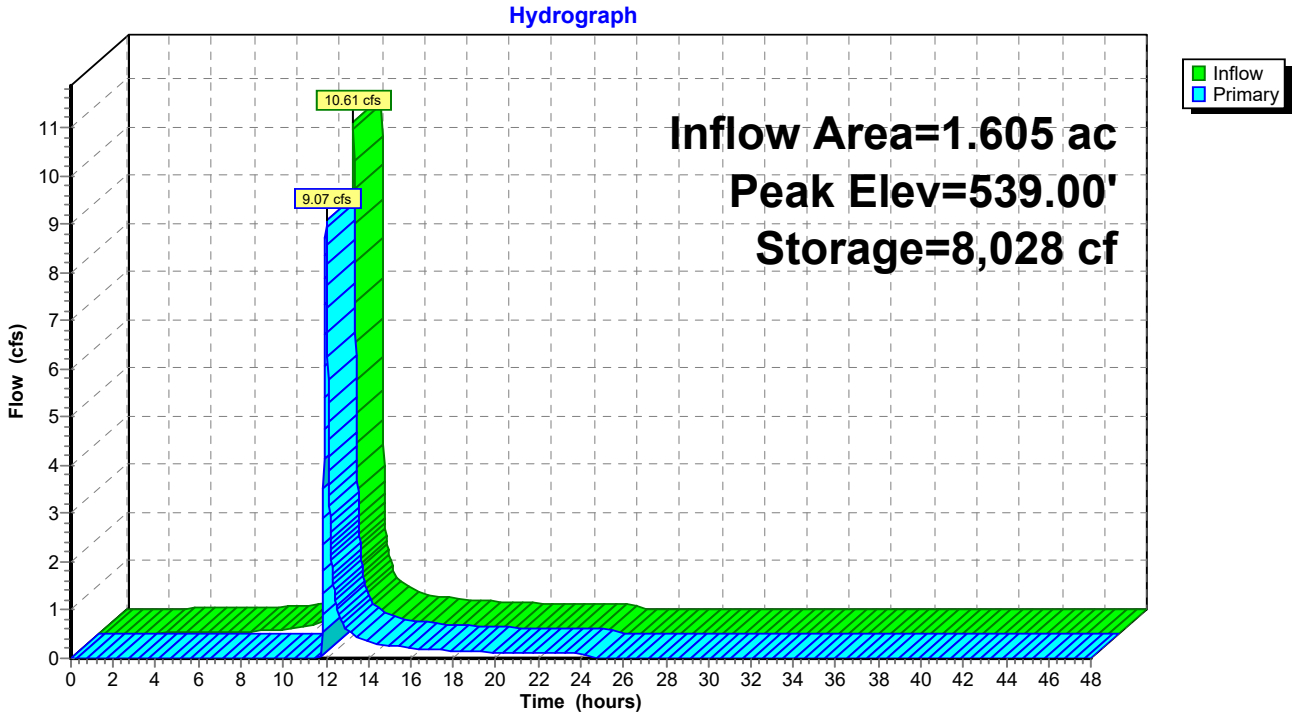
Volume	Invert	Avail.Storage	Storage Description
#1	537.00'	8,050 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
537.00	2,600	0	0
538.00	4,000	3,300	3,300
539.00	5,500	4,750	8,050

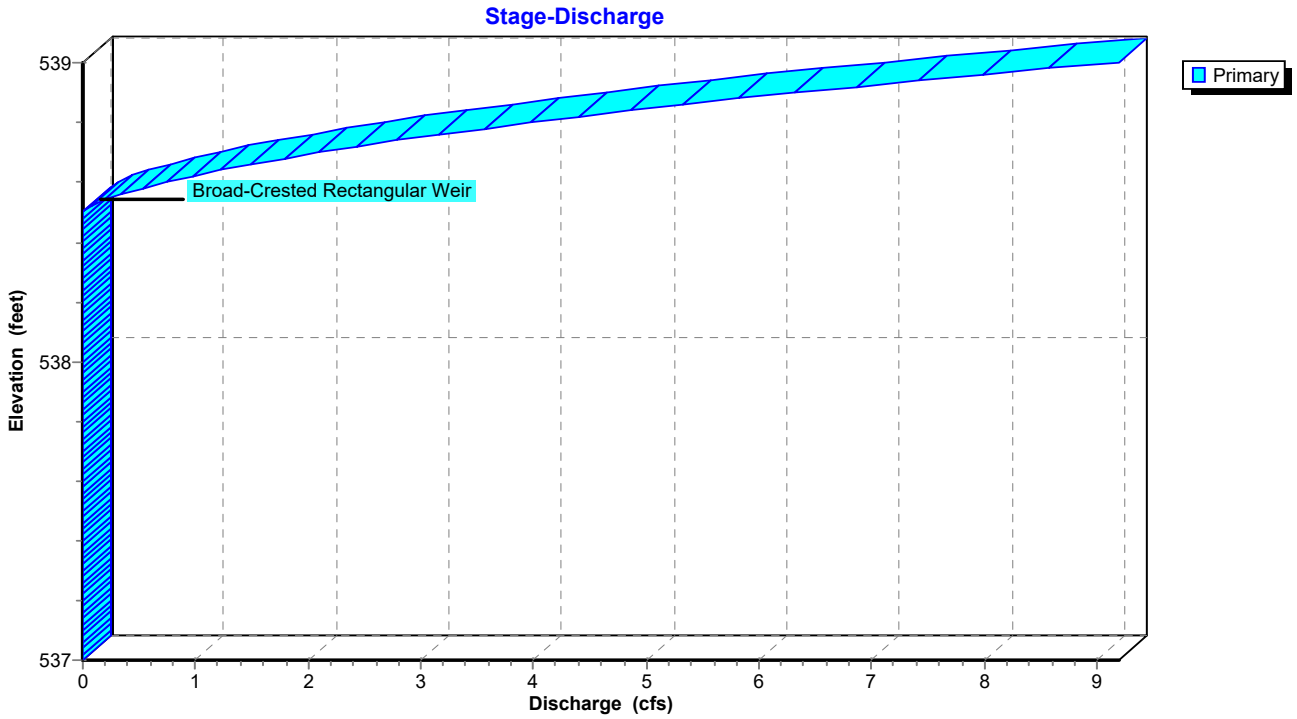
Device	Routing	Invert	Outlet Devices
#1	Primary	538.50'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=9.06 cfs @ 12.01 hrs HW=539.00' TW=0.00' (Dynamic Tailwater)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 9.06 cfs @ 1.83 fps)

Pond 17P: Bioretention 4



Pond 17P: Bioretention 4



SANBORN HEAD

6 Bedford Farms Drive
Bedford, NH 03110

Joshua Garofano
BMG Albany LLC
c/o Bluewater Property Group, LLC
76 8th Avenue, 10th Floor
New York, NY 10011

April 7, 2025
File No. 6480.000

Re: Preliminary Geotechnical Engineering Report
MSV1 – Proposed Amazon ARS Facility
Amsterdam, New York

Dear Josh:

INTRODUCTION

This preliminary geotechnical engineering report (report) was prepared by Sanborn, Head Engineering, P.C. (Sanborn Head) for BMG Albany LLC (BMG Albany, Client) regarding the proposed Amazon ARS Facility (MSV1) located on New York Route 5S (Route 5S) in Amsterdam, New York (Site). The objectives of our work were to assess the subsurface conditions in the proposed development area and provide geotechnical engineering recommendations related to the design of building foundations, the building floor slab-on-grade, site slopes, retaining walls, pavement design, and recommended earthwork procedures for the site work. Where appropriate this report is subject to the limitation in Appendix A.

This report references and expands on subsurface explorations and laboratory testing performed and collected under a previous design concept for WE Acquisitions, LLC, titled *Report of Geotechnical Investigation, Proposed Warehouse, New York State Route 5S*, prepared by Whitestone Associates, Inc. (Whitestone), dated August 26, 2019. Excerpts of the subsurface logs and soil laboratory data are provided in Appendix B and C.

Site Description

The Site, depicted in Figure 1, is approximately 135.3-acre in size is bounded by Route 5S to the north, United States Interstate 90 (I-90, New York State Thruway) to the south, Mead Road to the east, and an existing Amazon facility to the west. The Site primarily consists of undeveloped farmlands with wooded areas located in the north and south, wetlands in the northeast and south, and ponds within the northwestern and southeastern portions of the Site. In addition, existing transmission lines cross the Site from east to west approximately 100 to 400 feet north of the Site's southern boundary, and an existing 50-foot-wide gas utility easement bisects the Site from north to south. The Site The existing conditions within the proposed development area generally consist of sloping farmlands, wooded areas, and wetlands, as well as existing gravel and asphalt driveways.

Based on a review of available historical aerial photographs, the Site was previously occupied by two (2) residential buildings with detached barn and garage structures located along Route 5S. These structures were razed between September 2020 and April 2022. The balance of the Site, except for the wooded areas, appears to have been used for agricultural purposes.

Based on a conceptual site plan entitled *MSV1, Concept Plan A* prepared by Bohler Engineering (Bohler) of Albany, New York, and provided electronically to Sanborn Head on February 25, 2025, the topographic highpoint is located near the center of the Site at approximate elevation (El.) 555 feet. The topography generally slopes down radially to the northeast, east, and south, to a low point located near the northeast corner of the Site at approximate El. 469 feet. In general, the slopes to the north and northwest are more gradual, dropping to a low point along Route 5S of approximate El. 531 feet. In the southwestern portion of the Site, the ground surface rises from an on-Site brook/wetlands, at approximate El. 480 feet, up to the NYS Thruway at approximate El. 520 feet. Elevations discussed herein refer to the North American Vertical Datum of 1988 (NAVD 88

Project Description
According to the plan titled *Preliminary Grading Plan*, prepared by Bohler and provided on March 21, 2025, the proposed development consists of a new, 652,060 square feet multi-story warehouse building associated retaining walls, access roadways, loading dock and transportation staging areas, associated surface parking areas, facility infrastructure features (i.e., substation transformer pad and fire storage tank foundations), and stormwater management features.

Based on the referenced grading plans, the proposed finished floor elevation is 542 feet. It is anticipated that to meet proposed grades, cuts up to approximately 32 feet and fills up to approximately 42 feet will be required. The maximum proposed retaining wall height is approximately 35 feet.

SUBSURFACE EXPLORATION PROGRAM
Recent Subsurface Explorations by Sanborn Head
Between February 10 and 21, 2025, Atlantic Testing Laboratories of Canton, New York advanced 22 test borings (designated SH-1 through SH-22) at the Site. The test borings were advanced using a GeoProbe® drill rig using hollow stem auger techniques to depths ranging from approximately 4.3 feet to 30.5 feet below the ground surface (bgs), or between approximate El. 491.7 and 545.7 feet. Auger and/or split-spoon refusal, likely due to bedrock, was encountered at each test boring location and 10-foot length of NX-size bedrock cores were collected at test borings SH-10 and SH-11.

The test borings were observed and logged by Sanborn Head on a full-time basis. Standard Penetration Tests (SPTs) were performed in general accordance with ASTM D1586 at five-foot intervals to the termination depth. Representative soil samples were obtained by split-barrel sampling procedures, and Sanborn Head personnel visually classified each sample in the field. Soil samples were classified using both the Modified Burmister System and Unified Soil

Classification System and a legend is provided in Appendix B that describes both classification systems. Additional soil characteristics such as density and consistency (based on SPT data), color and moisture were noted on the logs included in Appendix B.1.

Explorations were field located using a Global Navigation Satellite System and are shown on Figure 2. Ground surface elevations were estimated by interpolating between surface elevations obtained from a plan titled *MSV1 Concept Plan A*, prepared by Bohler, as presented on Figure 2 and 3.

Subsurface Explorations by Others

Between January and March 2019, Terracon completed two (2) test boring programs, completing 48 test borings designated B-1 through B-16 and AB-1 through AB-32. Additionally, on June 19, 2019, Whitestone completed a test pit program completing eight (8) test pits designated TP-1 through TP-8 for a prior design concept. Excerpts of previously completed subsurface logs by prepared by others are provided in Appendix B.2 and their as-drilled locations depicted on Figure 2 and 3.

SOIL LABORATORY TESTING

Laboratory Testing by Sanborn Head

Geotechnical laboratory tests were performed by GeoTesting Express, Inc. of Acton, Massachusetts to evaluate the engineering properties of the on-site soils. Five (5) soil samples from test borings across the Site were submitted for grain size distribution (sieve) analysis in accordance with ASTM D6913. Additionally, ten (10) soils samples were submitted to evaluate in-situ moisture content in accordance with ASTM D2216. Additionally, one (1) rock core sample was submitted for Uniaxial Compressive Strength (UCS) strength index testing in accordance with ASTM D7012.

Rock Swelling Potential Testing, including chemical and petrographic analysis, was performed by EXP of Montreal, Quebec, Canada to evaluate the pyrite swelling potential of two (2) core samples collected from SH-10 and SH-11, additionally both samples were submitted for UCS strength index testing.

Please note that natural glacial till soil at the Site may contain a oversized cobbles and boulders, which were not included in soil samples submitted to the laboratory due to sampling/testing procedures. Laboratory test reports should be interpreted accordingly. Due to the timing of this report, only a partial set of geotechnical laboratory test reports were available and are provided in Appendix C. Once testing is complete, a complete set of geotechnical laboratory test reports will be transmitted.

Laboratory Testing by Others

Whitestone completed additional geotechnical laboratory testing during a previous Site concept, including sieve analysis and rock swelling potential testing on bulk samples collected during their previous subsurface exploration program. The results of laboratory testing are provided in Appendix C.2.

SUBSURFACE CONDITIONS

Based on the subsurface exploration data collected by Sanborn Head and data collected by others, the generalized subsurface profile at the Site generally consists of topsoil, underlain by silt and clay deposits and glacial till, overlying weathered and competent bedrock. Fill material was encountered at AB-2 and peat was encountered at SH-8. The following paragraphs provide additional information regarding the subsurface conditions encountered:

Fill material was encountered at AB-2 below an approximately 0.3-foot-thick gravel roadway. The fill material extended to a depth of approximately 2 feet bgs (El. 529 feet) and is described as medium dense clayey sand with gravel with pieces of geotextile fabric observed within the stratum. While not encountered at other exploration locations, it is anticipated that fill material may exist in the vicinity of previously demolished structures and driveways near Route 5S and below existing gravel access roads.

Topsoil was encountered at the surface at each exploration location except B-5, AB-2, and AB-13 and extended to depths ranging from approximately 0.2 feet to 4 feet, or El. 486 feet to El. 555.2 feet. Based on the agricultural history of the Site, it is anticipated that the thickness of topsoil varies significantly across the Site. The topsoil is generally described as soft to very stiff, clayey silt to silt and clay, with varying amounts of sand and gravel and few to very few organic particles. At SH-13, the topsoil encountered is described as medium dense with fine to coarse sand and gravel, trace silt, with few organic particles.

Peat was encountered beneath the topsoil layer at SH-8 to a depth of approximately 9 feet bgs, or El. 496 feet. This deposit is described as very soft peat and organic silt, with trace sand.

Silt and Clay deposits were encountered at the surface at AB-13, and beneath the topsoil layer at B-3, B-6, AB-3, SH-2 through SH-5, SH-7, and SH-9. Where encountered, the silt and clay deposits extend to depths ranging from approximately 2 feet to 9 feet bgs, or El. 495.5 feet to El. 553 feet. The silt and clay deposits are generally described as medium stiff to very stiff, clayey silt to silt and clay, with varying amounts of sand and gravel. Very few to few organics were observed within the silt and clay deposits at exploration locations B-3, B-6, AB-3, and SH-4.

Glacial Till was encountered underlying the upper soil layers at a majority of exploration locations, extending to depths ranging from approximately 2 feet to 22.9 feet bgs, or El. 467 feet to El. 551.5 feet. The glacial till deposits are generally described as very stiff to hard, clayey silt to silt and clay, with varying amounts of sand, gravel, cobbles, and boulders.

Bedrock, or refusal due to probable bedrock, was encountered at depths ranging from approximately 1 foot to 22.9 feet bgs, or El. 465.6 feet to El. 551.6 feet. NX-size bedrock cores were retrieved at SH-10 and SH-11, and a NQ-size bedrock core was retrieved at B-5. The cores are described as medium hard, slightly to severely weathered, gray to dark gray, **Shale**, very close to close horizontal to vertical jointing, slightly to moderately fractured. Based on publicly available geological mapping entitled *Geologic Map of New York; Hudson-Mohawk Sheet,*

1:250,000 authored by L.V. Rickard and D.W. Fisher**,** the shale encountered in our subsurface program is consistent with Utica Shale of the Trenton Group.

The Rock Quality Index of the bedrock cores ranges from 0% to 91%. Laboratory testing indicates that the bedrock has a Swell Potential Petrographic Index of 50 to 67 corresponding to a "medium to high swelling potential," pyrites content ranging from 0.11% to 1.44%, sulphates content ranging from 0.01% to 0.02%, and compressive strength ranging from 34.8 to 147.5 Mpa (e.g., 5 to 21 kips). Loose to very dense weathered bedrock was generally encountered above the competent bedrock and ranges in thickness between approximately 0.1 feet and 8.4 feet.

A contour plan of the estimated elevation of weathered or competent bedrock based on our interpretation of the subsurface data is presented on Figure 3.

Groundwater was encountered at depths ranging from approximately 1 foot to 18.3 feet bgs, or El. 498 feet to El. 550 feet. Mottling (redoximorphic) features were observed at eleven (11) of the previous test boring locations at depths ranging from the ground surface to approximately 6.5 feet bgs. Based on the subsurface conditions encountered, we anticipate that groundwater may be perched at various depths within the glacial till or at the top of the bedrock surface throughout the year.

Where encountered, groundwater measurements were made under the conditions stated on the logs. Due to the fine-grained nature of the Site soil materials, the groundwater levels are generally interpreted as unstabilized. We note that groundwater levels will vary depending on factors such as season, precipitation, construction activity, and other conditions, which may differ from those at the time of our observations.

GEOTECHNICAL ENGINEERING RECOMMENDATIONS

The following presents our geotechnical engineering recommendations related to design of proposed building foundations and the floor slab-on-grade, pavement design, and earthwork procedures for subgrade preparation. Our recommendations are based on the preliminary grading plan prepared by Bohler and provided to Sanborn Head electronically on March 21, 2025.

Engineering Evaluation of Subsurface Conditions

Sanborn Head's engineering evaluation of subsurface conditions and their impact on design and construction is presented below.

- **Pyritic Shale:** The bedrock underlying the Site is known to include pyritic minerals, which when exposed to oxygen undergo a chemical reaction that replaces the pyrite with gypsum. This in turn creates an expanding rock material that continues to expand over long durations (multiple years to decades). Based on the recent Swell Potential laboratory testing results, and consistent with previous test results presented by Whitestone, the on-Site Pyritic Shale is characterized as having a medium to high swelling potential.

Unfortunately, neither the maximum swelling deformation, nor rate of swelling can be determined; therefore, building foundation solutions should consider: (i) reduction of oxygen exposure; and/or (ii) capacity to resist uplift/swelling forces.

Strategies to consider for reducing oxygen exposure to the Pyritic Shale and bedrock subgrade may include, but is not limited to:

- Eliminating crushed shale products;
- Increasing subgrade cover depth;
- Capping the exposed bedrock with a soil or geomembrane barrier;
- Removing bedrock; and/or
- limiting excessive fracturing if blasted.

Based on research by others[1], under laboratory conditions if the Pyritic Shale is allowed to react, significant swelling pressures can develop. The formation of gypsum within the shale partings induced pressures between 4,651 and 13,176 pounds per square foot (psf).

- **Deep Foundation System and Structural Slab:** We recommend that the proposed warehouse, auxiliary buildings, and fire tanks be supported on a drilled deep foundation system consisting of drilled shafts/caissons set into the underlying bedrock. The deep foundation system should be designed to resist the applied compressive, tension, and lateral loads while limiting total and differential post-construction settlements to 1-inch and ½-inch, respectively and that horizontal deflections be limited to ½-inch. The deep foundations should be sized appropriately for the anticipated loading and be spaced a minimum of two diameters center to center.

  Additionally, we recommend that the building slab be constructed as a structural slab, with crawlspace and void form to account for potential heaving, supported on deep foundation elements. At a minimum, the slab design should include a sealed bedrock barrier to limit oxygen reactions within the underlying pyritic shale.

  Deep foundations should be designed in accordance with the 2020 Building Code of New York State (BCNYS). The final design of the deep foundation system should be prepared by a Professional Engineer licensed in the State of New York and reviewed by Sanborn Head on your behalf as the geotechnical engineer of record.

- **Weathered Bedrock and Bedrock Excavation:** Weathered bedrock or bedrock removal is required to achieve proposed subgrades, for the building, southern and western parking, the eastern stormwater management areas, as well as limited areas for deeper utilities. Where encountered, and in order to limit the effects of the swelling potential of the existing weathered shale, weathered rock should be removed to expose a competent bedrock subgrade, at least 18 inches below the proposed subgrade elevation.

[1] Hoover, Shad E.; Wang, Mian C.; and Dempsey, Brian (2004), "Structural Damage Induced by Pyritic Shale," International Conference on Case Histories in Geotechnical Engineering. 2.

Where competent bedrock is encountered above proposed subgrade the bedrock should be removed to at least 18 inches below the subgrade elevation or the proposed utility pipe invert elevations, or deeper if particular bedding thickness is specified. This depth is needed, to seal the exposed bedrock subgrade from oxygen using a bituminous sealant, or an approved equivalent, a 6-inch-thick (minimum) Lean Mat Concrete layer, and a 12-inch-thick layer of Structural Fill soil cushion. Additionally, we recommend sealing the exposed bedrock subgrade within 1-week of their exposure.

If blasting is chosen to be the most economical means of removing bedrock, then blasting should be performed in accordance with the New York State Department of Labor regulations under *§107-05 Safety and Health Regulations, paragraph N*. Additionally, a permit may also be required from the Town of Amsterdam. The blasting contractor should take special care to consider ways to limit overbreak and fracturing to achieve the proposed subgrade.

- **Bedrock Reuse:** Due to the swelling potential of the shale bedrock, removed shale bedrock will not be suitable for reuse as fill material below the proposed building or parking areas, nor in the reinforced zone behind retaining walls. Bedrock reuse should be limited as raise-in-grade fill in landscaped areas, provided it is also located outside the building footprint and the limits of the zone of influence for footings and pavement areas. Re-used shale materials should be expected to experience long-term swelling.

- **Unsuitable Materials:** Clays, Peat, organic silt, and organic topsoil and subsoil containing organic matter such as tree roots, tree stumps, and vegetation debris, should be considered unsuitable material below the proposed warehouse building, floor slabs, retaining walls, and pavement areas. Topsoil and subsoil containing roots should be removed down to a subgrade consisting of the existing inorganic glacial till. Topsoil and subsoil containing less than 5 percent organic material may be re-used deeper than 10 feet below finished grade in parking areas, provided it is also located outside the limits of the zone of influence for stormwater infiltration. Other organic soil may be re-used in proposed landscaped areas or hauled off-Site.

- **Reuse of Excavated Materials:** Excavated overburden soil that meets the material specifications in Table 1 for On-Site Fill may be reused as compacted fill below the base course layer in pavement areas. Excavated overburden soil materials that meet the material specifications in Table 1 for Common Fill may be reused as compacted fill at least 3 feet below the base course in pavement areas. We anticipate the natural silt and clay and glacial till soils will be difficult to place and compact to the required specifications during cold and wet periods of the year. The contractor must protect the excavated clayey soil from inclement weather during the cut and fill earthwork by sequencing the work such that cut material is placed as compacted fill the same day, protecting excavated soil by covering stockpiles, and limiting construction traffic on exposed subgrade soils.

Pyritic Shale should not be processed to produce select materials, nor re-used for site work. Re-use of the Pyritic Shale should be limited to landscape areas only.

Construction Recommendations and Earthwork Procedures

Blasting Requirements

Blasting should be performed in accordance with the New York State Department of Labor regulations (*§107-05 Safety and Health Regulations*, *paragraph N)* and the NYSDOT *Geotechnical Engineering Manual (GEM-22*), which require at a minimum the following activities:

- Preparing pre-blast surveys;
- Preparing a blasting plan;
- Performing the work within regulatory limits for vibration and overpressure (noise);
- Field monitoring for vibration and overpressure using seismographs; and
- Maintaining logs of the drilling and blasting work.

To the extent practical, blasting should be completed prior to the construction of the building foundation, surface finishes, and retaining walls to limit vibration of the proposed structures. Blasting should not be performed within 7 days after concrete is poured unless approved by the Engineer. The blasting contractor should take special care to consider ways to limit overbreak and fracturing to achieve the proposed bedrock subgrade.

Building Area and Footing Subgrade Preparation During Construction

The following describes the recommended earthwork procedures to prepare the building areas.

- At the onset of earthwork operations, the Site should be properly graded to provide a working subgrade for installing the deep foundations elements and to limit stormwater from entering the work areas or ponding on the exposed soil subgrade. Construction traffic over the exposed subgrade should be limited to the extent possible.

- Where additional fill is necessary to achieve proposed grades, On-Site Fill or Structural Fill that meets the material recommendations in Table 1should be utilized. Fill should be placed in loose lifts not to exceed 12 inches in thickness and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

- Excavation and backfilling should be performed in the dry. Fill should not be placed, and footings should not be constructed, over a subgrade with standing water or that is frozen. If standing water is present on the subgrade, then the water should be removed from the surface and soft and yielding soil be removed or allowed to dry prior to placement of additional fill or concrete. IF the subgrade is frozen, then remove the frozen soil or allow the soil to thaw and then recompact the soil prior to placement of fill or concrete.

Subsurface Utility Construction

Trenches for utility excavations should be performed in accordance with local, state, and federal regulations, including the Occupational Safety and Health Administration (29 CFR Part

1926) excavation trench safety standards. A competent person as defined by the regulation is required to confirm the stability of excavations during construction.

Where excavations cannot be sloped back and/or temporarily shored in accordance with OSHA requirements, a temporary earth retaining system (TERS) will be required. The TERS should be selected by the contractor and designed by a Professional Engineer licensed in the State of New York. Care should be taken during construction to protect existing adjacent structures, utilities, and roadways from being undermined.

Fill placed within five (5) feet horizontally of proposed utilities should consist of On-Site Fill, or Structural Fill. Fill should be placed in loose lifts not to exceed 12 inches in thickness and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

Utility Trenching in Bedrock: Bedrock is anticipated to be encountered when excavating trenches in the eastern portion of the Site. Because of this, it is recommended that bedrock be removed to a minimum of 5-feet from the centerline of the proposed utility trench alignment to account for lateral forces due to potential swelling, and at least 18-inches below the proposed invert of utility pipe to allow for sealing of the exposed rock sidewalls and subgrade using spray-on bituminous sealant, or an approved equivalent, and Lean Mat Concrete prior to backfilling with bedding material as specified by others.

Temporary Dewatering

Perched groundwater is expected to exist at depths between 1 to 18.3 feet below the existing surface; therefore, temporary excavation dewatering and/or temporary diversion ditches may be necessary to manage groundwater. Additionally, temporary excavation dewatering in excavations during period of heavy precipitation or snow melt may be needed. Temporary dewatering may be accomplished by pumping filtered water from sumps installed in low points of the excavations. Discharge water should be managed in accordance with local, state, and federal government requirements and the requirements of the project-specific Stormwater Pollution Prevention Plan.

Building Foundation Design

The following sections presents preliminary recommendations for building foundation design.

Drilled Shafts

Due to the potential for post-construction swelling within the pyritic Shale, and the inability to predict location, swell rate, or total movement due to post-construction swelling, we recommend that the building be founded on drilled shafts set into bedrock and integrated with a structural slab overlying a crawlspace with void forms. Based on information provided electronically to Sanborn Head form the DLR Group on March 11, 2025, it is our understanding that the proposed building column loads will range from 160 to 1990 kips.

The following recommended allowable capacities are for the preliminary design of the drilled shafts:

- Skin Friction in Glacial Till: 3 ksf
- Skin Friction in Weathered Bedrock: 3 ksf
- Skin Friction in Competent Bedrock: 8 ksf
- End Bearing in Competent Bedrock: 80 ksf

Skin friction resistance should be ignored between the bottom of the lowest slab and the top of the glacial till. Drilled shafts that derive capacity from combined end bearing and skin friction should be designed to limit the end bearing capacity to a maximum of 50 percent of the total capacity. The minimum center-to-center spacing between drilled shafts designed using skin friction support should be no less than two times the shaft diameter.

We anticipate that the proposed structure can be supported on 2 to 6-foot diameter drilled shafts embedded into competent bedrock depending on the design load. We anticipate that the drilled shafts will be socketed into competent bedrock between 5 to 20 feet depending on the applied load; where socket lengths less than 20 feet are proposed, calculations for the load condition need to be provided by the project team. For drilled shafts with uplift loads, the steel reinforcement should extend the full depth of the drilled shaft. For drilled shafts with lateral loading, the steel reinforcement should extend to the top of bedrock. For drilled shafts with gravity loads only, the steel reinforcement should extend 1/3 the length of the shaft. A bond-break between the concrete shaft and the rock sidewall is recommend.

For lateral support, we recommend the following preliminary design parameters to limit lateral movement to less than 0.5 inches:

- 5-foot-diameter shaft
  - Lateral capacity of 75 kips
  - Max moment is 900 kip-feet
  - Max shear is 80 kips
- 6-foot-diameter shaft
  - Lateral capacity of 100 kips
  - Max moment is 1,500 kip-feet
  - Max shear is 115 kips

Structural Slab Design

We recommend the building slab be constructed as a bi-directional reinforced structural slab with loads transferred to the drilled shafts. We further recommend that the slab system account for a crawlspace below the building to incorporate a void form system designed to limit the effect of ground heave pressure on the proposed slab.

Foundation Design Alternative – Shallow Foundation Bearing on Thickened Structural Fill Soil Cushion

Given the anticipated costs, an alternative to the recommended drilled shafts foundation is currently being evaluated by the project team. A potential alternative foundation concept may include the following:

- Increased bedrock removal (i.e., a deeper profile);
- Placement of a Structural Fill soil cushion that would attenuate the potential differential swelling of the shale;
- Construction of a reinforced soil layer to support the overlying reinforced concrete slab.

This design alternative would need to consider variable uplift displacement and pressures of the pyritic shale balanced against soil cushion thickness and/or geogrid reinforcement requirements. The benefit of this alternative is that a conventional shallow foundation design and construction can be employed rather that the deep foundation design, which could yield schedule benefits. However, the alternative design will generate a significantly greater volume of unsuitable 'waste' rock and required an associated increase volume of soil import.

Slope Design

We recommend that cut and fill slopes be designed with a slope angle of two and a half horizontal to one vertical (3H:1V) or flatter. Vegetative cover should be established on the slope surface as soon as practical after final grading to reduce the potential for erosion and soughing failures. Inboard slopes of stormwater basins should be graded to a slope of 3H:1V or flatter and seeded to establish vegetative cover.

If slope angles up to 1H:1V are proposed, then the slopes should be constructed with Structural Fill with reinforced with a geogrid or similar reinforcement. The 1H:1V fill slope should be designed by a Professional Engineer licensed to practice in the State of New York and the design should be reviewed by Sanborn Head. Geogrid, or similar reinforcement, should be installed in accordance with the manufacturer's specifications, including anchoring and embedment at the toe of the slope as appropriate. For erosion control, the face of the 1H:1V fill slopes may be covered with a vegetated mesh or blanket system, such as Tensar's Sierra slope reinforcement system, or approved equivalent.

Stormwater swales or curbing should be provided at the crest of soil cut and fill slopes to intercept and divert the runoff away from the slope face. Additionally, a drain and swale should be constructed at the base of the proposed bedrock cut face to intercept groundwater that may come perched on the bedrock.

Retaining Wall Design

We anticipate that segmental retaining walls can be used to support access roads and parking areas as an alternative to steep slopes. A segmental retaining wall system consists of a mortarless block face fastened to geogrid that extends into a granular backfill creating a zone of reinforced earth, which together behaves as a gravity wall. Geogrid elements typically extend

behind the wall approximately 0.7 times the height of the wall for level backfill and approximately 0.7 to 0.9 times the height of the wall for sloping backfill.

We understand that the subsurface infiltration systems are proposed to be constructed below the paved parking and drive aisles located to the northeast and west of the proposed building. It should be noted; segmental retaining walls are not designed to withstand hydrostatic pressure (water buildup) and stormwater runoff should be diverted away from the retaining wall area. Several wall design features (e.g., stone or geo-composite chimney drain, a impermeable geomembrane at the rear of the reinforced soil zone, base drains, and increased frequency of weepholes behind the retaining wall faces) alone or in combination, may be required to alleviate the potential of hydrostatic pressure adversely affecting the wall stability and performance. The outlets from the drainage system should discharge to the ground surface downhill and away from the retaining wall. Given the fine-grained nature of the Site soil, riprap (see table 1) or similar along the toe of the wall may be required to reduce erosion by the water draining from behind the wall.

An acceptable foundation subgrade for segmental retaining walls shall consist of either Structural Fill compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C placed over the undisturbed glacial till. Where bedrock subgrades are encountered the exposed bedrock subgrade shall be sealed from oxygen using a bituminous sealant, or an approved equivalent, a 6-inch-thick (minimum) Lean Mat Concrete layer, and a 12-inch-thick layer of Structural Fill soil cushion to proposed bottom of wall subgrade.
We recommend that retaining walls greater than 4 feet in height be designed by a Professional Engineer licensed to practice in the State of New York. Sanborn Head should be retained to review the retaining wall design. A global stability and seepage analysis should be performed during the design phase to evaluate the overall wall stability and hydrostatic conditions behind the wall. If authorized, then Sanborn Head can perform a global stability and seepage analysis once site grades are finalized.

The design of retaining walls should use the following recommended parameters as well as building foundation loads as applicable:

Exhibit 1 – Recommended Retaining Wall Design Parameters

Material	Moist Unit Weight (pcf)	Internal Friction Angle (degrees)	Cohesion (psf)
Reinforced Fill (Engineered Fill)	130	34	0
Retained Soil (On-Site glacial Till)	130	28	0
Retained Soil (On-Site Clay and Silt Soil)	120	28	500
Backfill Slope Angle Behind Wall – 3:1H:1V or flatter. Slope Angle Below Wall – 3H:1V or flatter Traffic Surcharge Design Load Behind Wall – 250 psf Min. Factor of Safety for Global Stability – 1.5 Min. Factor of Safety Against Overturning – 2.0 Min. Factor of Safety Against Sliding – 1.5 Min. Factor of Safety Against Geogrid Tensile Overstress – 1.5			

Min. Factor of Safety Against Geogrid Pullout from Soil – 1.5 Seismic Design Load – Per BCNYS. Net Allowable Soil Bearing Pressure – Not to exceed 5,000 psf

Seismic Design Criteria

The BCNYS incorporates the 2018 International Building Code (IBC) by reference with base code amendments specific to New York. We recommend using the following design parameters as defined by the BCNYS and the IBC:

- Seismic Site Class: Based on the proposed building location, elevation, and available subsurface information, **Site Class "C"** is recommended for the proposed building.
- Design earthquake spectral response accelerations: S_{DS} = 0.199g and S_{D1} = 0.054g.

Lateral Earth Pressures

Below grade walls restrained from rotation, with a horizontal backfill surface, and no groundwater should be designed based on an "at-rest" lateral earth pressure of 60 pounds per cubic foot (pcf).

Below grade walls that are unrestrained at the top and allowed to rotate at least 0.002 times the height of the wall should be designed based on an "active" lateral earth pressure of 40 pcf.

Below grade walls should be designed to resist lateral earth pressure from a seismic event as required by Section 1605.3.1 of the BCNYS.

To evaluate sliding resistance, a coefficient of friction of 0.50 is recommended for cast-in-place concrete on granular soil (or 0.55 for cast-in-place concrete on clean gravel). The passive resistance inside the building and below the floor slab should be modeled as an equivalent fluid pressure of 460 pcf. These frictional resistance and passive resistance values should be considered ultimate strength values, and an appropriate factor of safety should be applied for the sliding analysis. Figures 4 and 5 provide recommended earth pressure diagrams for below grade wall design.

Foundation Drains

Due to the shallow bedrock encountered within the proposed warehouse building footprint. To control groundwater that may be perched above the bedrock, we recommend that the sub-slab drains be installed below the structural slab and perimeter drains adjacent to exterior footings. The subslab drains should consist of a 12 inches layer of Crushed Stone and a minimum 10-mil-thick vapor barrier. The perimeter drains should consist of 4-inch-diameter perforated pipe surrounded by at least 12 inches of Crushed Stone wrapped with nonwoven geotextile as specified in Table 1 – Material Specifications. Additionally, we recommend evaluating the installation of drainage board or the use of free-draining materials, such as Structural Fill as specified in Table 1 – Material Specifications to assist in collecting and directing groundwater towards foundation drains.

Pavement Design and Earthwork Recommendations

The following provides recommendations for pavement design and earthwork in pavement areas.

Subgrade Preparation Procedures for Pavement Areas

The pavement areas should be prepared as follows:

- Vegetation, topsoil, organic matter, and other unsuitable materials should be removed to expose the top of the existing, inorganic natural glacial till subgrade.

- The Site should be graded to direct stormwater away from entering the work areas or ponding on the exposed soil subgrade. The exposed subgrade soils may be sensitive to disturbance and strength degradation in the presence of excess moisture. Construction traffic over the exposed soil subgrade should be limited to the extent practical. The subgrade soil should also be considered frost susceptible.

- Prior to placing fill, the subgrade should be proof-compacted with at least 4 passes of a 10-ton vibratory roller under the observation of a qualified geotechnical engineer, or their representative. Soft or loose zones identified by the proof compaction should be evaluated by excavation and replaced with compacted Structural Fill as necessary. Proof compaction may be waived in the field by the qualified geotechnical engineer, if in their opinion, the proof compaction will cause disturbance to the subgrade.

- General raise-in-grade fill to be placed up to subgrade for pavement base course in proposed pavement areas should consist of Structural Fill. This material should be placed in loose lifts not exceeding 12 inches thick and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

- In the southern and western loading dock, driveways, and parking lot at proposed pavement subgrade locations, bedrock should be removed to at least 36 inches below the proposed bottom of pavement section to allow for the application of a bituminous sealant, or an approved equivalent, to seal the exposed bedrock subgrade from oxygen, a 6-inch minimum Lean Mat Concrete, and a 30-inch Structural Fill soil cushion to proposed pavement subgrade prior to placement of base course materials.

  Alternatively, a slab ‘deck’ may be evaluated to span both rock cut areas and proposed fill areas for the portion of the proposed pavement areas in the southern and western pavement and loading dock areas, supported on a bi-directional slab, incorporated into the building design, and support on drilled shafts. This alternative may reduce the total length required for soil retention by retaining walls and provide reuse potential for unsuitable rock.

- Construct the appropriate pavement cross-section (standard-duty or heavy-duty) at locations identified on plans prepared by others. The base course layer should be placed and compacted to at least 95 percent of its maximum dry density as determined by ASTM D1557, Method C.

Asphalt (Flexible) Pavement Design

The asphalt (flexible) pavement design is intended to strike a balance between performance and cost after considering the soil available at the Site and assumed traffic loads for the proposed use as a warehouse with significant loading dock functions, and the frost susceptible nature of the on-site soils. We recommend the following asphalt pavement cross-sections for standard-duty and heavy-duty applications.

Exhibit 2 – Asphalt (Flexible) Pavement Design

Layer	Thickness	
	Standard Duty (Car Parking)	Heavy Duty (Access Roads/Loading)
Asphalt Wearing Course	2.0 inches	2.5 inches
Asphalt Binder Course	3.5 inches [2.0][1]	4.0 inches [2.5][1]
Pavement Base Course (Subbase Course Type 1, NYSDOT Item 733-0401)	12 inches	12 inches

Notes:

1. An alternative reduced material thickness is shown in brackets [ ] and may be used provided the project team elects to install Tensar TX7 (or similar) Geogrid Reinforcement.

Rigid (Portland Cement Concrete) Pavement Design

We recommend the following cross-sections for standard-duty and heavy-duty rigid pavement applications:

Layer	Thickness	
	Standard Duty	Heavy Duty
Portland Cement Concrete (Unreinforced 4,000 psi)	6 inches	8 inches
Pavement Base Course (Subbase Course Type 1, NYSDOT Item 733-0401)	12 inches	12 inches

Crack control joints should be installed at a spacing of no more than 15 feet on center for rigid pavements.

Please note that some frost-heave should be expected below unheated areas unless four (4) feet of non-frost susceptible material (e.g., Crushed Stone) is provided. A minimum of 12 inches of Crushed Stone (or similar non-frost susceptible soil) may be considered as base course below sidewalks and landscape pavers, especially at building entrances. Under no circumstance should on-site fill be used as base course below sidewalks or pavement; base course should consist only of those materials described herein.

ADDITIONAL ANALYSIS

As part of the on-going consideration for foundation alternatives, Sanborn Head recommends performing additional analysis by way of “Free Swelling Tests” on the existing pyritic shales, in

order to estimate total displacement due to swelling for the design of the void space below the proposed slab and to provide benchmarking of the uplift forces due to swelling for the design of drilled shafts or thickened Structural Fill soil cushion design alternatives. Free Swelling Tests will likely include the collection of bulk rock samples (by mechanical removal), placement under unconfined conditions or oedometric conditions (i.e., radially constrained) and systematic measurement. Field vs laboratory setting, duration and additional variables, such as frequency of water and/or air exposure, can be considered for benchmarking.

CONSTRUCTION MONITORING

We recommend that Sanborn Head be provided the opportunity to review the design drawings and specifications to verify that the recommendation of this report were appropriately incorporated. We further recommend that Sanborn Head be retained to observe earthwork operations and blasting, perform quality control testing on compacted fill, observe foundation subgrade preparation and retaining wall construction, and assist in the development of design changes should subsurface conditions differ from those anticipated prior to the start of construction.

We appreciate the opportunity to be of service on this project. As design progresses or changes, additional explorations or information may be required prior to issuing a final geotechnical report. Please contact Luke Norton by phone at (978) 577-1030 or via email at lnorton@sanbornhead.com should you need additional information or wish to discuss the contents of this report.

Very truly yours,
SANBORN, HEAD ENGINEERING, P.C.



Luke Norton
Vice President



Eric S. Steinhauser, P.E., CPESC, CPSWQ
Secretary

NCJ/LAM/LDN/ESS: ncj

Enclosures: Table 1 – Material Specifications
Figure 1 – Locus Plan
Figure 2 – Exploration Location Plan
Figure 3 – Bedrock Contour Plan
Figure 4 – Wall Design Parameters – At-Rest Condition
Figure 5 – Wall Design Parameters – Active Condition
Appendix A – Limitations
Appendix B – Subsurface Exploration Logs
Appendix B.1 – Test Boring Logs by Sanborn Head

Appendix B.2 – Subsurface Exploration Logs by Others
Appendix C – Geotechnical Laboratory Results
Appendix C.1 – Geotechnical Laboratory Results by Sanborn Head
Appendix C.2 – Geotechnical Laboratory Results from Whitestone

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Table

TABLE 1
MATERIAL SPECIFICATIONS
Proposed Amazon ARS Facility – MSV1
Amsterdam, New York

Structural Fill to be used as raise-in-grade fill below buildings shall consist of hard, inert, durable gravel and sand that is free from ice and snow, roots, surface coatings, sod, loam, clay, rubbish, and other deleterious or organic matter. It shall conform to the material and gradation requirements as specified below. On-Site Fill may be used as Structural Fill provided weather conditions are favorable for recompaction to the specified density.

Sieve Size	Percent Passing by Weight
4-inch	100
1-inch	85-100
No. 4	50-100
No. 40	20-75
No. 200	0-12

On-Site Fill to be used for general raise-in-grade fill in building and pavement areas below the base course layer shall consist of inorganic soil from on-site cut areas and shall be free from ice, snow, roots, sod, loam, clay, rubbish, and other deleterious matter and shall be well-graded within the following gradation requirements:

Sieve Size	Percent Passing by Weight
8-inch	100
1-inch	85-100
No. 4	30-90
No. 40	10-60
No. 200	0-35

**Maximum particle size shall be 4 inches where fill is placed within 3 feet of the building finished floor elevation.*

Base Course for Pavement (Subbase) to be used as the base course layer directly beneath the asphalt binder course in pavement areas shall conform to the material and gradation requirements for Subbase Course, Type 1 (NYSDOT Item 733-0401).

Crushed Stone to be used as base course beneath the slab, for stabilizing footing subgrades, as drainage stone around perforated pipe shall consist of hard durable processed 1-inch crushed stone that meets the requirements for NYSDOT Item 703-02, Coarse Aggregate Size No. 2, in the Standard Specifications.

Riprap to be used where specified on the drawings shall consist of sound, durable stone, free from structural defects with approximately one reasonably flat side for top surface. The stone shall meet the requirements for Riprap, NYSDOT Item 733-22. These requirements are that each stone shall weigh not less than 100 pounds, and at least 50 percent of the total shall consist of stones weighing not less than

300 pounds each. The riprap shall not be dropped onto the underlying geotextile from a height greater than 1 foot.

Geotextile for Riprap to be placed beneath Riprap and where shall consist of a woven polypropylene fabric with a puncture resistance (ASTM D4833) of at least 120 pounds and an apparent opening size (ASTM D4751) of 0.5 millimeters (No. 70 sieve size), or less, such as Mirafi 600X, or approved equivalent.

Geotextile shall consist of a nonwoven polypropylene fabric having a Puncture Resistance (ASTM D4833) of at least 65 pounds, a Permittivity (ASTM D4491) of at least 130 gal/min/sf, and an Apparent Opening Size (ASTM D4751) of 0.15 to 0.22 millimeters such as Mirafi 140N, or Contech C-40NW, or approved equivalent.

Lean Mat Concrete to be used to seal exposed competent Shale bedrock subgrades and shall consist of a ratio of 1:3:6 or 1:4:8 (Cement:Sand:Aggregate) with a compressive strength of 1000 to 2000 psi at 28 days.

Flowable Fill to be used to backfill irregularly shaped excavations or to fill abandoned subsurface utilities shall consist of high slump Portland cement concrete with a compressive strength of 100 to 150 psi at 28 days.

Perforated Pipe to be used behind retaining walls and for foundation drains shall consist of perforated, corrugated, dual wall high-density polyethylene (HDPE) such as ADS N-12 or Schedule 40-PVC pipe, or their equivalents. The perforation size shall be compatible with the specified Crushed Stone particle size.

Figures

File:P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT-MAR25.dwg Plot Date: 4-4-25
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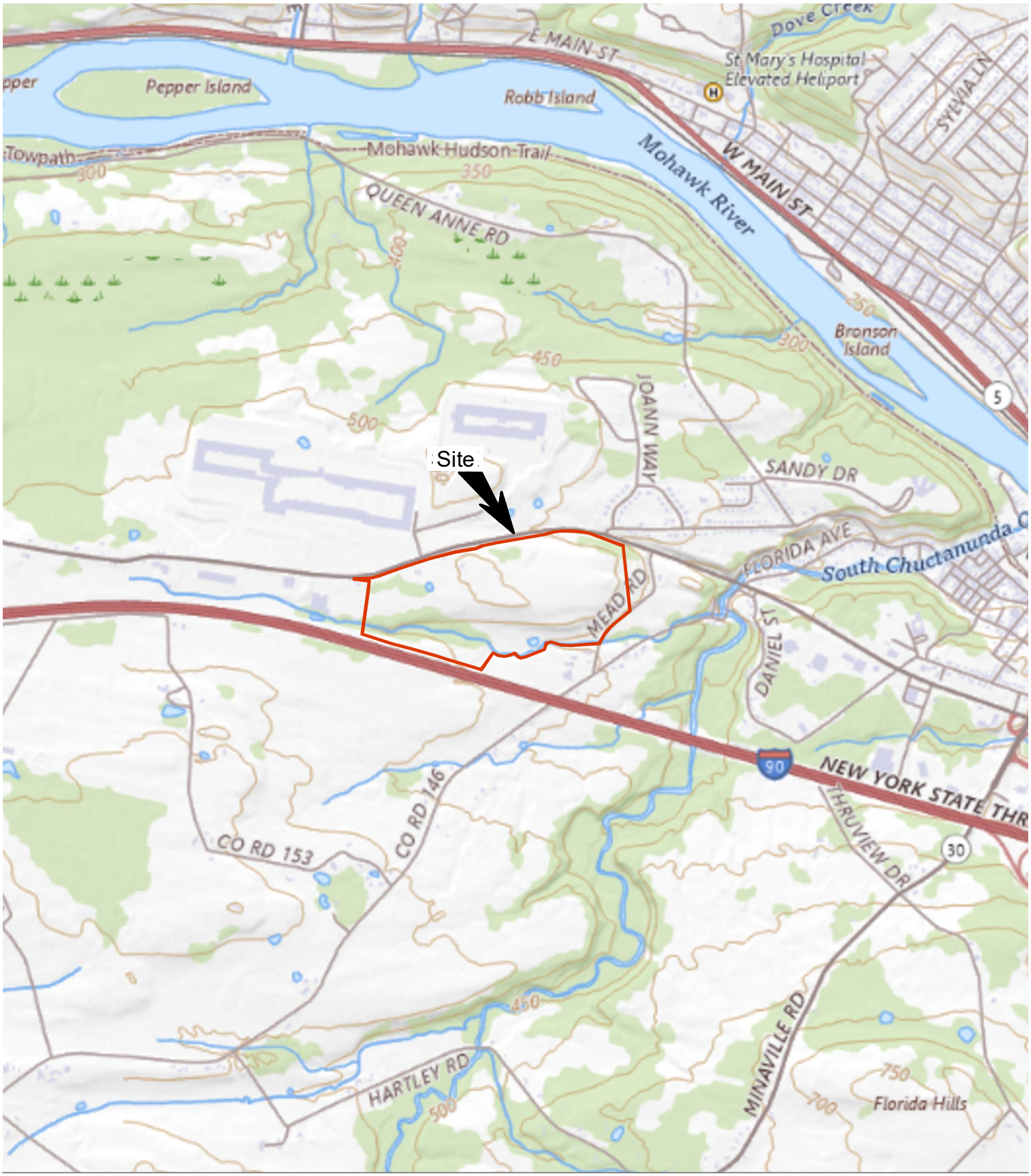

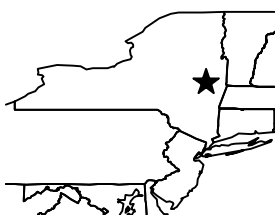

N
W E
S

NOTES:
The base map was taken from USGS The National map provided by ESRI through ArcGIS Online.

Drawn By: E. Wright
Designed By: L. Macedo
Reviewed By: L. Norton
Project No: 6480.000
Date: April 2025

1,000 0 2,000 Feet

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

Figure No. 1

Locus Plan

Geotechnical Engineering Services

Proposed Amazon ARS Facility - MSV1
Amsterdam, New York

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NOTES:

1. THE BASE MAP WAS DRAWN FROM A PLAN TITLED, "MSV1-PRELIMINARY GRADING PLAN-2025-03-04", PREPARED BY BOHLER OF ALBANY, NEW YORK, PROVIDED ELECTRONICALLY ON 03/21/2025.
2. EXPLORATIONS DESIGNATED SH-1 THROUGH SH-22 WERE ADVANCED BY ATLANTIC TESTING LABORATORIES, INC. OF CANTON, NEW YORK AND OBSERVED BY SANBORN HEAD BETWEEN FEBRUARY10 THROUGH FEBRUARY 21, 2025.
3. APPROXIMATE LOCATIONS OF EXPLORATIONS WERE MARKED IN THE FIELD USING A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVER AND SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

LEGEND:

- APPROXIMATE SITE BOUNDARY
- B-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- AB-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- SH-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY SANBORN HEAD (FEBRUARY 2025)
- TP-1/TP-2 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT OBSERVED BY OTHERS

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

GRAPHICAL SCALE

150' 75' 0' 150' 300'

NO.	DATE	DESCRIPTION	BY

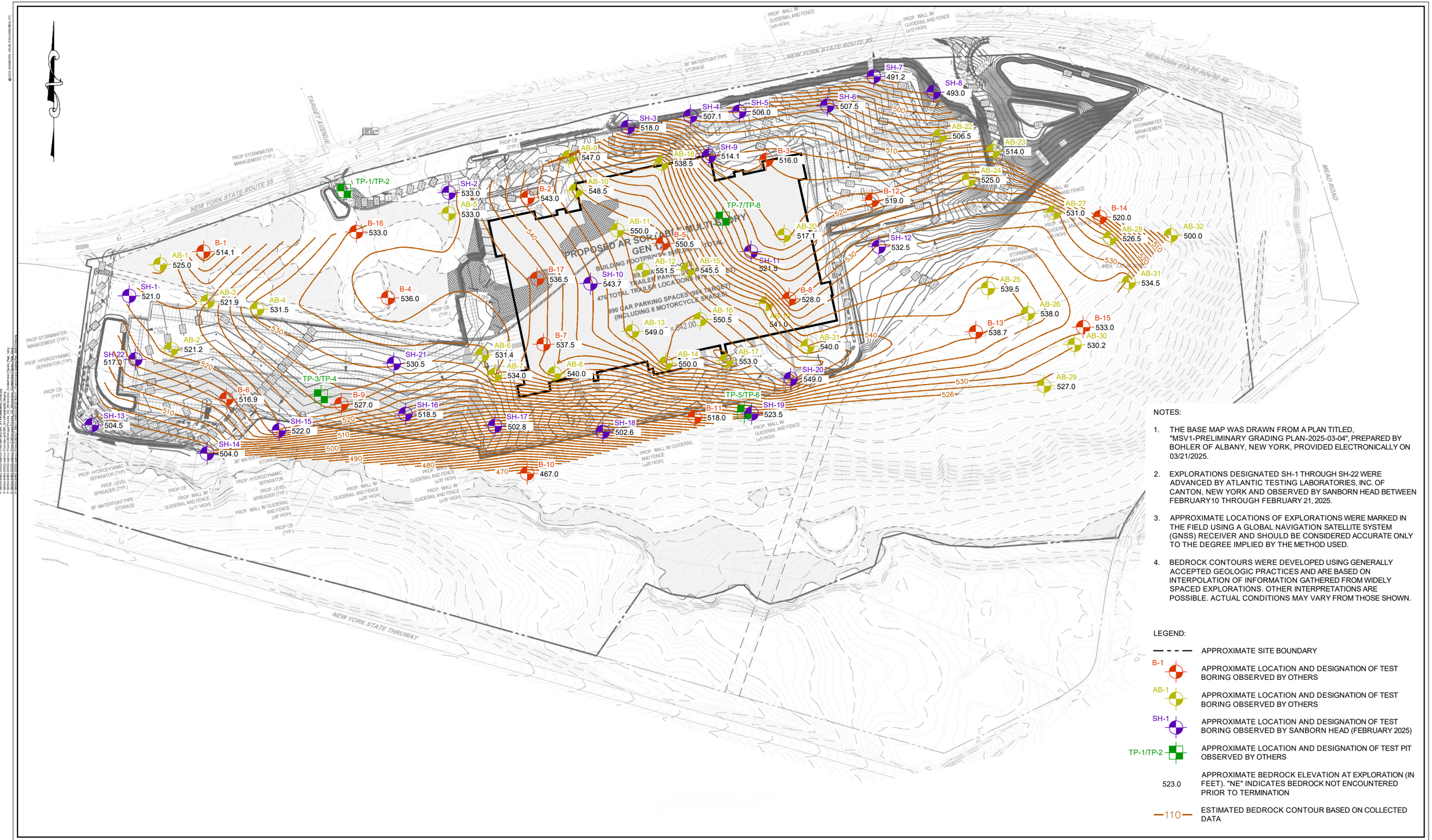
DRAWN BY: E. WRIGHT
DESIGNED BY: L. MACEDO
REVIEWED BY: L. NORTON
PROJECT MGR: L. MACEDO
PIC: L. NORTON
DATE: APRIL 2025

GEOTECHNICAL ENGINEERING SERVICES
PROPOSED AMAZON ARS FACILITY - MSV1
AMSTERDAM, NEW YORK

PROJECT NUMBER: 6480.000

EXPLORATION LOCATION PLAN

FIGURE NUMBER: 2



NOTES:

1. THE BASE MAP WAS DRAWN FROM A PLAN TITLED, "MSV1-PRELIMINARY GRADING PLAN-2025-03-04", PREPARED BY BOHLER OF ALBANY, NEW YORK, PROVIDED ELECTRONICALLY ON 03/21/2025.
2. EXPLORATIONS DESIGNATED SH-1 THROUGH SH-22 WERE ADVANCED BY ATLANTIC TESTING LABORATORIES, INC. OF CANTON, NEW YORK AND OBSERVED BY SANBORN HEAD BETWEEN FEBRUARY10 THROUGH FEBRUARY 21, 2025.
3. APPROXIMATE LOCATIONS OF EXPLORATIONS WERE MARKED IN THE FIELD USING A GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVER AND SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
4. BEDROCK CONTOURS WERE DEVELOPED USING GENERALLY ACCEPTED GEOLOGIC PRACTICES AND ARE BASED ON INTERPOLATION OF INFORMATION GATHERED FROM WIDELY SPACED EXPLORATIONS. OTHER INTERPRETATIONS ARE POSSIBLE. ACTUAL CONDITIONS MAY VARY FROM THOSE SHOWN.

LEGEND:

- APPROXIMATE SITE BOUNDARY
- B-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- AB-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY OTHERS
- SH-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY SANBORN HEAD (FEBRUARY 2025)
- TP-1/TP-2 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PIT OBSERVED BY OTHERS
- 523.0 — APPROXIMATE BEDROCK ELEVATION AT EXPLORATION (IN FEET). "NE" INDICATES BEDROCK NOT ENCOUNTERED PRIOR TO TERMINATION
- 110 — ESTIMATED BEDROCK CONTOUR BASED ON COLLECTED DATA

SANBORN HEAD

SANBORN, HEAD ENGINEERING, P.C.

GRAPHICAL SCALE

150' 75' 0' 150' 300'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: E. WRIGHT
DESIGNED BY: L. MACEDO
REVIEWED BY: L. NORTON
PROJECT MGR: L. MACEDO
PIC: L. NORTON
DATE: APRIL 2025

GEOTECHNICAL ENGINEERING SERVICES
PROPOSED AMAZON ARS FACILITY - MSV1
AMSTERDAM, NEW YORK

PROJECT NUMBER: 6480.000

BEDROCK SURFACE CONTOUR PLAN

FIGURE NUMBER: 3

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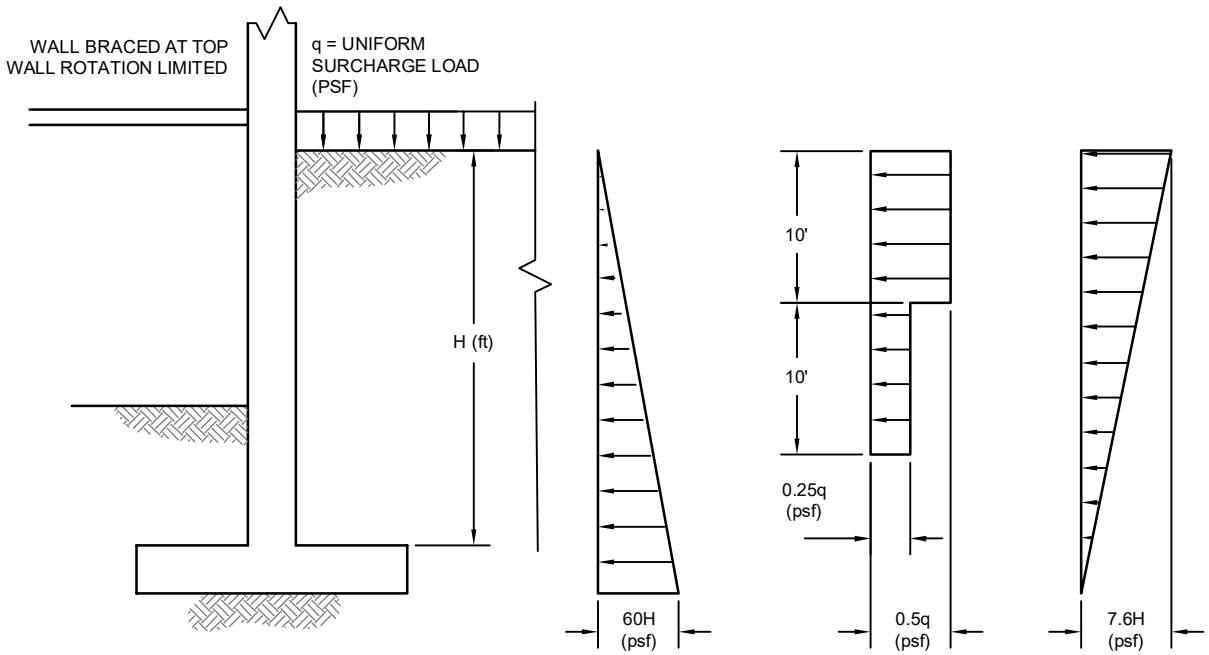

AT-REST LATERAL EARTH PRESSURE | SURCHARGE (SEE NOTES 4 & 5) | SEISMIC (SEE NOTE 6)

NOTES:

1. LOADS ASSUME FOUNDATION WALLS ARE DESIGNED TO LIMIT WALL ROTATION.
2. PRESSURE DISTRIBUTIONS ASSUME FOUNDATION WALL BACKFILL ON-SITE PREPARED AS SPECIFIED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED HEREIN.
3. PRESSURE DISTRIBUTIONS ASSUME SOIL BEHIND WALLS IS DRAINED. THEREFORE NO HYDROSTATIC PRESSURE IS DEVELOPED BEHIND WALLS.
4. FOUNDATION WALL SHOULD BE DESIGNED TO SUPPORT A TEMPORARY CONSTRUCTION SURCHARGE PRESSURE DEPENDING ON THE WALL LOCATION AND FUNCTION. IT IS RECOMMENDED THAT A UNIFORM SURCHARGE LOAD OF 250 PSF IS ASSUMED IF HEAVY COMPACTION EQUIPMENT IS TO BE USED.
5. IGNORE SURCHARGE LOADS BELOW A DEPTH OF 20 FEET.
6. BASED ON THE BUILDING CODE OF NEW YORK STATE. 2020 EDITION, AND TOTAL UNIT WEIGHT OF 135 PCF, USE 7.6H FOR SEISMIC SITE CLASS "C".
7. SLIDING FRICTION COEFFICIENT OF 0.50 IS RECOMMENDED FOR THE WALL FOOTING BEARING ON INORGANIC, GRANULAR SOIL. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ALLOWABLE STRENGTH VALUE.
8. A PASSIVE EARTH PRESSURE OF 460H SHOULD BE USED IN LOCATIONS THAT WILL NOT BE SUBJECT TO FUTURE EXCAVATION OR DISTURBANCE. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ULTIMATE STRENGTH VALUE.

PROPOSED AMAZON ARS FACILITY - MSV1 AMSTERDAM, NEW YORK	PRELIMINARY GEOTECHNICAL ENGINEERING REPORT FOUNDATION WALL LATERAL EARTH PRESSURES - AT-REST CONDITION		
SANBORN HEAD SANBORN, HEAD ENGINEERING, P.C.	SCALE: NTS	DRAWN BY: DJD	FILE NO. 6480.000
	DATE: APR 2025	CHECKED BY: NCJ	FIGURE NO. 4

FILE: P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT Figs 4-5.dwg
LAYOUT: FIG5
CTB FILE: SHA Standard.ctb
PLOT DATE: 4-4-25

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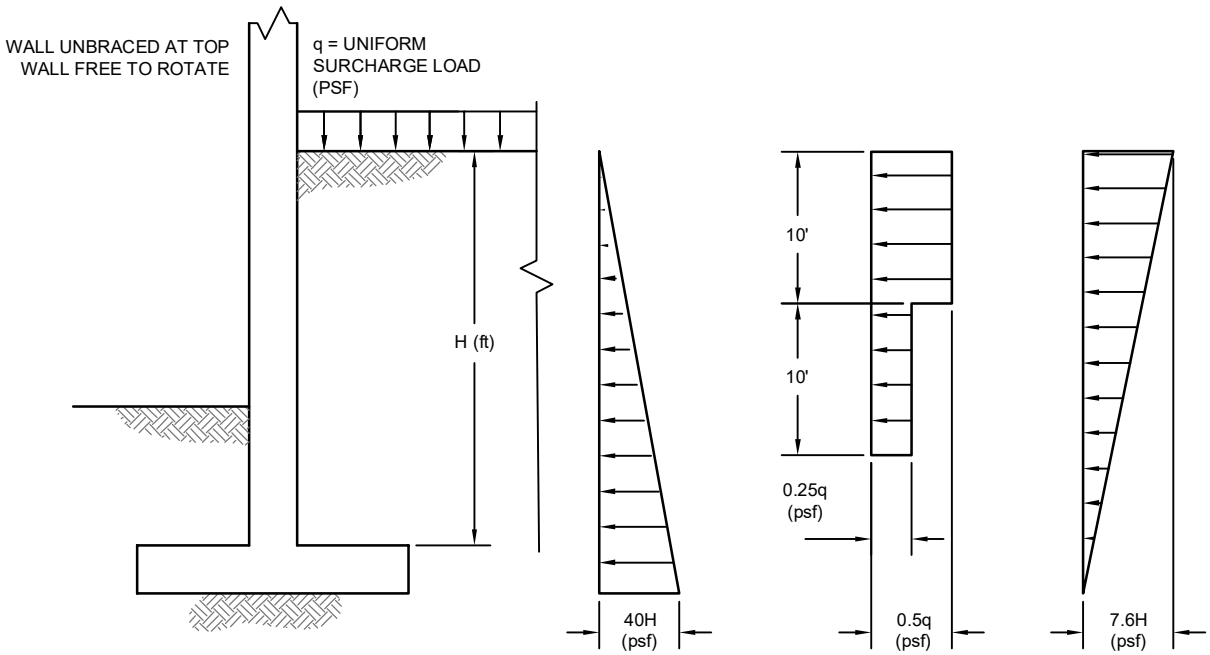

ACTIVE LATERAL EARTH PRESSURE | SURCHARGE (SEE NOTES 4 & 5) | SEISMIC (SEE NOTE 6)

NOTES:

1. LOADS ASSUME FOUNDATION WALL IS FREE TO ROTATE.
2. PRESSURE DISTRIBUTIONS ASSUME FOUNDATION WALL BACKFILL ON-SITE PREPARED AS SPECIFIED IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED HEREIN.
3. PRESSURE DISTRIBUTIONS ASSUME SOIL BEHIND WALLS IS DRAINED. THEREFORE NO HYDROSTATIC PRESSURE IS DEVELOPED BEHIND WALLS.
4. FOUNDATION WALL SHOULD BE DESIGNED TO SUPPORT A TEMPORARY CONSTRUCTION SURCHARGE PRESSURE DEPENDING ON THE WALL LOCATION AND FUNCTION. IT IS RECOMMENDED THAT A UNIFORM SURCHARGE LOAD OF 250 PSF IS ASSUMED IF HEAVY COMPACTION EQUIPMENT IS TO BE USED.
5. IGNORE SURCHARGE LOADS BELOW A DEPTH OF 20 FEET.
6. BASED ON THE BUILDING CODE OF NEW YORK STATE, 2020 EDITION, AND TOTAL UNIT WEIGHT OF 135 PCF, USE 7.6H FOR SEISMIC SITE CLASS "C".
7. SLIDING FRICTION COEFFICIENT OF 0.50 IS RECOMMENDED FOR THE WALL FOOTING BEARING ON INORGANIC, GRANULAR SOIL. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ALLOWABLE STRENGTH VALUE.
8. A PASSIVE EARTH PRESSURE OF 460H SHOULD BE USED IN LOCATIONS THAT WILL NOT BE SUBJECT TO FUTURE EXCAVATION OR DISTURBANCE. THE RESULTING RESISTANCE FORCE SHOULD BE CONSIDERED AN ULTIMATE STRENGTH VALUE.

PROPOSED AMAZON ARS FACILITY - MSV1 AMSTERDAM, NEW YORK	GEOTECHNICAL ENGINEERING REPORT FOUNDATION WALL LATERAL EARTH PRESSURES - ACTIVE CONDITION		
SANBORN HEAD SANBORN, HEAD ENGINEERING, P.C.	SCALE: NTS	DRAWN BY: DJD	FILE NO. 6480.000
	DATE: APR 2025	CHECKED BY: NCJ	FIGURE NO. 5

FILE: P:\6400s\6480.000\Graphics Files\CAD\GT MSV1 APR25\GT Figs 4-5.dwg
LAYOUT: FIG4
CTB FILE: SHA Standard.ctb
PLOT DATE: 4-4-25

Appendix A

Limitations

APPENDIX A
LIMITATIONS

Explorations

1. The analyses, recommendations, and designs submitted in this report are based in part on the data obtained from subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were developed by interpretation of widely spaced explorations and samples; actual soil transitions may be more or less gradual than indicated. For specific information, refer to the test boring logs.
3. Water level readings were made in the drill holes at the times and under the conditions stated on the exploration logs. These data were reviewed and interpretations were made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from those occurring at the time measurements were made.

Review

4. In the event that any changes in the nature, design, or location of the proposed building are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed, and conclusions of the report modified or verified in writing by Sanborn Head.

Construction

5. It is recommended that Sanborn Head be retained to provide geotechnical engineering services during the excavation and earthwork construction phases of the work. This is to observe compliance with the design concepts, specifications, or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

Use of Report

6. This report was prepared for the exclusive use of BMG Albany LLC for the proposed Amazon ARS Facility in Amsterdam, New York, in accordance with generally geotechnical engineering practices. No other warranty, expressed or implied, is made.
7. This report was prepared for this project by Sanborn Head for preliminary design purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of this report may secure it with the understanding that its scope is limited to preliminary design considerations only.



Appendix B

Subsurface Exploration Logs

Appendix B.1

Test Boring Logs
By Sanborn Head

Boring / Monitoring Well Log Legend

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: Industrial Site Redevelopment
Location: Anytown, State
Project No.: 1234.56

Log of Monitoring Well SH-1

Ground Elevation: 112.2 feet
TOC Elevation: 115.2 feet
PVC Elevation: 115.10 feet
Datum: MSL

Drilling Method: Mobile B-53 Truck, 5" PW Drive & Wash

Sampling Method: 2" O.D. Split Spoon w/140 lb Safety Hammer

Drilling Company: Ground Down Drilling Co.
Foreman: J. Driller
Date Started: 06/25/08 **Date Finished: 06/26/08**
Logged By: A. Engineer **Checked By: A. Principal**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
06/24/08	09:45	10.0'	Ground	27'	27'	<5 min
06/25/08	14:50	12.0'	Top of PVC	Well Installed	50'	15 min
07/03/08	13:00	12.2'	Top of PVC	Well Installed	50'	8 days

Depth (ft)	Casing Blows (per ft)	Drill Rate (min/ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
			Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description			
1	2	3	4	5	6	7	8	9	9	10	11	11

1. The numbers in this column report the depth in feet below ground surface.

2. The numbers in this column report the number of blows required to drive the drill casing one foot using a 300 pound hammer, unless otherwise specified.

3. The numbers in this column report the rate of advance when coring rock.

4. The values in this column report the sample designation. In the example S-1, "S" indicates the sample type and "1" indicates the sample number.

"S" indicates split spoon sample
"U" indicates Shelby tube sample
"C" indicates rock core sample
"G" indicates grab sample

5. The numbers in this column report the depth, in feet, from the ground surface of the sample identified in column 4.

6. The numbers in this column report the number of blows required to drive a split spoon sampler 6 inches using a 140 pound hammer free falling 30 inches. The standard split spoon sampler is 1-3/8 inch inside diameter and 2 inches outside diameter. The Standard Penetration Resistance, or N-value in blows per foot, is the sum of the blows recorded over the second and third 6-inch interval.

A number followed by "/3" indicates the distance that the sampler advanced. For example "100/4" indicates that 100 blows of a 140 pound hammer falling 30 inches advanced the sampler 4 inches. "WOR/24" indicates the weight of the drilling rods without the hammer caused the sampler to advance 24 inches.

"WOH" indicates the static weight of the 140 pound hammer and the drilling rods attached to the split spoon sampler were sufficient to cause the sampler to advance.

"WOR" indicates the static weight of the drilling rods attached to the split spoon sampler was sufficient to cause the sampler to advance.

7. The values shown are the length of the soil or rock core sampler penetration and the number of inches of sample recovered from the sampler.

8. The values shown are the results of field tests performed on soil or rock samples. The test method, result and units are indicated. Unless otherwise noted "ND" denotes not detected.

9. These columns provide a graphic illustration and verbal description of the subsurface soil and rock strata. The depths of strata changes should be considered approximate and general in nature, actual strata changes in the field may be more gradual.

10. Descriptions of soil samples include:

- the density or consistency;
- color;
- a listing of MAJOR and minor soil components based on particle size and plasticity;
- structure,
- moisture; and
- other pertinent characteristics.

For example: Medium dense, brown, fine to medium SAND, trace Silt. Stratified. Moist. Faint petroleum odor.

Description of rock core samples include:

- hardness, weathering, rock continuity, color, texture, rock type, structure; and RQD (%)

For example: Hard to very hard, slightly weathered, grey-green, fine grained, RHYOLITE, with joints spaced 4 to 12 inches apart and dipping from near horizontal to approximately 60°. Open crack in core at 14.4', moderately fractured . RQD=58%

NOTE: "RQD" is defined as the summation of all pieces of rock core greater than 4 inches in length divided by the length of the core run and expressed as a percentage.

11. Monitoring well materials or other equipment installed within the borehole are graphically presented in these columns. If no equipment was installed, these columns are used for notes, remarks or other pertinent observations.

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Description and Classification of Soil

1. Density or Consistency: The density or consistency of a soil sample is based on the Standard Penetration Test N-value according to the following table:

Density of Granular Soil	SPT N-Value		Consistency of Cohesive Soil
Very Loose	0-4	<2	Very Soft
Loose	5-10	2-4	Soft
Medium Dense	11-30	5-8	Medium Stiff
Dense	31-50	9-15	Stiff
Very Dense	>50	16-30	Very Stiff
		>30	Hard

The Standard Penetration Resistance, or N-value in blows per foot, is the sum of the blows recorded over the second and third 6-inch interval.

A number followed by "/3" indicates the distance that the sampler advanced. For example "100/4" indicates that 100 blows of a 140 pound hammer falling 30 inches advanced the sampler 4 inches. "WOR/24" indicates the weight of the drilling rods without the hammer caused the sampler to advance 24 inches.

"WOH" indicates the static weight of the 140 pound hammer and the drilling rods attached to the split spoon sampler were sufficient to cause the sampler to advance.

"WOR" indicates the static weight of the drilling rods attached to the split spoon sampler was sufficient to cause the sampler to advance.

2. Color: The color of a soil sample is based on visual observation.

3. Soil Components

A. Description: The components of a soil sample are described by visually estimating the percentage of each component by weight of the total sample using a Modified Burmister System.

i. Major Component: The major soil component is written with upper case letters for granular soil (e.g., SAND, GRAVEL) and a combination of upper and lower case letters for fine grained soil (e.g., Silty CLAY, Clayey SILT).

ii. Minor Component: The minor soil components are written with the first letter of each soil type in upper case, and the remaining letters in lower case (e.g., Gravel, Silt). The minor components are identified and prefaced in the description based on the following percentages:

Preface	Percentage
and	35-50
some	20-35
little	10-20
trace	0-10

iii. Note: The actual percentages of gravel soil may differ from that measured when sampling with a standard split spoon sampler because of the relatively small sampler diameter. Also, it is not possible to identify the presence of boulders and cobbles using a standard split spoon sampler.

B. Definitions

i. Granular Soil: A granular soil sample is defined by the following particle sizes as referenced to a standard sieve:

Material	Description	Standard Sieve Limit	
		Upper	Lower
Boulders	C-sized	--	36 inch
	B-sized	36 inch	24 inch
	A-sized	24 inch	12 inch
Cobbles	--	12 inch	3 inch
Gravel	coarse	3 inch	3/4 inch
	fine	3/4 inch	No. 4
Sand	coarse	No. 4	No. 10
	medium	No. 10	No. 40
	fine	No. 40	No. 200

ii. Fine Grained Soil: The degree of plasticity of fine-grained soils is defined as follows:

Material	Degree of Plasticity	Plasticity Index (PI)	Smallest Thread Diameter (in.)
SILT	Non-Plastic	0	None
Clayey SILT	Slight	1 to 5	1/4
SILT & CLAY	Low	5 to 10	1/8
CLAY & SILT	Medium	10 to 20	1/16
Silty CLAY	High	20 to 40	1/32
CLAY	Very High	40+	1/64

iii. Organic Soil: An organic soil sample is classified by observation of the sample structure as follows:

Material	Description
TOPSOIL	Surficial soils that support plant life and which contain organic matter.
SUBSOIL	Soil underlying the topsoil which may contain roots or plant fibers.
PEAT	Deposits of plant remains in which the original plant fibers or root structure are visible.
ORGANIC SILT	Deposit of plant remains in which the original plant fibers or root structure have decomposed.

iv. Non-Soil Constituents: Non-soil constituents (artificial or anthropogenic material, organic materials, cobbles and boulders) are described as follows:

The following terminology is used to denote size ranges of non-soil constituents such as man-made objects or fill material:

Descriptive Term	Size Range	Comparative Term
Specks	< No. 200 Sieve	Silt and Clay fines
Particles	No. 200 Sieve to No. 4 Sieve	Sand
Fragments	No. 4 Sieve to 3 in.	Gravel
Pieces	3 in. to 12 in.	Cobbles
Blocks	> 12 in.	Boulders

The following terminology is used to describe the frequency that a non-soil constituent is observed by estimating the percentage of the constituent by weight of the total sample:

Descriptor	Percentage
very few	0-5
few	5-10
common	10-20
frequent	20-35
numerous	35-50

4. Moisture Content: The moisture content of a soil sample is based on the observable presence of water according to the following table:

Dry	Moisture is not apparent, dusty.
Moist	No visible water.
Wet	Visible free water.

5. Other Pertinent Characteristics: Pertinent characteristics observed in a soil sample should be noted according to the following table:

Soil Structure Produced by Deposition of Sediments	
Stratified	Random soil deposits of varying components of color.
Varved	Alternating soil deposits of varying thickness (i.e., clays or silts).
Stratum	Soil deposit > 12 inches thick.
Layer	Soil deposit 3 inches to 12 inches thick.
Seam	Soil deposit 1/8 inch to 3 inches thick.
Parting/Lens	Soil deposit <1/8 inch thick.

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UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)LEGEND AND SYMBOLOGY

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

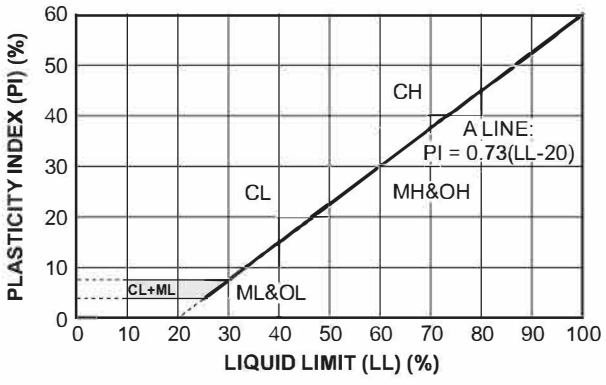
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line with P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for GW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent ..... GW, GP, SW, SP
More than 12 percent ..... GM, GC, SM, SC
5 to 12 percent ..... Borderline cases requiring dual symbols

PLASTICITY CHART



SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-1

Ground Elevation: 532.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/21/25 **Date Finished: 02/21/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/21/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 3	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	5 8 14 17	24/22				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, some Sand, trace Gravel. Moist. TILL.	
6							GLACIAL TILL		
8									
10	S-3	9 - 11	10 20 39 32	24/24				S-3 (9 to 11'): Hard, brown, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
12							-----11.5'-----	Boring terminated at 11.5 feet bgs due to auger refusal on probable bedrock.	
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-2

Ground Elevation: 546 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/10/25 **Date Finished: 02/10/25**
Logged By: D. Robinson/ M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/10/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 2 3 4	24/8			-----0'-----	S-1 (0 to 2'): Medium stiff, light brown, SILT & CLAY, trace Sand, few Organic particles. Moist/ Frozen. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	2 8 12 12	24/13				S-2 (4 to 6'): Very stiff, light brown, SILT & CLAY, trace Sand. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	8 16 21 27	24/24			-----9'-----	S-3 (9 to 11'): Stiff, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		
12									
	S-4	13 - 13.3	100/3"	3/2			WEATHERED ROCK -----13.3-----	S-4 (13 to 13.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
14								Boring terminated at 13.3 feet bgs due to auger/ split-spoon refusal on bedrock.	
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-3

Ground Elevation: 531.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/11/25 **Date Finished: 02/11/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 2 3 3	24/9			-----0'-----	S-1 (0 to 2'): Medium stiff, dark brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	3 6 7 10	24/14				S-2 (4 to 6'): Stiff, dark brown to brown, Clayey SILT, trace Sand. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	16 27 45 54	24/6			-----9'-----	S-3 (9 to 11'): Hard, dark brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		HSA refusal at 11.5 feet bgs.
	S-4	11.5 - 13.5	38 31 27 41	24/20				S-4 (11.5 to 13.5'): Hard, grayish brown, SILT & CLAY, little Sand, little Gravel. Moist. TILL.	
12									
							-----13.5'-----	Boring terminated at 13.5 feet bgs due to auger refusal on probable bedrock.	
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-4

Ground Elevation: 530 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/11/25 **Date Finished: 02/11/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 2 2 4	24/15			-----0'-----	S-1 (0 to 2'): Soft, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	3 4 8 12	24/24				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, little Sand, trace Gravel, very few Organics specks. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	10 21 34 31	24/24			-----9'-----	S-3 (9 to 11'): Hard, brown, SILT & CLAY, some Sand, little Gravel. Moist. TILL.	
10									
12									
							GLACIAL TILL		
14	S-4	14 - 16	8 14 18 22	24/22				S-4 (14 to 16'): Hard, gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
16									
	S-5	17 - 19	10 14 16 19	24/2				S-5 (17 to 19'): Very stiff, gray, SILT & CLAY, little Sand, trace Gravel. Gravel in tip of sampler Moist. TILL.	
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-4

Ground Elevation: 530 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/11/25 **Date Finished: 02/11/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/11/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
18									
	S-6	19 - 21	5 11 14 19	24/24			GLACIAL TILL	S-6 (19 to 21'): Very stiff, gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
20									
22	S-7	22 - 22.9	8 100/5"	11/11				S-7 (22 to 22.9'): Hard, dark gray, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	Auger refusal at 22 feet bgs.
							-----22.9'-----	Boring terminated at 22.9 feet bgs due to split-spoon refusal on probable bedrock.	
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-5

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	16:11	18.3'	Ground Surface	N/A	22.2'	< 15min

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 4	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	2 3 8 59	24/8				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, trace Sand, trace Gravel. Moist. TILL.	S-2: Rock observed in tip of split spoon.
							SILT & CLAY		
6									
8									
	S-3	9 - 9.9	16 100/5"	11/11			-----9'-----	S-3 (9 to 9.9'): Hard, brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
10									
12									
							GLACIAL TILL		
14	S-4	14 - 16	12 14 18 21	24/24				S-4 (14 to 16'): Hard, gray to grayish brown, SILT & CLAY, some Sand, little Gravel. Moist. FILL.	
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-5

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	16:11	18.3'	Ground Surface	N/A	22.2'	< 15min

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
18									
	S-5	19 - 21	11 7 8 12	24/16			GLACIAL TILL	S-5 (19 to 21'): Stiff, gray, SILT & CLAY, some Sand, little Gravel. Moist. TILL.	
20									
22	S-6	22 - 22.2	100/2"	2/2			WEATHERED ROCK 22.2	S-6 (22 to 22.2'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
								Boring terminated at 22.2 feet bgs due to auger/ split-spoon refusal on bedrock.	
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-6

Ground Elevation: 523 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/13/25 **Date Finished: 02/13/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 5 5 10	24/16			-----0'----- TOPSOIL -----0.4'-----	S-1 (0 to 2'): Stiff, dark brown to brown, SILT & CLAY, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
4	S-2	4 - 6	8 16 26 24	24/9				S-2 (4 to 6'): Hard, brown, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
8							GLACIAL TILL		
	S-3	9 - 11	7 10 22 24	24/12				S-3 (9 to 11'): Hard, dark gray, SILT & CLAY, little Sand, little Gravel. Moist. TILL.	
14	S-4	14 - 16	27 21 23 37	24/11				S-4A (14 to 15.5'): Hard, dark gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
							-----15.5'----- WEATHERED ROCK -----16'-----	S-4B (15.5 to 16'): Very dense, black, Weathered Rock (Shale). Moist.	
16								Boring terminated at 16 feet bgs due to auger refusal.	
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-7

Ground Elevation: 504.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/13/25 **Date Finished: 02/13/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 10	24/11			-----0'-----	S-1 (0 to 2'): Medium stiff, dark brown, CLAY & SILT, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	1 2 7 7	24/19				S-2 (4 to 6'): Stiff, brown, SILT & CLAY, little Sand, trace Gravel. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	41 49 28 12	24/10			-----9'-----	S-3 (9 to 11'): Hard, dark gray, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
10									
							GLACIAL TILL		
12									
	S-4	13 - 13.3	100/4"	4/2			-----13.3'-----	S-4 (13 to 13.3'): Hard, dark gray, Clayey SILT, little Sand. Moist. TILL.	
14								Boring terminated at 13.3 feet bgs due to split spoon and auger refusal on probable bedrock.	
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-8

Ground Elevation: 505 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/13/25 **Date Finished: 02/13/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/13/25	15:15	7'	Ground Surface	N/A	13.3'	<15 min

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 4 3 3	24/17			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	WOH/ 24	24/12				S-2 (4 to 6'): Very soft, dark brown, PEAT and Organic Silt, trace Sand. Moist.	
							PEAT		
6									
8									
	S-3	9 - 11	17 14 19 13	24/19			-----9'-----	S-3 (9 to 11'): Hard, brown to gray, SILT & CLAY, some Sand, trace Gravel. Moist. TILL.	
10							GLACIAL TILL		
12	S-4	12 - 13.3	51 84 100/3"	15/6			-----12'-----	S-4 (12 to 13.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							WEATHERED ROCK		
							-----13.3'-----	Boring terminated at 13.3 feet bgs due to split spoon and auger refusal on bedrock.	
14									
16									
18									

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-9

Ground Elevation: 534.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 1 3 4	24/11			-----0'-----	S-1 (0 to 2'): Soft, dark brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	1 3 7 11	24/				S-2 (4 to 6'): Stiff, dark brown, SILT & CLAY, little Sand, trace Gravel. Moist.	
							SILT & CLAY		
6									
8									
	S-3	9 - 11	10 20 21 25	24/17			-----9'-----	S-3 (9 to 11'): Hard, grayish brown, SILT & CLAY, trace Sand, trace Gravel. Moist. TILL.	
10									
12							GLACIAL TILL		
14	S-4	14 - 16	21 33 37 26	24/16				S-4 (14 to 16'): Hard, gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
16									
	S-5	17 - 19	53 22 23 24	24/19			-----17'----- COBBLE -----17.5'----- GLACIAL TILL		Drilled through a 6-inch cobble from 17.0 to 17.5 ft bgs.
18									

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-9

Ground Elevation: 534.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/12/25 **Date Finished: 02/12/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/12/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description		
18	S-6	19 - 20.4	11 27 100/5"	17/11			GLACIAL TILL	S-5 (19 to 20.4'): Hard, gray, SILT & CLAY, some Gravel, little Sand. Moist. TILL.	
20							-----20.4'-----	Boring terminated at 20.4 feet bgs due to split-spoon refusal on probable bedrock.	
22									
24									
26									
28									
30									
32									
34									
36									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-10

Ground Elevation: 553 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/19/25 **Date Finished: 02/19/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/19/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 2 3 2	24/14			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 8 12 16	24/24				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
6							GLACIAL TILL		
8									
	S-3	9 - 9.3	60/4"	4/4			WEATHERED ROCK	S-3 (9 to 9.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
	C-1	9.3 - 14.3		60/56			----9.3----	C-1 (9.3 to 14.3'): Medium hard, moderately weathered, dark gray, fine-grained, SHALE, with joints spaced 1 to 3" apart, horizontal to steep. Moderately fractured. REC=93%. RQD=40%.	
12									
14	C-2	14.3 - 19.3		60/60			BEDROCK	C-2 (14.3 to 19.3'): Medium hard, slightly weathered, dark gray, fine-grained, SHALE, with joints spaced 2 to 4" apart, horizontal to near vertical. Moderately fractured. REC=100%. RQD=44%.	
16									
18									
							-----19.3'-----	Boring terminated at 19.3 feet bgs; no refusal encountered.	
20									
22									
24									

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-11

Ground Elevation: 542 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/19/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Drill Rate (min/ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0		S-1	0 - 2	1 2 4 6	24/3			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
								TOPSOIL		
2								-----2'-----		
4		S-2	4 - 6	1 36 17 20	24/8				S-2 (4 to 6'): Hard, brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
6										
8										
10		S-3	9 - 11	29 29 23 32	24/8				S-3 (9 to 11'): Very dense, gray, coarse GRAVEL, some Silt, trace Sand. Moist. TILL.	
								GLACIAL TILL		
12										
14		S-4	14 - 16	11 14 18 22	24/16				S-4 (14 to 16'): Dense, gray, Clayey SILT, little Sand, little Gravel. Moist. TILL.	
16										
18										
		S-5	19 - 20.5	26 54 100/5"	17/8			-----19'-----	S-5 (19 to 20.5'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
20								WEATHERED ROCK		
	3	C-1	20.5 - 25.5		60/60			-----20.5'-----	C-1 (20.5 to 25.5'): Medium hard, severely weathered, dark gray, SHALE, with joints spaced 4 to 12" apart, horizontal. Slightly fractured. REC=100%. RQD=82%.	
22	4									
	3							BEDROCK		
24	4									
	4									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-11

Ground Elevation: 542 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/19/25 **Date Finished: 02/20/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Drill Rate (min/ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
26	2	C-2	25.5 - 30.5		60/60				C-2 (25.5 to 30.5'): Medium hard, slightly weathered, dark gray, SHALE, with joints spaced 4 to 12" apart, horizontal. Slightly fractured. REC=100%. RQD=91%.	
	4									
28	4							BEDROCK		
	3									
30	3									
								-----30.5'-----	Boring terminated at 30.5 feet bgs; no refusal encountered.	
32										
34										
36										
38										
40										
42										
44										
46										
48										
50										

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-12

Ground Elevation: 541.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/14/25 **Date Finished: 02/14/25**
Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	Not Measured				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 5	24/13			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, SILT & CLAY, trace Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 12 16 18	24/17				S-2 (4 to 6'): Very stiff, brown, SILT & CLAY, little Sand, trace Gravel. Moist. TILL.	
							GLACIAL TILL		
6									
8									
	S-3	9 - 9.3	100/4"	4/3			WEATHERED ROCK	S-3 (9 to 9.3'): Very dense, black, Weathered Rock (Shale). Moist.	
							----9.3----		
10								Boring terminated at 9.3 feet bgs due to split-spoon refusal on bedrock.	
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-13

Ground Elevation: 518 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/20/25 **Date Finished: 02/20/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	9'	Ground Surface	13.5'	13.5'	< 5 minutes

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	5 13 9 6	24/18			-----0'-----	S-1 (0 to 2'): Medium dense, fine to coarse SAND and Gravel, trace Silt, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 5 2 3	24/12				S-2 (4 to 6'): Medium stiff, brown, SAND and Clayey Silt, trace Gravel. Moist. TILL.	
6									
8							GLACIAL TILL		
	S-3	9 - 11	24 9 10 19	24/14				S-3 (9 to 11'): Very stiff, Clayey SILT, some Sand, trace Gravel. Wet. TILL.	
10									
12									
	S-4	13 - 13.5	50/1"	1/1			-----13.5'-----	S-4 (13 to 13.5'): Very dense, dark gray, fine to coarse GRAVEL, some Silt, trace Sand. Moist. TILL.	
14								Boring terminated at 13.5 feet bgs due to split spoon refusal on probable bedrock.	
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-14

Ground Elevation: 517.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/20/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 2 1 2	24/6			-----0'-----	S-1 (0 to 2'): Soft, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	7 6 4 5	24/0				S-2 (4 to 6'): Stiff, No Recovery.	
6									
8							GLACIAL TILL		
	S-3	9 - 11	7 2 3 11	24/16				S-3 (9 to 11'): Medium stiff, dark brown, Clayey SILT, little Sand, trace Gravel. Moist. TILL.	
10									
12									
	S-4	13 - 13.5	50/6"	6/4			13' WEATHERED ROCK -----13.5-----	S-4 (13.5 to 14'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
14								Boring terminated at 13.5 feet bgs due to split spoon refusal on bedrock.	
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-15

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/20/25 **Date Finished: 02/20/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/20/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 3 5 8	24/10			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
2							TOPSOIL		
4	S-2	4 - 6	8 7 5 53	24/8			-----4'-----	S-2 (4 to 6'): Medium dense, dark gray, Weathered Rock (Shale). Moist.	
6							WEATHERED ROCK -----6'-----	Boring terminated at 6 feet bgs due to auger refusal on bedrock.	
8									
10									
12									
14									
16									
18									
20									
22									
24									

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-16

Ground Elevation: 524.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/18/25 **Date Finished: 02/18/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	1 3 2 24	24/10			-----0'-----	S-1A (0 to 1.5'): Medium stiff, brown, Clayey SILT, little Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
							-----1.5'-----	S-1B (1.5 to 2'): Loose, dark gray, Weathered Rock (Shale). Moist.	
2									
							WEATHERED ROCK		
4	S-2	4 - 5.7	6 14 56 50/2"	24/14				S-2 (4 to 5.7'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							-----5.7'-----	Boring terminated at 5.7 feet bgs due to split spoon refusal on bedrock.	
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-17

Ground Elevation: 511.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/18/25 **Date Finished: 02/18/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	6'	Ground Surface	8'	8.7'	10 minutes

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 3 5 4	24/4			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, some Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 31 36 56	24/20			WEATHERED ROCK	S-2 (4 to 6'): Very dense, Weathered Rock (Shale). Moist.	
6									
8	S-3	8 - 8.7	31 50/3"	9/5			-----8.7'-----	S-3 (8 to 10'): Very dense, Weathered Rock (Shale). Moist.	
								Boring terminated at 8.7 feet bgs due to split spoon refusal on bedrock.	
10									
12									
14									
16									
18									
20									
22									
24									

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SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-18

Ground Elevation: 512.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/18/25 **Date Finished: 02/18/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	WOH 1 2 4	24/3			-----0'-----	S-1 (0 to 2'): Soft, brown, Clayey SILT, and Sand, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	6 8 12 13	24/11				S-2 (4 to 6'): Very stiff, brown, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
							GLACIAL TILL		
6									
8									
	S-3	9 - 9.1	50/1"	4/3			WEATHERED ROCK	S-3 (9 to 9.1'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
10							-----9.1-----	Boring terminated at 9.1 feet bgs due to split spoon refusal on bedrock.	
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-19

Ground Elevation: 572.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/14/25 **Date Finished: 02/14/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	Not Measured				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	2 3 5 5	24/12			-----0'-----	S1 (0 to 2'): Medium stiff, dark brown, Clayey SILT, trace fine to coarse Sand. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		Change in strata determined by change in drilling difficulty.
4	S-2	4 - 6	49 75 40 28	24/0			WEATHERED ROCK		S-2: Split spoon sampler unable to be retrieved due to shearing of pull pin. Equipment abandoned in place.
6							-----6'-----	Boring terminated at approximately 6 feet bgs due to inability to retrieve split spoon sampler from embedment in probable bedrock.	
8									
10									
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-20

Ground Elevation: 549.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 4 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/14/25 **Date Finished: 02/14/25**

Logged By: M. Stein **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/14/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	6 14 24 29	24/17			-----0'----- TOPSOIL -----0.5'-----	S-1A (0 to 0.5'): Hard, dark brown, Clayey SILT, and Sand, few Organic particles. Moist/Frozen. TOPSOIL.	
								S-1B (0.5 to 2'): Dense, dark gray, Weathered Rock (Shale). Moist.	
2							WEATHERED BEDROCK		
	S-2	3.5 - 4.3	79 100/3"	9/9				S-2 (3.5 to 4.3'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
4							-----4.3'-----	Boring terminated at 4.3 feet bgs due to split-spoon refusal on bedrock.	
6									
8									
10									
12									
14									
16									
18									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-21

Ground Elevation: 535.5 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Atlantic Testing Laboratories

Foreman: B. Drake

Date Started: 02/18/25 **Date Finished: 02/18/25**

Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/18/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	5 4 3 5	24/10			-----0'-----	S-1 (0 to 2'): Medium stiff, brown, Clayey SILT, little Sand, trace Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
							WEATHERED ROCK		
4	S-2	4 - 5.1	26 60 50/1"	13/10				S-2 (4 to 5.1'): Very dense, dark gray, Weathered Rock (Shale). Moist.	
							-----5.1'-----	Boring terminated at 5.1 feet bgs due to split spoon refusal on bedrock.	
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

SANBORN HEAD

Sanborn, Head & Associates, Inc.

Project: MSV1
Location: Amsterdam, NY
Project No.: 6480.000

Log of Boring SH-22

Ground Elevation: 528 ± feet
Datum: NAVD 88

Drilling Method: Geoprobe® 7822 GT Track Mounted Drill Rig with 3 ¼" HSA
Sampling Method: 2" O.D. Split Spoon, Automatic Hammer
Drilling Company: Atlantic Testing Laboratories
Foreman: B. Drake
Date Started: 02/21/25 **Date Finished: 02/21/25**
Logged By: W. Raboin **Checked By: L. Macedo**

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
02/21/25	---	No Groundwater Encountered				

Depth (ft)	Sample Information: Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Stratum: Log	Description	Geologic Description	Remarks
0	S-1	0 - 2	3 11 8 7	24/8			-----0'-----	S-1 (0 to 2'): Very stiff, brown, Clayey SILT, some Sand, little Gravel, few Organic particles. Moist. TOPSOIL.	
							TOPSOIL		
2							-----2'-----		
4	S-2	4 - 6	12 11 10 17	24/18				S-2 (4 to 6'): Very stiff, black, Clayey SILT, some Sand, little Gravel. Moist. TILL.	
6							GLACIAL TILL		
	S-3	7 - 9	17 17 19 23	24/16				S-3 (7 to 9'): Hard, tan, Clayey SILT and Sand, little Gravel. Moist. TILL.	
8									
	S-4	9 - 10.5	17 23 50/5"	17/17				S-4 (9 to 10.5'): Hard, brown, Clayey SILT, some Sand, little Gravel. Moist.	
10							-----10.5'-----	Boring terminated at 10.5 feet bgs due to split spoon refusal on probable bedrock.	
12									
14									
16									
18									
20									
22									
24									

BORING LOG \\CONSERV1\SHDATA\6400S\6480.000\WORK\LOGS\6480.000 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 3/25/25

Appendix B.2

Subsurface Exploration Logs
By Others

WHITESTONE
ASSOCIATES, INC.

APPENDIX A
Records of Subsurface Exploration

BORING LOG NO. B-1

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9343° Longitude: -74.2346°

Approximate Surface Elev.: 532 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.7	531.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), trace rootlets in upper 2 feet, grayish brown, moist, very loose to very dense
10.0	522+/-	
		SILTY SAND (SM), grayish brown to black, moist, very dense to dense
17.4	514.5+/-	
		Auger Refusal at 17.4 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		12	1-1-1-1 N=2	
		2	3-7-11-12 N=18	
5		22	7-10-14-17 N=24	13
		22	25-22-28-30 N=50	
10		17	16-25-50/5"	
15		18	19-23-22 N=45	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-04-2019 | Boring Completed: 02-04-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-2

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9348° Longitude: -74.2305°

Approximate Surface Elev.: 553 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
TOPSOIL					
1.0	552+/-				
CLAYEY SAND (SC), trace rootlets, brown, moist, loose to medium dense				17	6-9-3-3 N=12
				20	3-6-8-12 N=14
5.0	548+/-	5			
SILTY SAND (SM), brown, moist, medium dense				18	13-15-12-16 N=27
10.0	543+/-				
10.5 **WEATHERED SHALE**, brown, wet, very dense	542.5+/-	10		5	50/5"
Auger Refusal at 10.5 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-05-2019 | Boring Completed: 02-05-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-3

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.2274°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
		TOPSOIL
1.0	534+/-	**LEAN CLAY (CL)**, trace rootlets, gray to brown, moist, stiff to very stiff
5.0	530+/-	**CLAYEY SAND (SC)**, gray to brown, moist, medium dense
10.0	525+/-	**CLAYEY SAND WITH GRAVEL (SC)**, black, moist, dense to very dense
19.0	516+/-	***Spoon Refusal at 19 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		19	7-4-4-6 N=8	
		18	4-7-10-10 N=17	
5		24	4-7-10-12 N=17	
10		24	4-19-19-24 N=38	9
15		18	14-22-24 N=46	
		0	50/0"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-4

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2323°

Approximate Surface Elev.: 541 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	540.5+/-						
	CLAYEY SAND (SC), trace rootlets in upper 2 feet, brown, moist, very loose to medium dense					8	2-1-2-3 N=3	
						19	6-6-7-11 N=13	
	5.0	536+/-	5					
	5.9 **WEATHERED SHALE**, black, moist, very dense	535+/-				8	8-50/5"	
	Spoon Refusal at 5.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-01-2019 | Boring Completed: 02-01-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-5

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9344° Longitude: -74.2288°

Approximate Surface Elev.: 554 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0	554+/-	**CLAYEY SAND (SC)**, occasional cobbles, dark brown, moist, medium dense
2.0	552+/-	**CLAYEY SAND WITH GRAVEL (SC)**, dark brown, moist, very dense
3.5	550.5+/-	
3.8	550+/-	**WEATHERED SHALE**, black, moist, very dense
		SHALE, gray to black, slightly weathered, very weak to weak, extremely close to close fracture spacing, horizontally bedded
8.8	545+/-	***Boring Terminated at 8.8 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0			19	3-5-5-4 N=10	
			11	18-50/5"	
	▽		1	50/4"	
5			55	RQD = 0% REC = 91%	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA to 3.8 feet, NQ2-sized core barrel to 8.8 feet

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *No water before coring*
upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-6

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.933° Longitude: -74.2343°

Approximate Surface Elev.: 527 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
0					
TOPSOIL 1.0	526+/-				
LEAN CLAY (CL), trace rootlets, brown, wet, very stiff 2.0	525+/-			14	8-10-12-11 N=22
SILTY SAND (SM), brown, moist, medium dense				19	12-12-11-12 N=23
5.0	522+/-	5			
SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, brown, moist, very dense				18	26-36-28-24 N=64
10.1	517+/-	10		0	50/1"
Auger Refusal at 10.1 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-7

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2303°

Approximate Surface Elev.: 547 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.0	546+/-	**SILT WITH SAND (ML)**, trace rootlets, brown, moist, loose				20	4-2-2-4 N=4	
2.0	545+/-	**CLAYEY SAND (SC)**, brown, moist, medium dense				7	4-6-9-8 N=15	
5.0	542+/-	**SILTY SAND (SM)**, brown, moist, very dense	5			8	9-17-34-23 N=51	
9.5	537.5+/-							
9.9	537+/-	**WEATHERED SHALE**, black, very dense ***Spoon Refusal at 9.9 Feet***				5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Once augers were taken out

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-8

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2271°

Approximate Surface Elev.: 543 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.3	541.5+/-	**CLAYEY SAND (SC)**, trace rootlets, brown, moist, medium dense				20	9-8-4-7 N=12	
						17	6-8-10-12 N=18	
5.0	538+/-	**CLAYEY SAND WITH GRAVEL (SC)**, gray to brown, moist, medium dense to dense	5			24	6-8-10-13 N=18	
			10			18	10-14-17 N=31	9
15.0	528+/-		15					
16.1	527+/-	**WEATHERED SHALE**, black, dry, very dense				12	7-27-50/1"	
		Auger Refusal at 16.1 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-9

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9329° Longitude: -74.2329°

Approximate Surface Elev.: 532 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	TOPSOIL							
	1.3	530.5+/-				19	12-10-8-7 N=18	
	CLAYEY SAND WITH GRAVEL (SC), brown to black, moist, medium dense					20	7-7-6-7 N=13	
	5.0	527+/-	5					
	WEATHERED SHALE, black, dry, very dense					17	11-46-50/5"	
	6.4	525.5+/-						
	Spoon Refusal at 6.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-31-2019 | Boring Completed: 01-31-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-10

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9323° Longitude: -74.2305°

Approximate Surface Elev.: 487 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
1.0	486+/-	**TOPSOIL**
2.0	485+/-	**SILTY SAND (SM)**, trace rootlets, brown, moist, medium dense
10.0	477+/-	**CLAYEY SAND WITH GRAVEL (SC)**, brown, moist, medium dense
20.0	467+/-	**CLAYEY SAND WITH GRAVEL (SC)**, black to gray, moist, dense to very dense
21.4	465.5+/-	**WEATHERED SHALE**, black, moist, very dense
		Spoon Refusal at 21.4 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		20	6-6-5-6 N=11	
		19	7-7-6-10 N=13	
5		24	13-12-15-22 N=27	12
10		22	80-25-22-20 N=47	
15		2	44-50/4"	
20		17	44-64-50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9328° Longitude: -74.2284°

Approximate Surface Elev.: 523 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.4	521.5+/-					17	7-6-7-5 N=13	
2.0	521+/-	**SILT WITH SAND (ML)**, trace rootlets, brown, moist, medium dense						
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium dense				17	6-6-10-10 N=16	
5.0	518+/-		5					
		WEATHERED SHALE, black, dry, very dense				22	6-36-50-19 N=86	
			10	▽				
11.4	511.5+/-					16	6-20-50/5"	
		Spoon Refusal at 11.4 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *At completion of drilling*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-12

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9348° Longitude: -74.2261°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.0	535+/-	**TOPSOIL**
1.0	534+/-	**CLAYEY SAND (SC)**, brown, moist, medium dense
5.0	530+/-	**CLAYEY SAND WITH GRAVEL (SC)**, brown, moist, medium dense to very dense
15.0	520+/-	
15.2	520+/-	**WEATHERED SHALE**, black, moist, very dense
		Spoon Refusal at 15.2 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		20	7-6-4-4 N=10	
		12	4-5-6-5 N=11	
5		24	5-6-10-13 N=16	
10		5	50/5"	
15			50/2"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-13

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2248°

Approximate Surface Elev.: 541 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.0	540+/-							
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to gray, moist, medium dense				18	6-6-6-6 N=12	
2.3	538.5+/-							
		WEATHERED SHALE, black, dry, very dense				11	5-50/5"	
4.8	536+/-					8	28-50/4"	
		Spoon Refusal at 4.8 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-14

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2232°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
TOPSOIL							
1.2	524+/-				20	12-15-19-12 N=34	
SILTY SAND (SM), trace rootlets, brown, moist, dense							
2.0	523+/-						
CLAYEY SAND (SC), brown, moist, medium dense					12	8-7-6-9 N=13	
5.0	520+/-						
5.4 **WEATHERED SHALE**, black, moist, very dense	519.5+/-	5			5	50/5"	
Spoon Refusal at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-15

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2234°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
TOPSOIL					
1.2	534+/-				
CLAYEY SAND (SC), trace rootlets, dark brown, moist, medium dense				20	12-17-15-9 N=32
2.0	533+/-				
WEATHERED SHALE, black, moist, loose to medium dense				24	8-7-6-5 N=13
		5			
				24	2-2-2-2 N=4
10.0	525+/-				
10.4 **WEATHERED SHALE**, black, moist, very dense	524.5+/-	10		5	50/5"
Spoon Refusal at 10.4 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-16

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2327°

Approximate Surface Elev.: 538 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.5	**TOPSOIL**	537.5+/-
	CLAYEY SAND (SC), trace rootlets, brown, moist, loose	
2.0		536+/-
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, brown, moist, medium dense	
5.0		533+/-
	WEATHERED SHALE, black, moist, very dense	
6.1		532+/-
	Spoon Refusal at 6.1 Feet	

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		16	3-2-2-3 N=4
		22	5-6-12-17 N=18
5			
		8	3-8-50/1"

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-01-2019 | Boring Completed: 02-01-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-17

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9341° Longitude: -74.2304°

Approximate Surface Elev.: 549 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.7	548.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), trace rootlets, orange to brown, moist, loose to medium dense
5.3	543.5+/-	**CLAYEY SAND WITH GRAVEL (SC)**, gray, moist, dense to very dense
		NOTE: Dry at 10 feet
12.5	536.5+/-	***Auger Refusal at 12.5 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		17	2-1-2-4 N=3
		17	2-5-7-5 N=12
5		24	4-36-13-15 N=49
10		11	15-50/5"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater

No measurable groundwater

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-04-2019 | Boring Completed: 02-04-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-1

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.2352°

Approximate Surface Elev.: 532 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0.3	532+/-	**TOPSOIL**
		LEAN CLAY (CL), mottled, trace rootlets, orange to brown, moist, medium-stiff
2.0	530+/-	
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium dense
6.3	525.5+/-	
7.0	525+/-	**COMPLETELY WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 7 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		18	1-1-3-5 N=4
5			
		24	7-12-15-50 N=27

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-2

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9334° Longitude: -74.235°

Approximate Surface Elev.: 531 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0.3	531+/-	**GRAVEL ROADWAY**
		FILL - CLAYEY SAND WITH GRAVEL, pieces of geotextile fabric, orange to brown, moist, medium dense
2.0	529+/-	**CLAYEY SAND WITH GRAVEL (SC)**, occasional cobbles and boulders, orange to brown, moist, dense
9.8	521+/-	
10.1	521+/-	**WEATHERED SHALE**, brown to black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 10.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		8	10-10-6-6 N=16
5		17	15-18-23-50 N=41
10		1	50/1"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-3

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2346°

Approximate Surface Elev.: 536 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.3	535.5+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, medium-stiff to very stiff
6.3	529.5+/-	
		CLAYEY SAND WITH GRAVEL (SC), occasional cobbles and boulders, gray to black, moist, dense to very dense
14.1	522+/-	
		Auger and Sampler Refusal at 14.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		12	1-2-3-5 N=5
5		20	12-15-18-28 N=33
10		24	12-15-18-32 N=33
		0	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *13.7 feet after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-4

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2339°

Approximate Surface Elev.: 538 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.2 **TOPSOIL**	538+/-						
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, mottled, orange to brown, moist to wet, very loose to dense **Wet from approximately 0 to 1.5 feet**				X	12	1/12"-2-4 N=2	
			5					
					X	18	10-14-19-50/2" N=33	
	6.5	531.5+/-						
	6.7 **WEATHERED SHALE**, black, dry, very dense ***Sampler Refusal on Bedrock at 6.7 Feet***	531.5+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-5

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2315°

Approximate Surface Elev.: 545 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.9	544+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, soft
5.0	540+/-	**CLAYEY SAND WITH GRAVEL (SC)**, occasional cobbles, orange to brown, moist, dense to very dense
12.0	533+/-	
12.1	533+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 12.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		19	3-1-2-4 N=3
5		20	12-18-15-15 N=33
10		20	12-18-48-50/2" N=66
		1	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-6

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9334° Longitude: -74.2311°

Approximate Surface Elev.: 543 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.7	542.5+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist to wet, soft
5.0	538+/-	
		SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, gray to brown, moist to wet, medium dense to very dense
11.6	531.5+/-	
11.7	531.5+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 11.7 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		18	WH-1-1-3 N=2
5		24	3-5-15-25 N=20
10		5	50/5"
		1	50/1"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-7

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9332° Longitude: -74.2309°

Approximate Surface Elev.: 539 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.6	538.5+/-	**TOPSOIL**						
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist, very loose				18	WH-1-1-3 N=2	
5.0	534+/-		5					
5.9	533+/-	**WEATHERED SHALE**, black, dry, very dense				8	35-50/5"	
		Sampler Refusal on Bedrock at 5.9 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-8

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9332° Longitude: -74.2301°

Approximate Surface Elev.: 544 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.7	**TOPSOIL**	543.5+/-
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles and boulders, orange to brown, moist, loose	
4.0		540+/-
4.9	**WEATHERED SHALE**, black, dry, very dense	539+/-
	Auger and Sampler Refusal on Bedrock at 4.9 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			18	2-2-4-4 N=6	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-9

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.23°

Approximate Surface Elev.: 550 (Ft.) +/-

DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.6	**TOPSOIL**	549.5+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, very loose					12	WH-1-2-3 N=3	
3.0		547+/-						
	WEATHERED SHALE, black, dry, very dense							
4.4		545.5+/-				5	50/5"	
	Auger and Sampler Refusal on Bedrock at 4.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-10

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9349° Longitude: -74.2299°

Approximate Surface Elev.: 554 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.6	553.5+/-						
	TOPSOIL							
	CLAYEY SAND WITH GRAVEL (SC), trace rootlets, mottled, orange to brown, moist, loose				X	18	WH-2-3-5 N=5	
	5.5	548.5+/-	5					
	WEATHERED SHALE, black, dry, very dense				X	23	17-14-30-50/5" N=44	
	6.9	547+/-						
	Sampler Refusal on Bedrock at 6.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2293°

Approximate Surface Elev.: 555 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	554+/-						
TOPSOIL							
LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, medium-stiff					16	1-2-4-5 N=6	
5.0	550+/-	5					
5.9	549+/-				11	30-50/5"	
WEATHERED SHALE, black, dry, very dense							
Sampler Refusal on Bedrock at 5.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-12

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.229°

Approximate Surface Elev.: 555 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	554.5+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist to wet, loose				X	19	1-2-2-4 N=4	
	3.5	551.5+/-						
	WEATHERED SHALE, black, dry, very dense							
	5.0	550+/-			X	12	34-50	
	Sampler Refusal on Bedrock at 5 Feet		5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-13

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2292°

Approximate Surface Elev.: 555 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	LEAN CLAY WITH GRAVEL (CL), mottled, orange to brown, moist, medium-stiff							
	2.0	553+/-				14	WH-1-3-6 N=4	
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, medium dense							
	6.0	549+/-	5			20	12-13-28-50/5" N=41	
	6.9 **WEATHERED SHALE**, black, dry, very dense	548+/-						
	Sampler Refusal on Bedrock at 6.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-14

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9333° Longitude: -74.2287°

Approximate Surface Elev.: 554 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.7	553.5+/-						
	TOPSOIL							
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, very loose				X	20	WH-1-1-2 N=2	
	4.0	550+/-						
	WEATHERED SHALE, brown, dry, very dense		5					
	5.4	548.5+/-			X	5	50/5"	
	Sampler Refusal on Bedrock at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-15

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.2285°

Approximate Surface Elev.: 550 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
		TOPSOIL
1.0	549+/-	**LEAN CLAY (CL)**, mottled, orange to brown, moist, medium-stiff
4.0	546+/-	
4.4	545.5+/-	**WEATHERED SHALE**, black, dry, very dense
		Sampler Refusal on Bedrock at 4.4 Feet

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			14	WH-2-4-6 N=6	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-16

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9337° Longitude: -74.2283°

Approximate Surface Elev.: 555 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.6	**TOPSOIL**	554.5+/-
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, loose	
4.5		550.5+/-
5.4	**WEATHERED SHALE**, black, dry, very dense	549.5+/-
	Sampler Refusal on Bedrock at 5.4 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			14	WH-2-3-4 N=5	
5			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-17

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9333° Longitude: -74.228°

Approximate Surface Elev.: 556 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.8	**TOPSOIL**	555.5+/-
	LEAN CLAY (CL), mottled, orange to brown, moist, medium-stiff	
3.0		553+/-
	WEATHERED SHALE, black, dry, very dense	
4.4		551.5+/-
	Auger and Sampler Refusal on Bedrock at 4.4 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			19	WH-1-3-3 N=4	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-18

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.2288°

Approximate Surface Elev.: 539 (Ft.) +/-

GRAPHIC LOG	DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5	**TOPSOIL**	538.5+/-						
		WEATHERED SHALE, black, moist to wet, medium dense to very dense			▽		18	1-2-8-10 N=10	
	2.4		536.5+/-				4	50/5"	
		Sampler Refusal on Bedrock at 2.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *1.2 feet while drilling (perched)*

▽ *1 foot after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-19

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2275°

Approximate Surface Elev.: 545 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0							
	TOPSOIL							
	1.0	544+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, loose				X	18	WH-1-3-3 N=4	
	4.0	541+/-						
	WEATHERED SHALE, black, dry, very dense							
	5.4	539.5+/-	5		X	10	35-50/5"	
	Sampler Refusal on Bedrock at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-20

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2272°

Approximate Surface Elev.: 539 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	538+/-						
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, orange to brown, moist, loose to very dense **Trace rootlets observed from 0 to 2 feet**			X	17	1-2-4-3 N=6	
		5		X	24	7-7-10-14 N=17	
	Grades to gray	10		X	24	21-34-32-50 N=66	
		15		X	24	21-34-24-24 N=58	
		20		X	21	8-15-34-50/5" N=49	
21.9	517+/-						
	Sampler Refusal at 21.9 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019	Boring Completed: 03-27-2019
Drill Rig: CME 55	Driller: J. Lamm
Project No.: JB185187	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-21

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2269°

Approximate Surface Elev.: 545 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	544+/-						
TOPSOIL							
CLAYEY SAND WITH GRAVEL (SC), brown to black, moist, loose				X	14	WH-2-3-4 N=5	
5.0	540+/-	5					
WEATHERED SHALE, black, dry, very dense				X	20	25-43-38-30 N=81	
7.0	538+/-						
Boring Terminated at 7 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-22

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9354° Longitude: -74.2252°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.7	524.5+/-	**TOPSOIL**
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist, loose
5.0	520+/-	
		SILTY SAND (SM), brown, wet, very loose
10.0	515+/-	
		SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, brown, dry, very dense
		Grades to wet
18.5	506.5+/-	
19.1	506+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal at 19.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
5		14	1-4-5-2 N=9
		24	2-1/12"-8 N=1
10		24	21-32-38-32 N=70
15		20	12-27-40-38 N=67
		1	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-23

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9353° Longitude: -74.2246°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	524.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), orange to brown, moist, loose to medium dense
6.0	519+/-	**SILTY SAND WITH GRAVEL (SM)**, occasional cobbles and boulders, gray to brown, moist to wet, very dense
11.0	514+/-	***Auger and Sampler Refusal at 11 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			19	1-2-5-4 N=7	
5			17	2-9-30-30 N=39	
10	▽		4	50/4"	
			0	50/0"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *10.5 feet after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-24

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.935° Longitude: -74.2249°

Approximate Surface Elev.: 531 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
0.0					
TOPSOIL					
1.0	530+/-				
CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist to wet, medium dense				19	1-6-5-4 N=11
		5			
6.0	525+/-			18	6-11-25-22 N=36
WEATHERED SHALE, black, dry, very dense					
				0	50/1"
9.1	522+/-			1	50/1"
Auger and Sampler Refusal on Bedrock at 9.1 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-25

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.934° Longitude: -74.2246°

Approximate Surface Elev.: 542 (Ft.) +/-

GRAPHIC LOG	DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.3	**TOPSOIL**	542+/-						
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium-stiff					19	1-4-4-5 N=8	
	2.5		539.5+/-						
		WEATHERED SHALE, black, dry, very dense							
	3.8		538+/-				10	30-50/4"	
		Auger and Sampler Refusal on Bedrock at 3.8 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-26

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2241°

Approximate Surface Elev.: 541 (Ft.) +/-

DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	**TOPSOIL**	540.5+/-						
1.0	**CLAYEY SAND (SC)**, mottled, trace rootlets, orange to brown, moist, loose	540+/-				19	1-4-3-5 N=7	
	LEAN CLAY WITH GRAVEL (CL), black, moist, stiff							
3.0		538+/-						
	WEATHERED SHALE, black, dry, very dense							
4.2		537+/-				1	50/2"	
	Auger and Sampler Refusal on Bedrock at 4.2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-27

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2238°

Approximate Surface Elev.: 532 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.3 **TOPSOIL**	531.5+/-						
	1.0 **SILTY SAND WITH GRAVEL (SM)**, black, wet, loose	531+/-				22	1-7-29-32 N=36	
	2.0 **WEATHERED SHALE**, black, moist, very dense	530+/-						
	Sampler Refusal on Bedrock at 2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-28

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2231°

Approximate Surface Elev.: 530 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
	TOPSOIL				
1.3	529+/-			23	2-5-8-9 N=13
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, medium dense				
3.5	526.5+/-				
	WEATHERED SHALE, black, dry, very dense	5			
5.9	524+/-			11	34-50/5"
	Sampler Refusal on Bedrock at 5.9 Feet				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-29

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9331° Longitude: -74.2239°

Approximate Surface Elev.: 529 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.6	**TOPSOIL** 528.5+/-						
		LEAN CLAY WITH GRAVEL (CL), black, moist, medium-stiff				19	1-4-3-11 N=7	
	2.0	527+/-						
		WEATHERED SHALE, black, dry, dense				24	14-16-24-41 N=40	
	4.0	525+/-						
		Auger Refusal on Bedrock at 4 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-30

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2235°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	RECOVERY (In.)	FIELD TEST RESULTS
	TOPSOIL			
1.0	534+/-		18	1-4-6-6 N=10
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, medium dense			
4.8	530+/-			
	WEATHERED SHALE, black, dry, very dense	5	11	28-50/5"
5.9	529+/-			
	Auger and Sampler Refusal on Bedrock at 5.9 Feet			

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-31

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.934° Longitude: -74.2228°

Approximate Surface Elev.: 535 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	534.5+/-						
	WEATHERED SHALE, black, moist, dense				X	20	5-17-25-50 N=42	
	2.0	533+/-						
	Auger Refusal on Bedrock at 2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-32

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2223°

Approximate Surface Elev.: 506 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	505+/-						
TOPSOIL							
LEAN CLAY WITH GRAVEL (CL), occasional cobbles, black, moist to wet, medium-stiff to very stiff					24	2-9-8-5 N=17	
					24	5-6-8-6 N=14	
		5					
6.0	500+/-				22	2-3-7-13 N=10	
WEATHERED SHALE, black, moist, medium dense to very dense							
8.3	497.5+/-				10	14-10-50/4"	
Sampler Refusal on Bedrock at 8.3 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-1

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	9.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	7.0	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
4.0	S-1	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0			As Above, Occasional Cobbles (SM)	
			8.7				
9.0	RS-1	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			10.0			Test Pit Log TP-1 Terminated at a Depth of 9.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934868 N, 74.232835 W	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-2

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	13.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
						Brown to Gray, Silty Sand with Gravel (SM)	
			5.0	GLACIAL TILL		As Above (SM)	Difficult digging implies very dense
						As Above (SM)	
			10.0			As Above (SM)	Boulder @ 11 fbgs
			12.0				
12.5	RS-2	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-2 Terminated at a Depth of 13.0 Feet Below Ground Surface	
						Test Pit Location: (Lat,Lon) = 42.934685 N, 74.232423 W)	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-3

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
3.0	RS-3	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
			5.5			Test Pit Log TP-3 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.932880 N, 74.232457 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-4

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		14" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
5.5	RS-4	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-4 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933167 N, 74.232110 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-5

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	4.5	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		9" Topsoil	
2.0	S-2	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-5	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
						Test Pit Log TP-5 Terminated at a Depth of 5.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933329 N, 74.228796 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-6

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	7.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
			6.0				
6.5	RS-6	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-6 Terminated at a Depth of 7.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933459 N, 74.227922 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-7

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		10" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel, Cobbles (SM)	
			4.5				
			5.0	SHALE			
5.5	RS-4	Grab		BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-7 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934019 N, 74.229186 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-8

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		8" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-8	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
						Test Pit Log TP-8 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934131 N, 74.229427 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

Appendix C

Geotechnical Laboratory Results

Appendix C.1

Geotechnical Laboratory Results by Sanborn Head

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	03/13/25	Checked By:	ank
Depth :	---	Test Id:	806875		

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
SH-4	S- 3	9-11'	Moist, brown silt with gravel	10.4
SH-5	S- 4	14-16'	Moist, very dark gray silty clay with gravel	9.6
SH-5	S- 5	19-21'	Moist, very dark gray silty clay with gravel	10.2
SH-9	S- 4	14-16'	Moist, dark gray silty sand with gravel	7.0
SH-11	S- 2	4-6'	Moist, very dark grayish brown sandy clay with organics	23.5
SH-12	S- 2	4-6'	Moist, dark grayish brown silt with sand	12.4
SH-13	S- 2	4-6'	Moist, dark grayish brown silt with gravel	23.9
SH-13	S- 3	9-11'	Moist, very dark grayish brown gravelly silt with clay	14.2
SH-18	S- 2	4-6'	Moist, very dark brown silt with gravel	10.3
SH-18	S- 3	8-10'	Moist, black gravelly silt with clay	12.4

Notes: Temperature of Drying : 110º Celsius

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	SH-8	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/13/25	Checked By:	ank
Depth :	4-6'	Test Id:	806879		
Test Comment:	---				
Visual Description:	Moist, very dark grayish brown silt with sand with organics				
Sample Comment:	---				

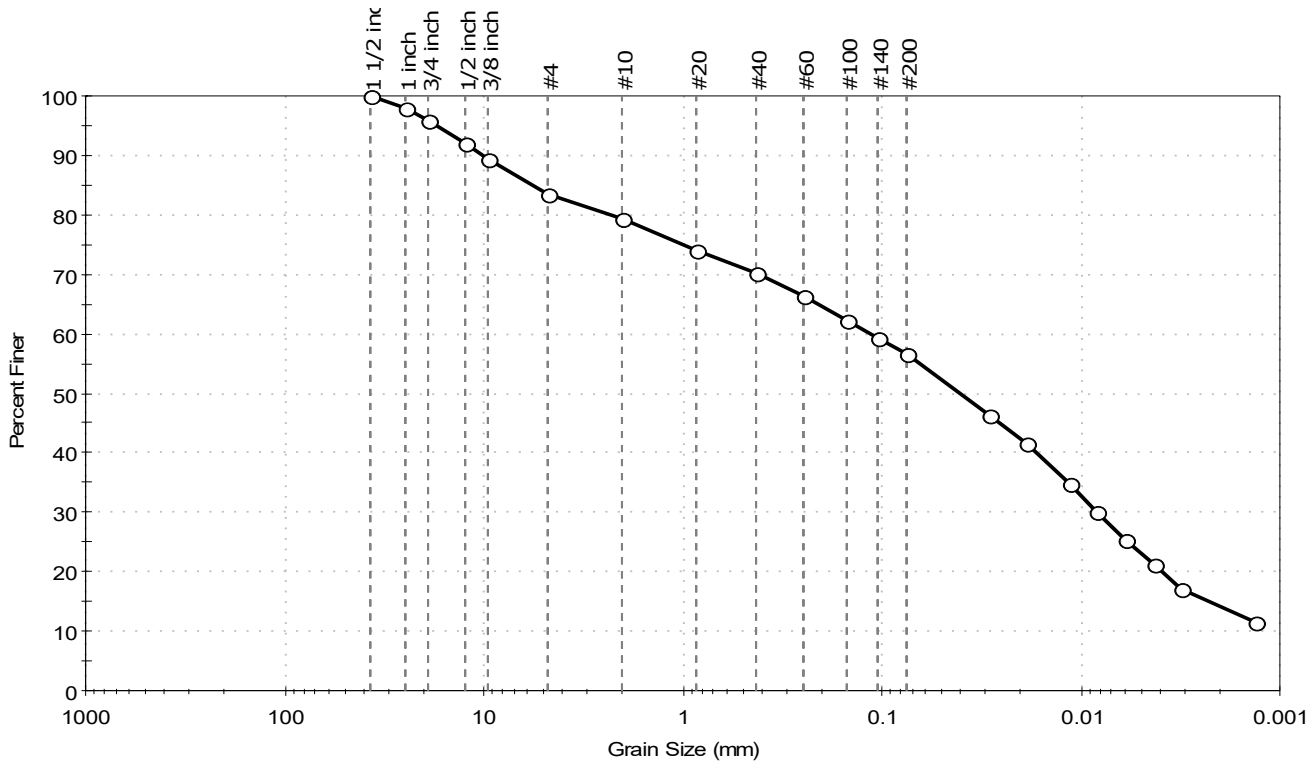
Moisture, Ash, and Organic Matter - ASTM D2974

Boring ID	Sample ID	Depth	Description	Moisture Content,%	Ash Content,%	Organic Matter,%
SH-8	S-2	4-6'	Moist, very dark grayish brown silt with sand with organics	37	94.8	5.2

Notes: Moisture content determined by Method A and reported as a percentage of oven-dried mass; dried to a constant mass at temperature of 105º C
Ash content and organic matter determined by Method C; dried to constant mass at temperature 440º C

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Bucket	Tested By:	ajl
Sample ID:	Composite South	Test Date:	03/21/25	Checked By:	ank
Depth :	---	Test Id:	806845		
Test Comment:	---				
Visual Description:	Moist, dark gray brown sandy silt with gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	16.5	26.9	56.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	98		
3/4 inch	19.00	96		
1/2 inch	12.50	92		
3/8 inch	9.50	90		
#4	4.75	83		
#10	2.00	79		
#20	0.85	74		
#40	0.42	70		
#60	0.25	66		
#100	0.15	62		
#140	0.11	59		
#200	0.075	57		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0292	46		
---	0.0190	42		
---	0.0114	35		
---	0.0083	30		
---	0.0060	25		
---	0.0043	21		
---	0.0031	17		
---	0.0013	11		

Coefficients

D_{85} = 5.6540 mm
D_{30} = 0.0083 mm
D_{60} = 0.1158 mm
D_{15} = 0.0023 mm
D_{50} = 0.0409 mm
D_{10} = N/A
C_u = N/A
C_c = N/A

Classification

ASTM N/A

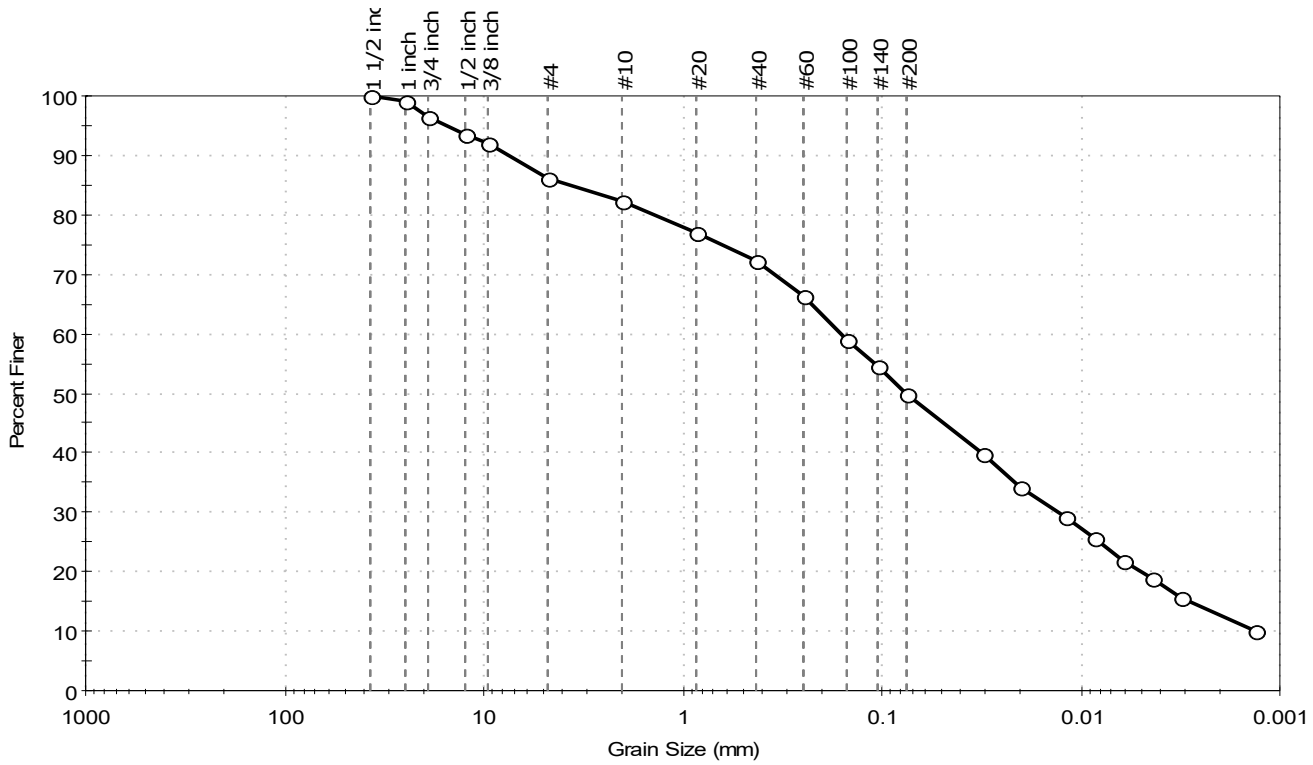
AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Bucket	Tested By:	ajl
Sample ID:	Composite North	Test Date:	03/21/25	Checked By:	ank
Depth :	---	Test Id:	806846		
Test Comment:	---				
Visual Description:	Moist, olive gray silty sand				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	14.0	36.1	49.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	99		
3/4 inch	19.00	97		
1/2 inch	12.50	93		
3/8 inch	9.50	92		
#4	4.75	86		
#10	2.00	82		
#20	0.85	77		
#40	0.42	72		
#60	0.25	66		
#100	0.15	59		
#140	0.11	54		
#200	0.075	50		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0308	40		
---	0.0202	34		
---	0.0119	29		
---	0.0086	26		
---	0.0061	22		
---	0.0044	19		
---	0.0032	16		
---	0.0013	10		

Coefficients

D_{85} = 3.7890 mm D_{30} = 0.0129 mm

D_{60} = 0.1604 mm D_{15} = 0.0028 mm

D_{50} = 0.0754 mm D_{10} = N/A

C_u = N/A C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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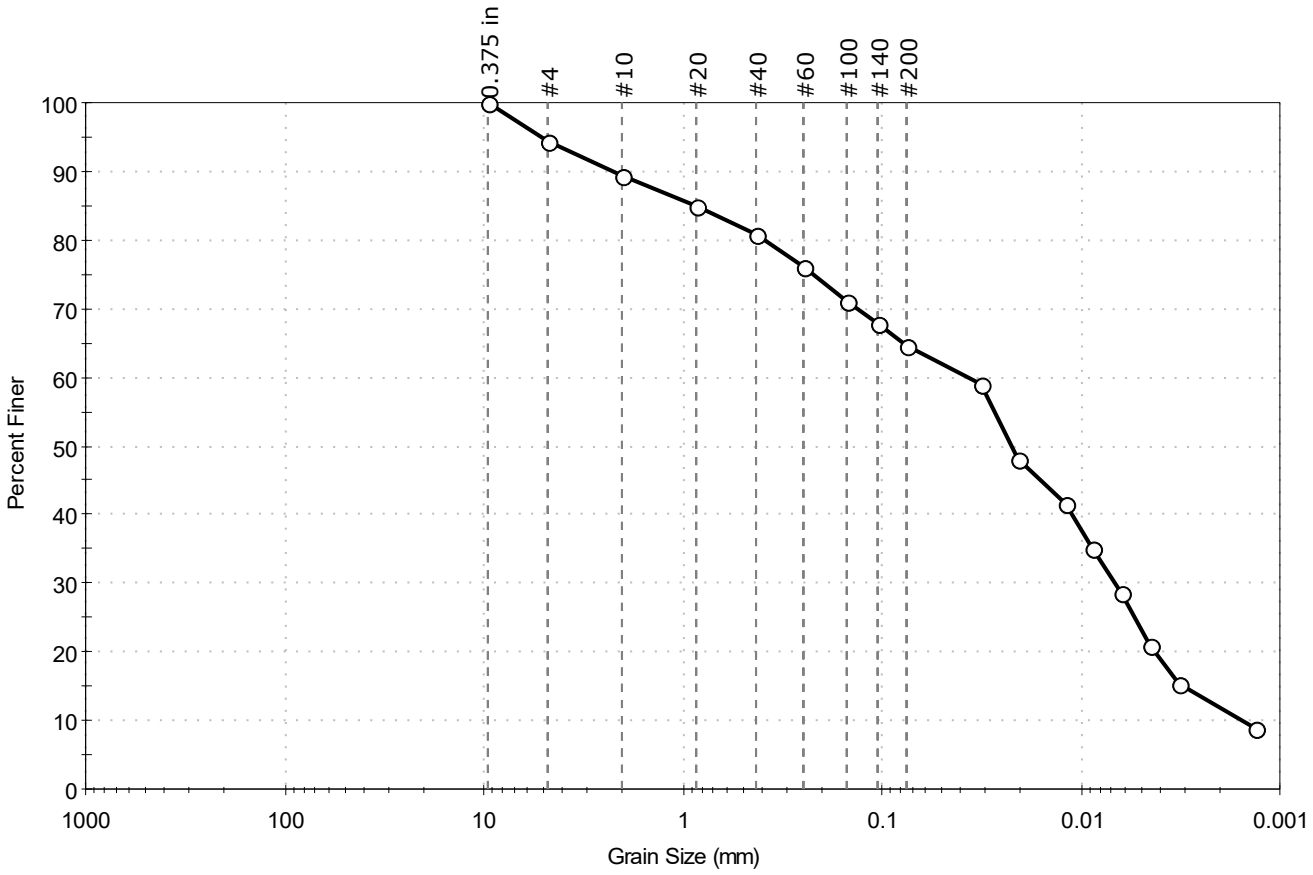
Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	SH-12	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/17/25	Checked By:	ank
Depth :	4-6'	Test Id:	806852		

Test Comment: ---
Visual Description: Moist, dark grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.5	29.8	64.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	94		
#10	2.00	90		
#20	0.85	85		
#40	0.42	81		
#60	0.25	76		
#100	0.15	71		
#140	0.11	68		
#200	0.075	65		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0316	59		
---	0.0205	48		
---	0.0121	42		
---	0.0087	35		
---	0.0062	28		
---	0.0045	21		
---	0.0032	15		
---	0.0013	9		

Coefficients

D_{85} =0.8669 mm	D_{30} =0.0067 mm
D_{60} =0.0362 mm	D_{15} =0.0031 mm
D_{50} =0.0220 mm	D_{10} =0.0016 mm
C_u =22.625	C_c =0.775

Classification

ASTM N/A

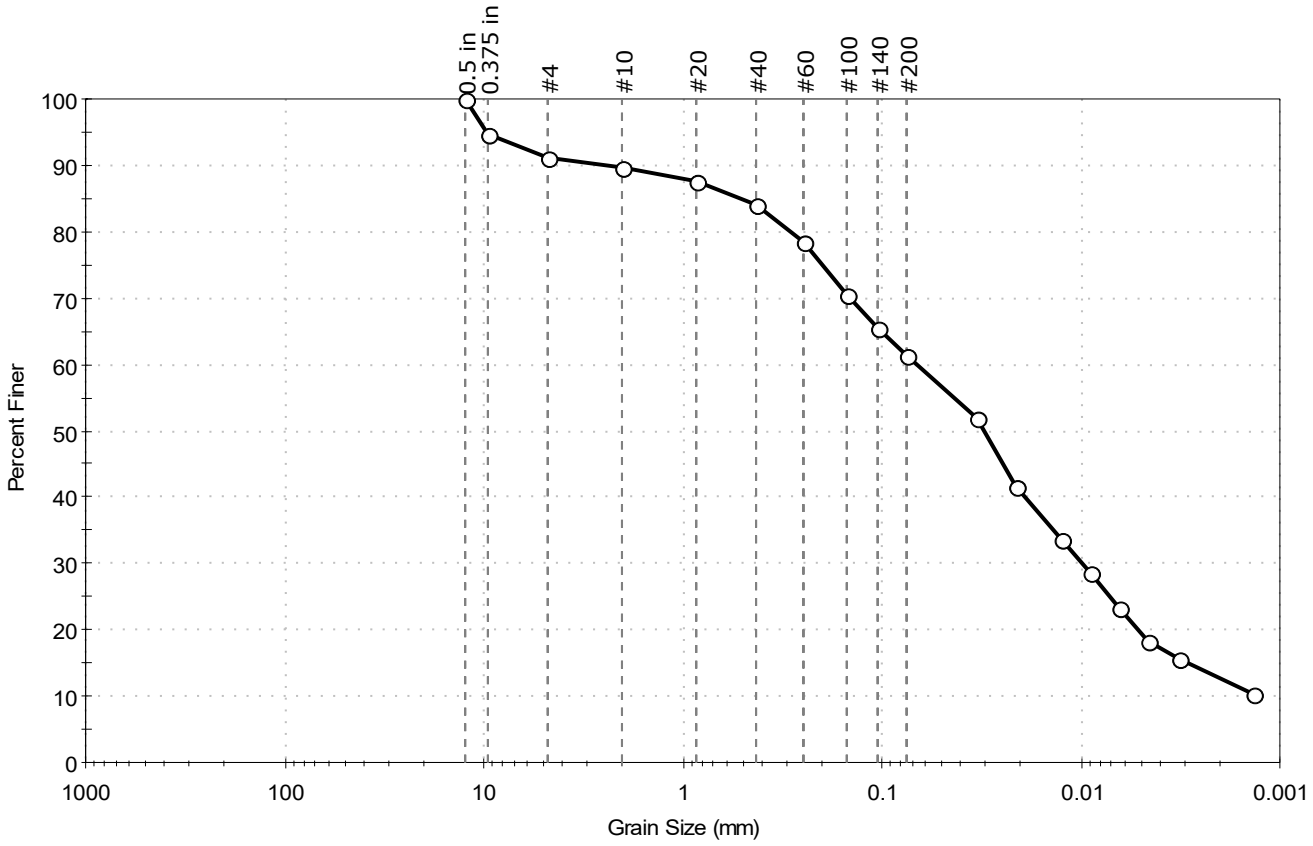
AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	SH-8	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-2	Test Date:	03/17/25	Checked By:	ank
Depth :	4-6'	Test Id:	806848		
Test Comment:	---				
Visual Description:	Moist, very dark grayish brown sandy silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.8	29.8	61.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	95		
#4	4.75	91		
#10	2.00	90		
#20	0.85	88		
#40	0.42	84		
#60	0.25	78		
#100	0.15	70		
#140	0.11	65		
#200	0.075	61		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0335	52		
---	0.0214	42		
---	0.0125	34		
---	0.0089	29		
---	0.0064	23		
---	0.0046	18		
---	0.0032	16		
---	0.0013	10		

Coefficients

D_{85} = 0.5114 mm	D_{30} = 0.0098 mm
D_{60} = 0.0666 mm	D_{15} = 0.0029 mm
D_{50} = 0.0308 mm	D_{10} = N/A
C_u = N/A	C_c = N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

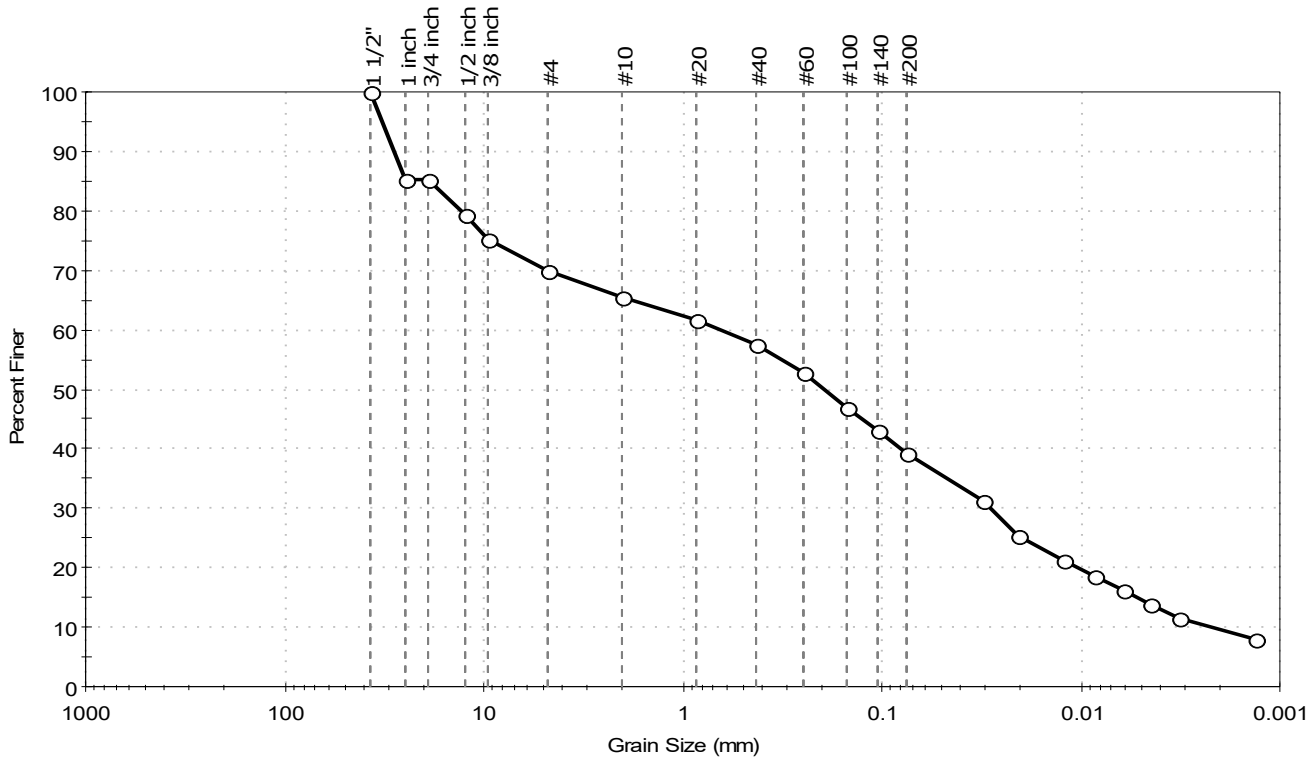
Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	SH-9	Sample Type:	Jar	Tested By:	ajl
Sample ID:	S-4	Test Date:	03/18/25	Checked By:	ank
Depth :	14-16'	Test Id:	806847		
Test Comment:	---				
Visual Description:	Moist, dark gray silty sand with gravel				
Sample Comment:	---				

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	30.0	30.9	39.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2"	37.50	100		
1 inch	25.00	85		
3/4 inch	19.00	85		
1/2 inch	12.50	79		
3/8 inch	9.50	75		
#4	4.75	70		
#10	2.00	66		
#20	0.85	62		
#40	0.42	58		
#60	0.25	53		
#100	0.15	47		
#140	0.11	43		
#200	0.075	39		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0309	31		
---	0.0209	25		
---	0.0122	21		
---	0.0086	18		
---	0.0062	16		
---	0.0045	14		
---	0.0032	12		
---	0.0013	8		

Coefficients

D_{85} = 18.5732 mm D_{30} = 0.0285 mm

D_{60} = 0.6425 mm D_{15} = 0.0053 mm

D_{50} = 0.1973 mm D_{10} = 0.0022 mm

C_u = 292.045 C_c = 0.575

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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Client:	Sanborn, Head & Associates, Inc.				
Project:	MSV 1				
Location:	Amsterdam, NY			Project No:	GTX-320702
Boring ID:	---	Sample Type:	Core	Tested By:	gp
Sample ID:	SH-10 C1	Test Date:	04/02/25	Checked By:	smd
Depth :	11.4-11.8'	Test Id:	806880		
Test Comment:	---				
Visual Description:	See photograph(s)				
Sample Comment:	---				

Bulk Density and Compressive Strength of Rock Core Specimens by ASTM D7012 Method C

Boring ID	Sample Number	Depth	Bulk Density, pcf	Compressive strength, psi	Failure Type	Meets ASTM D4543	Note(s)
---	SH-10 C1	11.4-11.8 ft	164	21393	1	No	1,*

Notes: Density determined on core samples by measuring dimensions and weight and then calculating.

All specimens tested at the approximate as-received moisture content and at standard laboratory temperature.

The axial load was applied continuously at a stress rate that produced failure in a test time between 2 and 15 minutes.

Failure Type: 1 = Intact Material Failure; 2 = Discontinuity Failure; 3 = Intact Material and Discontinuity Failure (See attached photographs)

1: Best effort end preparation. See Tolerance report for details.
2: The as-received core did not meet the ASTM side straightness tolerance due to irregularities in the sample as cored.
3: Specimen L/D < 2.
4: The as-received core did not meet the ASTM minimum diameter tolerance of 1.875 inches.
5: Specimen diameter is less than 10 times maximum particle size.
6: Specimen diameter is less than 6 times maximum particle size.

*Because the indicated tested specimens did not meet the ASTM D4543 standard tolerances, the results reported here may differ from those for a test specimen within tolerances.

Client:	Sanborn, Head & Associates, Inc.	Test Date:	4/1/2025
Project Name:	MSV 1	Tested By:	cml
Project Location:	Amsterdam, NY	Checked By:	smd
GTX #:	320702		
Boring ID:	---		
Sample ID:	SH-10 C1		
Depth (ft):	11.4-11.8		
Visual Description:	See photographs		

UNIT WEIGHT DETERMINATION AND DIMENSIONAL AND SHAPE TOLERANCES OF ROCK CORE SPECIMENS BY ASTM D4543

BULK DENSITY

	1	2	Average
Specimen Length, in:	4.12	4.12	4.12
Specimen Diameter, in:	1.99	1.99	1.99
Specimen Mass, g:	552.49		
Bulk Density, lb/ft^3	164	**Minimum Diameter Tolerence Met?**	YES
Length to Diameter Ratio:	2.1	**Length to Diameter Ratio Tolerance Met?**	YES

DEVIATION FROM STRAIGHTNESS (Procedure S1)

Maximum gap between side of core and reference surface plate:
Is the maximum gap ≤ 0.02 in.? YES

Maximum difference must be < 0.020 in.
Straightness Tolerance Met? YES

END FLATNESS AND PARALLELISM (Procedure FP1)

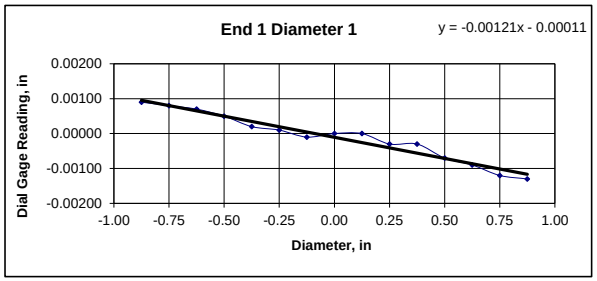
END 1	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00090	0.00080	0.00070	0.00050	0.00020	0.00010	-0.00010	0.00000	0.00000	-0.00030	-0.00030	-0.00070	-0.00090	-0.00120	-0.00130
Diameter 2, in (rotated 90°)	0.00080	0.00060	0.00050	0.00040	0.00030	0.00020	0.00020	0.00000	-0.00030	-0.00050	-0.00080	-0.00080	-0.00100	-0.00100	-0.00100

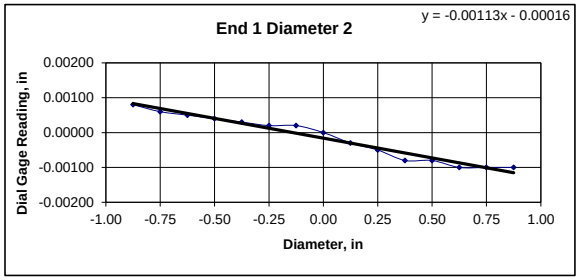
Difference between max and min readings, in:
0° = 0.00220 90° = 0.00180

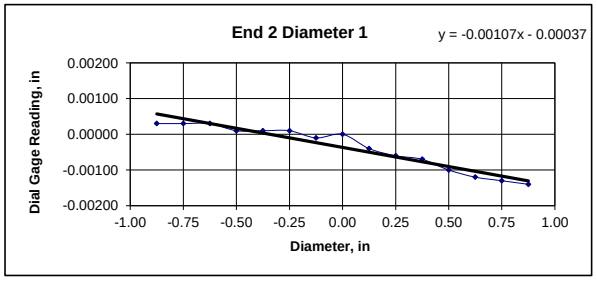
END 2	-0.875	-0.750	-0.625	-0.500	-0.375	-0.250	-0.125	0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875
Diameter 1, in	0.00030	0.00030	0.00030	0.00010	0.00010	0.00010	-0.00010	0.00000	-0.00040	-0.00060	-0.00070	-0.00100	-0.00120	-0.00130	-0.00140
Diameter 2, in (rotated 90°)	-0.00160	-0.00140	-0.00130	-0.00100	-0.00080	-0.00030	-0.00010	0.00000	0.00000	0.00050	0.00060	0.00070	0.00080	0.00090	0.00120

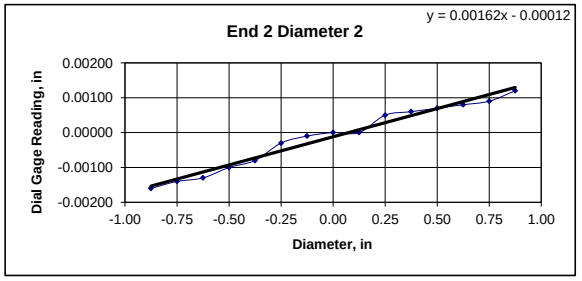
Difference between max and min readings, in:
0° = 0.0017 90° = 0.0028

Maximum difference must be < 0.0020 in. Difference = ± 0.00140
Flatness Tolerance Met? NO









DIAMETER 1

End 1:
Slope of Best Fit Line 0.00121
Angle of Best Fit Line: 0.06941

End 2:
Slope of Best Fit Line 0.00107
Angle of Best Fit Line: 0.06139

Maximum Angular Difference: 0.00802

Parallelism Tolerance Met? NO
Spherically Seated

DIAMETER 2

End 1:
Slope of Best Fit Line 0.00113
Angle of Best Fit Line: 0.06499

End 2:
Slope of Best Fit Line 0.00162
Angle of Best Fit Line: 0.09266

Maximum Angular Difference: 0.02767

Parallelism Tolerance Met? NO
Spherically Seated

PERPENDICULARITY (Procedure P1) (Calculated from End Flatness and Parallelism measurements above)

END 1	Difference, Maximum and Minimum (in.)	Diameter (in.)	Slope	Angle°	Perpendicularity Tolerance Met?
Diameter 1, in	0.00220	1.989	0.00111	0.063	YES
Diameter 2, in (rotated 90°)	0.00180	1.989	0.00091	0.052	YES
END 2					
Diameter 1, in	0.00170	1.989	0.00085	0.049	YES
Diameter 2, in (rotated 90°)	0.00280	1.989	0.00141	0.081	YES

Maximum angle of departure must be ≤ 0.25°
Perpendicularity Tolerance Met? YES

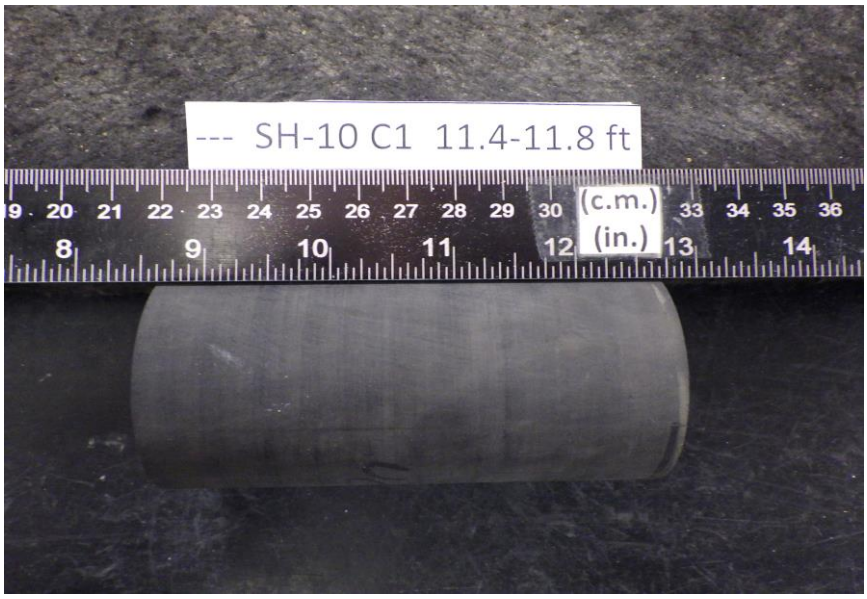
Client:	Sanborn, Head & Associates, Inc.	Test Date:	4/1/2025
Project Name:	MSV 1	Tested By:	cml
Project Location:	Amsterdam, NY	Checked By:	smd
GTX #:	320702		
Boring ID:	---	Reliable dial gauge measurements could not be performed on this rock type. Tolerance measurements were performed using a machinist straightedge and feeler gauges to ASTM specifications.	
Sample ID:	SH-10 C1		
Depth (ft):	11.4-11.8		
Visual Description:	See photographs		

BEST EFFORT END FLATNESS TOLERANCES OF ROCK CORE SPECIMENS TO ASTM D4543

END FLATNESS		
END 1		
Diameter 1	Is the maximum gap $\leq \pm 0.001$ in.?	YES
Diameter 2 (rotated 90°)	Is the maximum gap $\leq \pm 0.001$ in.?	YES
END 2		
Diameter 1	Is the maximum gap $\leq \pm 0.001$ in.?	YES
Diameter 2 (rotated 90°)	Is the maximum gap $\leq \pm 0.001$ in.?	YES

End Flatness Tolerance Met? YES

Client:	Sanborn, Head & Associates, Inc.
Project Name:	MSV 1
Project Location:	Amsterdam, NY
GTX #:	320702
Test Date:	4/2/2025
Tested By:	cml
Checked By:	smd
Boring ID:	---
Sample ID:	SH-10 C1
Depth, ft:	11.4-11.8



After cutting and grinding



After break

8487 Albert-Louis-Van Houtte
Montréal (Québec) H1Z 4J2
Phone: 514-521-4290
Fax: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES, AND OTHER MATERIALS

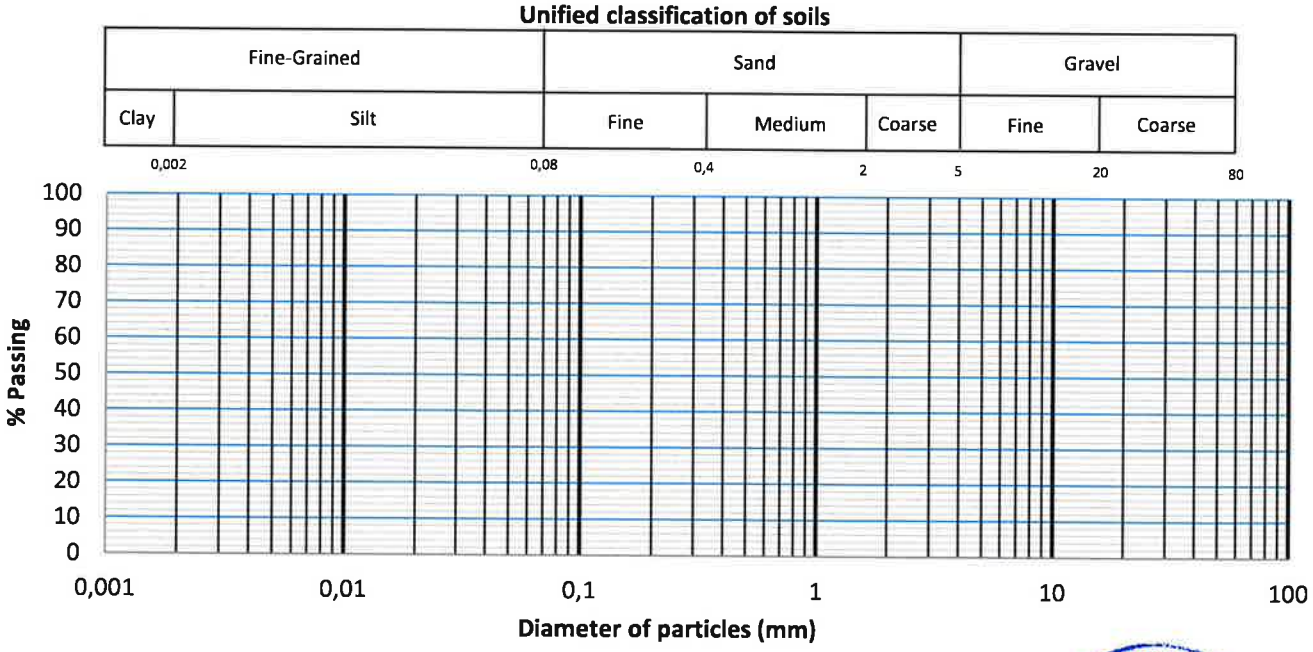
Client :	Sanborn, Head and Associates Inc.	**Material :**	Rock core		
		Source :	New-York State		
Project :	New-York State Project		Sample SH-10 / C-2		
File n° :	MTS-25003936-A0	**Collected the :**	N/A	**Received :**	2025-03-04
Sample n°:	MO-22495	**Sampled by :**	-	**Client ref. :**	6480-000-010

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56		
40		
31,5		
20		
14		
10		
5		
2,5		
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
PISP	NQ 2560-500	50	
Pyrite eq.	NQ 2560-500	0,78%	
Sulphate eq.	NQ 2560-500	0,01%	
Compressive strenght	ASTM D7012	34,8 Mpa	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by :

Isabelle Coulombe
Laboratory Manager

Approuved by :

Alain Blanchette, géo., M.A.Sc.
Principal Director

GÉOLOGUE / GÉOLOGIST
ALAIN BLANCHETTE #254
QUÉBEC

MO-22495.xls

8487 Albert-Louis-Van Houtte Avenue
Montreal (Québec) H1Z 4J2
Phone : 514-521-4290
Fax : 514-521-4637
www.exp.com

SOIL AND AGGREGATES

Determination of the petrographic index of swelling potential NQ 2560-500

Client : Sandborn, Head and Associates inc.
Date : 2025-03-21
File n° : MTS-25003936-A0
Project : Technical Testing Program
Lab n° : MO-22495 (SH-10, C-2)
Client ref. : 6480-000-010

Particle type : Rock core
Source : N/A
Sampled by : Client
Location : N/A

Masses					
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g

Synoptic Board

Petrographic facies	IP	Core	PISP								
Black calcareous mudstone	0.5	50	50								
PISP per fraction:			50								

PISP of material: 50

Remarks:

The rock core sample received presents the following characteristics:

- Length : 120 mm
- Diameter : 47 mm
- Weight : 619 g
- This type of rock presents a moderate to high swelling potential, according to BNQ 2560-511 Standard.
- Strong reaction to HCl 10 %.
- No sign of sulfide oxidation, no sign of sulfation.

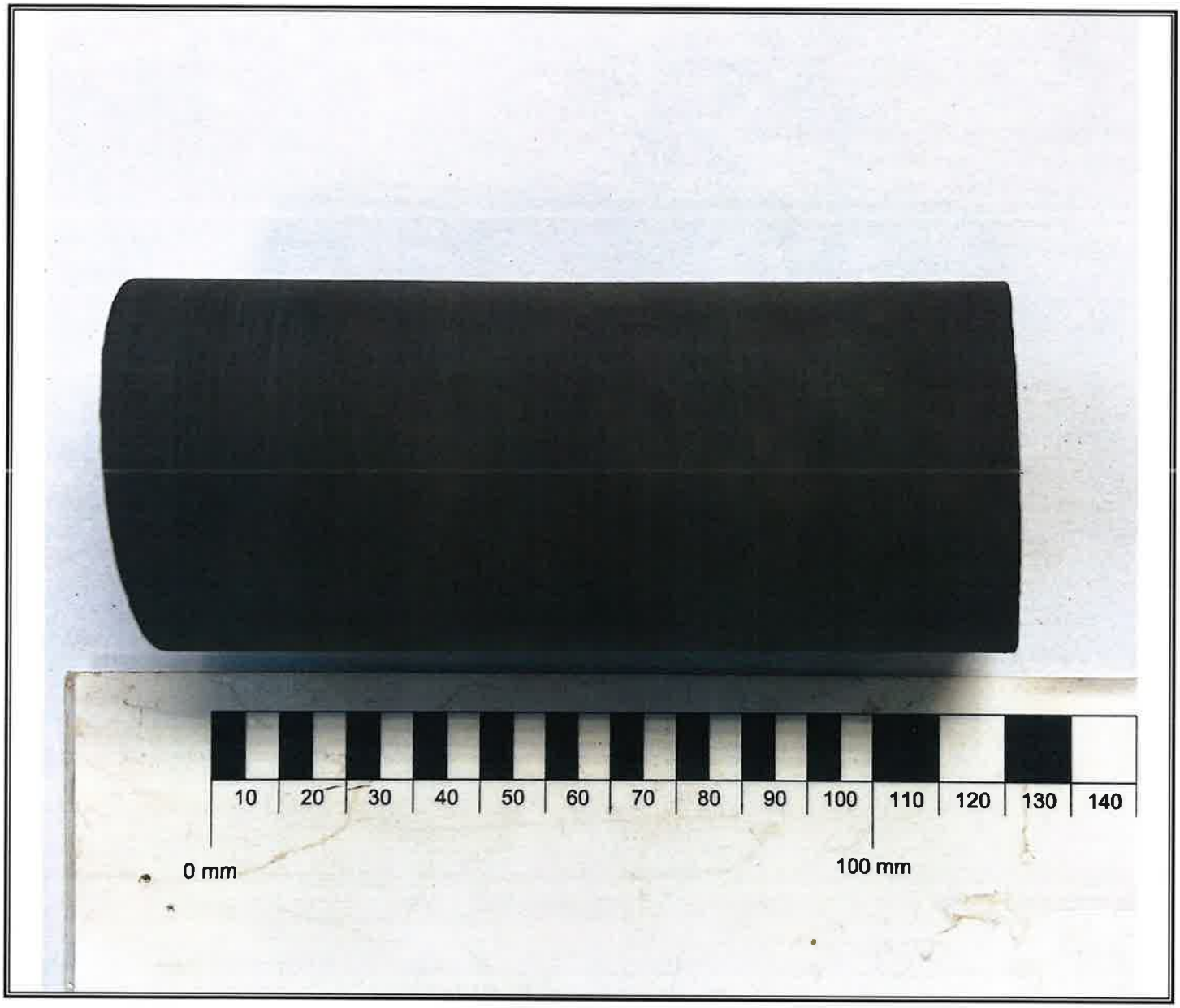
Realized by: Alexandre Beaudry, GIT
Date: 2025-03-21 (AAAA – MM – JJ)

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

Approved by:
Alain Blanchette, géo., M.Sc.A.
Senior Director
Date: 2025-03-21 (AAAA – MM – JJ)

Photographic Report

Client : Sandborn, Head and Associates inc.	**Date :** 2025 (AAAA) - 03 (MM) - 05 (JJ)
Dossier : MTS-25003936-A0	**Labo nº :** MO-22495 / SH-10 C-2
Projet : Technical Testing Program	**Réf. client :** 6480-000-010



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Phone: 514-521-4290
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www.exp.com

Uniaxial Compressive Strength of Intact Rock Core Specimens
ASTM D7012

Client:	Sanborn, Head and Associates inc.	Date:	March 7, 2025
		File:	MTS-25003936-A0
Project:	Technical Testing Program	Lab no:	MO-22495
		Client ref.:	6480-000-010

1.0 DATA

Coring realized the : N/D by: Customer

Localization of the core hole : MO-22495 : 18' : SH-10 / C-2

2.0 RESULTS

Sample:	Lab No	MO-22495		
	Reference No	SH-10 / C-2		
Date of the test		2025-03-05		
Cure (type)		Dry		
Total lenght (mm)		120,85		
Grounded lenght (mm)		99,30		
Grounded core weight (kg)		0,518		
Core diameter (mm)		50,14		
Height/diameter ratio (2.0 – 2.5)		1,98		
Density (kg/m^3)		2 642		
Load (Newton)		68 760		
Compressive strength (MPa)		34,8		
Failure type		Multiple extension		

3.0 REMARKS

Tested by the method «C» of the standard

Verified by:

Isabelle Coulombe
Laboratory Manager

Approuved by:

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE # 254
QUÉBEC

Alain Blanchette, geo., M.A.Sc.
Principal Director, OGQ # 254

POLYTECHNIQUE MONTRÉAL
UNIVERSITÉ D'INGÉNIERIE

Département des génies civil, géologique et des mines (CGM)

Laboratoire de Géo-ingénierie - Géochimie Analytique

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Campus de l'Université de Montréal
2900, Édouard-Montpetit
École Polytechnique
2500, chemin de Polytechnique
H3T 1J4

Adresse postale
C.P. 6079, succ. Centre-ville
Montréal (Québec) Canada
H3C 3A7
Téléphone : (514) 340-4257
Courriel : cgm@polymtl.ca
Télécopieur : (514) 340-3981

École affiliée à l'Université de Montréal

Les Services exp. inc.
8487, Avenue Albert-Louis-Van Houtte
Montréal, (Québec) H1Z 4J2
Tél.: 514 521-4290, Téléc.: 514 521-4637

À l'attention d'Alexendre Beaudry
courriel : alexandre.beaudry@exp.com

Bon de commande : MTS-2025-045
No. projet : MTS-25003936-A0

Échantillon #	*Labo #*	*S (total) exprimé en S %m**	*Sulfates hydrosolubles exprimé en SO4 %m**
MO-22495	LGC250704	0,42	0,007

*%m = 1g/100g
Réf.: **BNQ** 2560-500/2022
S par LECO CS744
Sulfates hydrosolubles par turbidimétrie selon *standard methods*

Laboratoire de Géo-ingénierie - Géochimie Analytique
Jérôme Leroy, Technicien en chimie analytique
Tél.: (514) 340-4711 poste 2199
jerome.leroy@polymtl.ca
Zohra Laimeche, Technicienne en chimie analytique
Tél.: (514) 340-4711 poste 4789
zohra.laimeche@polymtl.ca

10 mars 2025

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Phone: 514-521-4290
Fax: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES, AND OTHER MATERIALS

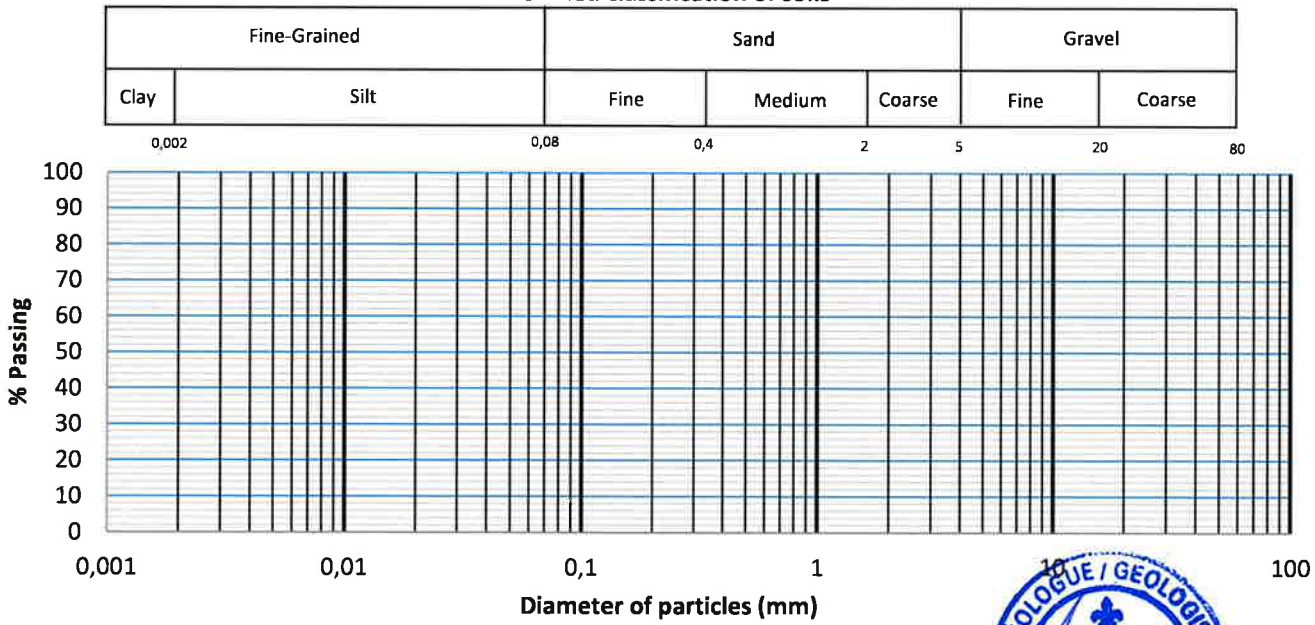
Client :	Sanborn, Head and Associates Inc.	**Material :**	Rock core		
		Source :	New-York State		
Project :	New-York State Project		Sample SH-11 / C-1		
File n° :	MTS-25003936-A0	**Collected the :**	N/A	**Received :**	2025-03-04
Sample n°:	MO-22496	**Sampled by :**	-	**Client ref. :**	6480-000-010

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56		
40		
31,5		
20		
14		
10		
5		
2,5		
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
PISP	NQ 2560-500	50	
Pyrite eq.	NQ 2560-500	1,44%	
Sulphate eq.	NQ 2560-500	0,02%	
Compressive strenght	ASTM D7012	62,4 Mpa	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE
254
QUÉBEC

Verified by : _____
Isabelle Coulombe
Laboratory Manager

Approuved by : _____
Alain Blanchette, geo., M.A.Sc.
Principal Director

8487 Albert-Louis-Van Houtte Avenue
Montreal (Québec) H1Z 4J2
Phone : 514-521-4290
Fax : 514-521-4637
www.exp.com

SOIL AND AGGREGATES

Determination of the petrographic index of swelling potential NQ 2560-500

Client	: Sandborn, Head and Associates inc.	Date	: 2025-03-21
		File n°	: MTS-25003936-A0
Project	: Technical Testing Program	Lab n°	: MO-22496 (SH-11, C-1)
		Client ref.	: 6480-000-010

Particle type	: Rock core
Source	: N/A
Sampled by	: Client
Location	: N/A

Masses

Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g
Passing	mm	Retained	mm	Mass	g

Synoptic Board

Petrographic facies	IP	Core	IPPG								
Black calcareous mudstone	0.5	50	50								
PISP per fraction:			50								

PISP of material: 50

Remarks:

The rock core sample received presents the following characteristics:

- Length : 130 mm
- Diameter : 47 mm
- Weight : 670 g
- This type of rock presents a moderate to high swelling potential, according to BNQ 2560-511 Standard.
- Strong reaction to HCl 10 %.
- No sign of sulfide oxidation, no sign of sulfation.

Realized by: Alexandre Beaudry, GIT — Date: 2025-03-21 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A, Senior Director — Date: 2025-03-21 (AAAA – MM – JJ)

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

Photographic Report

Client : Sandborn, Head and Associates inc.	**Date :** 2025 (AAAA) - 03 (MM) - 05 (JJ)
Dossier : MTS-25003936-A0	**Labo nº :** MO-22496 / SH-11 C-1
Projet : Technical Testing Program	**Réf. client :** 6480-000-010



POLYTECHNIQUE MONTRÉAL
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Les Services exp. inc.
8487, Avenue Albert-Louis-Van Houtte
Montréal, (Québec) H1Z 4J2
Tél.: 514 521-4290, Téléc.: 514 521-4637

À l'attention d'Alexendre Beaudry
courriel : alexandre.beaudry@exp.com

Bon de commande : MTS-2025-045
No. projet : MTS-25003936-A0

Échantillon #	*Labo #*	*S (total) exprimé en S %m**	*Sulfates hydrosolubles exprimé en SO4 %m**
MO-22496	LGC250705	0,77	0,009

*%m = 1g/100g

Réf.: **BNQ** 2560-500/2022

S par LECO CS744

Sulfates hydrosolubles par turbidimétrie selon *standard methods*

Laboratoire de Géo-ingénierie - Géochimie Analytique
Jérôme Leroy, Technicien en chimie analytique
Tél.: (514) 340-4711 poste 2199
jerome.leroy@polymtl.ca
Zohra Laimeche, Technicienne en chimie analytique
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10 mars 2025

8487 Albert-Louis-Van Houtte
Montréal (Québec) H1Z 4J2
Phone: 514-521-4290
Fax: 514-521-4637
www.exp.com

Uniaxial Compressive Strength of Intact Rock Core Specimens ASTM D7012

Client:	Sanborn, Head and Associates inc.	Date:	March 7, 2025
		File:	MTS-25003936-A0
Project:	Technical Testing Program	Lab no:	MO-22496
		Client ref.:	6480-000-010

1.0 DATA

Coring realized the : N/D by: Customer

Localization of the core hole : MO-22496 : 26' : SH-11 / C-1

2.0 RESULTS

Sample:	Lab No	MO-22496		
	Reference No	SH-11 / C-1		
Date of the test		2025-03-05		
Cure (type)		Dry		
Total lenght (mm)		131,24		
Grounded lenght (mm)		109,12		
Grounded core weight (kg)		0,560		
Core diameter (mm)		50,58		
Height/diameter ratio (2.0 – 2.5)		2,16		
Density (kg/m^3)		2 554		
Load (Newton)		125 32		
Compressive strength (MPa)		62,4		
Failure type		Multiple extension		

3.0 REMARKS

Tested by the method «C» of the standard

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE # 254 QUÉBEC

Verified by: _____
Isabelle Coulombe
Laboratory Manager

Approuved by: _____
Alain Blanchette, geo., M.A.Sc.
Principal Director, OGQ # 254

Appendix C.2

Geotechnical Laboratory Results from Whitestone

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001
Service Date: 02/13/19
Report Date: 02/13/19
Task:

A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

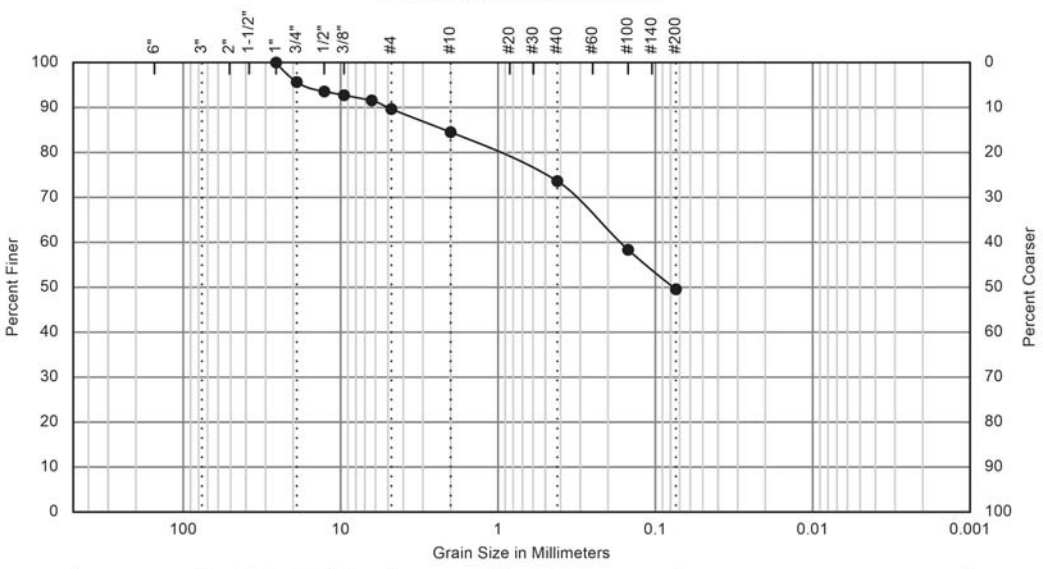
Sample Information

Sample Type:	SPT
Sample Location:	B-1/S-3 4'-6'
Sample Description:	SILT and F-M-C SAND, Little F-C Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"			
1-1/2"			
1"	100.0		
3/4"	95.7		
1/2"	93.6		
3/8"	92.7		
1/4"	91.6		
#4	89.6		
#10	84.5		
#40	73.6		
#100	58.3		
#200	49.6		



% Cobbles	% Gravel - 10.4		% Sand - 40.1			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	4.3	6.0	5.1	10.9	24.1	49.6

D_{60}	D_{30}	D_{10}	C_c	C_u	FM
=0.17	=	=	=	=	=

*

Comments:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/ 3193 1W
Report Date: 0/ 3193 1W
Task:

DENTE A Terracon COMPANY
5W A Broadway
E atervliet, A NY A 1/ 18W 970W
518-/ 66-0910

Client

E A2 quisitions A LLC
2 ttn: A Thomas A De2 ngelis
900 A George A Street, A G-01
New A Haven, A CT A 06511

Project

Proposed A Distribution A Center A 5SA Highway A2 msterdam, A NY
5SA Highway
Florida, A NY

Project A Number: A B185187

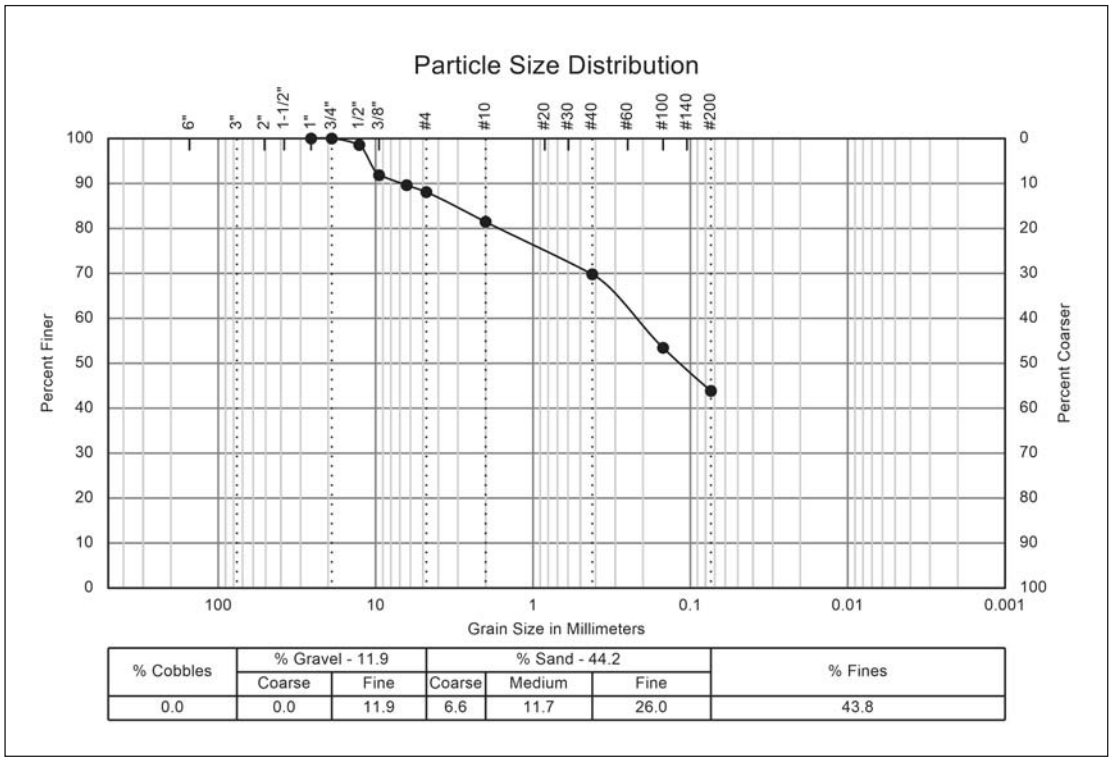
Sample Information

Sample Type:	SPT
Sample Location:	B-3/S-4 10'-12'
Sample Description:	F-M-C SAND and SILT, Little Fine Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
1"	100.0		
3/4"	100.0		
1/2"	98.6		
3/8"	91.8		
1/4"	89.6		
#4	88.1		
#10	81.5		
#40	69.8		
#100	53.4		
#200	43.8		



% Cobbles	% Gravel - 11.9		% Sand - 44.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	11.9	6.6	11.7	26.0	43.8

D_{60} = 0.22	D_{30} =	D_{10} =	C_c =	C_u =	FM =

*

Comments:

Services: PerRormA gradation A nalysis A on A sample A RA material A eturned A o A he A RRice A n A general A ccordance A with A 2 STf AD6W9.
Dente Group - A Terracon Co. Rep.: A2 .A Barron
Reported To: N32
Contractor: N32
Report Distribution:
(1) Æ A2 quisitions A LLC, A Thomas A De2 ngelis

Reviewed By:

John A Odorisio
Senior A ngineer

Test Methods: 2 STf AD6W9

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/31931W
Report Date: 0/31931W
Task:

DENTE A Terracon COMPANY
5W4A Brnadway
E acervlseo,ANYA1/18W-970W
518-/66-0910

Client

E Acquistosn Lt ACC2
c oL:A Thnmat A Dec Lgelst
900A Genrge A Screeo,AG-01
New A HaveL,A2 TA06511

Project

Prnpnted A Dstorsbi osnLA2 eLoerA5SA Hsghway A mt oerdam,ANY
5SA Hsghway
Flnrsda,ANY

Prnjeqo A Ni mber:A JB185187

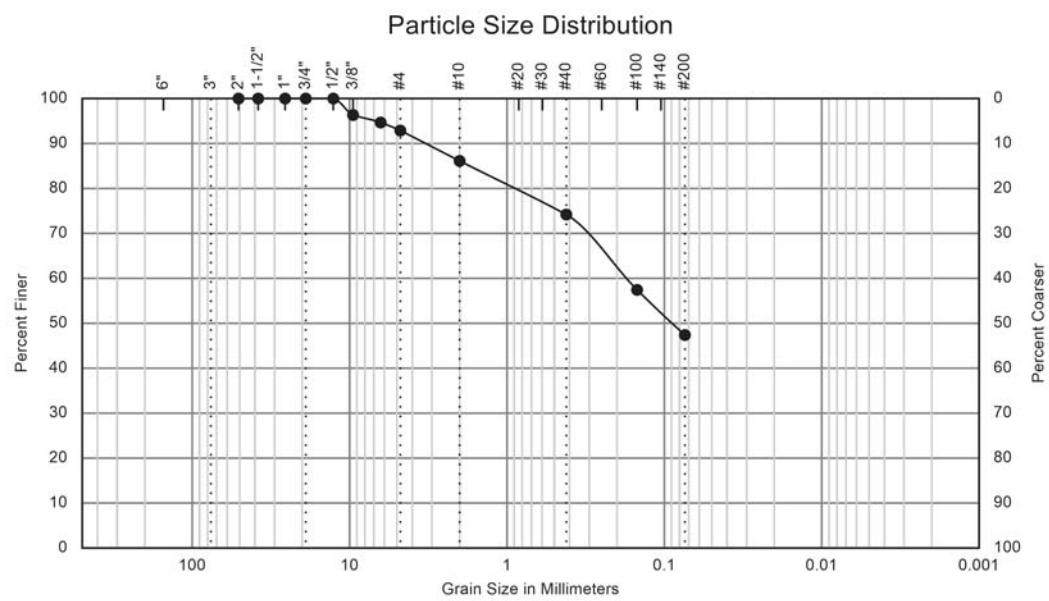
Sample Information

Sample Type:	SPT
Sample Location:	B-10/S-3 5'-7'
Sample Description:	SILT and F-M-C SAND, trace fine gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"	100.0		
1-1/2"	100.0		
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	96.3		
1/4"	94.7		
#4	92.9		
#10	86.1		
#40	74.2		
#100	57.4		
#200	47.4		



% Cobbles	% Gravel - 7.1		% Sand - 45.5			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	7.1	6.8	11.9	26.8	47.4

*

D_{60}=0.17	D_{30}=	D_{10}=	C_c=	C_u=	FM =

Comments:

Services: PerRnrmAgradaosnLAaLalytstAnLAaampleAnRAmaoersalAteoirLedAnAheAnRsqeALAgeLeralAaqqnrdaLqeAvsohAe STfAD6W19.
Dente Group - A Terracon Co. Rep.: Ac .A BarrnL
Reported To: N3c
Contractor: N3c
Report Distribution:
(1)A E Acquistosn Lt ACC2 ,A Thnmat A Dec Lgelst

Reviewed By:

JnhLA Odnrstsn
SeLsnrA LgsLeer

Test Methods: c STfAD6W19

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001B
Service Date: 02/13/19
Report Date: 02/13/19
Task:

DENTE A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

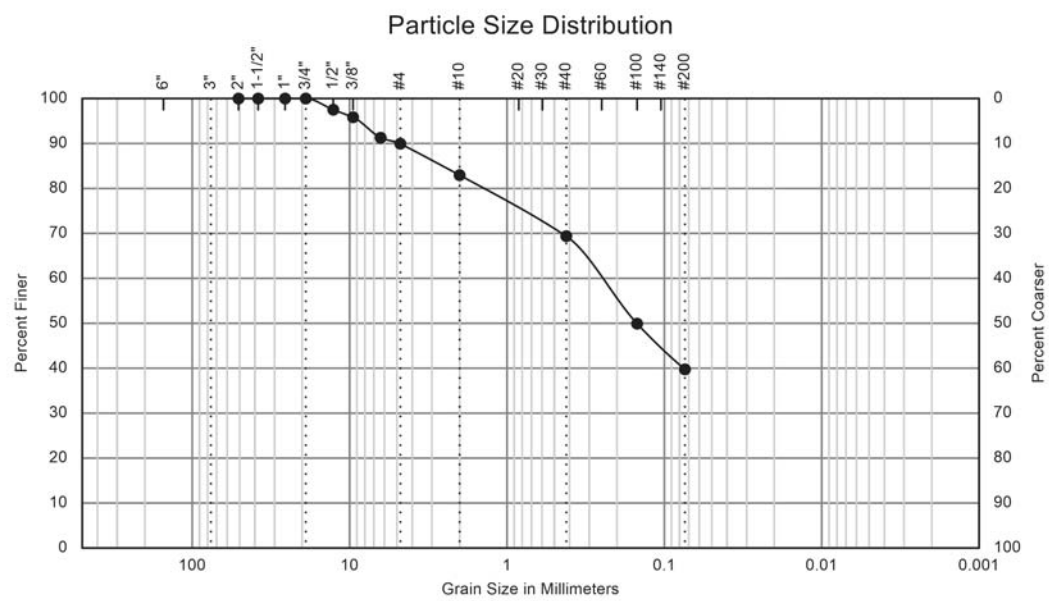
Sample Information

a-mple D(pe:	agD
a-mple Noc-tioM	BI1/aI3 4' 64y6
a-mple FescriptioM	SIL IT and F-MC aAND, Nittle SiMe Gr-vel
=aTa:	ailt(s-MC)aL 9

Laboratory Test Data

Dest L etPoC:	naDL Fh04O
L etPoC:	dn
ntterUerX Nimits:	NNnir I ', NNb veMI ', gNI ', gAI '
a-mple grep-r-tioM	b veMFrieC
aieviMX L etPoC:	aiMXle aievelaet aieviMX

aieve ai*e	gerceMt SiMer	apec2'	g-ss)z. S-il9
y5	1' ' 2		
4I4/y5	1' ' 2		
45	1' ' 2		
O/35	1' ' 2		
4/y5	0728		
O/15	0821		
4/35	042O		
#3	1020		
#4'	1O2		
#3'	h023		
#4' '	3020		
#y' '	O027		



% Cobbles	% Gravel - 10.1		% Sand - 50.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	10.1	7.0	13.6	29.6	39.7

"

$F_{h'}$. ' 2y3	F_{O} .	$F_{4'}$.	T_{c} .	T_{u} .	SL .

Comments:

Services: PerRorm gradation analysis on sample oRmaterial returned to the oRRce in general accordance with ASTf D6913.
Dente Group - A Terracon Co. Rep.: A. Barron
Reported To: N/A
Contractor: N/A
Report Distribution:
(1) WE Acquistions LLC, Thomas DeAngelis

Reviewed By:

John Odorisio
Senior Engineer

Test Methods: ASTf D6913

DPe tests were performeC iMXeMer-I-ccorC-Mce witP-pplic-Ule naDL, nnaHDb, or Fb D test metPoCs2 DPis report is exclusivel(for tPe use of tPe clieMt iMCic-teC-Uove-MCsP-Il Mot Ue reproCuceC except iMfull witPout tPe writteMcoMseMt of our comp-M(2 Dest results tr-MsmitteC PereiM-re oM(-pplic-Ule to tPe -ctu-I s-mples testeC-t tPe loc-tioM)s9refereMceC-MC-re Mot Mecess-ril(iMCic-tive of tPe properties of otPer-pp-reMtl(simil-r or iCeMtic-I m-teri-Is2

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Télécopieur: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #1		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48711	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

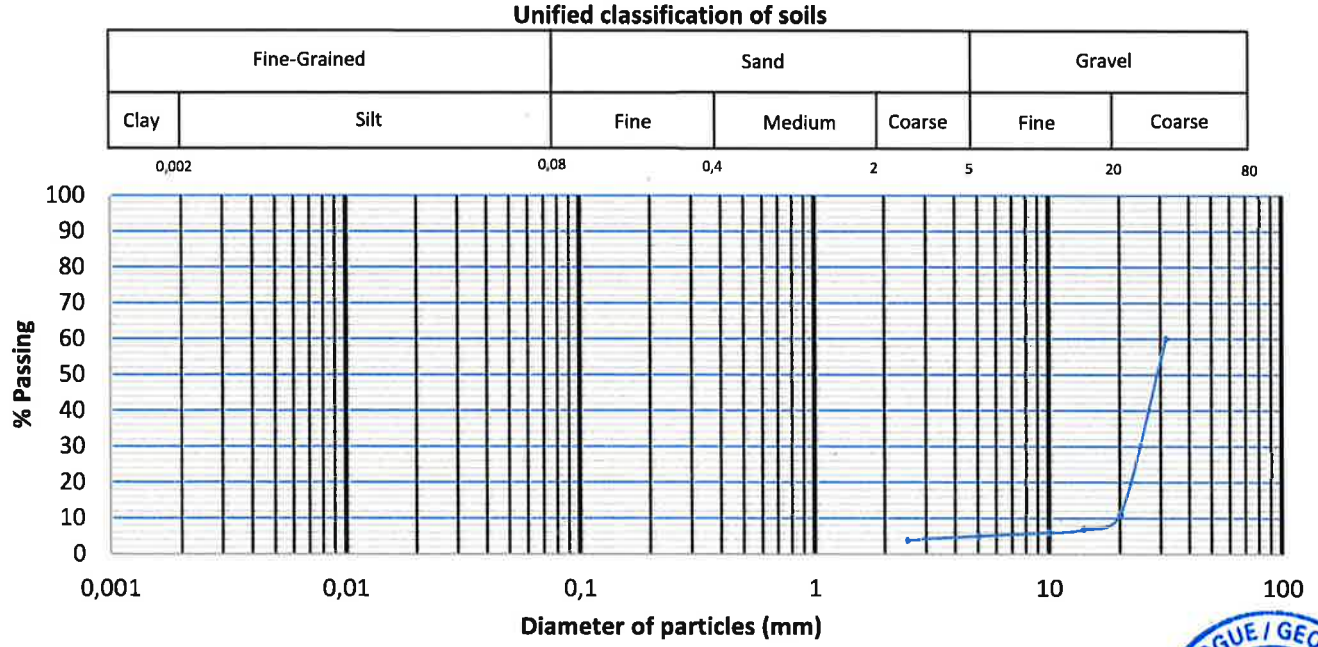
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	64	
Pyrite equivalent	NQ2560-500	0,15%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

48711.xls

8487, Albert-Louis-Van Houtte Avenue
Montreal (Québec) H1Z 4J2
Phone : 514-521-4290
Fax : 514-521-4637
www.exp.com

AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48711
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 1
Source :	Florida, New York
Sampled by :	Client
Location :	RS1 + RS2

Weight used

Passing	40	mm	Retained	31.5	mm	Weight	900	g
Passing	31.5	mm	Retained	20	mm	Weight	715	g
Passing	-	mm	Retained	-	mm	Weight	-	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	5	5						
Indurated Shale	0.5	43	21.5	47	23.5						
Slate Shale	0.75	57	43.1	48	35.8						
SPPI per fraction:			64.6		64.3						

Final SPPI: 64

Remark

Realized by:	Marie-Camille Labranche, Trainee, Geological Engineering	Date:	July 3rd, 2019 AAAA – MM – JJ
Approved by:	Alain Blanchette, géo., M.Sc.A. Principal Director	Date:	July 3rd, 2019 AAAA – MM – JJ

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

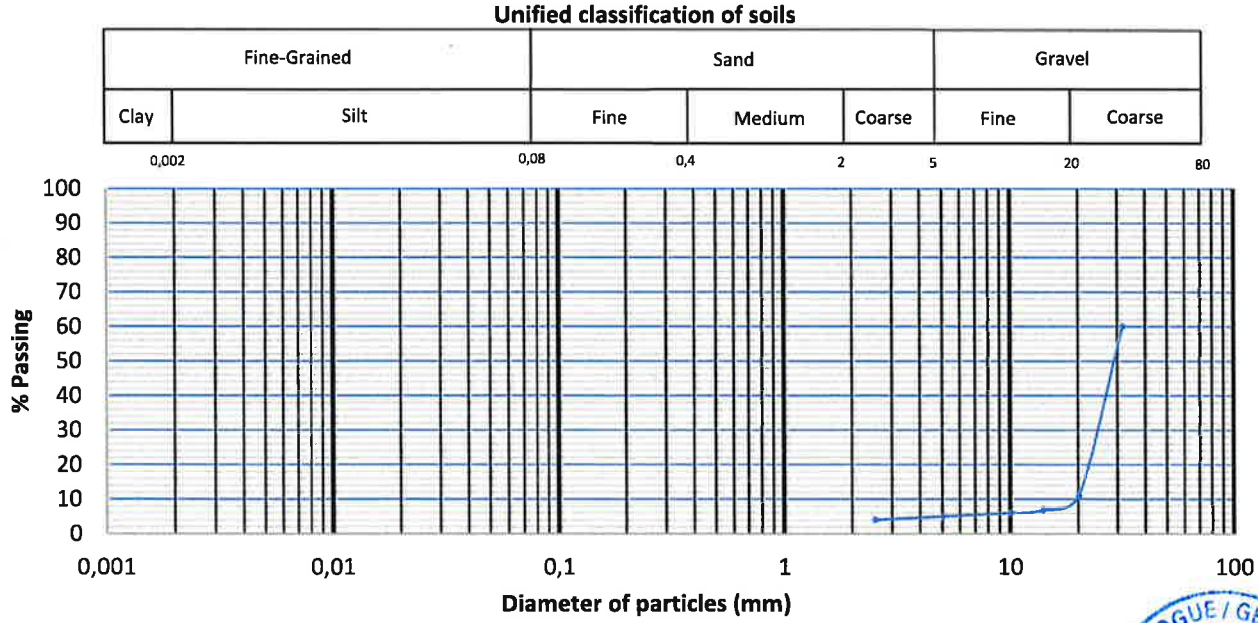
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #2		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48712	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	67	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,007%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE # 254 QUÉBEC

48712.xls

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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48712
Client's ref. : 60678

Sample : Crushed Stone, sample nº 2
Source : Florida, New York
Sampled by : Client
Location : RS2 + RS3

Weight used								
Passing	40	mm	Retained	31.5	mm	Weight	1 389	g
Passing	31.5	mm	Retained	20	mm	Weight	962	g
Passing	20	mm	Retained	14	mm	Weight	771	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained 14 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	0.5	0	0	40	20	34	17				
Indurated Shale	0.75	100	75	60	44.8	66	49.4				
SPPI per fraction:			75		64.8		66.4				

Final SPPI: 67

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

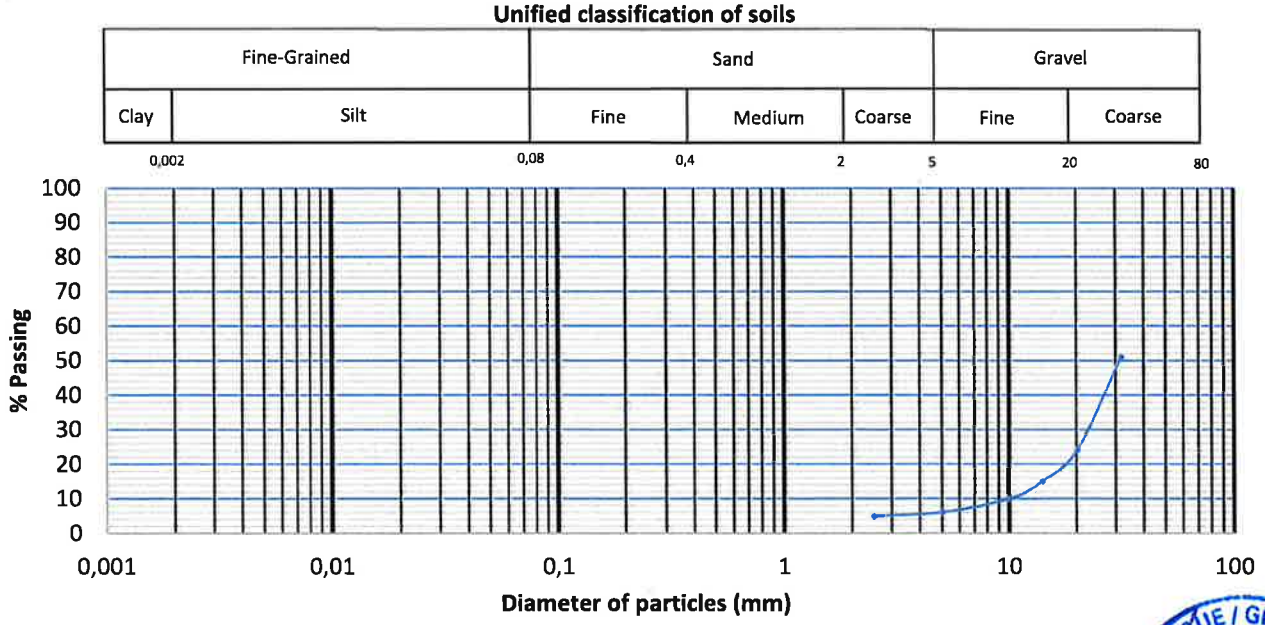
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #3		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48713	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80	100	
56	95	
40	73	
31,5	51	
20	24	
14	15	
10	10	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	70	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,009%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE
264
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48713.xls

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Fax : 514-521-4637
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AGGREGATES AND SOILS

Swelling potential petrographic index determination
NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48713
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 3
Source :	Florida, New York
Sampled by :	Client
Location :	RS5 + RS6

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 478	g
Passing	40	mm	Retained	31.5	mm	Weight	723	g
Passing	31.5	mm	Retained	20	mm	Weight	584	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	12	12	25	25				
Indurated Shale	0.5	53	26.5	22	11	27	13.5				
Slate Shale	0.75	47	35.6	66	49.5	48	36.2				
SPPI per fraction:			62.1		72.5		74.7				

Final SPPI: 70

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering — Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A. Principal Director — Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #4		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48714	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

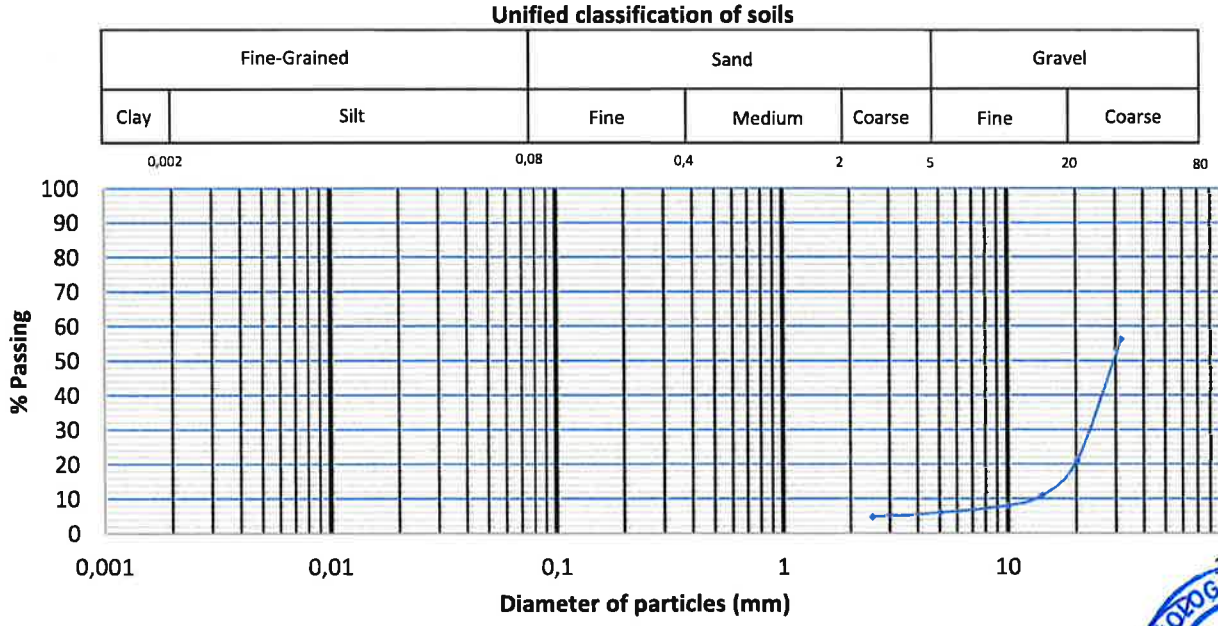
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80	100	
56	96	
40	78	
31,5	56	
20	21	
14	11	
10	8	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	68	
Pyrite equivalent	NQ2560-500	0,13%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48714
Client's ref. : 60678

Sample : Crushed Stone, sample nº 4
Source : Florida, New York
Sampled by : Client
Location : RS7 + RS8

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 438	g
Passing	40	mm	Retained	31.5	mm	Weight	572	g
Passing	31.5	mm	Retained	20	mm	Weight	872	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	9	9	34	34				
Indurated Shale	0.5	60	30	61	30.5	34	17				
Slate Shale	0.75	40	29.8	30	22.6	32	24.1				
SPPI per fraction:			59.8		62.1		75.1				

Final SPPI: 68

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019
AAAA – MM – JJ

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019
AAAA – MM – JJ

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE #264
QUÉBEC

APPENDIX 9

WATER DISTRIBUTION SYSTEM ENGINEER'S REPORT

FOR

MSV1 Warehouse Distribution Facility

Located At:
Route 5S/Mead Road
Town of Florida
Montgomery County, New York State, 12010

Prepared For:
BMG Albany, LLC
100 Front Street, Suite 1225
West Conshohocken, PA 19428

Prepared By:
Bohler Engineering NY, PLLC
17 Computer Drive West
Albany, NY 12205

Report Preparation Date:
April 14, 2025

Estimated Project Timeline:
October 1, 2025 – October 1, 2027

BOHLER

BE Project #: NYB240176

1) Executive Summary 3
2) Project Information 3
3) Water Distribution System 4
a) Projected Water Demand 4
b) Proposed Distribution System 4
c) Water Meter and Backflow Prevention Devices 5
d) Fire Suppression 5
4) Testing 6

APPENDIX

Appendix A – Vicinity Map
Appendix B – Aerial Map
Appendix C – Will Serve Letter and Flow Calculations
Appendix D – Hydrant Flow Test Results
Appendix E – Town of Florida Water Mapping
Appendix F – Overall Utility Plan
Appendix G – Partial Utility Plans

1) EXECUTIVE SUMMARY

This Water Distribution System Engineer's Report has been prepared for the Applicant, BMG Albany, LLC, who is proposing to develop the ±137.2-acre property (Tax Map ID 54.-1-36) at Route 5S/Mead Road in the Town of Florida, Montgomery County, New York. The project, known as MSV1, consists of the construction of a ±3.2 million square foot (±652,000 SF footprint, 5 stories) warehouse facility with associated car and trailer parking, trailer loading docks, stormwater basins, site utilities, signage, lighting and landscaping.

The water service portion of the project involves:

- Connection to the existing 10" water main located along Route 5S
- Installation of ±2,210 linear feet of 10" diameter C900 water service line
- Installation of ±190 linear feet of 8" diameter C900 water service line to fire suppression tanks
- Installation of ±4,590 linear feet of 10" diameter C900 fire suppression line around the warehouse
- Installation of ±255 linear feet of 6" diameter C900 water service line to building
- Installation of ±460 linear feet of 6" diameter C900 fire hydrant laterals
- Installation of ±210 linear feet of 2" diameter Type K copper water service to secondary guard house
- Installation of ±1,940 linear feet of 1.5" diameter Type K copper water service to primary guard house
- Installation of ±1,330 linear feet of 2" diameter force main
- Installation of nineteen (19) fire hydrants around the building
- Installation of two (2) 4" Storz fire department connections
- Installation of two (2) fire suppression tanks of approximately 360,000 gallons

2) PROJECT INFORMATION

The Applicant is proposing to develop a property in the Town of Florida, Montgomery County, New York (see Appendices A and B). The site is further designated as parcel 54.-1-36 and is approximately 137.2 acres. The project site is bounded by the Target Distribution Center and Beech-Nut Nutrition Company to the north across Route 5S, residential land to the east, NYS Route 90 to the south, and the Amazon Delivery DAB4 to the west.

The project site currently sits vacant and consists primarily of wooded areas, grassed areas, an existing asphalt and gravel driveway, and several wetland areas. The proposed project consists of the construction of a 3.2 million square-foot e-commerce logistics, storage and distribution facility. The footprint of the building will be approximately 652,000 square-feet and will feature 5 stories, at approximately 103.5 feet in height. The current layout provides for three (3) driveways to NYS Route 5S, associated drive aisles throughout the project site, parking for cars and trailers, trailer loading docks, utilities, signage, lighting, landscaping and stormwater management facilities.

In 2019, the site received Site Plan Approval and a Special Use Permit from the Town of Florida Planning Board for a 1-million square-foot warehouse/distribution center. The approved project included two (2) driveway entrances from NYS Route 5S, associated on-site roadways, parking, utility infrastructure, landscaping and stormwater management facilities.

3) WATER DISTRIBUTION SYSTEM

a) Projected Water Demand

The water usage rate for the proposed distribution warehouse is 30 gpd/employee. Per the applicant, the average number of employees per day is 2,160. Calculations were performed by Jordan & Skala Engineers, and are included in Appendix C. See the calculation below:

[(30 gpd/employee) x (2,160 employees)] = 64,800 gpd (gallons per day)

Monthly usage = 1,944,000 gallons per month

The project peak flow is as follows:

(64,800 gpd ÷ 24 hours ÷ 60 minutes) x 7.5 peak flow factor = 340 gpm (gallons per minute)

Per the Will-Serve Letter and response by the Town of Florida included in Appendix C, The Town water main has the capacity to handle the water service demands for the project as outlined in this section.

b) Proposed Distribution System

Water Distribution System

The Town of Florida will provide water service to the proposed project via connection to an existing 10” ductile iron pipe located along NYS Route 5S. A flow test was conducted on hydrants located along the main on Route 5S on March 5, 2025 by Harrington Group, the fire protection engineer for the project. Results of the flow test are included in Appendix D. Additionally, two (2) 360,000 gallon water storage tanks and fire pump houses are required for this project.

The proposed water distribution system will tap into the existing 10” ductile iron water main as shown on the Utility Plans, prepared by Bohler, dated April 24, 2025. The service is proposed to connect to the existing 10” pipe at a location east of the Target access driveway across NYS Route5S. The service will extend into the proposed project site to a heated enclosure containing a backflow preventer and water meter and continue to run throughout the site. This connection will provide water service needs to the proposed 360,000-gallon water tanks, warehouse, and guardhouses.

The proposed water distribution system will consist of ±2,210 linear feet of 10” diameter C900 water service pipe and has been designed in accordance with the requirements of the Ten States Recommended Standards for Water Works, latest edition.

Fire Water Service

As described above, the proposed 10-inch water service will provide water supply to the two (2) 360,000-gallon water tanks. One tank is located at the northwestern corner of the proposed building, and the other is located to the east of the proposed building. From there, the tanks will then supply the fire suppression loop, which consists of ±4,590 linear feet of 10-inch diameter C900 water service pipe surrounding the proposed building. The fire riser laterals that lead into the building will then provide water service to the internal fire sprinkler system of the proposed warehouse. Nineteen (19) fire hydrants have been provided around the warehouse, including two

(2) city pressure hydrants located along the 10” C900 water tank fill lines prior to entering the water tanks. A 4-inch Storz fire department connection has also been provided at each water storage tank as required by the Town. The fire water service has been designed in accordance with the requirements of the Ten States Recommended Standards for Water Works, latest edition and pipe and appurtenances will conform to AWWA Standard C900, latest edition.

Where the proposed fire water service will be parallel to the sanitary sewer, a minimum horizontal separation distance of 10 feet (outer-wall to outer-wall) was maintained. Where proposed water line crosses sanitary sewer, a minimum vertical separation distance of 18 inches (outer-wall to outer-wall) was maintained.

Domestic Water Service

The proposed domestic water service will consist of ±255 linear feet of 6” diameter C900 water service pipe which will serve the proposed warehouse. A 2” diameter and 1.5” diameter Type K copper water service line will provide domestic water needs to the primary and secondary guardhouses. The domestic water service has been designed in accordance with the requirements of the Ten States Recommended Standards for Water Works, latest edition and pipe and appurtenances will conform to AWWA Standard C900, latest edition.

Where the proposed domestic water service will be parallel to the sanitary sewer or, a minimum horizontal separation distance of 10 feet (outer-wall to outer-wall) was maintained. Where proposed water line crosses sanitary sewer, a minimum vertical separation distance of 18 inches (outer-wall to outer-wall) was maintained.

c) Water Meter and Backflow Prevention Devices

A backflow preventer and water meter are proposed within a new heated enclosure located north of the water storage tank and pump house at the northeastern corner of the proposed building. The water line enters the site into a proposed heated enclosure with a backflow preventer and a water meter before continuing through the site to provide services to the warehouse, storage tanks and guardhouses. Per the New York State Department of Health Cross Connection Control Manual, the proposed warehouse is considered an aesthetically objectionable facility. In terms of use, toxicity, and availability of contaminants, the proposed warehouse will not contain any toxic chemicals, and the only potential hazard is the proposed water tank and external fire loop, which has the potential to cause stagnant water, and objectionable tastes and odors. In terms of availability of a supplementary water supply, there is no supplementary water supply for this project. In terms of firefighting system evaluation, the fire protection system is considered a Class 3 system, where the products associated with the warehouse building are made of wood, paper and natural fibers, requiring a double check valve at a minimum. Based on these three categories, a double check valve is required at a minimum.

d) Fire Suppression

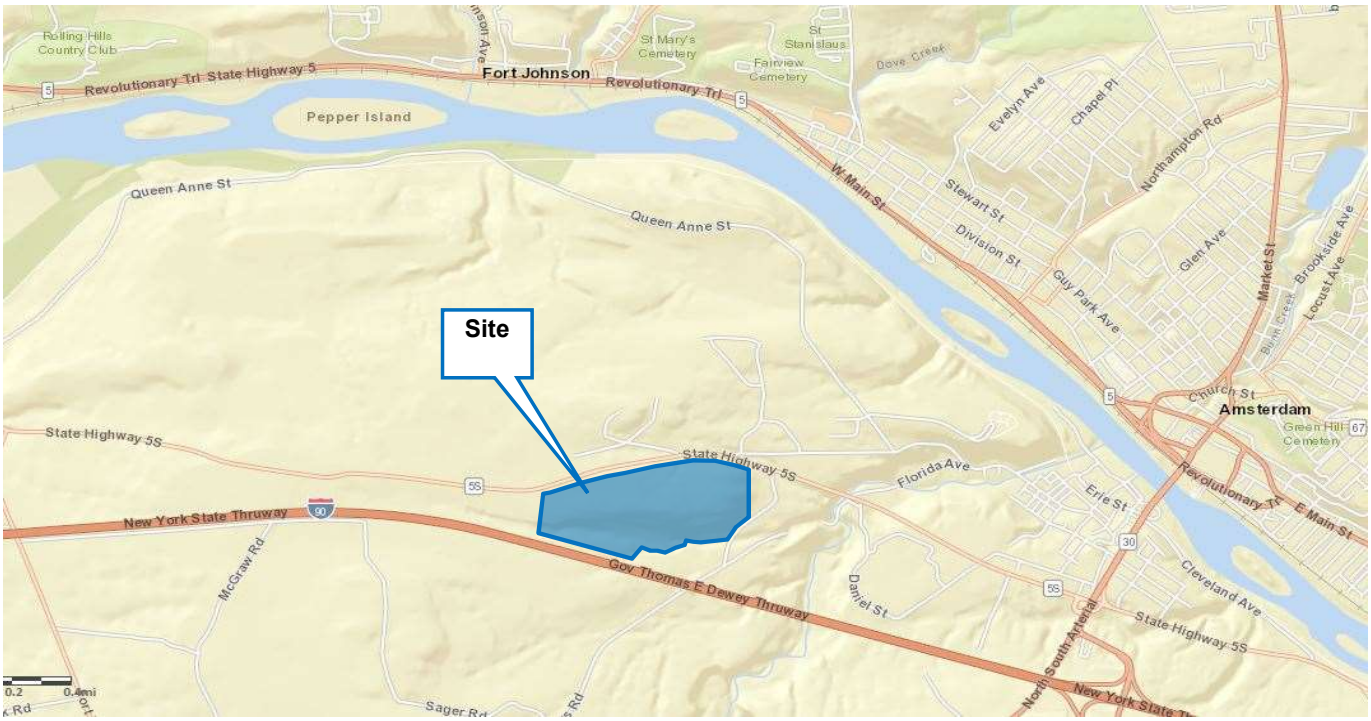
Two (2) fire suppression tanks of approximately 360,000 gallons are proposed, located at the northwestern corner of the warehouse and along the east side of the warehouse. The fire suppression tanks will be fed from the 10-inch tank fill lines, which will provide water to the 10” fire suppression loop around the building.

4) TESTING

Prior to being placed into service, the water distribution system shall be tested in accordance with the testing procedures set forth by the Town of Florida and New York State, as required. A certification letter shall be provided to the Town of Florida once testing has been completed.

APPENDIX "A"

VICINITY MAP



Vicinity Map

Source: NYSDEC Envirionmental Resource Mapper

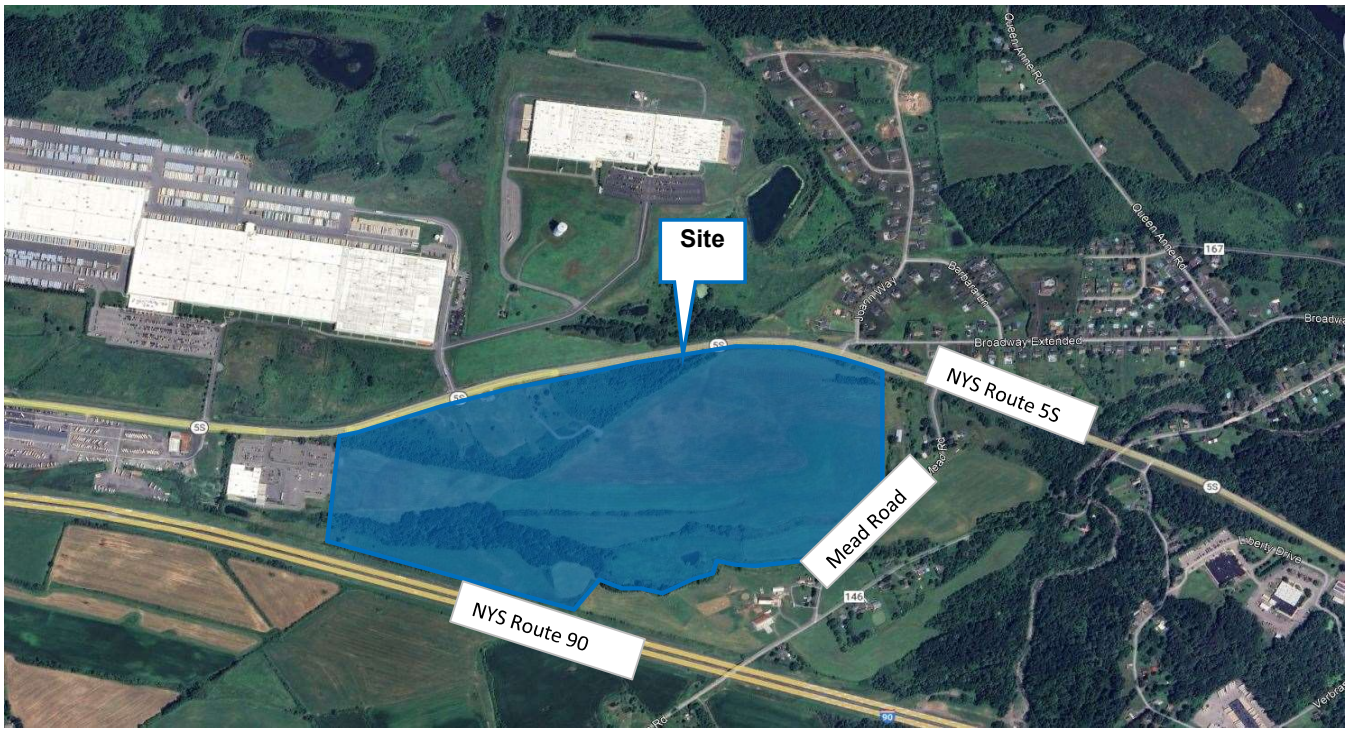
Date Access: 04/14/2025

MSV1 - Amazon Warehouse/Distribution Facility	
Route 5S/Mead Road **Map 54.; Block 1; Lot 36**	**Town of Florida, Montgomery County, NY**
BELANY #NYB240176	
Prepared by: AKD	Date: 4/14/2025
Checked by: SRW	Scale: NTS

BOHLER

APPENDIX "B"

AERIAL MAP



Aerial Map

Source: Google Earth

Date Access: 04/14/2025

MSV1 - Amazon Warehouse/Distribution Facility	
Route 5S/Mead Road **Map 54.; Block 1; Lot 36**	**Town of Florida, Montgomery County, NY**
BELANY #NYB240176	
Prepared by: AKD	Date: 4/14/2025
Checked by: SRW	Scale: NTS

BOHLER

APPENDIX "C"

WILL SERVE LETTER AND FLOW CALCULATIONS

17 Computer Drive West
Albany, NY 12205
518.438.9900

70 Linden Oaks, Third Floor, Suite 15
Rochester, NY 14625
585.866.1000

March 31, 2025

Town of Florida Highway Department
10569 214 Fort Hunter Rd
Amsterdam, NY 12010

Attn: Steven Anderson
Highway Superintendent

Re: Request for Will Serve Letters
MSV1 – Amazon Warehouse/Distribution Facility
Route 5S and Mead Road, Town of Florida

Dear Mr. Anderson:

Our client, BMG Albany, LLC, proposes to construct build a new ±3.2 million square foot warehouse/distribution facility. The project consists of a ±652,000 SF footprint building with 5 stories, tractor/trailer parking and loading areas, automobile parking areas, three (3) driveways to Route 5S, stormwater management systems, lighting, landscaping, electric substation and water storage tank(s) as needed. We are writing to request verification that the Town will be able to provide water and sewer services to the site.

Water Usage
With an estimated employee count of 2,100 employees per day and average daily usage of 30 gpd (gallons per day), the estimated water demand for the proposed development is 34,800 gpd. Peak design flow is estimated at 340 gpm (gallons per minute).

Wastewater Generation
With an estimated employee count of 2,100 employees per day and average daily wastewater generation of 25 gpd (gallons per day), the estimated wastewater generation is 54,000 gpd. Peak design flow is estimated at 150 gpm (gallons per minute).

Attached please refer to the Utility Connection Exhibit, which provides proposed connection points for the water and sewer services.

Please advise if the water and sewer mains along Route 5S have the capacity to handle the project demands. Please also confirm the maximum capacity of the existing water and sewer mains. Further, please provide an estimate of any potential cost that may be associated with the water/sewer connections for the proposed development.

Should you have any questions or require any further information, please do not hesitate to contact our office at 518-461-8345 or at steven.wilson@bohlereng.com.

Sincerely,
BOHLER ENGINEERING NY, PLLC

Steven R. Wilson, LEED AP
Project Manager

CC: Doug Cole, Prime AE

Amanda DeWolfe

From: Steve Anderson <stevea950@gmail.com>
Sent: Monday, April 14, 2025 8:22 AM
To: Steve Wilson
Cc: Doug Cole; Amanda DeWolfe
Subject: Re: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

EXTERNAL: Use caution with attachments and links.

Yes

On Mon, Apr 14, 2025, 8:21 AM Steve Wilson <Steven.Wilson@bohlereng.com> wrote:

> Hi Steve, just wanted to confirm you are confirming that you can provide the water and wastewater needs as outlined on in our March 31, 2025 letter. Is that correct? Thanks Steve

From: Steve Anderson <stevea950@gmail.com>
Sent: Monday, April 14, 2025 7:53 AM
To: Steve Wilson <Steven.Wilson@bohlereng.com>
Cc: Doug Cole <dcole@primeeng.com>; Amanda DeWolfe <adewolfe@bohlereng.com>
Subject: Re: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

EXTERNAL: Use caution with attachments and links.

I received it and we r ok

On Fri, Apr 11, 2025, 1:36 PM Steve Wilson <Steven.Wilson@bohlereng.com> wrote:

> Good Afternoon Mr. Anderson, just want to confirm you received are request. Please let me know if you have any questions. Steve

From: Steve Wilson
Sent: Tuesday, April 1, 2025 10:48 AM
To: stevea950@gmail.com

Cc: Doug Cole <dcole@primeeng.com>; Amanda DeWolfe <adewolfe@bohlereng.com>
Subject: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

Good Morning Mr. Anderson,

We are questing will serve letters for the proposed Amazon warehouse. Please review attached information and let me know if you have questions. Thanks for your assistance. Steve

Steve Wilson, LEED AP
Sr. Project Manager, Land Development
17 Computer Drive West | Albany, NY 12205
70 Linden Oaks, Third Floor, Suite 15 | Rochester, NY 14625
o 518-438-9900 **/ c** 518-461-8345 **/** Steven.Wilson@bohlereng.com
www.BohlerEngineering.com

BOHLER //

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ARS GEN 12 Domestic Water January 31, 2024

Domestic Water Load Summary

Domestic Water Service Size = 6” (includes future growth)

Peak Design Flow = 340 GPM

30 GPD/Employee (Average 2160 employees/day)

Daily usage = 64,800 GPD (Gallons per Day)

Monthly Usage = Approximately 1,944,000 Gallons

APPENDIX "D"

HYDRANT FLOW TEST RESULTS

Harrington Group, Inc.
3237 Satellite Blvd., Suite 525
Duluth, GA 30096
Main: 770.564.3505
www.hgi-fire.com

HYDRANT FLOW TEST REPORT

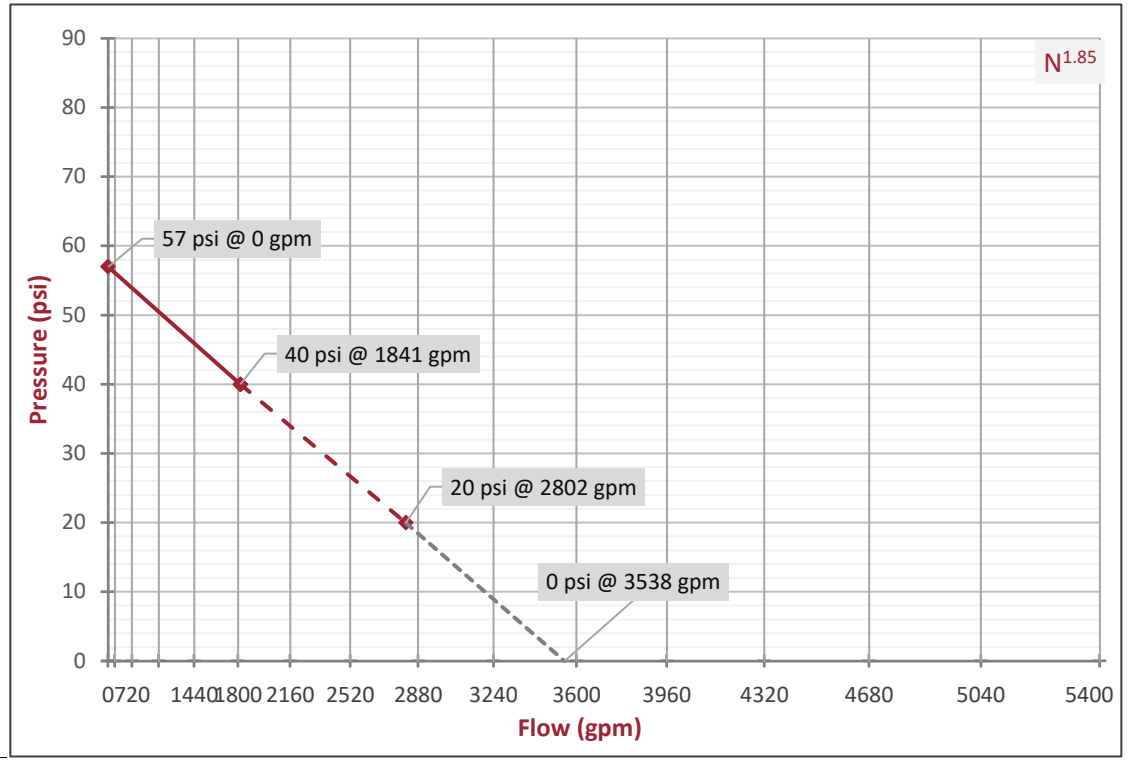
HGI No. 24DLR0010.0000
Test No. 1 of 1
Date/ Time of Test 3/5/2025 12:30
Version 1.2 (220113)

Project MSV1 - Florida, NY ARS Gen 12.1
Address 1711 NY-5S
City Amsterdam State NY Zip 12010

Test Purpose	Water Supply Analysis
Water Source	Ground-level Water Storage Tank
AHJ Min. Residual (psi)	20
S/R Hydrant Location	42°56'07"N 74°13'57"W

Gauge No.	30085		
Calibration Adjust (psi)	0.0		
Elevation ASL (ft)	538		
Static (psi)	57	Adjusted	57.0
Residual (psi)	40	Adjusted	40.0
Total Flow Rate (gpm)	1,841		
Flow @ 20 psi (gpm)	2,802		(theoretical)
Flow @ 0 psi (gpm)	3,538		(theoretical)
Pressure drop	30%		
Flow Duration (min)	3		(estimated)
Total Volume (gal)	5,523		(estimated)

	Outlet 1	Outlet 2	Outlet 3	Outlet 4
Location	42°56'08"N 74°13'53"W	42°56'05"N 74°14'03"W		
Elevation ASL (ft)	534	531		
Gauge No.	30087	30085		
Calibration Adjust (psi)	0.0	0.0		
Pitot Pressure (psi)	40.0 Adj. 40.0	35.0 Adj. 35.0	Adj. 0.0	Adj. 0.0
Outlet/ Diffuser Dia. (in)	2.495	2.495	2.495	2.495
Coefficient	0.81	0.81	0.81	0.81
Flow Rate (gpm)	951	890	0	0
Notes	Diffuser	Diffuser		



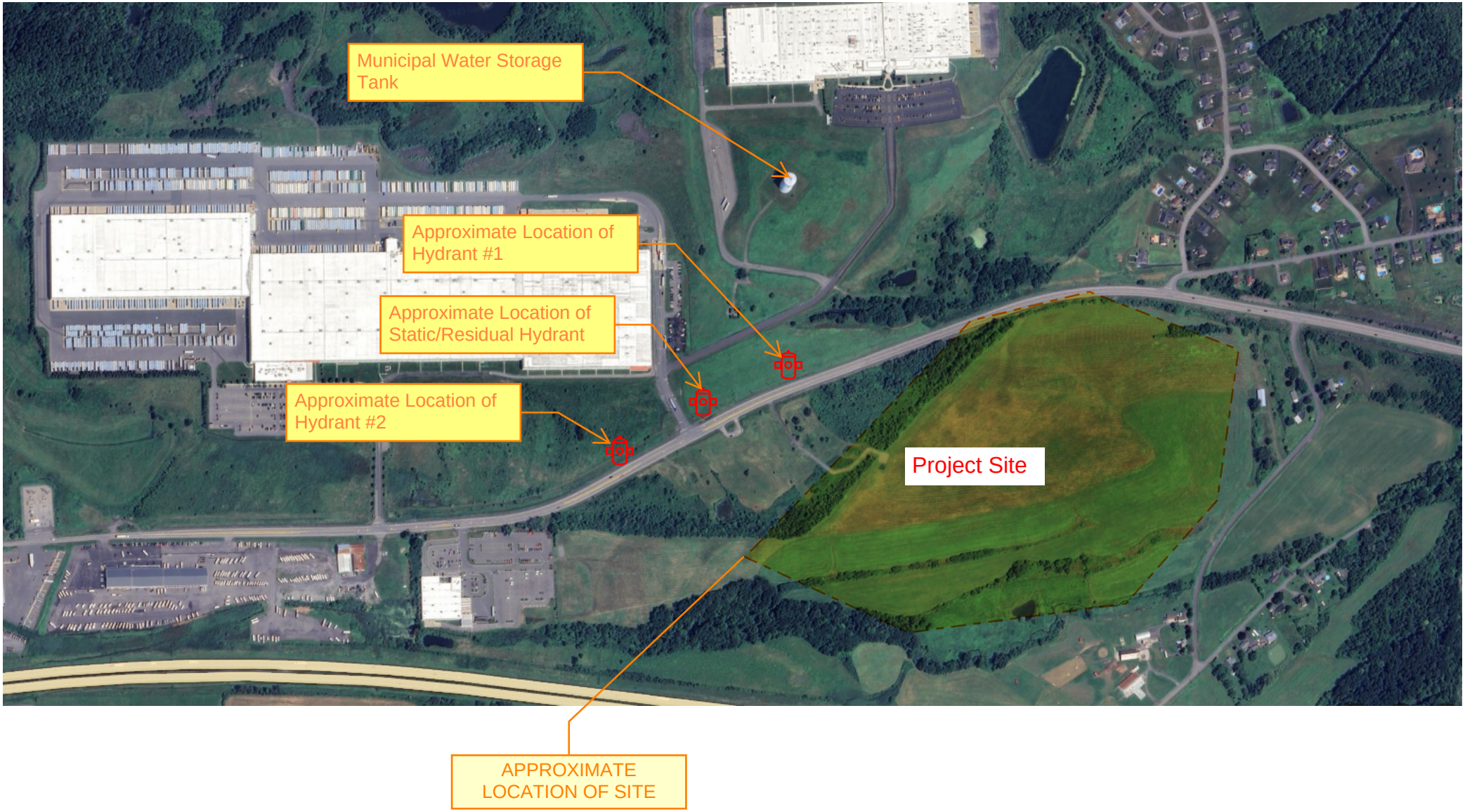
Comments

Tank was at 97 ft, with a low water set point of 90 ft and a high water set point of 100 ft. The tank base elevation is 568 ft AMSL. Elevation measurements were taken from Google Earth.

Attendees

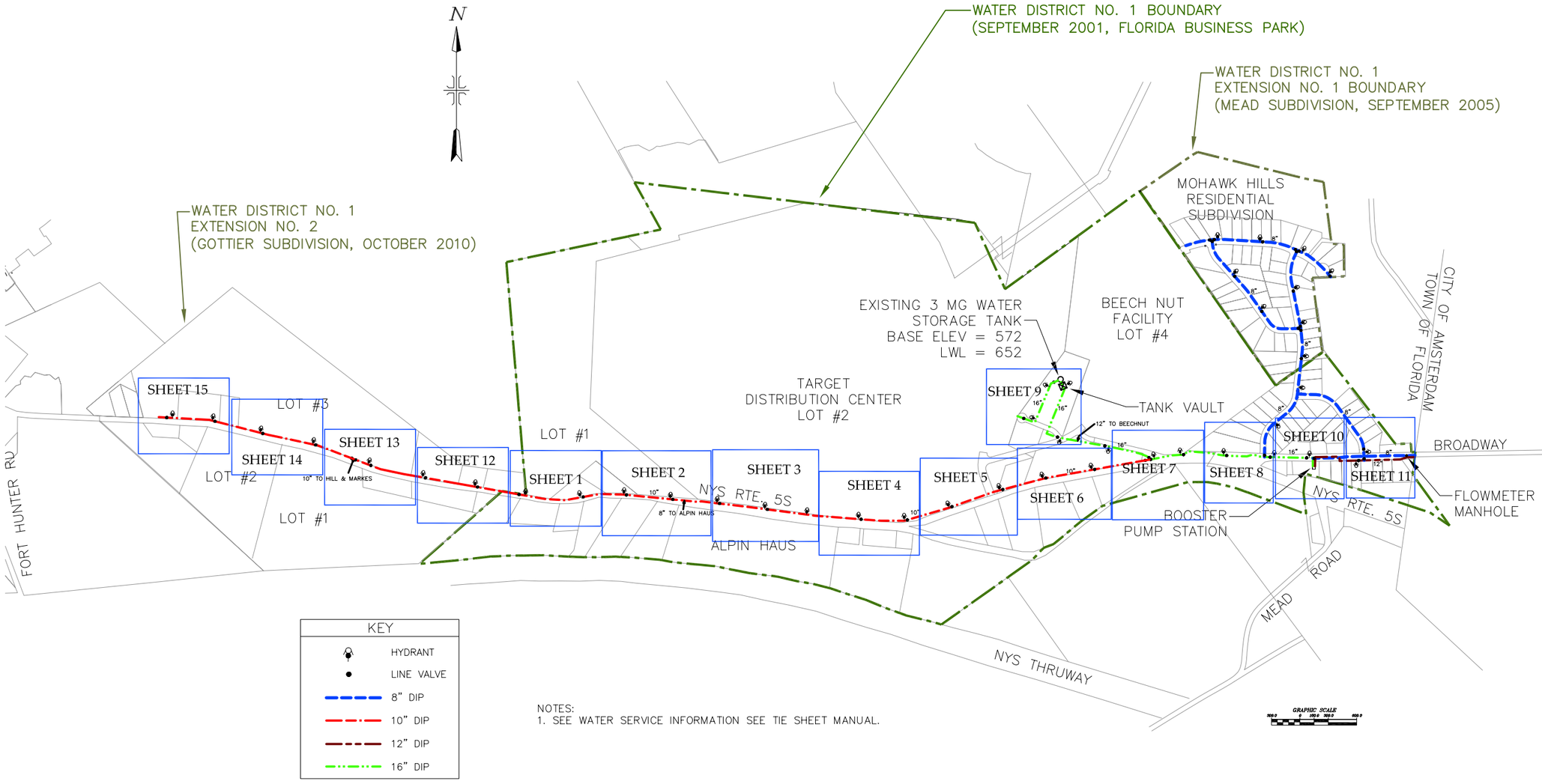
John Andersen - Florida, NY Highway Department

Performed by Craig Sider / 603-484-3890


Municipal Water Storage Tank
Approximate Location of Hydrant #1
Approximate Location of Static/Residual Hydrant
Approximate Location of Hydrant #2
Project Site
APPROXIMATE LOCATION OF SITE

APPENDIX "E"

TOWN OF FLORIDA WATER MAPPING



NOTES:
1. SEE WATER SERVICE INFORMATION SEE TIE SHEET MANUAL.

NO.	DATE	REVISION
00	04/05/10	ORIGINAL ISSUE

ALTERATIONS OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER ARE ILLEGAL

PROJ. ENGR: JMCD
DRAWN BY: WFL
ASSEMBLED BY: WFL
CHECKED BY: JMCD

John M. McDonald Engineering, P.C.
Public Works Engineering
Schenectady, New York

TOWN OF FLORIDA WATER DISTRICT MAP

Montgomery County, New York

SHEET TITLE: OVERALL SYSTEM MAP

SCALE: NOTED

REFERENCE NUMBER: 04-0201-000

DATE: APRIL 2010

SHEET NO. 1

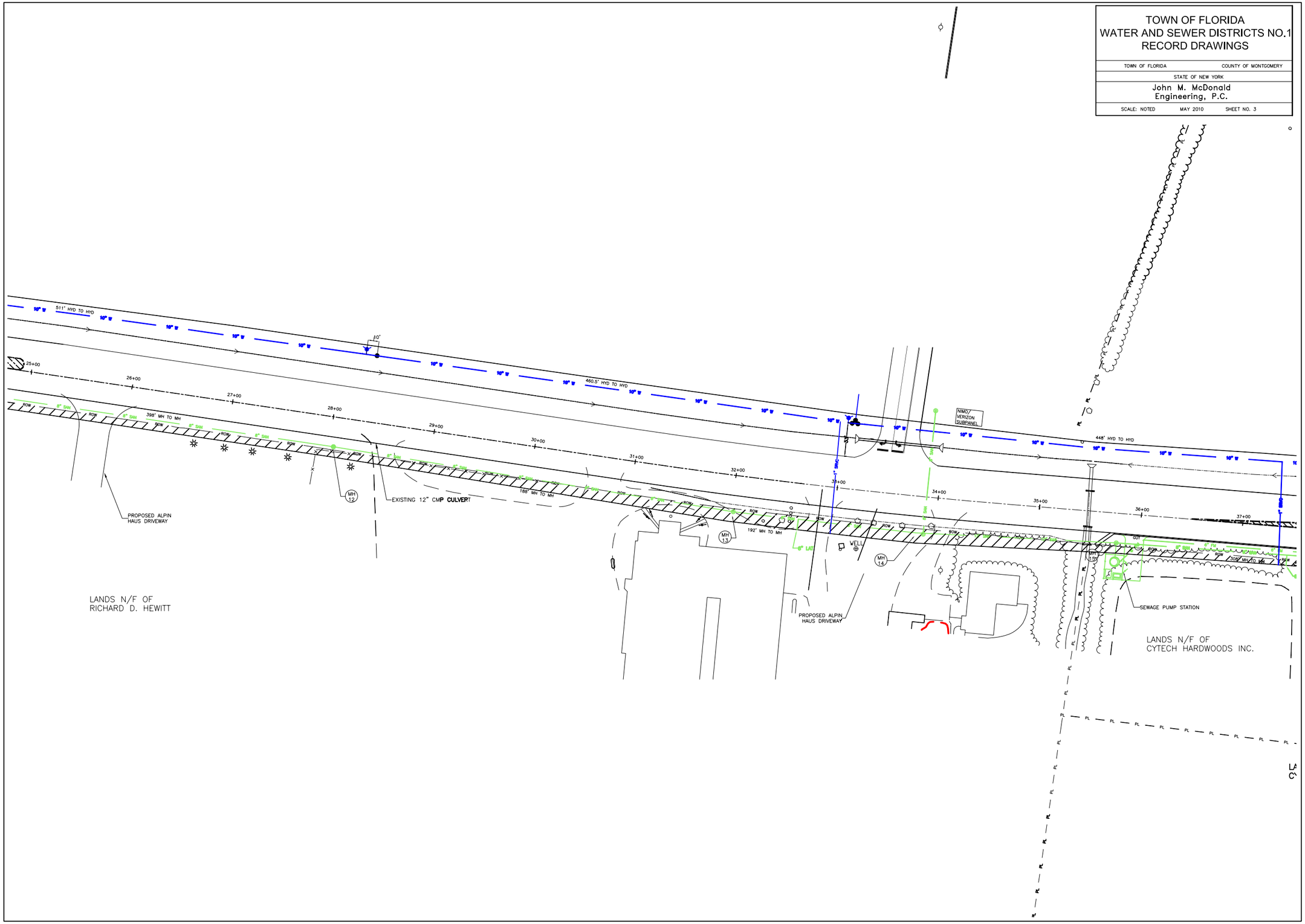
TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

SCALE: NOTED — MAY 2010 — SHEET NO. 3



TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

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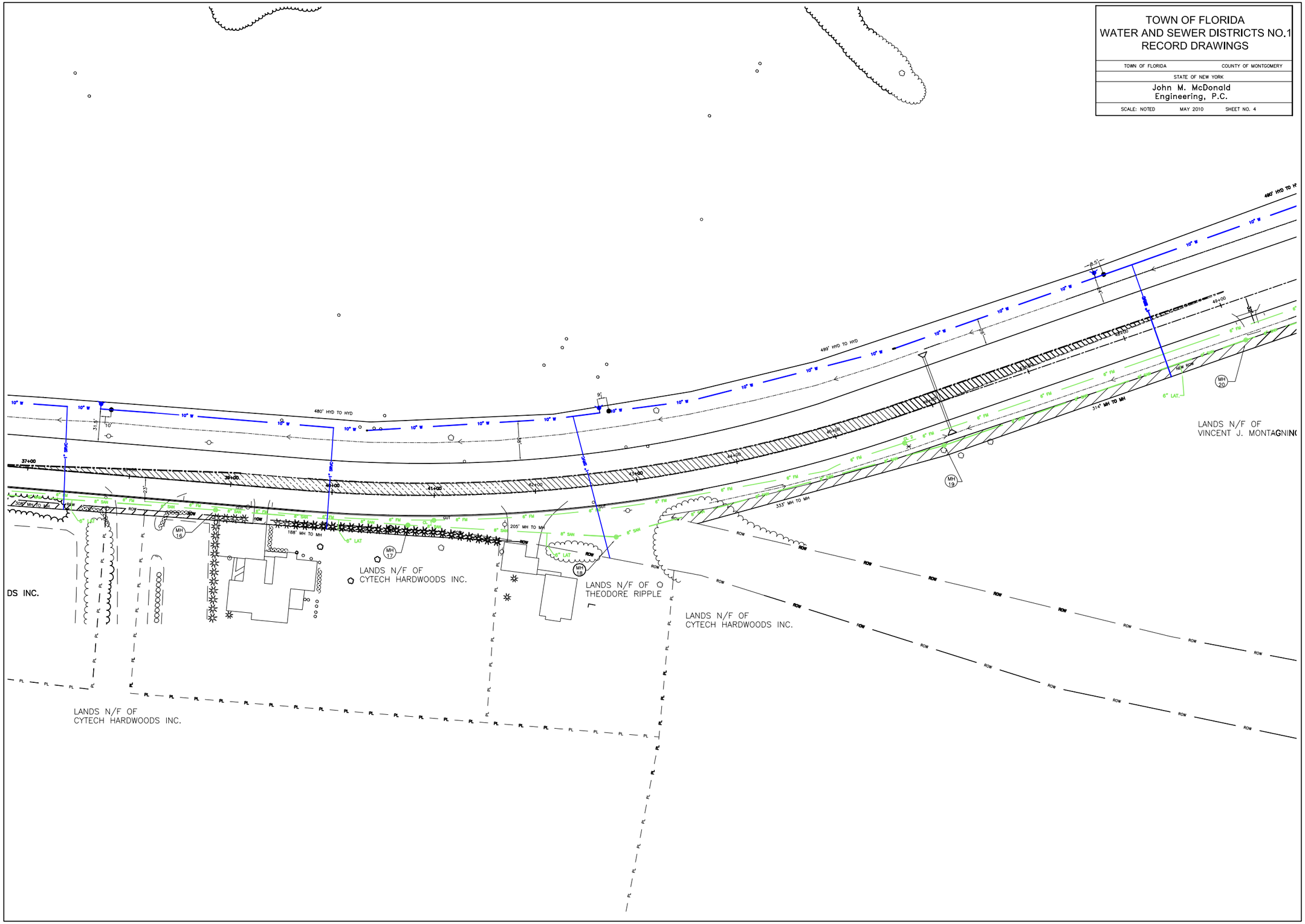

TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

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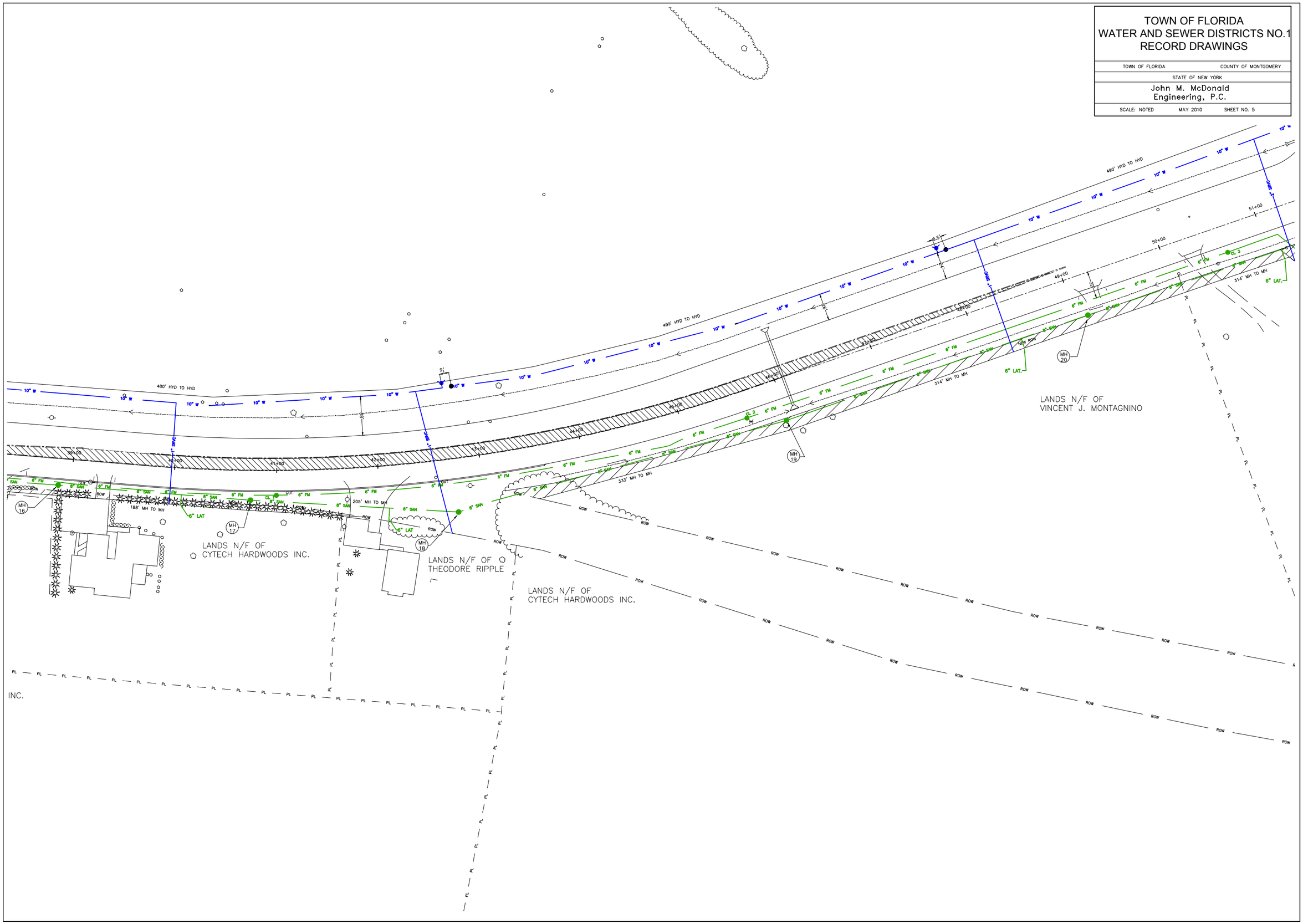

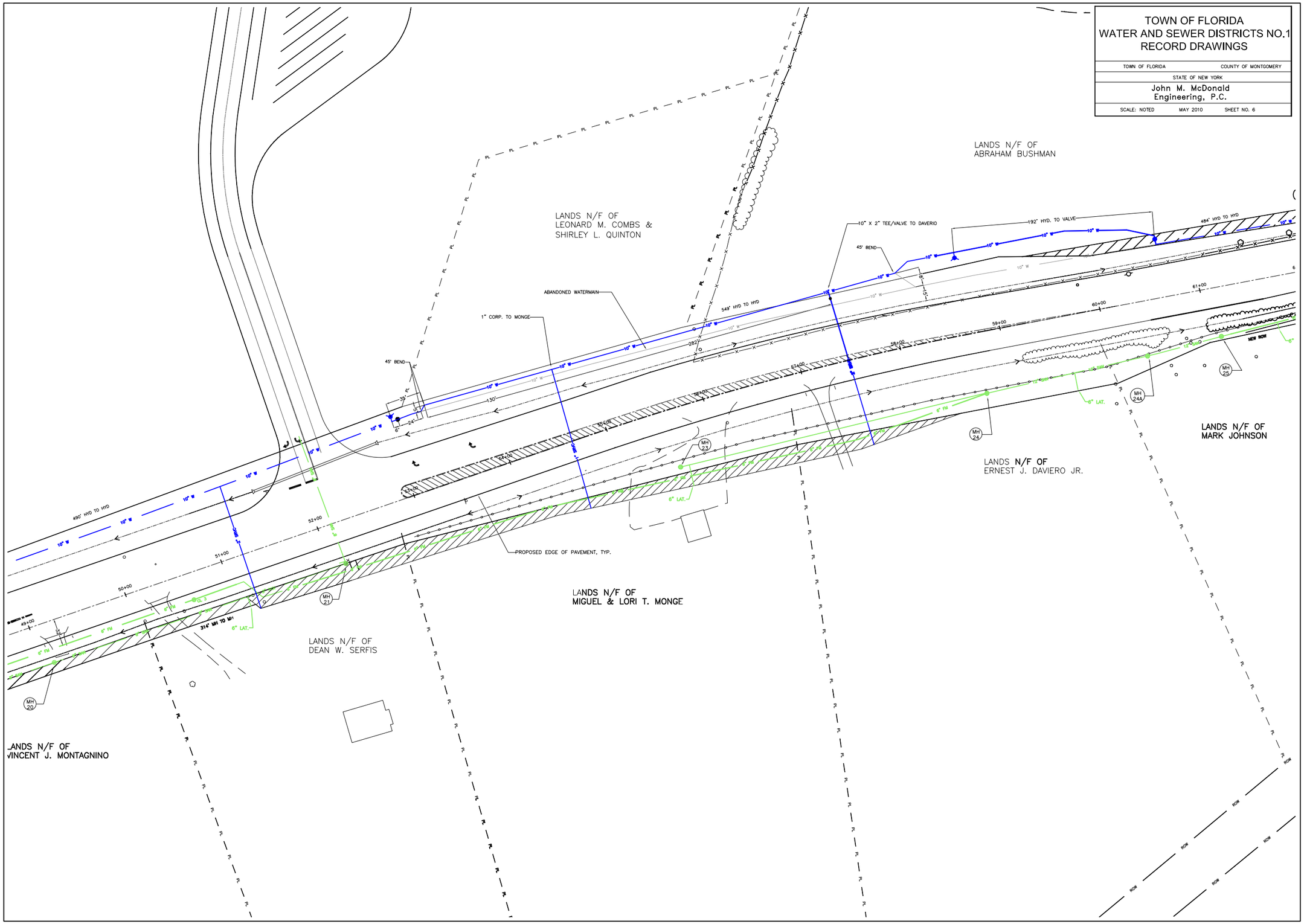
TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS
TOWN OF FLORIDA
COUNTY OF MONTGOMERY
STATE OF NEW YORK
John M. McDonald
Engineering, P.C.
SCALE: NOTED
MAY 2010
SHEET NO. 6
LANDS N/F OF
ABRAHAM BUSHMAN
LANDS N/F OF
LEONARD M. COMBS &
SHIRLEY L. QUINTON
10" X 2" TEE/VALVE TO DAVERIO
192' HYD. TO VALVE
484' HYD TO HYD
45' BEND
ABANDONED WATERMAIN
1" CORP. TO MONGE
549' HYD TO HYD
490' HYD TO HYD
45' BEND
PROPOSED EDGE OF PAVEMENT, TYP.
LANDS N/F OF
MARK JOHNSON
LANDS N/F OF
ERNEST J. DAVIERO JR.
LANDS N/F OF
MIGUEL & LORI T. MONGE
LANDS N/F OF
DEAN W. SERFIS
LANDS N/F OF
VINCENT J. MONTAGNINO
314' MH TO MH
6" LAT.
NEW ROW
MH 20
MH 21
MH 23
MH 24
MH 24A
MH 25

TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
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SCALE: NOTED — MAY 2010 — SHEET NO. 7

PILE

DIRT\DERIS

silo

HIRSHFIELD ROAD

45° BEND
16" VALVE
HYDRANT
10" VALVE
12" X 10" REDUCER
16" X 12" REDUCER
16" VALVE
16" X 16" TEE

NM 4
NM 3
NM 2
NM 37
NM 37 1/2

MH 39
MH 38A
MH 30
MH 31
MH 32
MH 33
MH 28
MH 29
MH 27
MH 26

1" SRVC
6" LAT
214' MH TO MH
180' MH TO MH
556' HYD TO HYD
97'

LANDS N/F OF
DOMINICK J. MEGNA

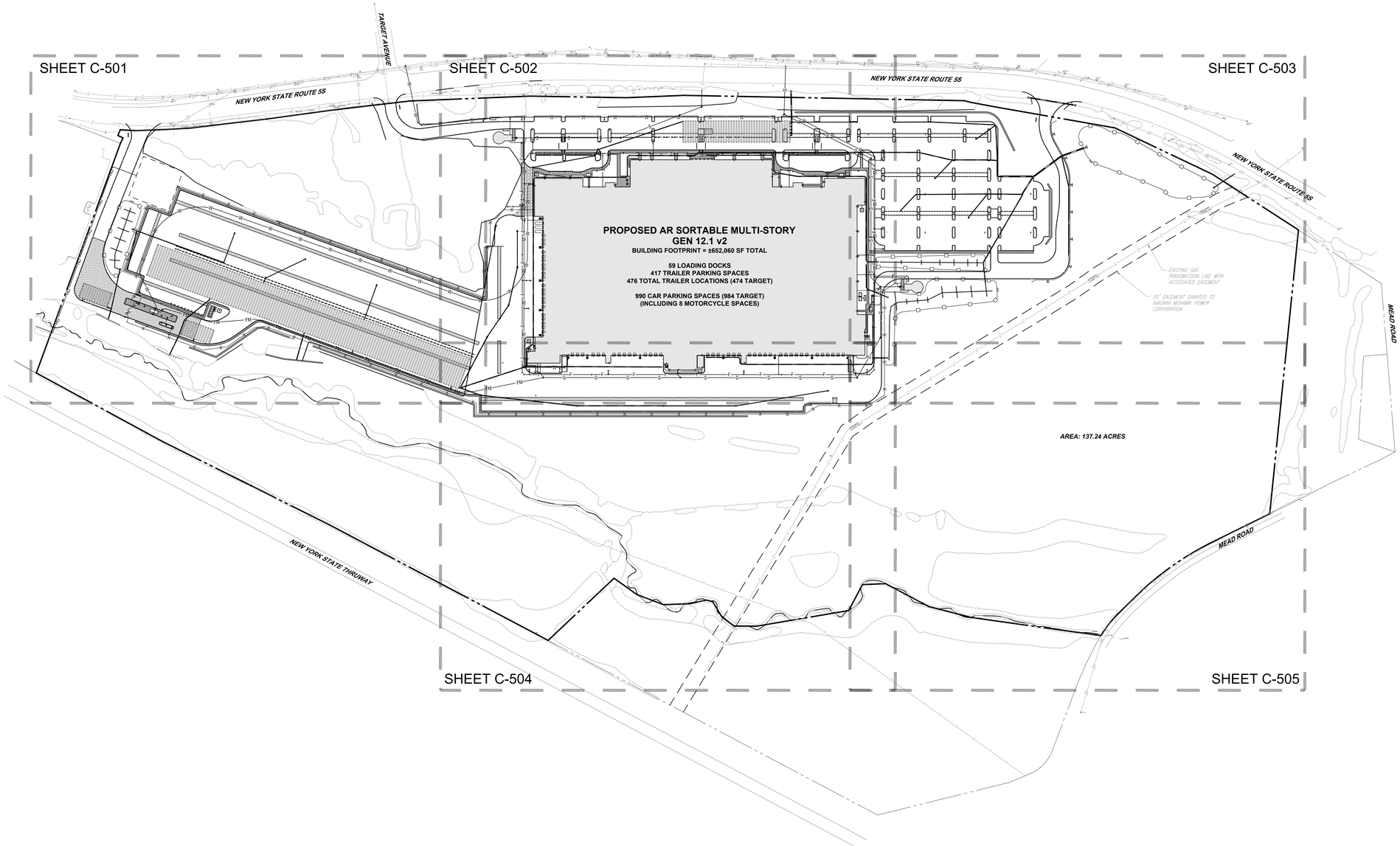
LANDS N/F OF
MEAD FAMILY PARTNERSHIP

- OF
NSON

APPENDIX "F"

OVERALL UTILITY PLAN





THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY

150 75 37.5 0 150

1"=150'

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PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
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DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

C-500

ORG. DATE - 04/21/2025

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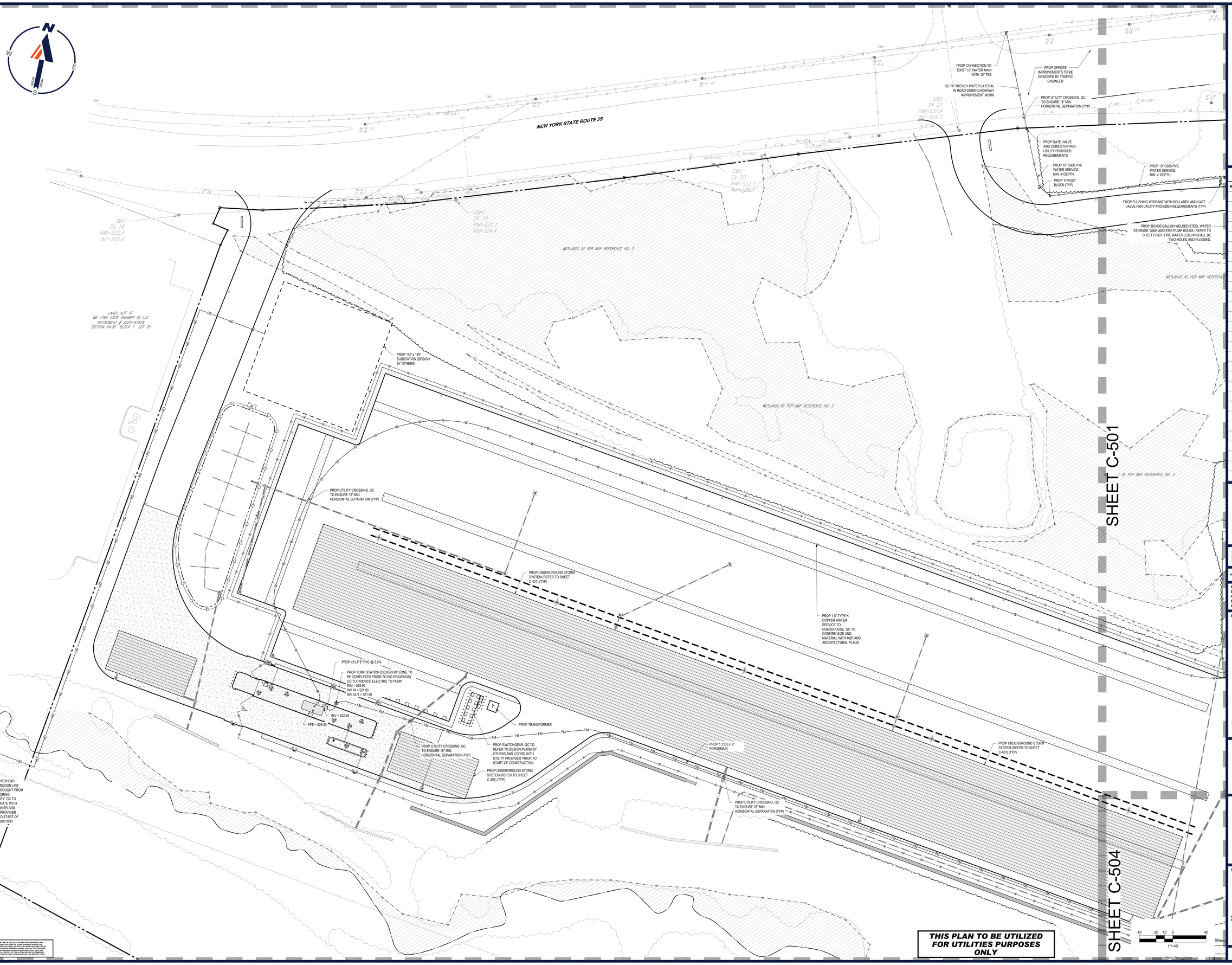
JS

APPENDIX "G"

PARTIAL UTILITY PLANS



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PROJECT:

SITE DEVELOPMENT PLANS

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PROPOSED WAREHOUSE DISTRIBUTION FACILITY

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MAP: 54.-1-36

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17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
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SHEET TITLE:

UTILITY PLAN A

SHEET NUMBER:

C-501

ORG. DATE - 04/21/2025

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PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

PROP 8" TANK FILL LINE TO FIRE PUMP HOUSE

PROP 10" TO 8" SERVICE REDUCER

PROP HEATED ENCLOSURE FOR BACKFLOW PREVENTER AND WATER METER

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP CITY PRESSURE HYDRANT WITH BOLLARDS (TYP)

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP 10" TO 6" SERVICE REDUCER

PROP 6" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 4" WALL-MOUNTED STORZ FDC

INV = 541.50

C/O

PROP 360,000 GALLON WELDED STEEL WATER STORAGE TANK AND FIRE PUMP HOUSE. REFER TO SHEET FP401. FIRE WATER LEAD IN SHALL BE TWO HOLED AND PLUMBED.

PROP 12 LF 6" PVC @ 0.75%

PROP OIL WATER SEPARATOR
RIM = 547.80
INV IN = 541.40
INV OUT = 541.15

10" C900 WATER LATERAL FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" WATER C900 LATERAL FEED TO EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP THRUST BLOCK (TYP)

PROP GATE VALVE (TYP)

WETLANDS AS PER MAP REFERENCE NO. 3

SHEET C-501

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP THRUST BLOCK (TYP)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP.

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

PROP GATE VALVE (TYP)

WETLANDS AS PER MAP REFERENCE NO. 3

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP CONNECTION TEE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 1.5" TYPE K COPPER WATER SERVICE TO GUARDHOUSE. GC TO CONFIRM SIZE AND MATERIAL WITH MEP AND ARCHITECTURAL PLANS

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

C/O

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 1,310 LF 2" FORCEMAIN

FM

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

PROP 10" C900 PVC WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 345 LF 6" PVC @ 1.2%

PROP 10" CONNECTION TEE (TYP)

PROP SMH 07
RIM = 541.45
INV IN = 536.95
INV OUT = 536.85

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

FFE = 542

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

INV = 534.05

PROP TRANSFORMER

PROP 455 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 538.00
INV IN = 533.50
INV OUT = 533.40

PROP 74 LF 6" PVC @ 9.5%

PROP 206 LF 6" PVC @ 1.6%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UNDERGROUND STORM SYSTEM (REFER TO SHEET C-402) (TYP)

PROP SMH 02
RIM = 530.85
INV IN = 526.35
INV OUT = 518.80

PROP 53 LF 6" PVC @ 2.0%

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP SMH 27
RIM=522.8
INV=514.7

PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

PROP CONNECTION TO EXIST SMH
INV = 517.75

SMH SN 24
RIM=516.8
INV IN=510.9
INV OUT=327.6

SMH SN 25
RIM=521.0
INV=524.5

SMH SN 26
RIM=522.0
INV=517.6

SMH SN 23
RIM=544.7
INV=536.5

SMH SN 22 (NOT FOUND)

GC TO TRENCH SEWER LATERAL IN ROAD DURING HIGHWAY IMPROVEMENT WORK

ASSUMED INV = 511.90. GC TO VERIFY IN THE FIELD AND NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION

RIM=515.9

PROP 155 LF 8" PVC @ 2.4%

GC TO ENSURE MIN. 4' COVER ON SANITARY LATERALS UNDER EXISTING GRADE DITCH (TYP)

PROP SMH 06
RIM = 534.00
INV IN = 515.65
INV OUT = 515.55

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 320 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

10" C900 PVC WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

SHEET C-503

PROP SMH 05
RIM = 538.55
INV IN = 518.15
INV OUT = 518.05

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP TRANSFORMER

PROP 10" C900 WATER SERVICE TO PUMPHOUSE (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 434 LF 8" PVC @ 0.75%

PROP 10" C900 FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP GATE VALVE (TYP)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 10" CONNECTION TEE (TYP)

PROP 10" LEAD-IN FOR RISER BANK #5 (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SMH 06
RIM = 537.90
INV IN = 521.51
INV OUT = 521.41

PROP GATE VALVE (TYP)

INV = 521.90

PROP 53 LF 4" PVC @ 1.0%

INV = 525.05

PROP 165 LF 8" PVC @ 0.75%

PROP 2" TYPE K COPPER WATER SERVICE TO GUARDHOUSE (REFER TO MEP AND ARCH PLANS FOR SIZE AND CONNECTION LOCATIONS)

PROP ELECTRIC SERVICE CONNECTION AT BUILDING (REFER TO ARCH PLANS)

PROP SMH 03
RIM = 536.90
INV IN = 522.85
INV OUT = 522.75

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

SHEET C-504

SHEET C-505

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP WALL HYDRANT

PROP 78 LF 8" PVC @ 6.0%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN =
INV IN =
INV OUT =

PROP CONNECTION TEE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

PROP 585 LF 8" PVC @ 0.75%

10" C900 WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 6" C900 HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 455 LF 8" PVC @ 0.75%

PROP 49 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP 1,310 LF 2" FORCEMAIN

PROPOSED AR SORTABLE MULTI-STORY
GEN 12.1 v2
BUILDING FOOTPRINT = ±652,060 SF TOTAL

59 LOADING DOCKS
417 TRAILER PARKING SPACES
476 TOTAL TRAILER LOCATIONS (474 TARGET)

990 CAR PARKING SPACES (984 TARGET)
(INCLUDING 8 MOTORCYCLE SPACES)

FFE = 542

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NEW YORK STATE ROUTE 5S

40 20 10 0 40
1"= 40'

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DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVIL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 55/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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Fax: (518) 438-0900
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UTILITY PLAN B

SHEET NUMBER:

C-502

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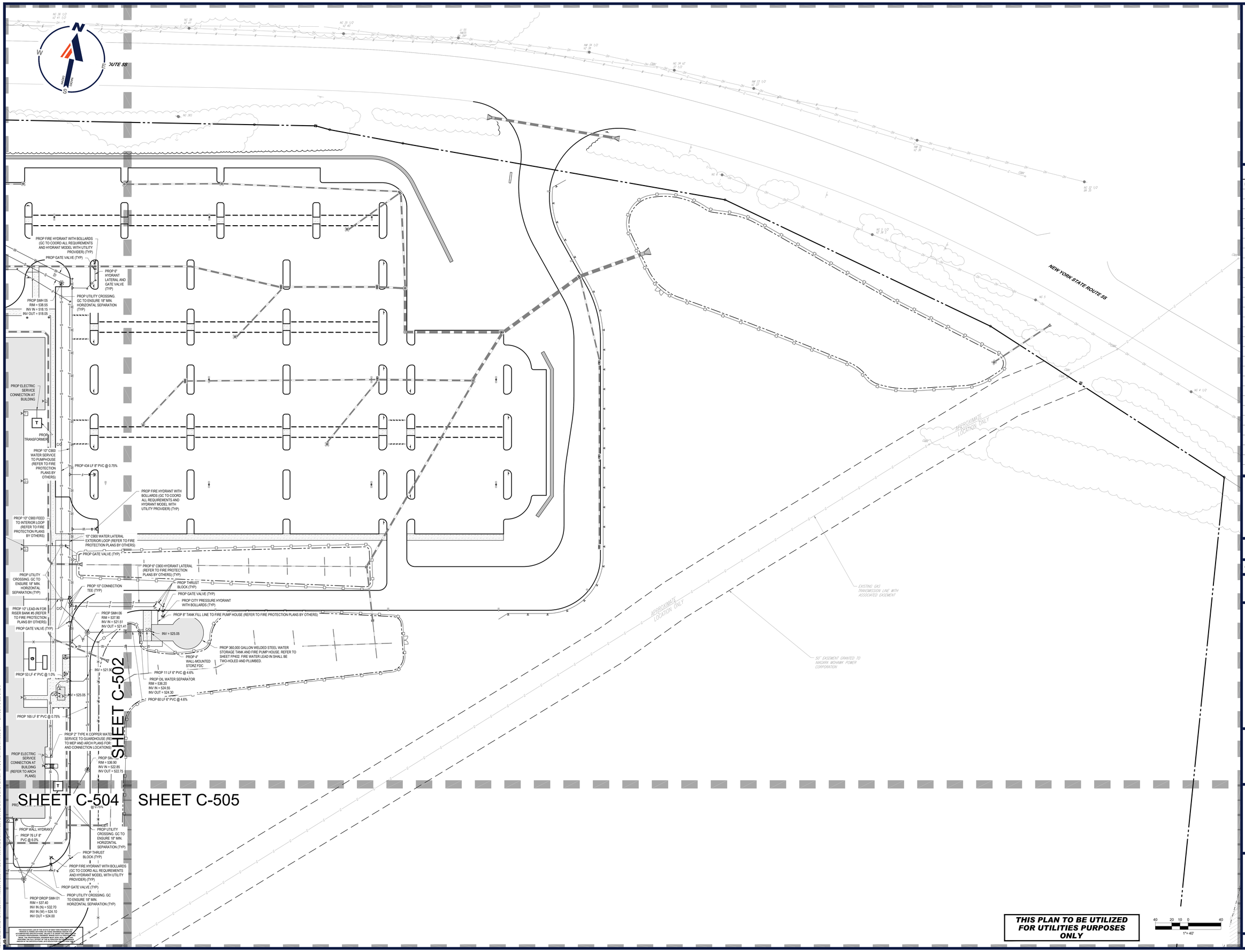

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DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVIL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

UTILITY PLAN C

SHEET NUMBER:

C-503

ORG. DATE - 04/21/2025

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

C/O

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP 1,310 LF 2" FORCEMAIN

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" C900 HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 455 LF 8" PVC @ 0.75%

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

FFE = 542

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

INV = 534.05

PROP TRANSFORMER

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP WALL HYDRANT

PROP 76 LF 8" PVC @ 6.0%

PROP 585 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN (N) = 532.70
INV IN (W) = 524.10
INV OUT = 524.00

PROP 152 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

SHEET C-501
SHEET C-502
SHEET C-502
SHEET C-503
SHEET C-305

WETLANDS AS PER MAP REFERENCE NO. 3

APPROXIMATE LOCATION ONLY

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40 20 10 0 40
1"= 40'

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CAD I.D.:	P-CIVL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

UTILITY PLAN D

SHEET NUMBER:

C-504

ORG. DATE - 04/21/2025

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PROP TRANSFORMER

PROP WAL

PROP 76 PVC @ 6

PROP 152 LF 8" PVC @ 0.75%

PROP DROP SMH 01
RIM = 537.40
INV IN (N) = 532.70
INV IN (W) = 524.10
INV OUT = 524.00

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TY

PROVIDER) (TYP)

PROP GATE VALVE (TYP)

SHEET C-502

SHEET C-503

SHEET C-504

PROXIMATE CATION ONLY

AREA: 137.24 ACRES

WETLANDS AS PER MAP REFERENCE NO. 3

LANDS N/F OF
ERIC M. & SANDRA MEAD
INSTRUMENT # 2022-9752O
SECTION 55.00 BLOCK 1 LOT 1.11

MEAD ROAD

INV=428.6

60" CMP

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1"= 40'

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SANITARY SEWER SYSTEM ENGINEER'S REPORT

FOR

MSV1 Warehouse Distribution Facility

Located At:
Route 5S/Mead Road
Town of Florida
Montgomery County, New York State, 12010

Prepared For:
BMG Albany, LLC
100 Front Street, Suite 1225
West Conshohocken, PA 19428

Prepared By:
Bohler Engineering NY, PLLC
17 Computer Drive West
Albany, NY 12205

Report Preparation Date:
April 14, 2025

Estimated Project Timeline:
October 1, 2025 – October 1, 2027

BOHLER

BE Project #: NYB240176

1) Executive Summary 3
2) Project Information 3
3) Sanitary Sewer System 4
a) Projected Wastewater Flow 4
b) Proposed Collection System 4
c) Pipe Capacity Analysis 5
4) Testing 5

APPENDIX

Appendix A – Vicinity Map
Appendix B – Aerial Map
Appendix C – Will Serve Letter and Flow Calculations
Appendix D – Town of Florida Sewer Mapping
Appendix E – Overall Utility Plan
Appendix F – Partial Utility Plans

1) EXECUTIVE SUMMARY

This Sanitary Sewer System Engineer's Report has been prepared for the Applicant, BMG Albany, LLC, who is proposing to develop the ±137.2-acre property (Tax Map ID 54.-1-36) at Route 5S/Mead Road in the Town of Florida, Montgomery County, New York. The project, known as MSV1, consists of the construction of a ±3.2 million square foot (±652,000 SF footprint, 5 stories) warehouse facility with associated car and trailer parking, trailer loading docks, stormwater basins, site utilities, signage, lighting and landscaping.

The sanitary sewer portion of the project involves:

- Installation of ±55 linear feet of 4" diameter PVC gravity service
- Installation of ±720 linear feet of 6" diameter PVC gravity service
- Installation of ±2,475 linear feet of 8" diameter PVC gravity service
- Installation of ±1,330 linear feet of 2" diameter force main
- Installation of one (1) pump station
- Installation of twenty (20) cleanouts
- Installation of seven (7) pressure relief valves
- Installation of four (4) 48" diameter manholes
- Installation of four (4) 60" diameter manholes
- Installation of two (2) 60" diameter drop manholes
- Installation of two (2) oil/water separators

2) PROJECT INFORMATION

The Applicant is proposing to develop a property in the Town of Florida, Montgomery County, New York (see Appendices A and B). The site is further designated as parcel 54.-1-36 and is approximately 137.2 acres. The project site is bounded by the Target Distribution Center and Beech-Nut Nutrition Company to the north across Route 5S, vacant land to the east, NYS Route 90 to the south, and the Amazon Delivery DAB4 to the west.

The project site currently sits vacant and consists primarily of wooded areas, grassed areas, an existing asphalt and gravel driveway, and several wetland areas. The proposed project consists of the construction of a 3.2 million square-foot e-commerce logistics, storage and distribution facility. The footprint of the building will be approximately 652,000 square-feet and will feature 5 stories, at approximately 103.5 feet in height. The current layout provides for three (3) driveways to NYS Route 5S, associated drive aisles throughout the project site, parking for cars and trailers, trailer loading docks, utilities, signage, lighting, landscaping and stormwater management facilities.

In 2019, the site received Site Plan Approval and a Special Use Permit from the Town of Florida Planning Board for a 1-million square-foot warehouse/distribution center. The approved project included two (2) driveway entrances from NYS Route 5S, associated on-site roadways, parking, utility infrastructure, landscaping and stormwater management facilities.

3) SANITARY SEWER SYSTEM

a) Projected Wastewater Flow

The New York State Department of Environmental Conservation's (NYSDEC) *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems,* 2014 per-unit hydraulic loading rates in table B-3 were used to project the anticipated wastewater flow from the project. The per-unit hydraulic loading rate for a distribution warehouse is 15 gpd/employee/shift, plus 10 gpd/employee/shift to include showers. Calculations were performed by Jordan & Skala Engineers, and are included in Appendix C. Per the applicant, the average number of employees per day is 2,160. Please see the calculation below:

[(15+10 gpd/employee) x (2,160 employees)] = 54,000 gpd (gallons per day)

Monthly usage = 1,620,000 gallons per month

The project peak flow is as follows:

(54,000 gpd ÷ 24 hours ÷ 60 minutes) x 4 peak flow factor = 150 gpm (gallons per minute)

Per the Will-Serve Letter and response by the Town of Florida included in Appendix C, The Town sewer main has the capacity to handle the sanitary service demands for the project as outlined in this section.

b) Proposed Collection System

The proposed sanitary sewer collection system will consist of ±55 linear feet of 4" diameter PVC gravity service, ±720 linear feet of 6" diameter PVC gravity service, ±2,475 linear feet of 8" PVC gravity service, ±1,330 linear feet of 2" diameter force main, one (1) pump station, twenty (20) cleanouts, seven (7) pressure relief valves, four (4) 48" diameter manholes, four (4) 60" diameter manholes, four (4) 60" diameter drop manholes and two (2) oil/water separators. The proposed collection system has been designed in accordance with the requirements of the New York State Department of Environmental Conservation's (NYSDEC) *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, 2014,* and the *Ten States Recommended Standards for Wastewater Facilities,* latest edition.

The sanitary sewer conveyance system is proposed to make two separate connections to the existing service within NYS Route 5S. The existing sanitary mains located along NYS Route 5S are 12" diameter pipes. One connection is proposed to be made to the existing manhole SN26 on the project side of NYS Route 5S and the other connection is proposed to be made to the existing sanitary manhole SN28, on the opposite side of NYS Route 5S. As the road is proposed to be modified, a new trench is anticipated to be made for the crossing of NYS Route 5S. To make the connections, the contractor shall core-drill an opening into the existing manholes as show on the proposed development plans. Coordination and permitting with the Town of Florida and other local agencies will be necessary.

Where the proposed sanitary sewer gravity services will be in parallel with the water services, a minimum horizontal separation of 10 feet (wall to wall) is maintained. Where the proposed sanitary sewer gravity services will cross the water services or the storm sewer services, a minimum vertical

separation of 18-inches (wall to wall) shall be maintained. Where this minimum vertical separation is unattainable, a minimum vertical separation of 6 inches shall be maintained and the pipes are to be concrete encased. The sanitary manholes will be precast concrete and have a minimum inside diameter of 48 inches if the manhole is less than 10 feet deep and 60 inches if the manhole is greater than 10 feet deep.

c) Pipe Capacity Analysis

The proposed sanitary sewer gravity mains have been analyzed to ensure that proper pipe capacity has been provided. The flattest proposed pipe with the highest design flow was analyzed. The pipe condition will provide the least amount of capacity on the system and is considered the "worst case scenario".

The flattest proposed pipe with the highest design flow is located between SMH-5 and SMH-6. The pipe has an 8-inch diameter and is sloped at 0.75%. The peak flow rate through this section of pipe is 150 gpm, which is equivalent to 0.34 cfs. The design capacity of the pipe, flowing full, is as follows:

$$Q = A \times 1.486/n \times R^{2/3} \times S^{1/2}$$

Q = volumetric flow rate (cfs)

n = Manning's Roughness Coefficient (0.013 for PVC)

A = cross-sectional area (0.35 ft^2)

P = wetted perimeter (2.09 ft)

R = hydraulic radius (A/P) (0.17 ft)

S = slope of pipe (0.0075 ft/ft)

$$Q = (0.35\ ft^2) \times (1.486/0.013) \times 0.17\ ft^{2/3} \times 0.0075^{1/2} = \mathbf{1.06\ cfs}$$

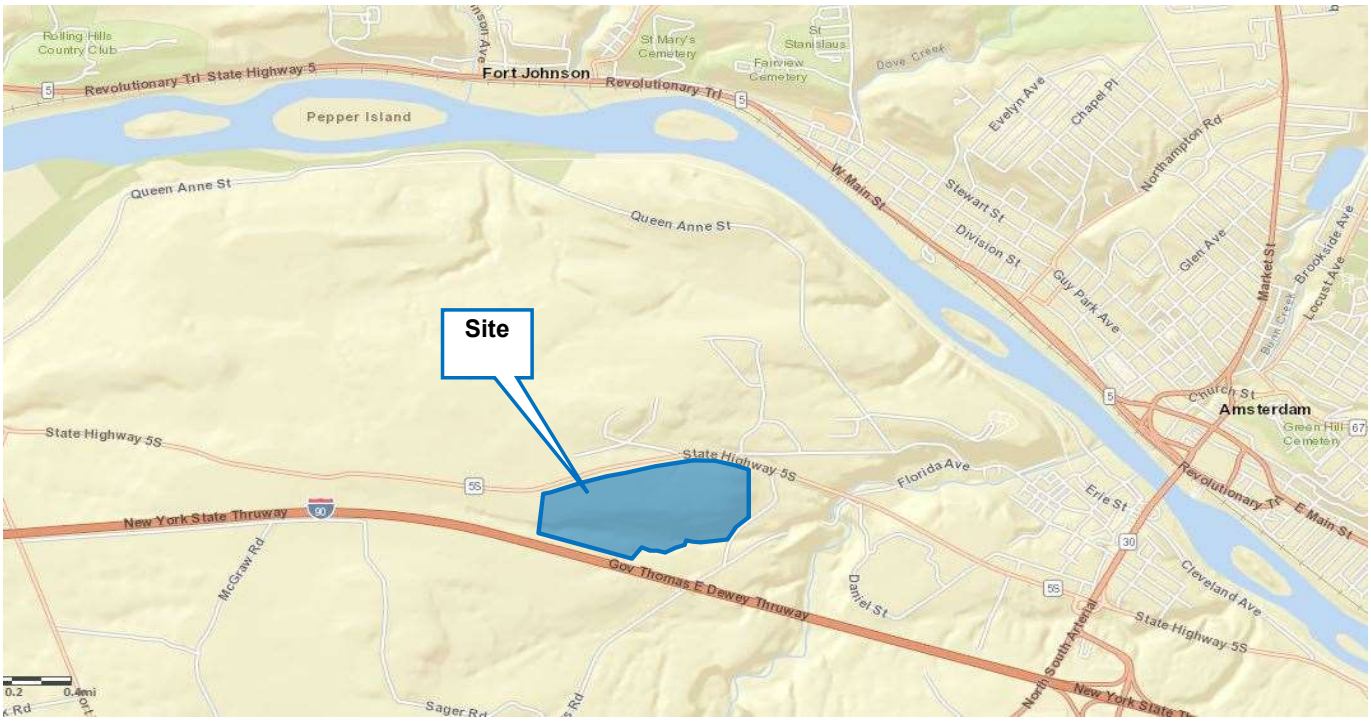
The peak design flow is approximately 30% of the capacity of the proposed pipe. Given that this is the flattest sloping pipe with the highest design flow, it can be assumed that all other pipes within the project will be capable of conveying the anticipated peak flow rate as well.

4) TESTING

Prior to being placed into service, the sanitary sewer system shall be tested in accordance with the testing procedures set forth by the Town of Florida and New York State, as required. A certification letter shall be provided to the Town of Florida and NYSDEC once testing has been completed. Additionally, testing results shall be included in the Certificate of Construction Compliance to be sent to the New York State Department of Health prior to the issuance of a permit to operate.

APPENDIX "A"

VICINITY MAP



Vicinity Map

Source: NYSDEC Envirionmental Resource Mapper

Date Access: 04/14/2025

MSV1 - Amazon Warehouse/Distribution Facility	
Route 5S/Mead Road **Map 54.; Block 1; Lot 36**	**Town of Florida, Montgomery County, NY**
BELANY #NYB240176	
Prepared by: AKD	Date: 4/14/2025
Checked by: SRW	Scale: NTS

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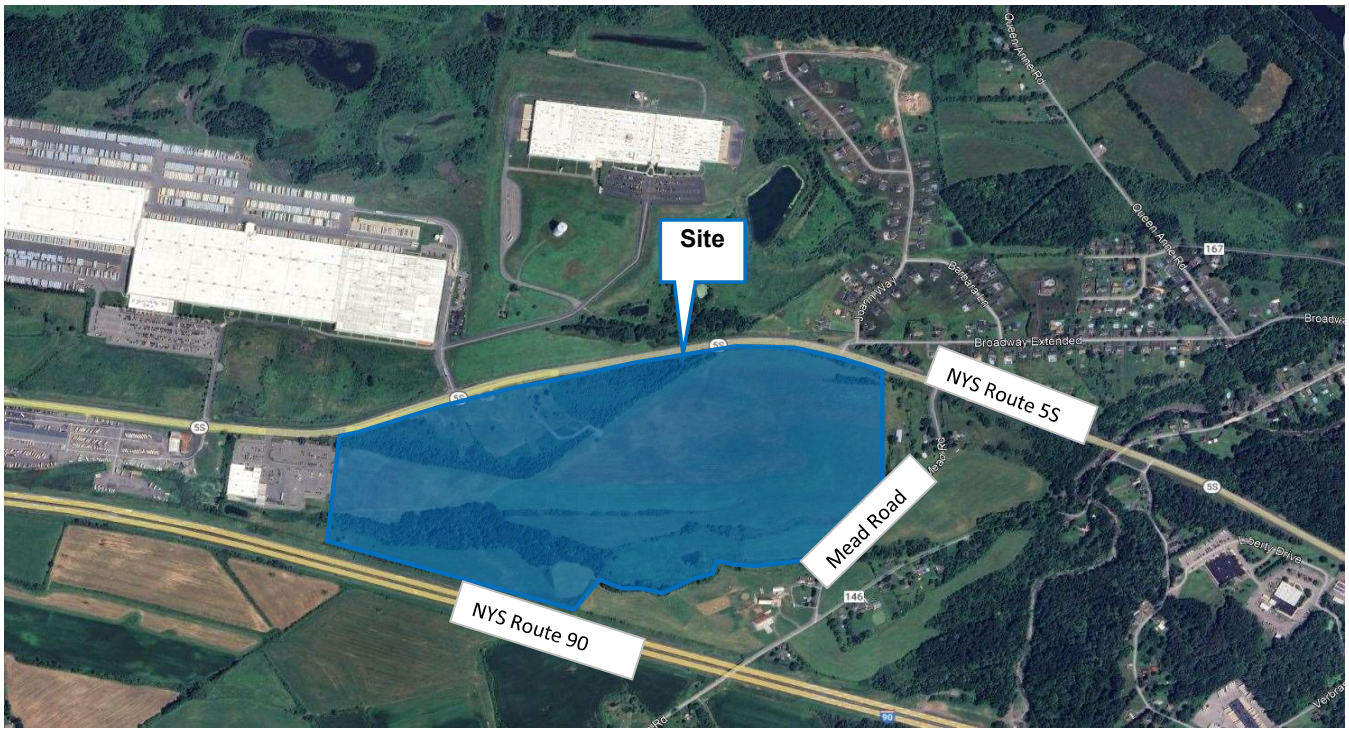
APPENDIX "B"

AERIAL MAP



Aerial Map

Source: Google Earth

Date Access: 04/14/2025

MSV1 - Amazon Warehouse/Distribution Facility	
Route 5S/Mead Road **Map 54.; Block 1; Lot 36**	**Town of Florida, Montgomery County, NY**
BELANY #NYB240176	
Prepared by: AKD	Date: 4/14/2025
Checked by: SRW	Scale: NTS

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APPENDIX "C"

WILL SERVE LETTER AND FLOW CALCULATIONS

17 Computer Drive West
Albany, NY 12205
518.438.9900

70 Linden Oaks, Third Floor, Suite 15
Rochester, NY 14625
585.866.1000

March 31, 2025

Town of Florida Highway Department
10569 214 Fort Hunter Rd
Amsterdam, NY 12010

Attn: Steven Anderson
Highway Superintendent

Re: Request for Will Serve Letters
MSV1 – Amazon Warehouse/Distribution Facility
Route 5S and Mead Road, Town of Florida

Dear Mr. Anderson:

Our client, BMG Albany, LLC, proposes to construct build a new ±3.2 million square foot warehouse/distribution facility. The project consists of a ±652,000 SF footprint building with 5 stories, tractor/trailer parking and loading areas, automobile parking areas, three (3) driveways to Route 5S, stormwater management systems, lighting, landscaping, electric substation and water storage tank(s) as needed. We are writing to request verification that the Town will be able to provide water and sewer services to the site.

Water Usage
With an estimated employee count of 2,100 employees per day and average daily usage of 30 gpd (gallons per day), the estimated water demand for the proposed development is 34,800 gpd. Peak design flow is estimated at 340 gpm (gallons per minute).

Wastewater Generation
With an estimated employee count of 2,100 employees per day and average daily wastewater generation of 25 gpd (gallons per day), the estimated wastewater generation is 54,000 gpd. Peak design flow is estimated at 150 gpm (gallons per minute).

Attached please refer to the Utility Connection Exhibit, which provides proposed connection points for the water and sewer services.

Please advise if the water and sewer mains along Route 5S have the capacity to handle the project demands. Please also confirm the maximum capacity of the existing water and sewer mains. Further, please provide an estimate of any potential cost that may be associated with the water/sewer connections for the proposed development.

Should you have any questions or require any further information, please do not hesitate to contact our office at 518-461-8345 or at steven.wilson@bohlereng.com.

Sincerely,
BOHLER ENGINEERING NY, PLLC

Steven R. Wilson, LEED AP
Project Manager

CC: Doug Cole, Prime AE

Amanda DeWolfe

From: Steve Anderson <stevea950@gmail.com>
Sent: Monday, April 14, 2025 8:22 AM
To: Steve Wilson
Cc: Doug Cole; Amanda DeWolfe
Subject: Re: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

EXTERNAL: Use caution with attachments and links.

Yes

On Mon, Apr 14, 2025, 8:21 AM Steve Wilson <Steven.Wilson@bohlereng.com> wrote:

> Hi Steve, just wanted to confirm you are confirming that you can provide the water and wastewater needs as outlined on in our March 31, 2025 letter. Is that correct? Thanks Steve

From: Steve Anderson <stevea950@gmail.com>
Sent: Monday, April 14, 2025 7:53 AM
To: Steve Wilson <Steven.Wilson@bohlereng.com>
Cc: Doug Cole <dcole@primeeng.com>; Amanda DeWolfe <adewolfe@bohlereng.com>
Subject: Re: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

EXTERNAL: Use caution with attachments and links.

I received it and we r ok

On Fri, Apr 11, 2025, 1:36 PM Steve Wilson <Steven.Wilson@bohlereng.com> wrote:

> Good Afternoon Mr. Anderson, just want to confirm you received are request. Please let me know if you have any questions. Steve

From: Steve Wilson
Sent: Tuesday, April 1, 2025 10:48 AM
To: stevea950@gmail.com

Cc: Doug Cole <dcole@primeeng.com>; Amanda DeWolfe <adewolfe@bohlereng.com>
Subject: MSV1 - Amazon Warehouse Town of Florida - Request for Will Serve Letters

Good Morning Mr. Anderson,

We are questing will serve letters for the proposed Amazon warehouse. Please review attached information and let me know if you have questions. Thanks for your assistance. Steve

Steve Wilson, LEED AP
Sr. Project Manager, Land Development
17 Computer Drive West | Albany, NY 12205
70 Linden Oaks, Third Floor, Suite 15 | Rochester, NY 14625
o 518-438-9900 **/ c** 518-461-8345 **/** Steven.Wilson@bohlereng.com
www.BohlerEngineering.com

BOHLER //

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ARS GEN 12 Sanitary Sewer January 31, 2024

Sanitary Sewer Load Summary

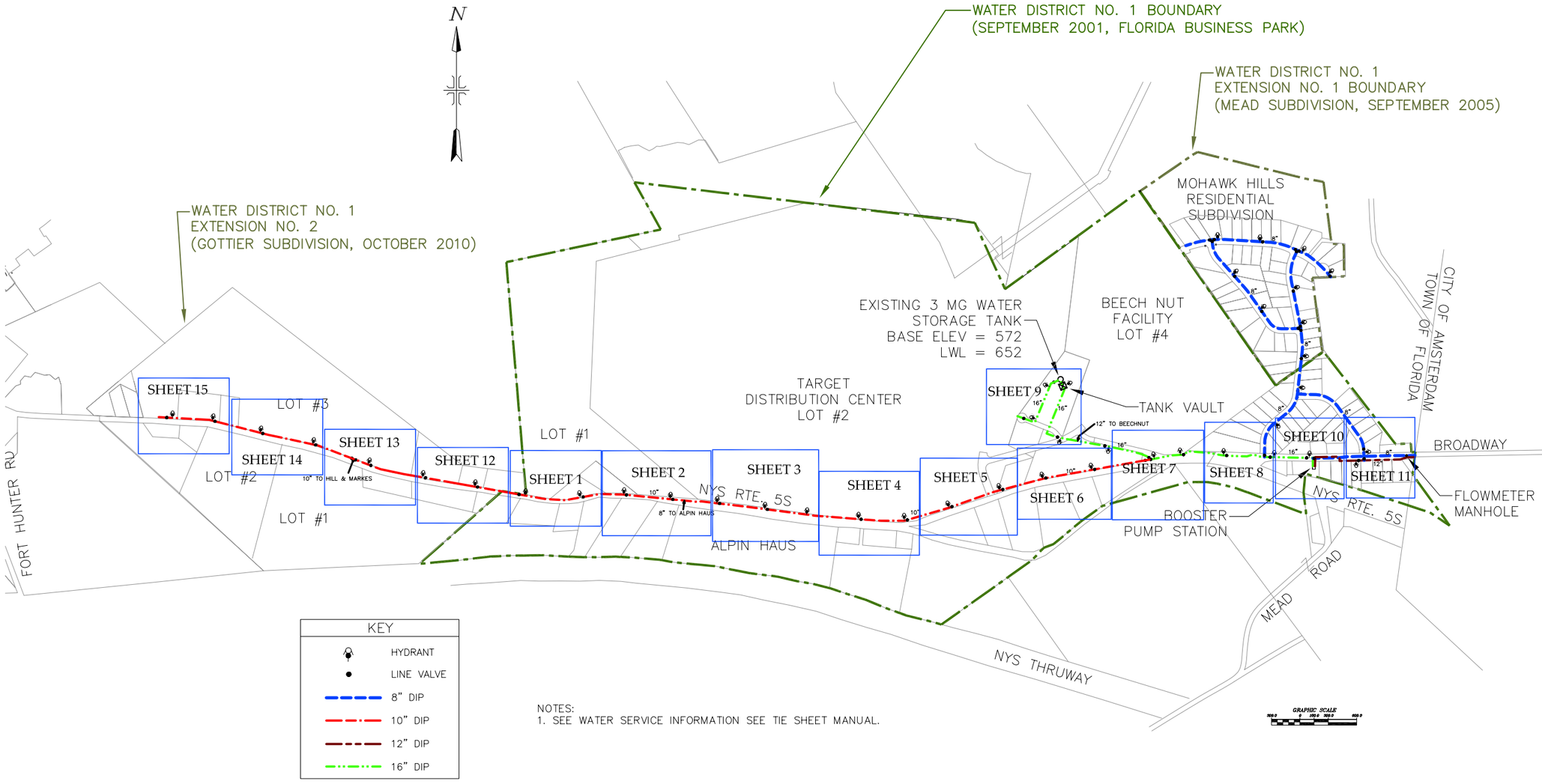
25 GPD/Employee (Average 2160 employees/day)

Daily usage = 54,000 GPD (Gallons per Day)

Monthly Usage = Approximately 1,620,000 Gallons

APPENDIX "D"

TOWN OF FLORIDA SEWER MAPPING



NOTES:
1. SEE WATER SERVICE INFORMATION SEE TIE SHEET MANUAL.

NO.	DATE	REVISION
00	04/05/10	ORIGINAL ISSUE

ALTERATIONS OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER ARE ILLEGAL

PROJ. ENGR: JMCD
DRAWN BY: WFL
ASSEMBLED BY: WFL
CHECKED BY: JMCD

John M. McDonald Engineering, P.C.
Public Works Engineering
Schenectady, New York

TOWN OF FLORIDA WATER DISTRICT MAP

Montgomery County, New York

SHEET TITLE: OVERALL SYSTEM MAP

SCALE: NOTED

REFERENCE NUMBER: 04-0201-000

DATE: APRIL 2010

SHEET NO. 1

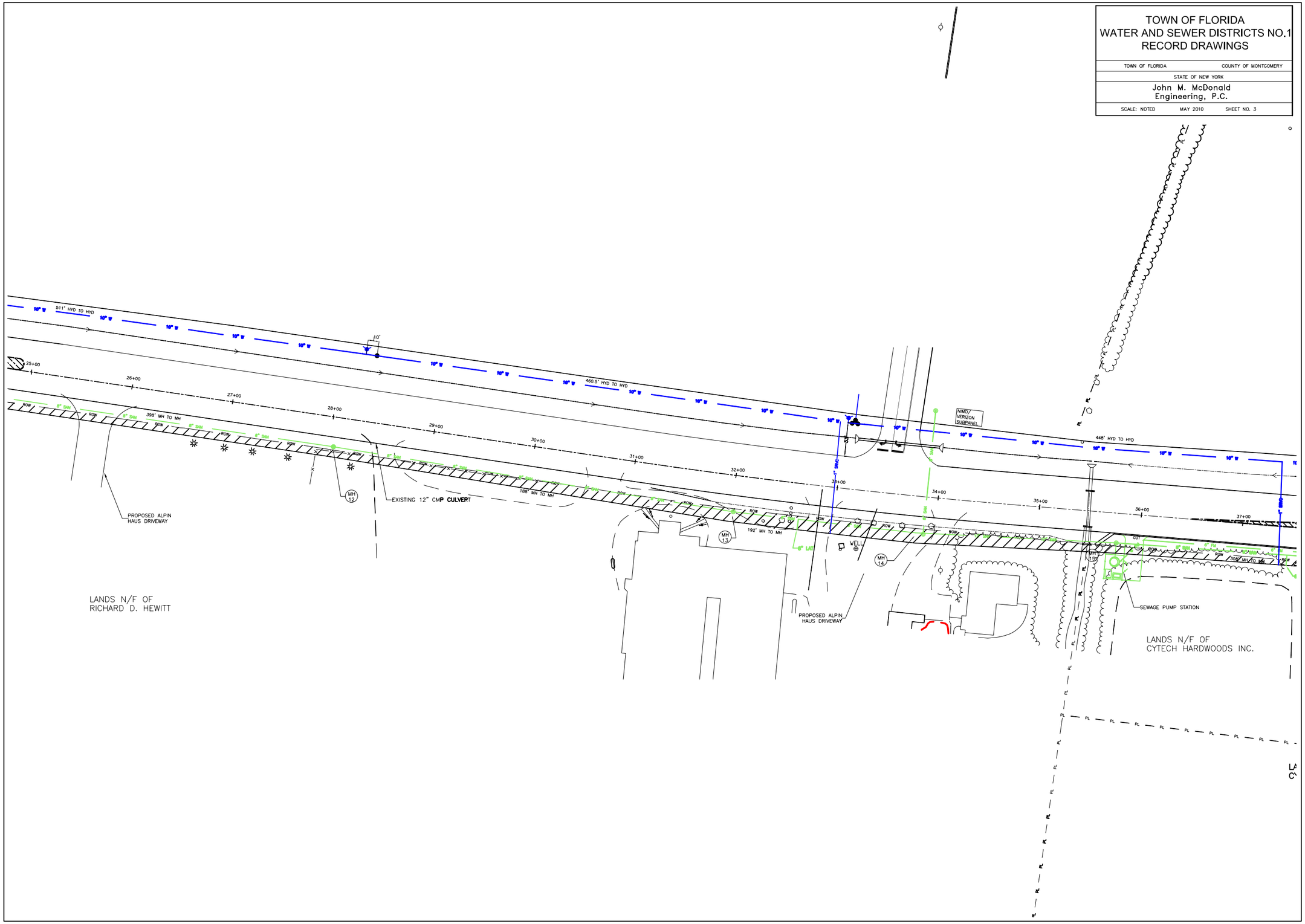
TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

SCALE: NOTED — MAY 2010 — SHEET NO. 3



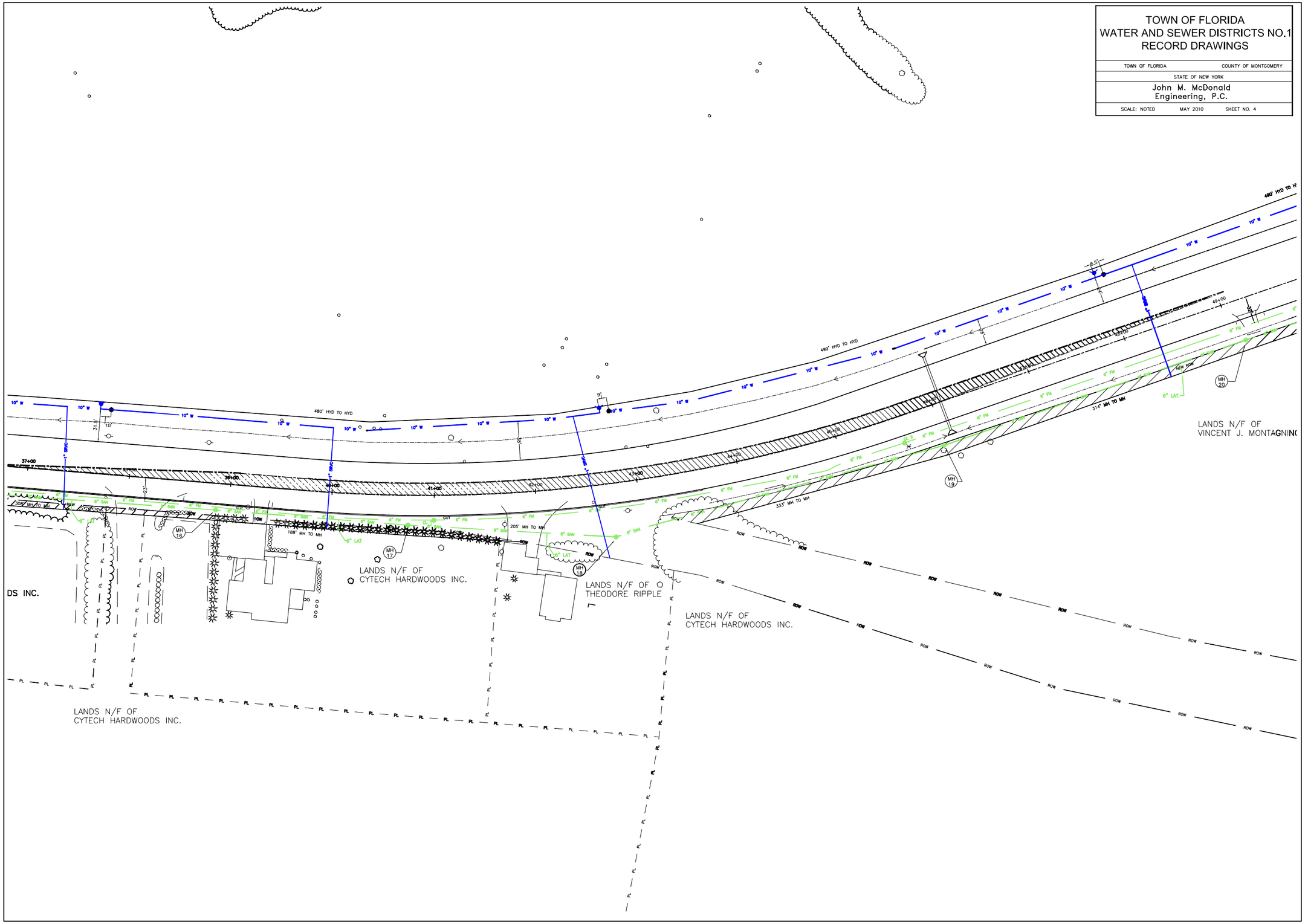
TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

SCALE: NOTED — MAY 2010 — SHEET NO. 4



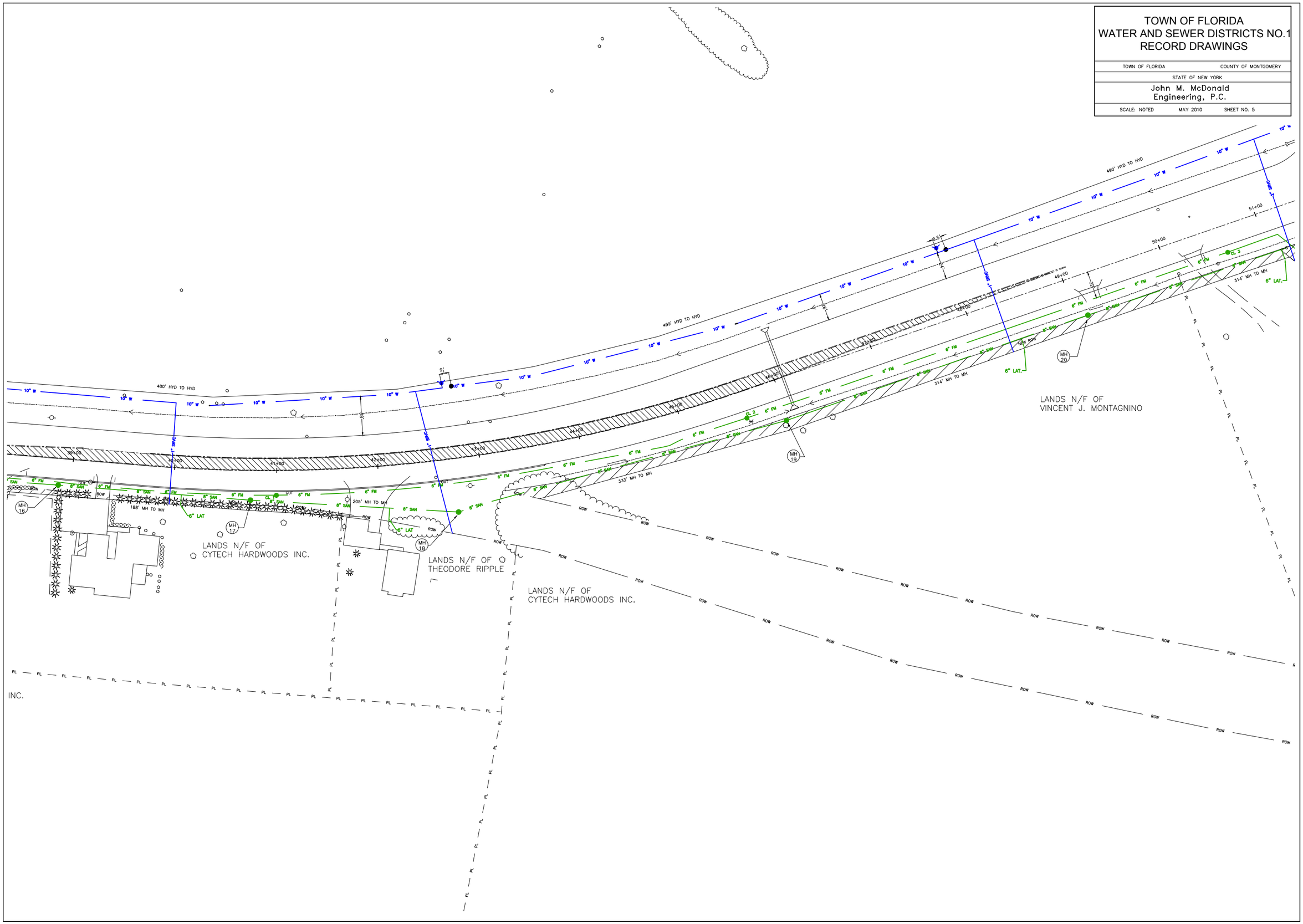
TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

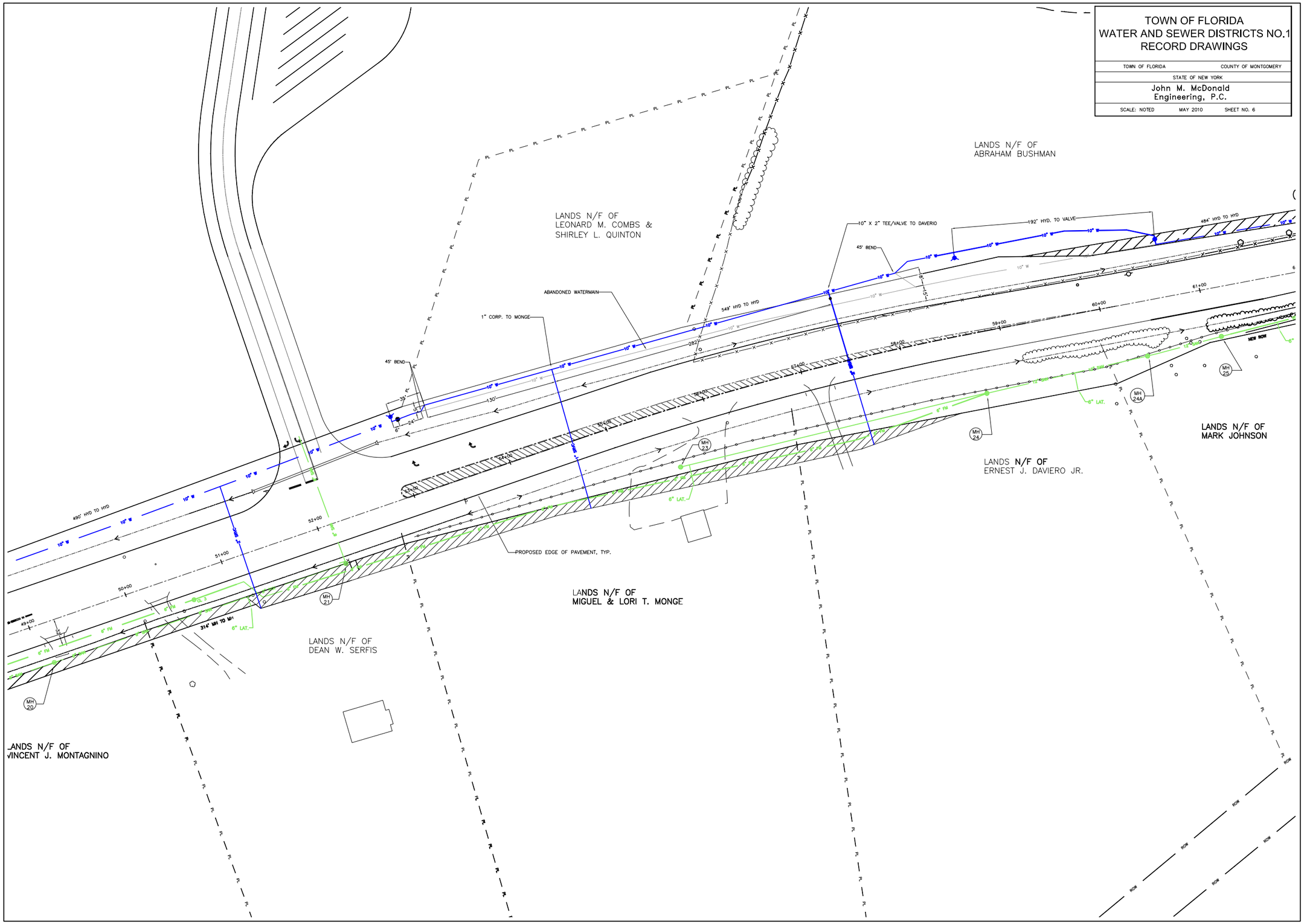
TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

SCALE: NOTED — MAY 2010 — SHEET NO. 5




TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS
TOWN OF FLORIDA
COUNTY OF MONTGOMERY
STATE OF NEW YORK
John M. McDonald
Engineering, P.C.
SCALE: NOTED
MAY 2010
SHEET NO. 6
LANDS N/F OF
ABRAHAM BUSHMAN
LANDS N/F OF
LEONARD M. COMBS &
SHIRLEY L. QUINTON
10" X 2" TEE/VALVE TO DAVERIO
192' HYD. TO VALVE
484' HYD TO HYD
45' BEND
ABANDONED WATERMAIN
1" CORP. TO MONGE
549' HYD TO HYD
490' HYD TO HYD
45' BEND
PROPOSED EDGE OF PAVEMENT, TYP.
LANDS N/F OF
MARK JOHNSON
LANDS N/F OF
ERNEST J. DAVIERO JR.
LANDS N/F OF
MIGUEL & LORI T. MONGE
LANDS N/F OF
DEAN W. SERFIS
LANDS N/F OF
VINCENT J. MONTAGNINO
314' MH TO MH
6" LAT.
NEW ROW
MH 20
MH 21
MH 23
MH 24
MH 24A
MH 25

TOWN OF FLORIDA
WATER AND SEWER DISTRICTS NO.1
RECORD DRAWINGS

TOWN OF FLORIDA — COUNTY OF MONTGOMERY

STATE OF NEW YORK

John M. McDonald
Engineering, P.C.

SCALE: NOTED — MAY 2010 — SHEET NO. 7

PILE

DIRT\DERIS

silo

HIRSHFIELD ROAD

45° BEND
16" VALVE
HYDRANT
10" VALVE
12" X 10" REDUCER
16" X 12" REDUCER
16" VALVE
16" X 16" TEE

NM 4
NM 3
NM 2
NM 37
NM 37 1/2

MH 39
MH 38A
MH 30
MH 31
MH 32
MH 33
MH 28
MH 29
MH 27
MH 26

1" SRVC
6" LAT
214' MH TO MH
180' MH TO MH
556' HYD TO HYD
97'

LANDS N/F OF
DOMINICK J. MEGNA

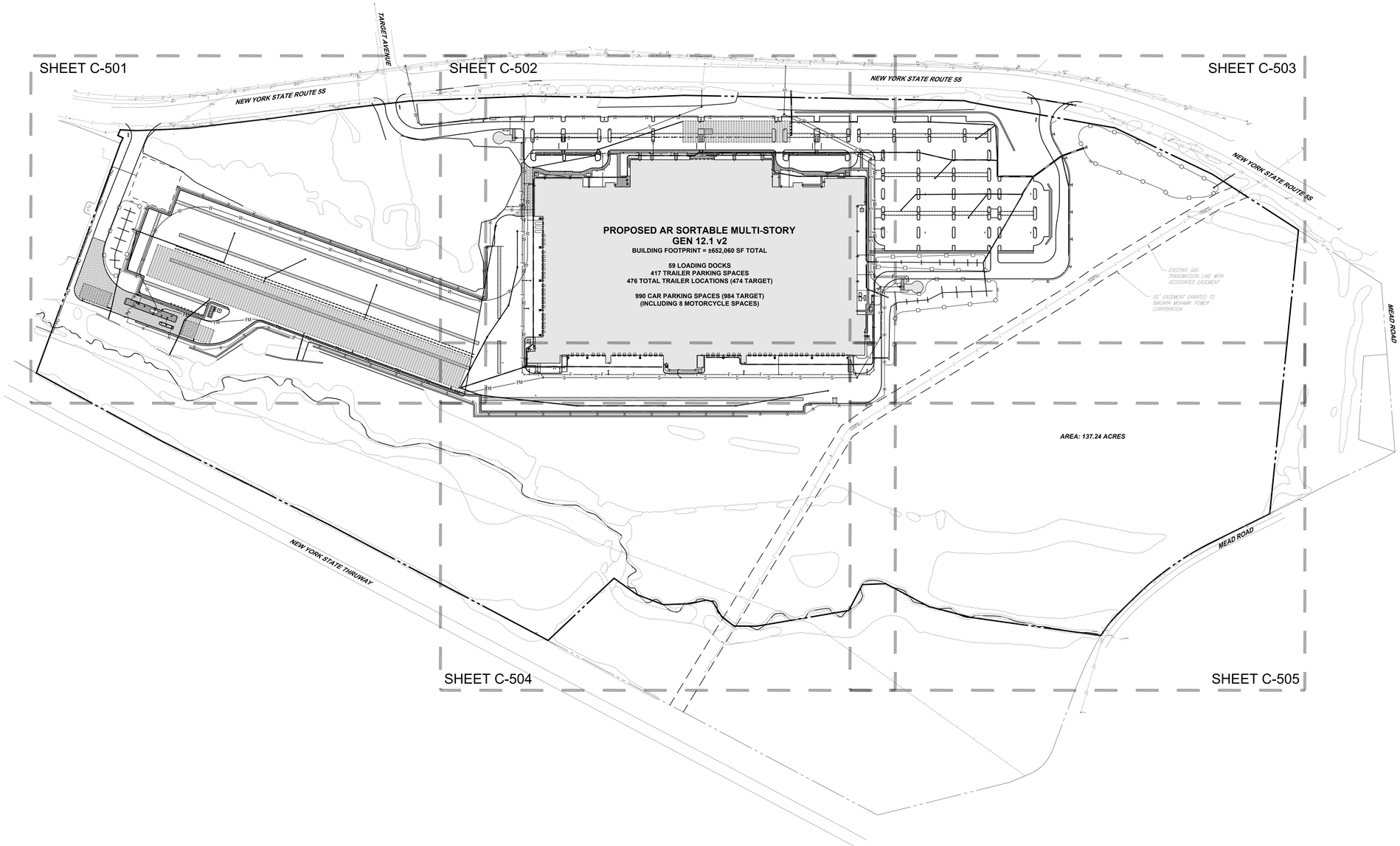
LANDS N/F OF
MEAD FAMILY PARTNERSHIP

- OF
NSON

APPENDIX "E"

OVERALL UTILITY PLAN





THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY

150 75 37.5 0 150

1"=150'

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LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
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REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PROJECT No.:	NYB240176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/21/2025
CAD I.D.:	P-CIVL-UTIL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING NY, PLLC
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

C-500

ORG. DATE - 04/21/2025

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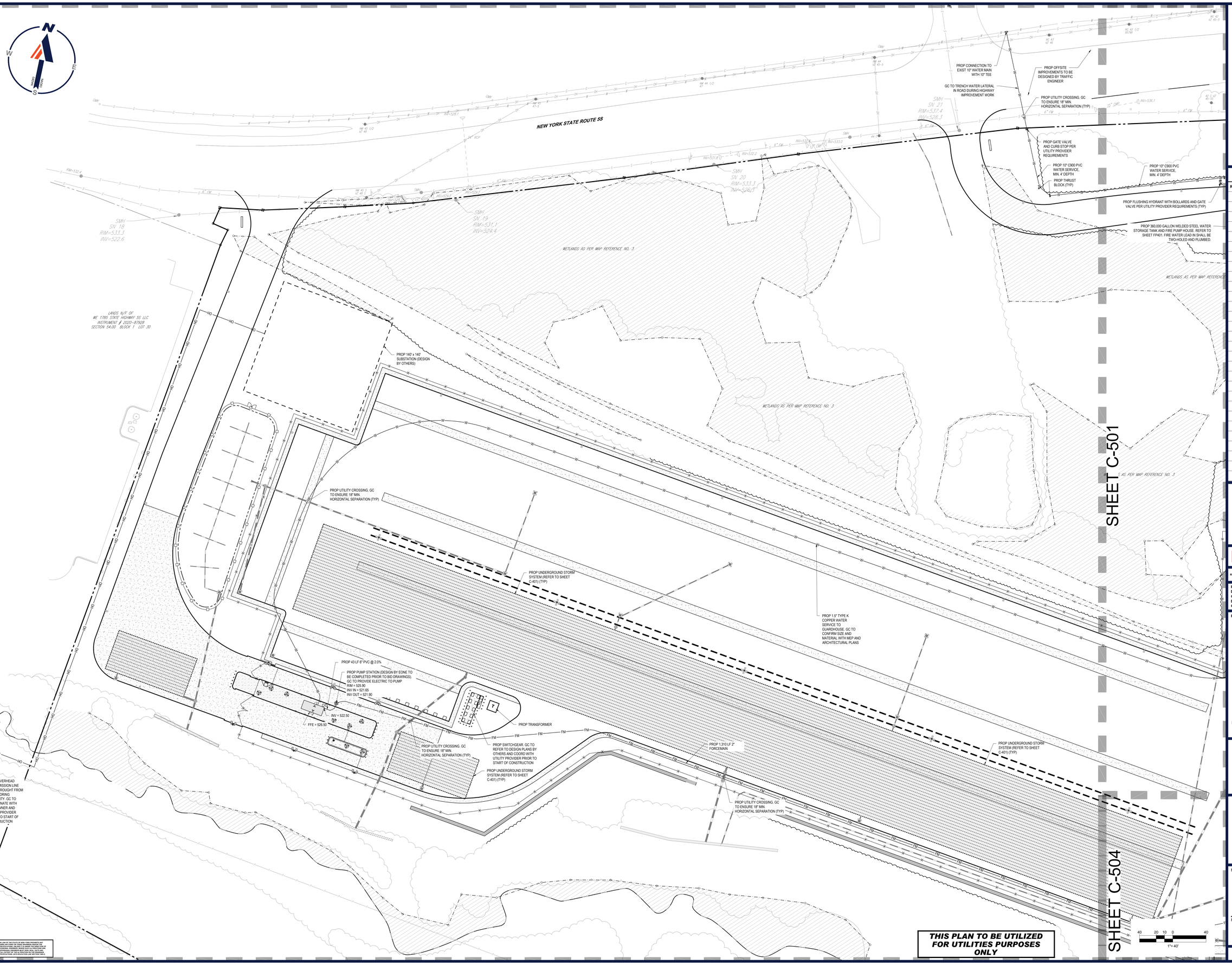
APPENDIX "F"

PARTIAL UTILITY PLANS



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17 COMPUTER DRIVE WEST
ALBANY, NY 12205
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Fax: (518) 438-0900
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SHEET TITLE:

UTILITY PLAN A

SHEET NUMBER:

C-501

ORG. DATE - 04/21/2025

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PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

PROP 8" TANK FILL LINE TO FIRE PUMP HOUSE

PROP 10" TO 8" SERVICE REDUCER

PROP HEATED ENCLOSURE FOR BACKFLOW PREVENTER AND WATER METER

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP CITY PRESSURE HYDRANT WITH BOLLARDS (TYP)

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP 10" TO 6" SERVICE REDUCER

PROP 6" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 4" WALL-MOUNTED STORZ FDC

INV = 541.50

C/O

PROP 360,000 GALLON WELDED STEEL WATER STORAGE TANK AND FIRE PUMP HOUSE. REFER TO SHEET FP401. FIRE WATER LEAD IN SHALL BE TWO HOLED AND PLUMBED.

PROP 12 LF 6" PVC @ 0.75%

PROP OIL WATER SEPARATOR
RIM = 547.80
INV IN = 541.40
INV OUT = 541.15

10" C900 WATER LATERAL FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" WATER C900 LATERAL FEED TO EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP THRUST BLOCK (TYP)

PROP GATE VALVE (TYP)

WETLANDS AS PER MAP REFERENCE NO. 3

SHEET C-501

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP THRUST BLOCK (TYP)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP.

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

PROP GATE VALVE (TYP)

WETLANDS AS PER MAP REFERENCE NO. 3

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP CONNECTION TEE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 1.5" TYPE K COPPER WATER SERVICE TO GUARDHOUSE. GC TO CONFIRM SIZE AND MATERIAL WITH MEP AND ARCHITECTURAL PLANS

PROP FLUSHING HYDRANT WITH BOLLARDS AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

C/O

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 1,310 LF 2" FORCEMAIN

FM

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

PROP 10" C900 PVC WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 345 LF 6" PVC @ 1.2%

PROP 10" CONNECTION TEE (TYP)

PROP SMH 07
RIM = 541.45
INV IN = 536.95
INV OUT = 536.85

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

FFE = 542

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

INV = 534.05

PROP TRANSFORMER

PROP 455 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 538.00
INV IN = 533.50
INV OUT = 533.40

PROP 74 LF 6" PVC @ 9.5%

PROP 206 LF 6" PVC @ 1.6%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UNDERGROUND STORM SYSTEM (REFER TO SHEET C-402) (TYP)

PROP SMH 02
RIM = 530.85
INV IN = 526.35
INV OUT = 518.80

PROP 53 LF 6" PVC @ 2.0%

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP SMH 27
RIM=522.8
INV=514.7

PROP OFFSITE IMPROVEMENTS TO BE DESIGNED BY TRAFFIC ENGINEER

PROP CONNECTION TO EXIST SMH
INV = 517.75

SMH SN 24
RIM=516.8
INV IN=510.9
INV OUT=327.6

SMH SN 25
RIM=521.0
INV=524.5

SMH SN 26
RIM=522.0
INV=517.6

SMH SN 23
RIM=544.7
INV=536.5

SMH SN 22 (NOT FOUND)

GC TO TRENCH SEWER LATERAL IN ROAD DURING HIGHWAY IMPROVEMENT WORK

ASSUMED INV = 511.90. GC TO VERIFY IN THE FIELD AND NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION

RIM=515.9

PROP 155 LF 8" PVC @ 2.4%

GC TO ENSURE MIN. 4' COVER ON SANITARY LATERALS UNDER EXISTING GRADE DITCH (TYP)

PROP SMH 06
RIM = 534.00
INV IN = 515.65
INV OUT = 515.55

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP 320 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 10" C900 PVC WATER SERVICE, MIN. 4' DEPTH

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

10" C900 PVC WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP TRANSFORMER

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

SHEET C-503

PROP SMH 05
RIM = 538.55
INV IN = 518.15
INV OUT = 518.05

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP TRANSFORMER

PROP 10" C900 WATER SERVICE TO PUMPHOUSE (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 434 LF 8" PVC @ 0.75%

PROP 10" C900 FEED TO INTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP GATE VALVE (TYP)

CHECK VALVE AND ISOLATION VALVE WITH TAMPER SWITCH ON BOTH SIDES TO BE PROVIDED INSIDE PROP BUILDING. GC TO CONNECT TO INTERIOR 10" FIRE SERVICE MAIN LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 10" CONNECTION TEE (TYP)

PROP 10" LEAD-IN FOR RISER BANK #5 (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SMH 06
RIM = 537.90
INV IN = 521.51
INV OUT = 521.41

PROP GATE VALVE (TYP)

INV = 521.90

PROP 53 LF 4" PVC @ 1.0%

INV = 525.05

PROP 165 LF 8" PVC @ 0.75%

PROP 2" TYPE K COPPER WATER SERVICE TO GUARDHOUSE (REFER TO MEP AND ARCH PLANS FOR SIZE AND CONNECTION LOCATIONS)

PROP ELECTRIC SERVICE CONNECTION AT BUILDING (REFER TO ARCH PLANS)

PROP SMH 03
RIM = 536.90
INV IN = 522.85
INV OUT = 522.75

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

SHEET C-504

SHEET C-505

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP WALL HYDRANT

PROP 78 LF 8" PVC @ 6.0%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN =
INV IN =
INV OUT =

PROP CONNECTION TEE (TYP)

PROP 6" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

PROP 585 LF 8" PVC @ 0.75%

10" C900 WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP 6" C900 HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 455 LF 8" PVC @ 0.75%

PROP 49 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP 1,310 LF 2" FORCEMAIN

PROPOSED AR SORTABLE MULTI-STORY
GEN 12.1 v2
BUILDING FOOTPRINT = ±652,060 SF TOTAL

59 LOADING DOCKS
417 TRAILER PARKING SPACES
476 TOTAL TRAILER LOCATIONS (474 TARGET)

990 CAR PARKING SPACES (984 TARGET)
(INCLUDING 8 MOTORCYCLE SPACES)

FFE = 542

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NEW YORK STATE ROUTE 5S

40 20 10 0 40
1"= 40'

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SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 55/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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Fax: (518) 438-0900
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SHEET NUMBER:

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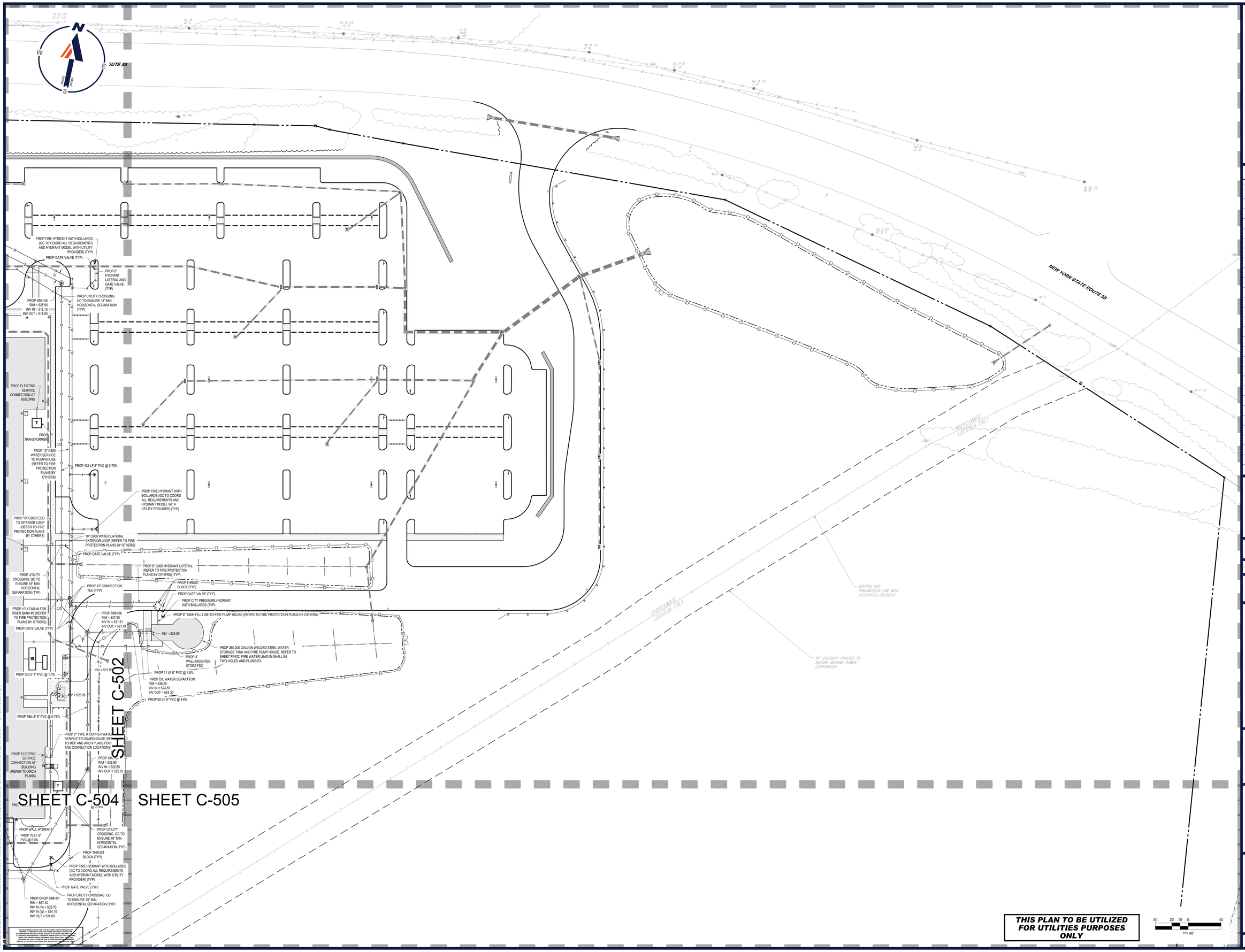

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PROJECT:

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FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

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TOWN OF FLORIDA
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SHEET TITLE:

UTILITY PLAN C

SHEET NUMBER:

C-503

ORG. DATE - 04/21/2025

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

PROP 6" C900 PVC WATER SERVICE

PROP WALL HYDRANT (REFER TO MEP AND ARCH PLANS FOR CONNECTION AT BUILDINGS)

INV = 533.08

C/O

PROP THRUST BLOCK (TYP)

PROP 49 LF 8" PVC @ 2.0%

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP SMH 01
RIM = 536.75
INV IN = 532.10
INV OUT = 532.00

PROP 1,310 LF 2" FORCEMAIN

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP FLUSHING HYDRANT AND GATE VALVE PER UTILITY PROVIDER REQUIREMENTS (TYP)

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" C900 HYDRANT LATERAL AND GATE VALVE (TYP)

PROP 455 LF 8" PVC @ 0.75%

REFER TO MEP AND ARCH PLANS FOR SIZES AND CONNECTION LOCATIONS OF ALL UTILITIES AT BUILDINGS (TYP)

FFE = 542

PROP ELECTRIC SERVICE CONNECTION AT BUILDING

INV = 534.05

PROP TRANSFORMER

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP 30 LF 8" PVC @ 2.0%

PROP SMH 02
RIM = 536.30
INV IN = 528.60
INV OUT = 528.50

10" C900 WATER LATERAL EXTERIOR LOOP (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP CONNECTION TEE (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP 8" HYDRANT LATERAL AND GATE VALVE (TYP)

PROP GATE VALVE (TYP)

10" C900 PVC WATER LATERAL CONNECTION TO BUILDING (REFER TO FIRE PROTECTION PLANS BY OTHERS)

PROP SANITARY SERVICE CONNECTION AT BUILDING
INV = 537.30

PROP TRANSFORMER

PROP WALL HYDRANT

PROP 76 LF 8" PVC @ 6.0%

PROP 585 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP DROP SMH 01
RIM = 537.40
INV IN (N) = 532.70
INV IN (W) = 524.10
INV OUT = 524.00

PROP 152 LF 8" PVC @ 0.75%

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

PROP THRUST BLOCK (TYP)

PROP FIRE HYDRANT WITH BOLLARDS (GC TO COORD ALL REQUIREMENTS AND HYDRANT MODEL WITH UTILITY PROVIDER) (TYP)

PROP GATE VALVE (TYP)

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TYP)

SHEET C-501
SHEET C-502
SHEET C-502
SHEET C-503
SHEET C-305

WETLANDS AS PER MAP REFERENCE NO. 3

APPROXIMATE LOCATION ONLY

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40 20 10 0 40
1"= 40'

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PROP TRANSFORMER

PROP WAL

PROP 76 PVC @ 6

PROP 152 LF 8" PVC @ 0.75%

PROP DROP SMH 01
RIM = 537.40
INV IN (N) = 532.70
INV IN (W) = 524.10
INV OUT = 524.00

PROP UTILITY CROSSING. GC TO ENSURE 18" MIN. HORIZONTAL SEPARATION (TY

PROVIDER) (TYP)

PROP GATE VALVE (TYP)

SHEET C-502

SHEET C-503

SHEET C-504

PROXIMATE CATION ONLY

AREA: 137.24 ACRES

WETLANDS AS PER MAP REFERENCE NO. 3

LANDS N/F OF
ERIC M. & SANDRA MEAD
INSTRUMENT # 2022-9752O
SECTION 55.00 BLOCK 1 LOT 1.11

MEAD ROAD

INV=428.6

60" CMP

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1"= 40'

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APPENDIX 10

PHASE I ENVIRONMENTAL SITE ASSESSMENT

for

MSV1
State Highway 5S
Florida, New York

Prepared for:

Amazon.com Services LLC
410 Terry Avenue North
Seattle, WA 98109

Prepared by:

Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
368 Ninth Avenue, 8th Floor
New York, New York 10001

Smita Day, PE
Senior Project Manager

Anna Statkiewicz
Senior Project Scientist

Report Date: **24 December 2024**
180-Day Viability Date: **31 May 2025**
170886701

LANGAN

TABLE OF CONTENTS

EXECUTIVE SUMMARY **i**

1. INTRODUCTION **1**

1.1 PURPOSE 1

1.2 SCOPE OF SERVICES 1

1.3 USER RESPONSIBILITIES 2

2. SUBJECT PROPERTY DESCRIPTION AND CURRENT USE **3**

2.1 LOCATION, LEGAL DESCRIPTION, AND OWNERSHIP 3

2.2 PHYSICAL SETTING 4

2.3 SUBJECT PROPERTY DESCRIPTION 5

2.4 CURRENT SUBJECT PROPERTY USE 5

2.5 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS 6

2.6 AIR EMISSIONS 7

2.7 WASTE MANAGEMENT 7

2.8 WASTEWATER 7

2.9 STORM WATER 7

2.10 NON-SCOPE CONSIDERATIONS 7

3. SUBJECT PROPERTY HISTORY AND RECORDS REVIEW **8**

3.1 HISTORICAL SUMMARY 8

3.2 REGULATORY DATABASE REVIEW 9

3.3 PRIOR REPORT REVIEW 10

4. ADJOINING PROPERTIES AND SURROUNDING AREA **13**

4.1 CURRENT USE OF ADJOINING PROPERTIES AND SURROUNDING AREA 13

4.2 ADJOINING PROPERTIES AND SURROUNDING AREA HISTORY 13

4.3 REGULATORY DATABASE REVIEW 15

5. CONCLUSIONS, FINDINGS, AND OPINIONS **16**

6. ENVIRONMENTAL PROFESSIONAL STATEMENT **17**

7. REFERENCES **18**

8. LIMITATIONS AND DEFINITIONS **19**

8.1 ASTM DEFINITIONS 20

8.2 STANDARD ENVIRONMENTAL RECORD SOURCES 22

8.3 LIMITING CONDITIONS/DEVIATIONS 23

8.4 DATA GAPS 23

TABLES

Table ES-1 Conclusions, Findings and Opinions

Table 2-1 Utility Providers

Table 3-1 Subject Property History

Table 4-1 Current Use of Adjoining Properties and Surrounding Area

Table 4-2 Historical Use of Adjoining Properties

Table 7-1 Dates of Assessment Components

APPENDICES

Appendix A Figures

- Figure 1 Subject Property Location Map
- Figure 2A Subject Property Layout
- Figure 2B Historical Subject Property Features Map
- Figure 3 Nearby Properties Map

Appendix B User Provided Information

Appendix C Environmental Database Report

Appendix D Site Reconnaissance Photographs and Checklist

Appendix E Agency Records and Other Reports

Appendix F Historical Resources

Appendix G Résumés of Environmental Professionals

EXECUTIVE SUMMARY

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C (Langan) completed a Phase I Environmental Site Assessment (ESA) of the MSV1 property located at State Highway 5S in Florida, Montgomery County, New York (the "subject property") under the written authorization of Amazon.com Services LLC (Amazon, "Client" and the "user").

The Phase I ESA was completed following the guidelines of ASTM International Standard Practice E1527-21 (ASTM E1527-21), the United States Environmental Protection Agency's (US EPA) All Appropriate Inquiries (AAI) Rule, and industry standard practice. Amazon has requested this ESA as part of their environmental due diligence in advance of their proposed lease or purchase of the subject property for use as a distribution facility.

Subject Property Layout

The approximately 137-acre subject property is currently vacant and consists of wooded land and former agricultural fields with unpaved access roads and several surface water features. The surface water features include two mapped freshwater ponds (one each in the northwestern and southeastern parts of the subject property) and an unnamed tributary of North Chuctanunda Creek (transects the southern part of the subject property in an approximate east-west orientation).

Subject Property Current Use

The subject property is currently vacant, undeveloped land. Miscellaneous waste (e.g., two 5-gallon propane tanks (metal), one 55-gallon polyethylene drum with unknown contents, a plow blade, polyvinyl chloride (PVC) pipes, refrigerators, bathtubs, sinks, metal framing, couches, automobile frames, mattress frames, tires, washing machines) were scattered and/or stockpiled at the subject property.

Subject Property History

The subject property was undeveloped and/or agricultural land since the 1890s and included residential structures in the northwestern part of the subject property in 1895 that were demolished by 1931. The northwestern part of the subject property was developed with two residential structures with basements, garages for parking, and sheds/lean-tos between 1989 and 1999 and a farm stand operated in the northern part of the subject property from 1999 to the mid-2000s. The residences were occupied until 2021 and the subject property buildings were demolished in January 2022. According to previous reports, Winstanley Enterprises purchased the subject property in 2021 and is the current owner.

Conclusions

Langan completed a Phase I ESA of the subject property using the scope guidelines and inherent limitations of ASTM E1527-21. Table ES-1 presents the conclusions of the Phase I ESA.

Table ES-1 Conclusions, Findings and Opinions

Recognized Environmental Conditions (REC)
Langan did not identify RECs.
Controlled Recognized Environmental Conditions (CREC)
Langan did not identify CRECs.

Historical Recognized Environmental Conditions (HREC)
Langan did not identify HRECs.
De Minimis Conditions
Langan did not identify de minimis conditions.
Significant Data Gaps
Langan did not identify significant data gaps.

1. INTRODUCTION

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C (Langan) completed a Phase I Environmental Site Assessment (ESA) of the MSV1 property located at State Highway 5S (NY-5S) in Florida, Montgomery County, New York (the "subject property") under the written authorization of Amazon.com Services LLC (Amazon, the "Client" and the "user"). A Subject Property Location Map is provided in Appendix A (Figure 1).

The Phase I ESA was completed following the guidelines of ASTM International Standard Practice E1527-21 (ASTM E1527-21), the United States Environmental Protection Agency's (US EPA) All Appropriate Inquiries (AAI) Rule, and industry standard practice. Amazon has requested this ESA as part of their environmental due diligence in advance of their proposed lease or purchase of the subject property for use as a distribution facility.

1.1 Purpose

The purpose of this Phase I ESA is to identify recognized environmental conditions (REC) associated with the subject property. This purpose also includes identifying controlled recognized environmental conditions (CREC), historical recognized environmental conditions (HREC), de minimis conditions, and significant data gaps. The definitions of REC, CREC, HREC, de minimis condition and other select ASTM terms used in this report are in Section 8.

1.2 Scope of Services

Langan's scope of services consisted of the completion of a Phase I ESA following the guidelines of ASTM E1527-21. Langan's scope of services as it pertains to the elements of a Phase I ESA as specified in ASTM E1527-21 is described below.

On 8 July 2024, the US EPA final rule designating two per- and polyfluoroalkyl substances (PFAS) – perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) including their salts and structural isomers – as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) became effective. Because of the complex and varied historical use of PFAS in various industries; limited prior disclosures of PFAS content on product specification sheets, Material Safety Data Sheets, and Safety Data Sheets; the complex chemistry and chemical transformations associated with some PFAS; and the ever-growing and varied list of state regulations, it is not feasible to evaluate PFOA and PFOS without also considering other PFAS. As such, absent analytical data, Langan incorporated a review of PFAS as a general class into this Phase I ESA.

PFAS and other CERCLA hazardous substances and petroleum products have been detected in background environmental samples across the globe, including in areas removed from specific recognized sources. This Phase I ESA was not intended to evaluate background concentrations of CERCLA hazardous substances or petroleum products, regardless of whether the source is naturally occurring or anthropogenic. The objective of Langan's scope of services was to identify the presence, likely presence, and/or material threat of a release of CERCLA hazardous substances and petroleum products related to specific property uses that are generally recognized as known or potential sources of such substances and products.

1.2.1 Records Review and Local Government Interviews

Langan contracted a third-party provider to search environmental regulatory databases and provide historical records. The database search included select federal, state, local and tribal standard source environmental databases within the approximate search radii specified by ASTM E1527-21.

Langan submitted Freedom of Information Act (FOIA) requests to supplement environmental database listing information. The FOIA requests were submitted to the New York State Department of Health, the New York State Department of Environmental Conservation (NYSDEC), and Town of Florida. Langan also reviewed online records including the Federal Emergency Management Agency Flood Map database; United States Fish and Wildlife Services National Wetlands Inventory (NWI); United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey; United States Geological Survey (USGS) mapping; and US EPA databases. Agency FOIA-requested information, where received, is discussed in relevant sections of this report and referenced in Section 7. Pertinent documents are provided in Appendix E.

Langan supplemented the third-party-provided historical records with review of online historical record sources including Google Earth Pro.

1.2.2 Site Reconnaissance and Owner/Operator/Occupant Interviews

Shawn Martin of Langan completed the site reconnaissance on 9 December 2024. Sean Baggett (Bluewater Property Group; the "key site manager") arranged access for Mr. Martin, who was unaccompanied during the site reconnaissance. The site reconnaissance focused on the spatial extent of the subject property and associated structures and progressed to the adjoining and surrounding properties. The adjoining properties were observed from the subject property or from public rights-of-way. The weather at the time of the site reconnaissance was approximately 36°F and overcast. Limiting conditions encountered during the site reconnaissance, if any, are discussed in Section 8.3.

Langan interviewed Mr. Baggett via email on 4 and 19 December 2024.

1.2.3 Evaluation, Report and Parts Used in Concert

Langan evaluated the pieces of information obtained from the records reviews, site reconnaissance and interviews described above, and from the user as described in Section 1.3 in concert with each other. Langan's findings, opinions, and conclusions are discussed throughout this report. Significant assumptions, or deletions, deviations or exceptions to ASTM E1527-21 are noted in Section 8.3.

1.2.4 Non-ASTM Scope Services

The scope of services for the Phase I ESA included the following non-scope considerations: wetlands and floodplains (Section 2.10.1); naturally occurring radon (Section 2.10.2); and asbestos-containing material (ACM), lead-containing paint (LCP), polychlorinated biphenyls (PCB) and mold (Section 2.10.3).

1.3 User Responsibilities

Langan requested that the user provide the results of tasks the user is responsible for completing

to satisfy the requirements of AAI. The tasks include: searching for known environmental liens and activity and use limitations (AUL) filed or recorded against the subject property, and provision of information related to specialized knowledge or experience of the user or the degree of obviousness relative to conditions indicative of releases or threatened releases; actual knowledge of the user regarding environmental liens or AULs related to the subject property; specialized knowledge or experience of the user; reasons for significantly lower purchase prices, and commonly known or reasonably ascertainable information within the local community about the subject property. Langan also requested that the user state the reason the Phase I ESA was requested.

Unless specifically included in the scope of services, Langan did not complete a title search or a search for environmental liens or AULs, as that is the responsibility of the user. If the user requested that Langan complete such searches on the user's behalf, the information was supplied to Langan by a vendor, and to the vendor by government sources; therefore, neither Langan nor the vendor can verify the completeness or accuracy of the title search, or AUL searches.

Relevant information provided by the user is included in Appendix B and is discussed in applicable sections of this report. To date, a completed questionnaire has not been provided to Langan; however, Tracey Schwartz, Principal – EHS Due Diligence and Remediation of Amazon indicated that she does not have specialized knowledge of environmental conditions on the subject property.

2. SUBJECT PROPERTY DESCRIPTION AND CURRENT USE

The following sections describe the subject property location, ownership, physical setting, and current layout and operations.

2.1 Location, Legal Description, and Ownership

The approximately 137-acre subject property is located approximately 500 feet northwest of the intersection of Snooks Corners Road and Meade Road. The subject property is identified as Montgomery County Parcel 54.-1-36. The subject property was formerly comprised of the following Montgomery County Parcels and addresses:

Parcels	Address
54.-1-35.11	State Highway 5S
54.-1-35.121	State Highway 5S
54.-1-35.131	1711 State Highway 5S
54.-1-35.141	State Highway 5S
54.-1-35.151	1733 State Highway 5S
54.-1-35.161	State Highway 5S
54.-1-36	State Highway 5S
54.-1-37	State Highway 5S
55.-1-1.1 (portion)	176 Mead Road
55.-2-4.1 (portion)	State Highway 5S

Based on the Map Showing Overall Merged Parcel prepared by LRC Group, dated 22 April 2019 (Section 3.3), the above-listed parcels were merged into the current Parcel 54.-1-36 in 2021. A

legal description of the subject property was not reasonably ascertainable. The subject property is owned by Winstanley Enterprises.

2.2 Physical Setting

The physical setting that includes the geologic, hydrogeologic, hydrologic, and topographic characteristics of the subject property and surrounding area are discussed below.

2.2.1 Topography

The 2019 USGS 7.5-minute topographic quadrangle map for Amsterdam, New York depicts the subject property at elevations ranging from approximately 450 to 550 feet above mean seal level. Based on the Land Title Survey prepared by LRC Group, dated 15 July 2021 (Section 3.3), the subject property grade varies between elevation (el.) 450 in the southeastern part of the subject property and el. 556 in the central part of the subject property. Elevations are with respect to the North American Vertical Datum of 1988 (NAVD88). Based on subject property observations, the topographic quadrangle map, and previous reports, the northern and southern parts of the subject property slope downward to an unnamed tributary of North Chuctanunda Creek in the southern part of the subject property, and the northeastern part of the subject property slopes downward to the northeast.

2.2.2 Geology

According to the USDA NRCS Soil Survey Geographic data for Montgomery County, soils at the subject property are comprised of Appleton silt loam with 3 to 8 percent slopes, palatine silt loam with 15 to 25 percent slopes and palatine silt loam with 3 to 8 percent slopes. These soils are classified primarily as poorly-drained silty gravelly loams.

According to the "Geologic Map of New York, Hudson Mohawk Sheet (Fisher, Isachsen, Rickard, dated March 1970)", the subject property is underlain by bedrock within the Lorraine, Trenton, and Black River groups consisting of Middle Ordovician-aged Canajoharie shale. The Canajoharie Shale consists of black shale.

Based on previous investigations (Section 3.3), subsurface stratigraphy at the subject property consists of a surficial topsoil layer underlain by clay, silt, sand, and gravel overlying natural glacial till, which is underlain by shallow shale bedrock. An about 2-foot-thick fill layer was encountered in one soil boring in the western part of the subject property. The fill predominantly consists of clayey sand with gravel and anthropogenic materials (geotextile fabric). Weathered bedrock was encountered at depths between about 1 and 20 feet below grade surface (bgs) and bedrock was encountered between 1 and 12 feet bgs.

According to the Homeland Infrastructure Foundation Level Database, the subject property does not fall within an oil and gas field. The Environmental Data Resources (EDR) report did not identify any oil or gas wells within one mile of the subject property. No injection wells were identified within a quarter mile of the subject property.

2.2.3 Hydrogeology

The closest surface water body is an unnamed tributary of North Chuctanunda Creek, which runs in an approximate east-west orientation through the southern part of the subject property, and two mapped freshwater ponds, one each in the northwestern and southeastern parts of the

subject property (Figure 1). The unnamed tributary flows from west to east towards the North Chuctanunda, which is located about 1,000 feet east of the subject property.

Information regarding subject property-specific groundwater flow direction is unavailable. Groundwater flow can be influenced by several factors such as surface water bodies, wetlands, hydrogeologic and anthropogenic variables. Based on the local topography and proximity to nearby surface water features, the inferred regional groundwater flow direction at the subject property is to the east-southeast, towards North Chuctanunda Creek. Based on the local topography and proximity to nearby surface water features, the inferred groundwater flow direction at the subject property may be variable: inferred groundwater flow in the northern part of the subject property to the south-southeast; and inferred groundwater flow in the southern part of the subject property to the northeast. Based on previous investigations (Section 3.3), groundwater was encountered at depths ranging from about 1 to 14 feet bgs.

A review of the GeoCheck section of the EDR Regulatory Database Report (Appendix C) and site reconnaissance observations did not identify groundwater monitoring wells on the subject property. The EDR report identified six monitoring wells within one mile of the subject property. The available well logs indicated that regional groundwater depth within one mile of the subject property ranges from about 103 to 111 feet bgs.

2.3 Subject Property Description

The approximately 137-acre subject property is currently vacant and consists of wooded land and former agricultural fields with unpaved access roads and several surface water features. The surface water features include two mapped freshwater ponds (one each in the northwestern and southeastern parts of the subject property) and a tributary of North Chuctanunda Creek (transects the southern part of the subject property in an approximate east-west orientation).

A Subject Property Layout Map is provided in Figure 2 of Appendix A. Photographs of the subject property and a checklist documenting Langan's observations relative to the features, activities, uses and conditions outlined in Section 9.4 of ASTM E1527-21 are in Appendix D.

2.4 Current Subject Property Use

The subject property is vacant and consists of wooded land in the northern, western, and southern parts of the subject property, and former agricultural fields in the central and eastern parts of the subject property.

The northwestern part of the subject property was most recently developed with two residential structures with basements, garages for parking, sheds/lean-tos, and a farm stand, which were in use from 1999 to the mid-2000s. The residences were occupied until 2021 and the subject property buildings were demolished in January 2022.

The following table summarizes subject property utility providers.

Table 2-1 Utility Providers

Utility	Providers
Electricity (not active)	National Grid (provider to the area)
Natural gas (not active)	National Grid (provider to the area)
Water (not active)	Town of Florida Water District (provider to the area)

Utility	Providers
Sewer (not active)	Town of Florida Sewer District (provider to the area); the former residences were serviced by septic systems that included tanks and leach fields. According to previous reports (Section 3.3), the septic tanks were removed in January 2022; however, the leach fields were left in place (Section 3.1).

2.5 Hazardous Substances and Petroleum Products

Langan did not observe hazardous substances or petroleum product storage or use at the subject property. Langan did not observe evidence of leaks, spills, pools of liquid or releases such as staining, or sheens at the subject property.

2.5.1 Underground Storage Tanks (UST)

The EDR database report did not identify USTs at the subject property, and Langan did not observe evidence of USTs at the subject property.

2.5.2 Aboveground Storage Tanks (AST)

The NYSDEC Petroleum Bulk Storage (PBS) database listing for Site No. 4-600621 and the EDR database report identify the following closed-removed ASTs in connection with the subject property: one 3,000-gallon AST (Tank 1, diesel storage, steel, installed in 1998, closed/removed in 2001) and one 300-gallon AST (Tank 2, gasoline storage, steel, installation date not provided, closed/removed in 2001). Based on a review of previous reports (Section 3.3), the PBS database and EDR database report listings pertain to the south-adjoining property and are not associated with the subject property. The off-site database details are discussed below in the subject property regulatory database review (Section 3.2).

Based on a review of previous reports (Section 3.3) the former residences at 1711 and 1733 NY-5S in the northern part of the subject property each had one AST within their respective basements. According to previous reports, the ASTs were removed during building demolition in January 2022; however, tank removal documentation was not provided for review.

Because of the status of the tanks and lack of documented violations or releases, the PBS listing and historical petroleum bulk storage are not considered a REC.

2.5.3 Drums, Totes, and Intermediate Bulk Containers

Langan observed one 55-gallon polyethylene drum with no visible labels or markings and unknown contents in the western part of the subject property. Due to snow cover, Langan was unable to observe the surrounding ground surface for indications of staining or stressed vegetation.

2.5.4 Other Chemical Storage, Containers, or Equipment

Langan observed miscellaneous waste (e.g., two 5-gallon propane gas containers (metal), a plow blade, polyvinyl chloride [PVC] pipes, refrigerators, bathtubs, sinks, metal framing, couches, automobile frames, mattress frames, tires, washing machines) scattered and/or stockpiled in the western part of the subject property. The propane tanks did not have visible labels or markings and had visible signs of rusting and corrosion. The origin of these waste materials is unknown.

Due to snow cover, Langan was unable to observe the surrounding ground surface for indications of staining or stressed vegetation.

2.6 Air Emissions

Langan did not observe sources of air emissions at the subject property.

2.7 Waste Management

The following sections describe current hazardous and non-hazardous waste streams, and observations of fill areas or other solid waste throughout the subject property.

2.7.1 Hazardous Waste

According to EDR database records, hazardous waste is not being generated at the subject property. Langan did not observe hazardous waste at the subject property.

2.7.2 Non-Hazardous Waste

According to EDR database records, non-hazardous waste is not being generated at the subject property. Langan did not observe non-hazardous waste at the subject property.

2.7.3 Fill Areas or Solid Waste

Langan observed miscellaneous waste (e.g., a plow blade, PVC pipes, refrigerators, bathtubs, sinks, metal framing, couches, automobile frames, mattress frames, tires, washing machines) scattered and/or stockpiled at the subject property. The origin of these waste materials is unknown. No visible indications of filling, grading, or earthwork were observed at the subject property. According to the key site manager, no earthwork has occurred at the subject property since at least 2022.

2.8 Wastewater

Langan did not observe or identify evidence of septic systems or cesspools at the subject property.

2.9 Storm Water

Storm water at the subject property percolates through pervious areas or sheet flows to the adjoining roadways into the municipal storm sewer system.

Langan observed several municipal stormwater access manholes along the northern boundary of the subject property, adjacent to NY-5S.

2.10 Non-Scope Considerations

2.10.1 Wetlands and Floodplains

According to EDR Regulatory Database Report (Appendix C), the NWI, and prior report review (Section 3.3), there are 10 wetland areas at the subject property totaling approximately 12.5 acres. The wetland areas include two freshwater ponds, one each in the northwestern and southeastern parts of the subject property, and an unnamed tributary running in an approximate east-west orientation in the southern part of the subject property (unnamed tributary of North

Chuctanunda Creek). Wetland areas are shown on Figures 2A and 2B. The subject property is not located within a flood zone as shown on Figures 2A, 2B, and 3.

2.10.2 Naturally Occurring Radon

Radon is a colorless, odorless radioactive gas that results from the natural breakdown of uranium minerals in soil, rock, and water, which subsequently enters the atmosphere. Radon can concentrate in buildings, entering through cracks and other penetrations of a building foundation. Some areas are more likely to have elevated concentrations of radon than others, reflecting subsurface lithologic conditions.

According to Federal Area Radon information provided by EDR, Montgomery County is a Radon Zone 2 (indoor average greater than 2 picocuries per liter [pCi/L] and less than 4 pCi/L) and all of living areas of the 26 sites tested in Montgomery County had readings less than 4 pCi/L. Approximately 81 percent of basements tested had readings less than 4pCi/L and approximately 19 percent had readings between 4 and 20 pCi/L. The average result from 26 tests conducted within Montgomery County in Amsterdam was 0.820 pCi/L and 2.020 pCi/L for first floor living areas and basements, respectively. The US EPA recommends indoor air radon levels should be less than 4 pCi/L. Based on available information, there is the potential for elevated radon levels at the subject property.

2.10.3 ACM, LCP, PCBs and Mold

A formal survey to identify ACM, LCP, PCB-containing material, and/or mold was not conducted as part of this Phase I ESA. There are no buildings at the subject property. Based on the prior report review (Section 3.3), a hazardous building materials (HBM) survey report was prepared for the former subject property buildings. No ACM, LCP, or PCB-containing materials were identified based on a review of the HBM survey. A formal survey to identify mold was not conducted as part of this Phase I ESA. Because there are no buildings at the subject property, it is considered unlikely that mold is present.

3. SUBJECT PROPERTY HISTORY AND RECORDS REVIEW

The following sections provide summaries of the historical uses of the subject property, and available information regarding documented environmental conditions associated with the historical uses.

3.1 Historical Summary

Langan compiled the following summary of the subject property history based on a review of readily available and reasonably ascertainable sources and interviews. Historical resources are provided in Appendix F.

Table 3-1 Subject Property History

Time Period	Historical Discussion
1895 – 1930s	The subject property was undeveloped land with a road (South Amsterdam – Fort Hunter Road) that transected the northern part of the subject property, two structures, and a stream that transected the southern part of the subject property in an east-west orientation (USGS Topographic Maps). In the 1895 USGS Topographic Map, the apparent slope of the subject property sloped downward

Time Period	Historical Discussion
	from west to east, and by 1931, the northern part of the subject property is depicted as generally level (USGS Topographic Maps).
1940s – 2020s	In 1942, the subject property appears largely undeveloped with agricultural fields (Aerial Photographs). By 1947, the road in the northern part of the subject property was no longer present (USGS Topographic Maps). The freshwater pond in the southeastern part of the subject property first appears in the 1957 Aerial Photograph. A 10-inch natural gas transmission line was installed in the eastern part of the subject property in the 1970s (Section 3.3). Two residential structures with basements, septic systems, heating oil ASTs, garages for parking, and two sheds/lean-tos were developed in the northern part of the subject property between 1989 and 1999, and the remaining parts of the subject property were agricultural and wooded land (Section 3.3 and Aerial Photographs). A farm stand was developed in the northern part of the subject property and operated at the subject property from 1999 to the mid-2000s (Section 3.3). By 2006, a second pond was present in the northwestern part of the subject property (Google Earth Imagery). The subject property appears relatively unchanged through 2018 (Aerial Photographs and Google Earth Imagery). According to prior report review (Section 3.3), the structures, ASTs, septic tanks, and five water wells at the subject property were demolished/removed in January 2022; however, the leach fields were left in place (Section 3.3).
2022 – Present	According to prior report review (Section 3.3) and the Town of Florida Tax Assessors Office, Winstanley Enterprises owns the subject property. An easement for the American Telephone & Telegraph transects the southern part of the subject property in an approximate east-west direction and the subject property is subject to an easement granted to the Niagara Mohawk Power Corporation for the Niagara Mohawk natural gas pipeline in the western part of the subject property (Section 3.3). The subject property is in a C-2 commercial/light industrial zoning district designated for gas stations, dry cleaners, warehouses, printing, research and development centers, retail stores, carwashes, hotels, and restaurants (Town of Florida Zoning Map, 2016). Based on our review of the above historical references, the subject property has been used for agricultural purposes from at least 1942 to 2022. There is no reported, or known, utilization of municipal biosolids as fertilizer at the subject property. Based on prior reports review (Section 3.3), pesticides and herbicides were not detected in soil at elevated concentrations and historical agricultural use is not considered a REC. A natural gas transmission line with an easement runs through the eastern part of the subject property in an approximate north-south orientation. The former residences were served by water wells and an on-site septic system that included tanks and leach fields. According to the prior report review (Section 3.3), the water wells were decommissioned and the septic tanks at the subject property were removed in January 2022; however, the leach fields were left in place.

Environmental concerns related to historical operations are discussed further in Section 3.3.

3.2 Regulatory Database Review

The subject property is identified on the PBS AST database. The PBS AST listing is associated with PBS Site No. 4-600621 and details two closed and removed ASTs in connection with the

subject property. As detailed in Section 2.5.2, previous reports indicate that the PBS database and EDR database report listings pertain to the south-adjoining property and are not associated with the subject property.

3.3 Prior Report Review

Langan was provided with prior reports. The reports are referenced in Section 7, copies are provided in Appendix B and summarized below.

The following environmental reports were available for review and are provided in Appendix D:

- 11 December 2018 Land Title Survey, prepared by LRC Group
- 28 January 2019 Hazardous Materials Survey Report, prepared by Terracon Consultants, Inc. (Terracon)
- 1 April 2019 Phase I ESA, prepared by Tetra Tech, Inc. (Tetra Tech)
- 24 April 2019 Phase II ESA, prepared by Tetra Tech
- 26 August 2019 Report of Geotechnical Investigation, prepared by Whitestone Associates, Inc. (Whitestone)
- 30 August 2019 Expanded Full Environmental Assessment Form (FEAF), prepared by Bohler Engineering (Bohler)
- 27 April 2022 Phase I ESA, prepared by Langan

In addition to the reports listed above, the User provided the following relevant reports completed at a nearby property:

- 24 October 2019 Phase I ESA for DAB4 – 1785 State Highway 5S, Amsterdam, NY, prepared by Langan
- 26 November 2019 Phase II ESA Summary for DAB4 - 1785 State Highway 5S, Amsterdam, NY, prepared by Langan
- 17 June 2024 Environmental Site Investigation Summary for DAB4 – 1785 State Highway 5S, Amsterdam, NY, prepared by Langan

Relevant information based on our review of the above-listed reports is summarized below. Many of the historical subject property features discussed below are shown in Figure 2B.

<u>28 January 2019 Hazardous Materials Survey Report, prepared by Terracon</u>

Terracon prepared an HBM survey on behalf of Winstanley Enterprises, LLC for five residential structures at the subject property to identify the presence/absence of ACM, LCP, and other potentially hazardous materials such as mercury-containing and PCB-containing equipment. The HBM survey identified the following:

- Based on laboratory analysis pertaining to the samples collected during the survey, no materials sampled at the Site were identified to contain asbestos.
- None of the paint chip samples were identified to contain detectable levels of lead.
- No suspect hazardous and regulated materials were observed by Terracon.

No ACM, LCP, or PCB-containing materials were identified based on a review of the HBM survey.

1 April 2019 Phase I ESA, prepared by Tetra Tech

Tetra Tech completed a Phase I ESA on behalf of Winstanley Enterprises, LLC for the subject property and the remainder of Parcel 55.-2-4.1 (off-site). At the time of Tetra Tech's site reconnaissance in November 2018, the subject property was occupied by two residences, each with one AST in the basement, a farm stand, vacant fields and crop lands, and undeveloped land. Tetra Tech did not identify RECs at the subject property. Tetra Tech identified the following de minimis conditions associated with the subject property:

- The residential structures in the northern part of the subject property each contain a 250-gallon AST in their respective basements. Tetra Tech observed oil staining on the concrete surface beneath the AST at 1733 NY-5S; however, no cracks to the subsurface, odors, or evidence of a release were observed. Tetra Tech identified the presence of the former AST with residual stored oil and residual staining on the concrete beneath the AST as a de minimis condition.

Tetra Tech recommended that the unused AST at the residential structure be decommissioned and removed from the subject property and that the stockpile of tires be removed from the subject property. According to Kenneth Grant, Senior Vice-President of Winstanley Enterprises (subject property owner), the ASTs at the subject property were removed in January 2022. Tank removal documentation was not provided for review.

24 April 2019 Phase II ESA, prepared by Tetra Tech

Tetra Tech conducted a Phase II ESA at the subject property in March 2019 to evaluate the environmental condition of soil at the subject property. The Phase II ESA included advancing 18 soil borings to 6 feet bgs and collecting soil samples for laboratory analysis of volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), pesticides, herbicides, and Resource Conservation and Recovery Act (RCRA) metals. The soil sample analytical results were evaluated using NYSDEC Title 6 New York Codes, Rules, and Regulations (6 NYCRR) Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO). The Phase II ESA findings are summarized below:

- Soil at the subject property consisting of brown to gray silty clay topsoil and clay with some sand and gravel, traces of shale (apparent bedrock) was encountered from 4 to 6 feet bgs.
- No staining, odors, or photoionization detector field screening results were observed.
- PAHs, pesticides, and herbicides were not detected in the soil samples.
- One VOC, toluene, was detected, but at a concentration below the UU SCO.
- Six metals, arsenic, barium, cadmium, chromium, lead, and mercury, were detected, but at concentrations below the UU SCOs.

Langan's review of the reports prepared by Tetra Tech did not identify RECs.

26 August 2019 Report of Geotechnical Investigation, prepared by Whitestone

Whitestone conducted a geotechnical investigation at the subject property in July 2019, consisting of 48 soil borings and 8 test pits. The subsurface soil consisted of about 17 inches of topsoil followed by glacial till, typically consisting of brown silty sand with gravel to clayey sand

with gravel, cobbles, and boulders. One boring in the western part of the subject property included a layer of fill consisting of clayey sand with gravel, and anthropogenic materials (geotextile fabric) to a depth of about 2 feet bgs. Underlying the glacial till was black shale bedrock. Groundwater was encountered during the geotechnical investigation at depths ranging from 1 to 14 feet bgs.

30 August 2019 FEAF, prepared by Bohler

Bohler prepared an Expanded FEAF on behalf of the Town of Florida Planning board. The FEAF included an Overall Existing Conditions survey prepared by LRC Group, dated 11 December 2018 that details the wetland areas at the subject property. According to the survey, there are 10 wetland areas ranging between 0.02 and 6.30 acres at the subject property, totaling approximately 12.5 acres of wetlands.

27 April 2022 Phase I ESA, prepared by Langan

The 2022 Phase I ESA did not identify RECs in connection with the subject property.

West-Adjoining Property – DAB4 Langan Phase I ESA and Phase II ESA Summary for DAB4 - 1785 State Highway 5S, Amsterdam, NY

24 October 2019 Phase I ESA, prepared by Langan

Langan performed a Phase I ESA at this west-adjoining property in October 2019. The 2019 Phase I ESA identified two RECs in connection with the site. A 2014 spill incident involving the release of about 30-gallons of diesel fuel at the site was identified as a REC; however, the spill incident was closed in 2015. A former septic system at the site was also identified as a REC.

26 November 2019 Phase II ESA Summary, prepared by Langan

Langan performed a Phase II ESA at this west-adjoining property in November 2019. The investigation consisted of five sub-slab soil gas sampling points within the building interior. Sub-slab soil gas (SSGS) samples were analyzed for VOCs via US EPA Method TO-15. The Phase II ESA findings are summarized below:

The SSSG results were screened against the US EPA Vapor Intrusion Screening Level (VISL) Residential and Commercial/Industrial Criteria using a Target Cancer Risk of 1x10-6 and a Target Hazard Quotient of 1 (May 2020) and the mitigation screening levels per New York State Department of Health (NYSDOH) Soil Vapor/Indoor Air Decision Matrices (Matrix A, Matrix B, and Matrix C) provided in the October 2006 NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (updated in May 2017). The NYSDOH Decision Matrices address tetrachloroethene, trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, vinyl chloride, methylene chloride, and carbon tetrachloride. The matrix evaluation requires sub-slab and indoor air data and are used here for comparison purposes. Indoor air samples were not collected as part of the investigation; however, the matrices provide recommendations for monitoring and/or mitigation based on sub-slab soil gas concentrations. The findings are summarized below:

- Sub-slab soil gas samples did not have exceedances of the US EPA Commercial/Industrial VISLs or NYSDOH mitigation screening levels.
- Exceedances in sub-slab soil gas of the US EPA Residential VISL included chloroform.

17 June 2024 Environmental Site Investigation Summary, prepared by Langan

Langan performed an environmental site investigation at this west-adjoining property in June 2024. The investigation consisted of six soil borings and soil sample collection for laboratory analysis. Soil samples were analyzed for PCBs by US EPA Method 8082A, RCRA-list VOCs, SVOCs, pesticides, herbicides, and metals using the Toxic Characteristic Leaching Procedure (TCLP) in accordance with 40 Code of Federal Regulations Part 261.24, pH, ignitability, and cyanide and sulfide reactivity, and/or paint filter. The environmental site investigations findings are summarized below:

- PCBs were not detected.
- Hazardous waste characteristics were not identified.

4. ADJOINING PROPERTIES AND SURROUNDING AREA

The following sections describe current and historical uses of and database listings for adjoining properties and the surrounding area.

4.1 Current Use of Adjoining Properties and Surrounding Area

The current use of adjoining and surrounding properties is summarized in Table 4-1.

Table 4-1 Current Use of Adjoining Properties and Surrounding Area

Direction	Adjoining Properties	Surrounding Area
North	NY-5S followed by a commercial warehouse and distribution facility (1800 NY-5S), undeveloped land (NY-5S, and Broadway Extended), and a residential property (103 Joann Way).	Agricultural, industrial, and residential properties
East	Agricultural property (Mead Road) and Mead Road followed by an agricultural property (Mead Road).	Agricultural and residential properties
Southeast	Agricultural and residential property (176 Mead Road)	Agricultural and residential properties
South	NYS Thruway (Interstate 90) followed by agricultural properties (Sager Road, Snooks Corners Road).	Agricultural and residential properties
West	DAB4 Amazon Delivery Distribution Warehouse (1785 NY-5S)	Commercial and industrial properties

Langan did not observe obvious conditions likely to represent environmental concerns for the subject property from current uses of adjoining or surrounding properties.

4.2 Adjoining Properties and Surrounding Area History

Langan compiled the following summaries of the adjoining properties and surrounding area history based on a review of historical resources and interviews. Historical resources are provided in Appendix F.

Table 4-2 Historical Use of Adjoining Properties

Direction	Adjoining Properties
North	The north-adjoining properties are depicted as undeveloped on 1895 USGS Topographic Maps. By 1942, NY-5S is depicted to the north of the subject property, and several buildings and agricultural land are shown to the north of NY-5S (Aerial Photographs). The north-adjoining properties appears relatively unchanged from 1942 to 2005 (Aerial Photographs, Google Earth Imagery). By 2006, the former buildings along NY-5S are no longer depicted, the north-adjoining commercial warehouse and distribution facility is shown, and the residential building at 103 Joann Way is shown in its current configuration (Aerial Photographs, Google Earth Imagery). By 2011, the commercial warehouse and distribution facility at 1800 NY-5S appears expanded to the east and is shown in its current configuration (Aerial Photographs, Google Earth Imagery). The configuration of the north-adjoining properties appears relatively unchanged from 2011 to present day. Database listings associated with the north-adjoining property are discussed in Section 4.3.
East	Mead Road is depicted to the east of the subject property as early as 1895. The east-adjoining properties are depicted as undeveloped on USGS Topographic Maps in the late 1800s. By 1966, the east-adjoining agricultural property at Mead Road is depicted in its current configuration (Aerial Photographs). The configuration of the east-adjoining properties appears relatively unchanged from 1966 to present day (Aerial Photographs and Google Earth Imagery). Langan does not consider the historical use of the east-adjoining properties an environmental concern for the subject property.
Southeast	The southeast-adjoining property is depicted as undeveloped on USGS Topographic Maps in the late 1800s. By 1942, the southeast-adjoining property appears developed as a farmstead (Aerial Photographs). The southeast-adjoining property remains relatively unchanged through 2019 (Aerial Photographs and Google Earth Imagery). Langan does not consider the historical use of the southeast-adjoining properties an environmental concern for the subject property.
South	The south-adjoining property is depicted as undeveloped or agricultural land on USGS Topographic Maps in the late 1800s. By 1954, the NYS Thruway (Interstate 90) is depicted to the south of the subject property (USGS Topographic Map). The south-adjoining property remains relatively unchanged through 2019 (Aerial Photographs and Google Earth Imagery). Database listings associated with the south-adjoining property are discussed in Section 4.3.
West	The west-adjoining property is depicted as undeveloped or agricultural land on USGS Topographic Maps in the late 1800s. By 1942, several structures are shown on the west-adjoining property (Aerial Photographs). The west-adjoining property remains relatively unchanged through 2005. In 2006 earthwork is apparent at the west-adjoining property, and by 2020 the west-adjoining property appears developed with its current commercial building configuration (Aerial Photographs and Google Earth Imagery). Database listings associated with the west-adjoining property are discussed in Section 4.3.

The adjoining properties and surrounded areas were undeveloped or consisted of agricultural land in the late 1890s to the early 1900s. By 1942, the adjoining and surrounding areas were predominantly developed as agricultural land and farmsteads. Construction of residential buildings in the surrounding areas to the north, east, and south of the subject property began in

the late 1980s and continued through to the early 2000s. Construction of commercial buildings in the adjoining and surrounding area to the north and west began in 1990s and continued through to the 2020s. The adjoining and surrounding areas to the south remained undeveloped and/or agricultural land to the present day.

Langan does not consider the historical uses of the surrounding area properties an environmental concern for the subject property.

4.3 Regulatory Database Review

Langan reviewed the environmental database report to evaluate if adjoining or surrounding area properties identified in the database report are suspected to represent an environmental concern for the subject property (see Section 8.2). Langan did not consider review of regulatory agency files necessary to evaluate potential RECs for the subject property unless discussed in Section 4.3.1 or 4.3.2 below.

4.3.1 Adjoining Properties

Database listings for adjoining properties are summarized as follows.

North-Adjoining – Target Distribution Center (1800 State Highway 5S – inferred upgradient)

This facility is not listed in the EDR radius report; however, Langan identified listings for the property during a review of the US EPA Enforcement and Compliance History Online (ECHO) and Envirofacts databases. According to these databases, this facility is listed as an active RCRA Large Quantity Generator under the US EPA ID NYR000133959 with associated waste codes D001 (ignitable waste), D002 (corrosive waste), D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead), D011 (silver), D018 (benzene), D035 (methyl ethyl ketone), U002 (acetone), and U154 (methanol). According to the ECHO database two violations were identified on 28 August 2017. The violations fall under the Statute of RCRA and include 273.B: Universal Waste – Small Quality Handlers, and 262.C: Generators – Pre-transport. Both violations achieved compliance on 28 August 2017.

In addition to these federal database listings, Langan identified the north-adjoining facility on the NYSDEC PBS database under PBS No. 4-601039 as an active facility. Seven ASTs ranging in size from 500 to 1,000 gallons containing diesel are present at this facility.

Although not identified in the EDR Report or the NYSDEC Spill Incidents online database, based on previous reports (Section 3.3), 16 spills were reported for this facility between 2009 and 2016. The spills were addressed to the satisfaction of the NYSDEC and were subsequently closed.

Based on the absence of active violations and regulatory status of the documented releases, this facility is not considered a REC.

Western Adjoining – Last Mile Distribution (1785 NYS Route 5S – inferred upgradient)

This facility is listed in the State Pollutant Discharge Elimination System (SPDES) database. The SPDES class description is construction. No additional information is provided.

Although not identified in the database, based on previous reports (Section 3.3), this facility is listed in the NY SPILLS database under the Spill No. 1406532 due to a release of diesel fuel on September 19, 2014. The database listing indicates that a 5-gallon spill from a broken fuel line on a refrigeration truck was reported at the Site. The NYSDEC determined that the staining at this property indicated a larger release and required further investigation. A spill incident report

published after remediation of the property estimated that 30 gallons of diesel fuel was released. Impacted material was excavated and disposed off-site. A spill report indicated that no end point sampling was completed in conjunction with the excavation of impacted material. After receiving the disposal documentation, NYSDEC issued a No Further Action (NFA) letter for the case in 2015 and the spill was closed on February 18, 2015.

Based on the regulatory status (NFA), this facility is not considered a REC.

South-Adjoining - Floridale Farm (176 Mead Road – inferred downgradient)

The south-adjoining facility is listed in the PBS AST database under PBS No. 4-600621 as an unregulated/closed site with the name of Floridale Farm. The PBS database indicates a 3,000-gallon diesel UST was installed in 1998 and closed-removed in 2001 and a 300-gallon gasoline UST was removed in 2001. The PBS notes indicate the two tanks were aboveground; however, the base of both tanks were in contact with soil not allowing for visual inspection. No spills or violations were reported in association with the former tanks.

Based on the closed and removed status of the tanks and absence of spills and violations, this facility is not a REC.

4.3.2 Surrounding Area

Langan evaluated each of the database listings for surrounding area properties (see Section 8.2). The surrounding properties do not represent an environmental concern for the subject property at this time.

5. CONCLUSIONS, FINDINGS, AND OPINIONS

Langan completed a Phase I ESA consistent with the scope and limitations of ASTM E1527-21 for the MSV1 property at NY-5S in Florida, Montgomery County, New York. Exceptions to, or deletions from, ASTM E1527-21 are described in Section 8 of this report. Table 5-1 presents the conclusions of the Phase I ESA.

Table 5-1 Conclusions, Findings, and Opinions

RECs
Langan did not identify RECs.
CRECs
Langan did not identify CRECs.
HRECs
Langan did not identify HRECs.
De Minimis Conditions
Langan did not identify de minimis conditions.
Significant Data Gaps
Langan did not identify significant data gaps.

6. ENVIRONMENTAL PROFESSIONAL STATEMENT

Résumés outlining the qualifications of the project team are included in Appendix G.

I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and I have the specific qualifications based on my education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Anna Statkiewicz
Senior Project Scientist

7. REFERENCES

Langan used the following sources to complete this Phase I ESA.

- ALTA/NSPS Land Title Survey for State Route 5S, prepared by LRC Group, 15 July 2021
- ASTM E1527-21, Standard Practice for Environmental Property Assessments: Phase I Environmental Property Assessment Process, published 16 November 2021
- EDR, Inc., Radius Map Report with GeoCheck, 3 December 2024
- EDR, Inc., Certified Sanborn Map Report, 2 December 2024
- EDR, Inc., Historical Topo Map Report, 2 December 2024
- EDR, Inc., City Directory Abstract, 6 December 2024
- EDR, Inc., Aerial Photo Decade Package, 3 December 2024
- Environmental Site Investigation Summary for DAB4 – 1785 State Highway 5S, Amsterdam, NY, prepared by Langan, 17 June 2024
- Expanded Full Environmental Assessment Form for Route 5S, prepared by Bohler Engineering, 30 August 2019
- Hazardous Materials Survey Report, prepared for 1711 and 1733 5S Highway, prepared by Terracon Consultants, Inc., 28 January 2019
- Map Showing Overall Merged Parcel, prepared for WE Acquisitions, L.L.C. State Route 5S, Mead Road & Snooks Corners Road, prepared by LRC Group, 22 April 2019
- NYS GIS Clearinghouse, https://data.gis.ny.gov/, searched 11 December 2024
- NYSDEC Manifest Search, http://ny.formax.us/manifest/manifest.aspx, searched 11 December 2024
- NYSDEC Bulk Storage Database, https://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4, accessed 11 December 2024
- NYSDEC Environmental Site Remediation Database, https://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3, accessed 11 December 2024
- NYSDEC Environmental Resource Mapper, https://gisservices.dec.ny.gov/gis/erm/, accessed 11 December 2024
- NYSDEC Online Spills Database, https://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=2, accessed 11 December 2024
- Phase I Environmental Site Assessment for DAB4 – 1785 State Highway 5S, Amsterdam, NY, prepared by Langan, 24 October 2019
- Phase I Environmental Site Assessment for State Highway 5S and Mead Road Parcels, prepared by Tetra Tech, 1 April 2019
- Phase I Environmental Site Assessment for 176 Mead Road, prepared by Langan, 27 April 2022

- Phase II Environmental Site Assessment Summary for DAB4 - 1785 State Highway 5S, Amsterdam, NY, prepared by Langan, 26 November 2019
- Phase II Environmental Site Assessment for State Highway 5S and Mead Road Parcels, prepared by Tetra Tech, 24 April 2019
- Regrid Mapping Platform, https://app.regrid.com/, accessed 11 December 2024
- Report of Geotechnical Investigation for New York State Route 5S, prepared by Whitestone Associates, Inc., 26 August 2019
- Town of Florida 2024 Final Assessment Roll, https://www.townofflorida.com/index.php/document-center/assessor-s-office/tax-rolls/322-2024-final-tax-roll/file, accessed 11 December 2024
- US EPA ECHO database: http://echo.epa.gov/facilities, searched 11 December 2024
- US EPA ENVIROFACTS database: https://www3.epa.gov/enviro/, searched 11 December 2024
- US EPA MyProperty database: https://www3.epa.gov/enviro/facts/myproperty/, searched 11 December 2024
- United States Geological Survey, Baskerville, Charles A., 1994, "Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York, and Parts of Bergen and Hudson Counties, New Jersey"
- "Geologic Map of New York, Hudson Mohawk Sheet", Fisher, Isachsen, Rickard, March 1970

Table 7-1 Dates of Assessment Components

COMPONENT	DATE
Interviews	4 and 19 December 2024
Review of government records	2 December 2024
Site reconnaissance	9 December 2024
Declaration by Environmental Professional	24 December 2024

8. LIMITATIONS AND DEFINITIONS

This Phase I ESA report was prepared for Client and is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings. The Client is the sole intended beneficiary of the report. The user requested no special terms or conditions regarding this Phase I ESA.

Langan's scope of services, which is described in Section 1.2 and in the contract executed between Langan and the Client, was limited to that agreed to with the Client/user and no other services beyond those explicitly stated are implied. To the extent possible, the services performed and agreed upon for this Phase I ESA are consistent with the guidelines of ASTM E1527-21.

This report is not intended to be an exhaustive assessment of the subject property. The purpose of the Phase I ESA is to reduce uncertainty about unknown conditions at the subject property. No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a subject property. Therefore, Langan cannot "verify", "insure", "certify", or "guarantee" that the subject property is free of environmental concerns.

No expressed or implied representation or warranty is included or intended in this report, except that our services were completed using the care and skill ordinarily followed by professionals providing similar services under similar circumstances in similar locations at the same point in time.

The conclusions provided in this report are based solely on information obtained through completing the standard activities required by ASTM E1527-21 and are intended exclusively for the purpose stated herein, at the specified subject property, as it existed at the point in time the assessment was completed. The conclusions provided in this report do not apply to conditions and features of which Langan was not made aware of through good faith efforts to complete the activities required by ASTM E1527-21 and did not have the opportunity to evaluate.

8.1 ASTM Definitions

The following definitions are provided in ASTM E1527-21 and presented below for reference. This section is not a comprehensive list of definitions provided in ASTM E1527-21 and is intended to summarize those pertinent to this Phase I ESA report.

Activity and use limitations (AUL): legal or physical restrictions or limitations on the use of, or access to, a site or facility: (1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, and/or surface water on the property, or (2) to prevent activities that could interfere with the effective-ness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls, are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil, soil vapor, groundwater, and/or surface water on a property.

Adjoining properties: any real property or properties the border of which is contiguous partially contiguous with that of the subject property, or that would be contiguous or partially contiguous with that of the subject property but for a street, road, or other public thoroughfare separating them.

All Appropriate Inquiries: that inquiry constituting all appropriate inquiries into the previous ownership and uses of the subject property consistent with good commercial and customary practice as defined in CERCLA, 42 U.S.C.§ 9601(35)(B) and 40 C.F.R. Part 312, that will qualify a party to a commercial real estate transaction for one of the threshold criteria for satisfying the LLPs to CERCLA liability (42U.S.C. §§ 9601(35)(A) & (B), § 9607(b)(3), § 9607(q), and§ 9607(r)), assuming compliance with other elements of the defense.

Approximate minimum search distance: the area for which records must be obtained and reviewed pursuant to ASTM E1527-21 Section 8 subject to the limitations provided in that section. This may include areas outside the subject property and shall be measured from the nearest subject property boundary. This term is used in lieu of radius to include irregularly shaped properties.

Controlled recognized environmental condition (CREC): recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations).

Data gap: a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to, site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.).

De minimis condition: a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a recognized environmental condition nor a controlled recognized environmental condition.

Engineering controls: physical modifications to a site or facility (for example, capping, slurry walls, or point of use water treatment) to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or groundwater on a property. Engineering controls are a type of activity and use limitation (AUL).

Environment: environment shall have the same meaning as the definition of environment in CERCLA 42 U.S.C. § 9601(8).

Historical recognized environmental condition (HREC): previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).A historical recognized environmental condition is not a recognized environmental condition.

Institutional controls (IC): a legal or administrative mechanism (for example, "deed restrictions," restrictive covenants, easements, or zoning) on the use of, or access to, a site or facility to (1) reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the property, or (2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. An institutional control is a type of activity and use limitation (AUL).

Key site manager: the person identified by the owner or operator of a subject property as having good knowledge of the uses and physical characteristics of the subject property.

Material threat: obvious threat which is likely to lead to a release and that, in the opinion of the environmental professional, would likely result in impact to public health or the environment.

Obvious: that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer.

Property use limitation: limitation or restriction on current or future use of a property in connection with a response to a release, in accordance with the applicable regulatory authority or authorities

that allows hazardous sub-stances or petroleum products to remain in place at concentrations exceeding unrestricted use criteria.

Reasonably ascertainable: information that is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable.

Recognized environmental conditions: (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment. For the purposes of this definition, "likely" is that which is neither certain nor proved, but can be expected or believed by a reasonable observer based on the logic and/or experience of the environmental professional, and/or available evidence, as stated in the report to support the opinions given therein.

Release: a release of any hazardous substance or petroleum product shall have the same meaning as the definition of "release" in CERCLA 42 U.S.C. § 9601(22). There are a number of statutory exclusions from the definition of release that may impact the environmental professional's opinions and conclusions, such as the normal application of fertilizer.

Significant data gap: a data gap that affects the ability of the environmental professional to identify a recognized environmental condition.

Site reconnaissance: that part that is contained in Section 9 of ASTM E1527-21 and addresses what should be done in connection with the site visit. The site reconnaissance includes, but is not limited to, the site visit done in connection with such a Phase I Environmental Site Assessment.

Site visit: the visit of the subject property during which observations are made constituting the site reconnaissance section of this practice.

Subject property: the property that is the subject of the environmental site assessment described in this practice.

User: the party seeking to use ASTM E1527-21 to complete an environmental site assessment of the subject property.

8.2 Standard Environmental Record Sources

Langan reviewed an environmental database search report prepared by an environmental database search provider for the subject property and surrounding area. The database search report includes a listing of properties identified on select federal, state, local and tribal standard source environmental databases within the approximate minimum search radii outlined in ASTM E1527-21. This information was supplied to Langan by the environmental database search provider, and to the environmental database search provider by government sources; therefore, neither Langan nor the environmental database search provider can verify the completeness and accuracy of the database information. Appendix C contains a copy of the report, with specific source and property descriptions, and the dates of the last update for each database searched. Langan reviewed the database search report on a record-by-record basis to evaluate if certain properties identified in the database report are likely to represent an environmental concern for the subject property. The evaluation criteria included factors such as distance, groundwater

gradient, nature of the listing, and regulatory status. Unless specifically discussed in the body of this report, the facilities listed on the database do not appear to represent an environmental concern to the subject property.

8.3 Limiting Conditions/Deviations

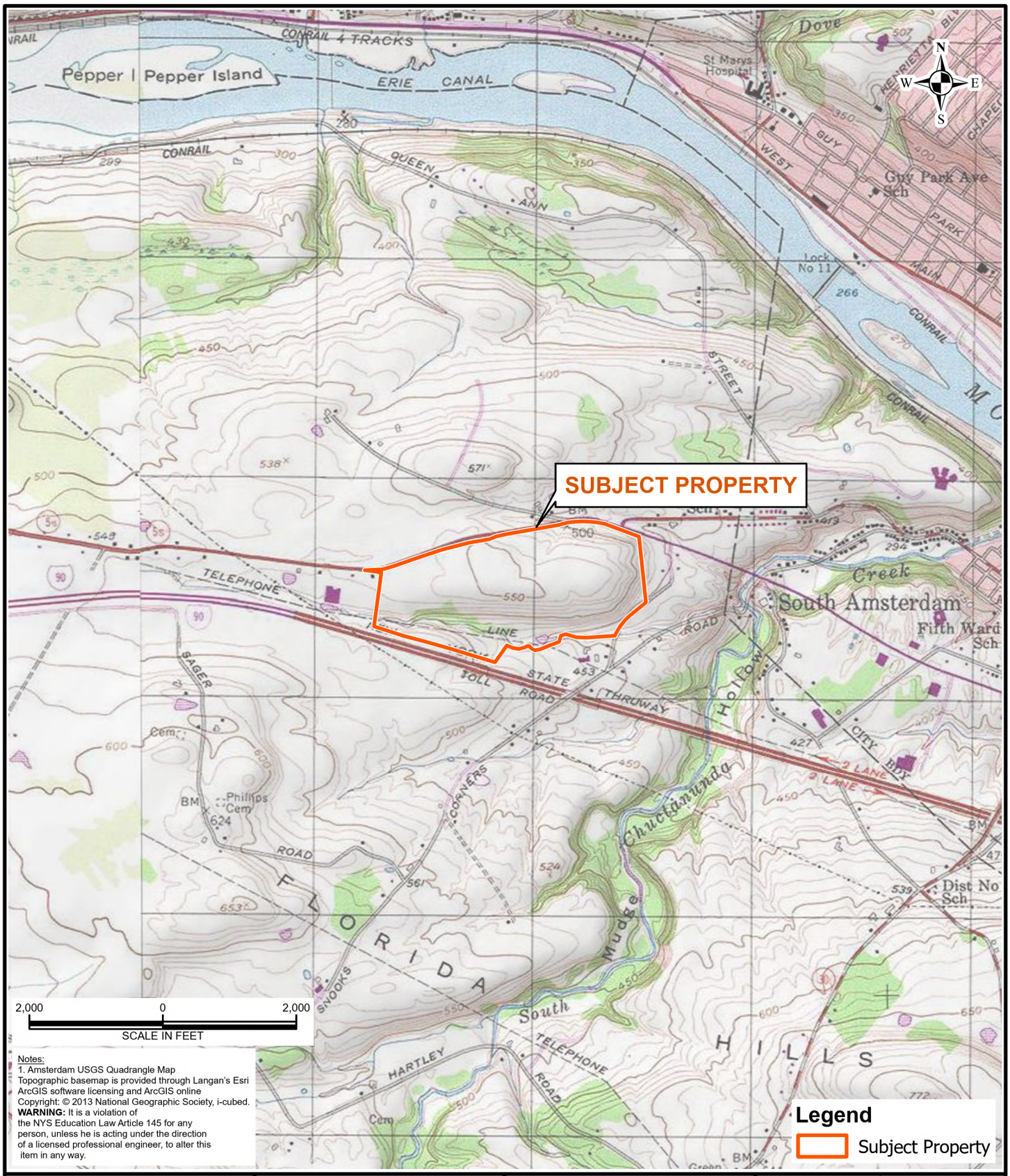
Langan was unable to observe the ground surface throughout the subject property due to snow cover. This limiting condition did not impact Langan's conclusions based on review of aerial photographs.

Langan did not delete or deviate from the ASTM E1527-21 guidelines during this Phase I ESA.

8.4 Data Gaps

Langan did not identify significant data gaps.

Appendix A Figures



Notes:
1. Amsterdam USGS Quadrangle Map
Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online
Copyright: © 2013 National Geographic Society, i-cubed.
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Project
MSV1 - STATE HIGHWAY 5S
FLORIDA
MONTGOMERY COUNTY NY

Figure Title
SUBJECT PROPERTY LOCATION MAP

Project No.	170886701
Date	12/6/2024
Scale	1" = 2,000 feet
Drawn By	BLA
Figure	1

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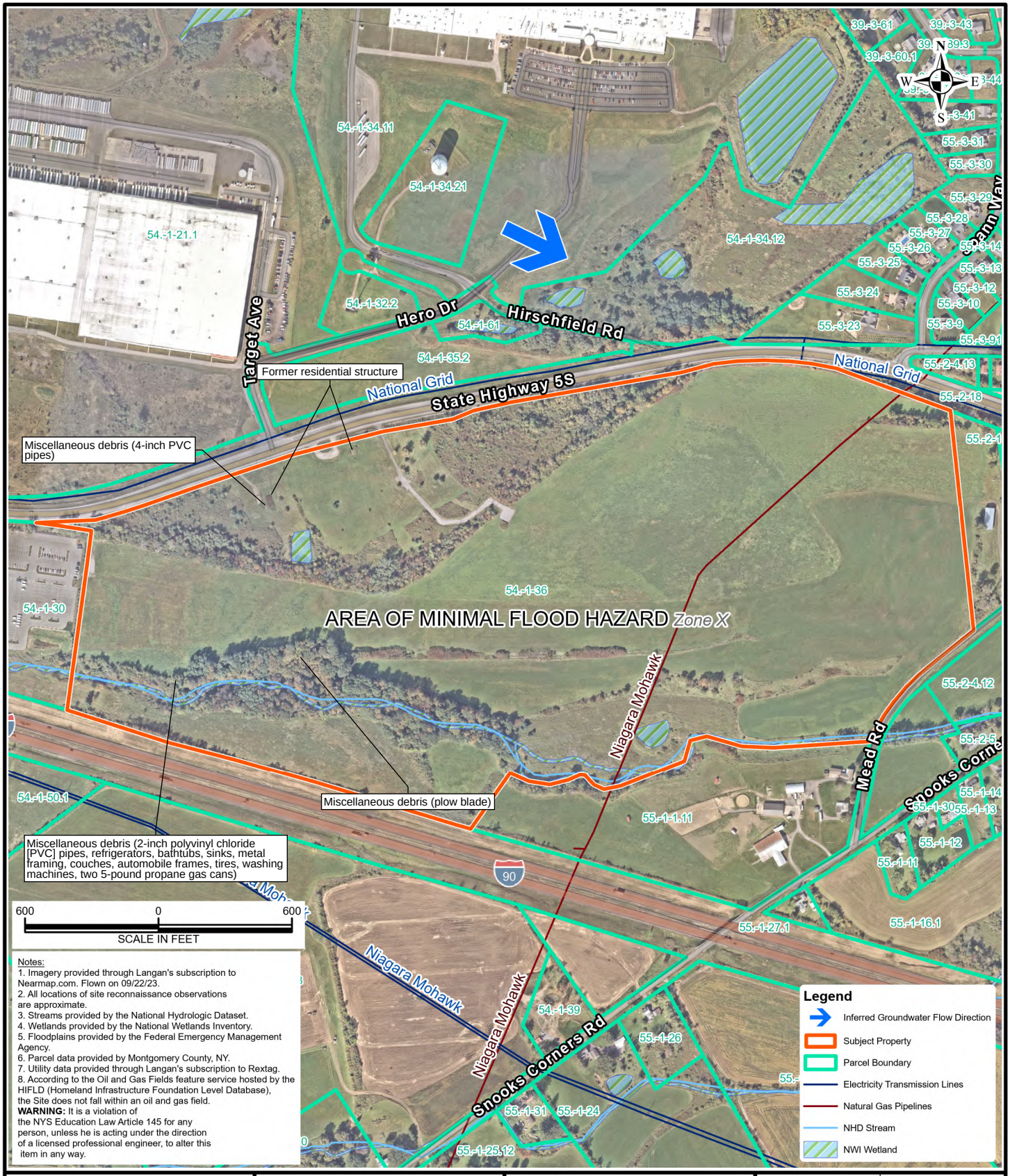
Path: C:\Users\barrington\Documents\ArcGIS\Projects\170886701\170886701.aprx



Notes:
1. Imagery provided through Langan's subscription to Nearmap.com. Flown on 09/22/23.
2. All locations of site reconnaissance observations are approximate.
3. Streams provided by the National Hydrologic Dataset.
4. Wetlands provided by the National Wetlands Inventory.
5. Floodplains provided by the Federal Emergency Management Agency.
6. Parcel data provided by Montgomery County, NY.
7. Utility data provided through Langan's subscription to Rextag.
8. According to the Oil and Gas Fields feature service hosted by the HIFLD (Homeland Infrastructure Foundation Level Database), the Site does not fall within an oil and gas field.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

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Project	MSV1 - STATE HIGHWAY 5S FLORIDA MONTGOMERY COUNTY NY
Figure Title	SUBJECT PROPERTY LAYOUT
Project No.	170886701
Date	12/6/2024
Scale	1" = 600 feet
Drawn By	BLA
Figure	2A

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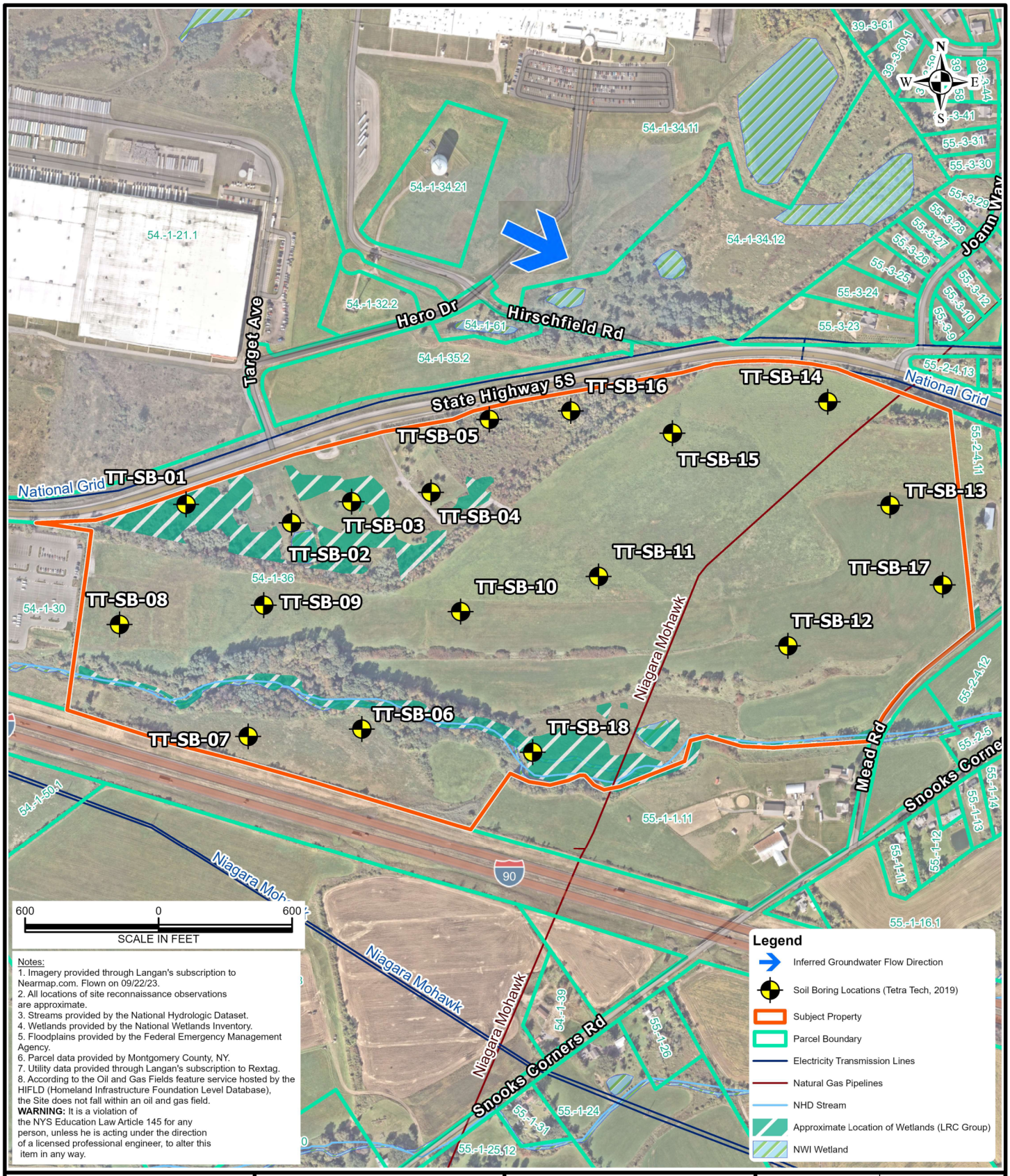

Notes:
1. Imagery provided through Langan's subscription to Nearmap.com. Flown on 09/22/23.
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Project
MSV1 - STATE HIGHWAY 5S
FLORIDA
MONTGOMERY COUNTY NY

Figure Title
HISTORICAL SUBJECT PROPERTY FEATURES MAP

Project No.	170886701
Date	12/16/2024
Scale	1" = 600 feet
Drawn By	BLA
Figure	2B

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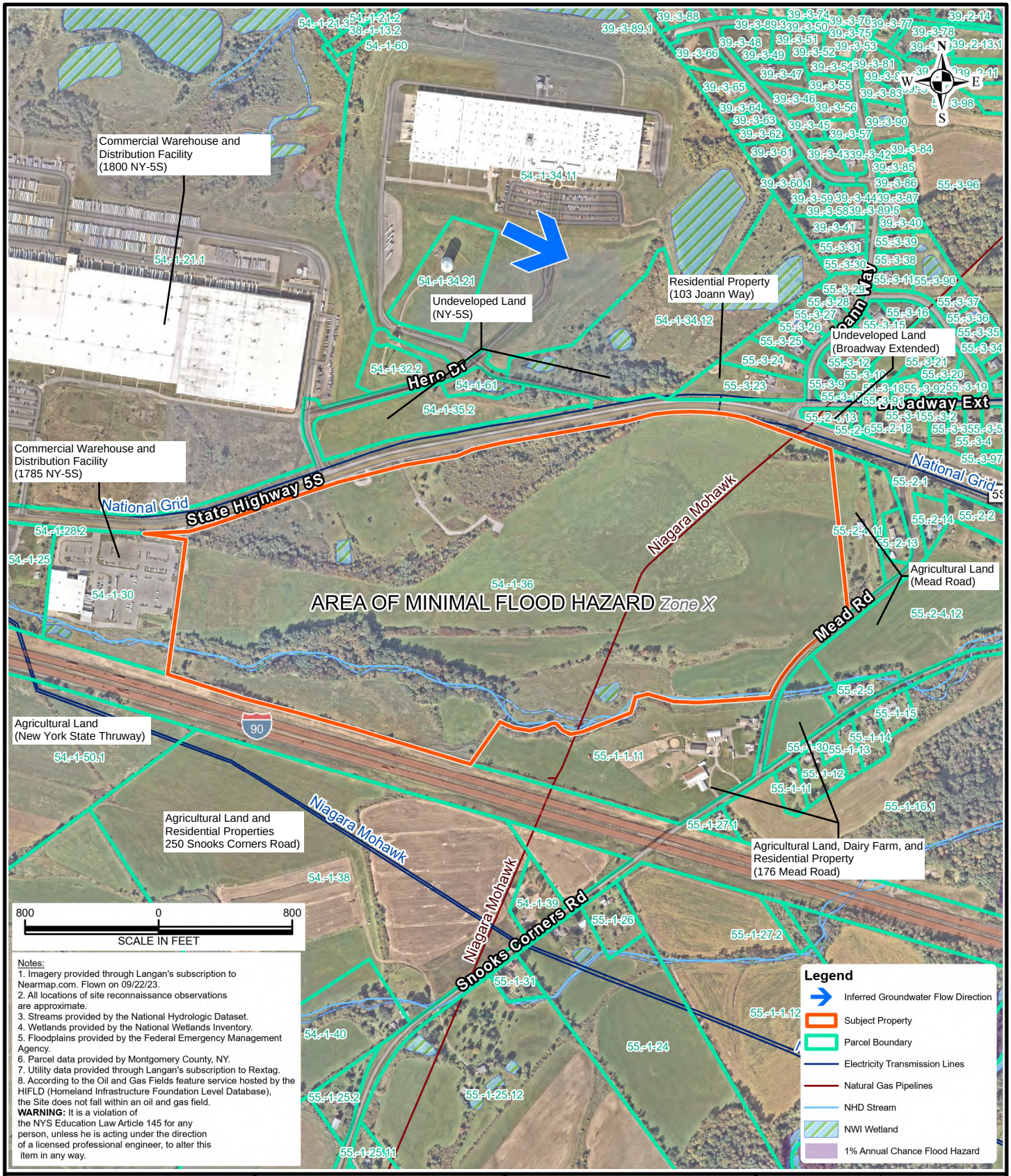
Path: \\langan.com\data\NYC\data7\170886701\Project Data\ArcGIS\APRX\170886701\170886701.aprx



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Project	MSV1 - STATE HIGHWAY 5S FLORIDA MONTGOMERY COUNTY NY
Figure Title	NEARBY PROPERTIES MAP
Project No.	170886701
Date	12/6/2024
Scale	1" = 800 feet
Drawn By	BLA
Figure	3

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Path: \\langan.com\data\NYC\data7\170886701\Project Data\ArcGIS\APRX\170886701\170886701.aprx

Appendix B User Provided Information

None provided.

Appendix C Environmental Database Report

State Highway 5S - Town of Florida
176 Mead Road
Amsterdam, NY 12010

Inquiry Number: 7837436.2s
December 02, 2024

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	9
Orphan Summary	21
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-18
Physical Setting Source Map Findings	A-20
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

176 MEAD ROAD
AMSTERDAM, NY 12010

COORDINATES

Latitude (North):	42.9325530 - 42° 55' 57.19''
Longitude (West):	74.2270670 - 74° 13' 37.44''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	563071.2
UTM Y (Meters):	4753400.0
Elevation:	507 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14106184 AMSTERDAM, NY
Version Date:	2019
West Map:	14106292 TRIBES HILL, NY
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20190820, 20190826
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
176 MEAD ROAD
AMSTERDAM, NY 12010

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	FLORIDALE FARM	176 MEAD ROAD	AST		TP
2	POLE TOP NAT GRID RT	1767 ST HIGHWAY 5S	NY Spills	Higher	128, 0.024, WNW
3	NYS TWY MP 175.3 TRU	NYS TWY MP 175.3 I-9	NY Spills	Lower	225, 0.043, SSW
4	MONTGOMERY CO - FORM	250 HIRSHFIELD RD	RCRA NonGen / NLR, FINDS, ECHO, MANIFEST	Higher	357, 0.068, NNW
5	AMSTERDAM TERMINAL	RT. 5S	HSWDS	Higher	1761, 0.334, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
FLORIDALE FARM 176 MEAD ROAD AMSTERDAM, NY 12010	AST Database: AST, Date of Government Version: 09/16/2024 Facility Id: 4-600621	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---------- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---------- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---------- RCRA - Large Quantity Generators

RCRA-SQG ---- RCRA - Small Quantity Generators
RCRA-VSQG ---- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---- Land Use Control Information System
US ENG CONTROLS ---- Engineering Controls Sites List
US INST CONTROLS ---- Institutional Controls Sites List

Federal ERNS list

ERNS ---- Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

SHWS ---- Inactive Hazardous Waste Disposal Sites in New York State

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ---- Facility Register

Lists of state and tribal leaking storage tanks

INDIAN LUST ---- Leaking Underground Storage Tanks on Indian Land
LTANKS ---- Spills Information Database
HIST LTANKS ---- Listing of Leaking Storage Tanks

Lists of state and tribal registered storage tanks

FEMA UST ---- Underground Storage Tank Listing
UST ---- Petroleum Bulk Storage (PBS) Database
CBS UST ---- Chemical Bulk Storage Database
MOSF UST ---- Major Oil Storage Facilities Database
CBS ---- Chemical Bulk Storage Site Listing
MOSF ---- Major Oil Storage Facility Site Listing
CBS AST ---- Chemical Bulk Storage Database
MOSF AST ---- Major Oil Storage Facilities Database
INDIAN UST ---- Underground Storage Tanks on Indian Land
TANKS ---- Storage Tank Faciliy Listing

State and tribal institutional control / engineering control registries

RES DECL ---- Restrictive Declarations Listing
ENG CONTROLS ---- Registry of Engineering Controls
INST CONTROL ---- Registry of Institutional Controls

Lists of state and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Agreements
INDIAN VCP ---- Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ---- Brownfields Site List

ERP ---------- Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ---------- Registered Recycling Facility List
SWTIRE ---------- Registered Waste Tire Storage & Facility List
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
DEL SHWS ---------- Delisted Registry Sites
US CDL ---------- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST ---------- Historical Petroleum Bulk Storage Database
HIST AST ---------- Historical Petroleum Bulk Storage Database

Local Land Records

LIENS ---------- Spill Liens Information
LIENS 2 ---------- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System
NY Hist Spills ---------- SPILLS Database
SPILLS 90 ---------- SPILLS 90 data from FirstSearch
SPILLS 80 ---------- SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS ---------- Formerly Used Defense Sites
DOD ---------- Department of Defense Sites
SCRD DRYCLEANERS ---------- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---------- Financial Assurance Information
EPA WATCH LIST ---------- EPA WATCH LIST
2020 COR ACTION ---------- 2020 Corrective Action Program List
TSCA ---------- Toxic Substances Control Act
TRIS ---------- Toxic Chemical Release Inventory System
SSTS ---------- Section 7 Tracking Systems
ROD ---------- Records Of Decision
RMP ---------- Risk Management Plans
RAATS ---------- RCRA Administrative Action Tracking System

EXECUTIVE SUMMARY

PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
MINES MRDS	Mineral Resources Data System
FINDS	Facility Index System/Facility Registry System
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
PFAS NPL	Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES	Federal Sites PFAS Information
PFAS TRIS	List of PFAS Added to the TRI
PFAS TSCA	PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR	PFAS Contamination Site Location Listing
PFAS WQP	Ambient Environmental Sampling for PFAS
PFAS PROJECT	NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS NPDES	Clean Water Act Discharge Monitoring Information
PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN	Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing
BIOSOLIDS	ICIS-NPDES Biosolids Facility Data
UST FINDER RELEASE	UST Finder Releases Database
UST FINDER	UST Finder Database
E MANIFEST	Hazardous Waste Electronic Manifest System
PFAS	PFAS Contamination Site Location Listing
AIRS	Air Emissions Data
COAL ASH	Coal Ash Disposal Site Listing
DRYCLEANERS	Registered Drycleaners
E DESIGNATION	E DESIGNATION SITE LISTING
Financial Assurance	Financial Assurance Information Listing
LEAD	Lead-based Paint Testing Results
SPDES	State Pollutant Discharge Elimination System
VAPOR REOPENED	Vapor Intrusion Legacy Site List
UIC	Underground Injection Control Wells
COOLING TOWERS	Registered Cooling Towers
NYC OER	OER Cleanup Sites Listing

EXECUTIVE SUMMARY

ILI ---------- New York State Inactive Landfill Initiative
MGP ---------- Manufactured Gas Plants Listing
NYC LAND USE ---------- New York City Land Use Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---------- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS ---------- Recovered Government Archive State Hazardous Waste Facilities List
RGA LF ---------- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 07/30/2024 has revealed that there are 2 NY Spills sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
POLE TOP NAT GRID RT	1767 ST HIGHWAY 5S	WNW 0 - 1/8 (0.024 mi.)	2	11
Spill Number/Closed Date: 1110405 / 2012-03-06				
Site ID: 458240				
Spill Date: 2011-11-22				

Lower Elevation	Address	Direction / Distance	Map ID	Page
NYS TWY MP 175.3 TRU	NYS TWY MP 175.3 I-9	SSW 0 - 1/8 (0.043 mi.)	3	13

EXECUTIVE SUMMARY

Spill Number/Closed Date: 9203815 / 1992-08-03
Site ID: 220982
Spill Date: 1992-07-01

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/03/2024 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTGOMERY CO - FORM EPA ID:: NYR000092726	***250 HIRSHFIELD RD***	***NNW 0 - 1/8 (0.068 mi.)***	***4***	***14***

HSWDS: The List includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity The latest version of the study is frozen in time. The sites on the study will not automatically be made superfund sites, rather each site will be further evaluated for listing in the registry. So overtime they will be added to the registry or not.

A review of the HSWDS list, as provided by EDR, and dated 01/01/2003 has revealed that there is 1 HSWDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMSTERDAM TERMINAL	RT. 5S	WNW 1/4 - 1/2 (0.334 mi.)	5	18

MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the MANIFEST list, as provided by EDR, and dated 12/31/2019 has revealed that there is 1 MANIFEST site within approximately 0.25 miles of the target property.

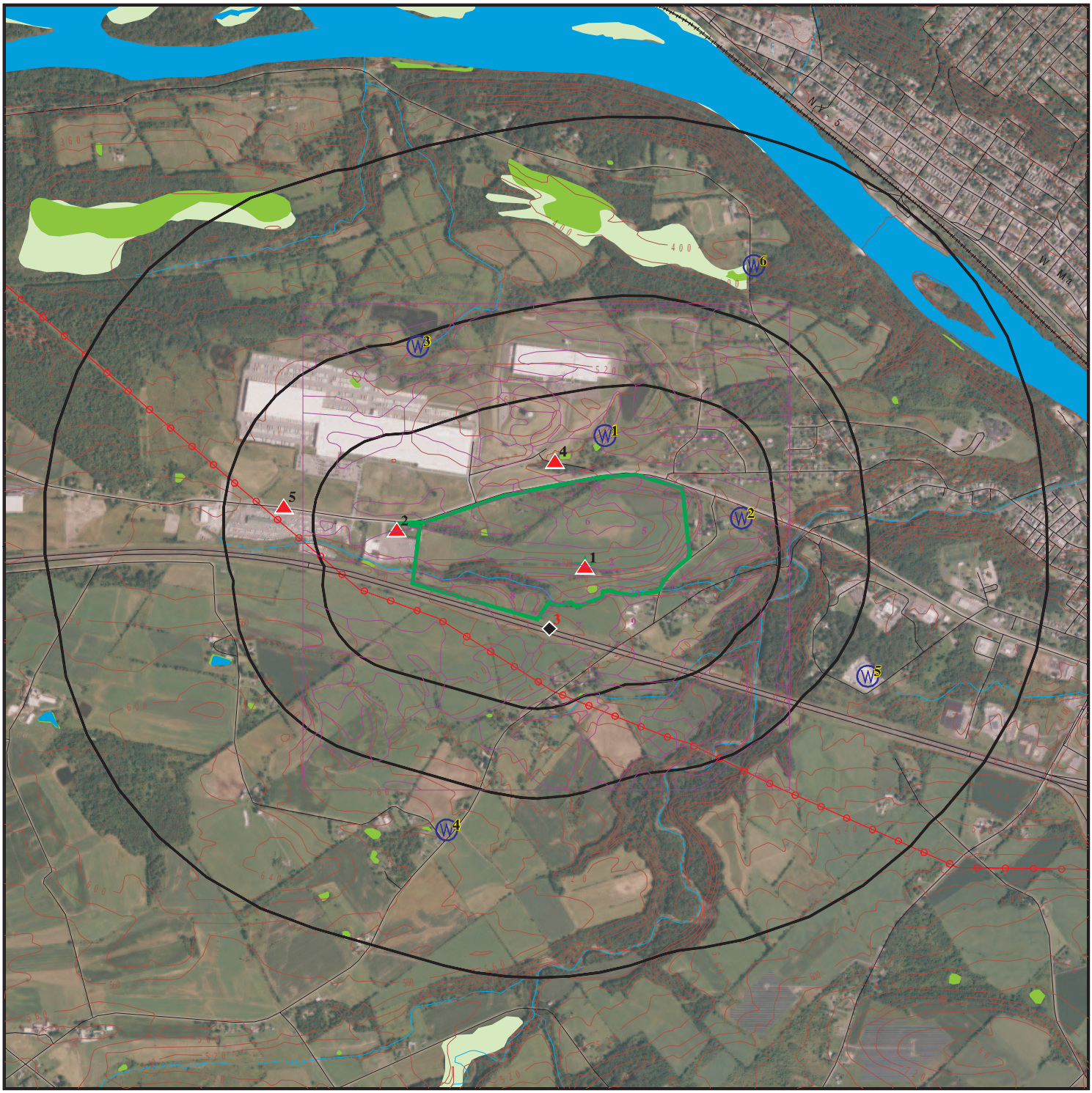
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONTGOMERY CO - FORM EPA ID: NYR000092726	***250 HIRSHFIELD RD***	***NNW 0 - 1/8 (0.068 mi.)***	***4***	***14***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
KNOWLES, ROGER	PRP
AMSTERDAM TRANSFER	SEMS-ARCHIVE

OVERVIEW MAP - 7837436.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	State Highway 5S - Town of Florida	CLIENT:	Langan
ADDRESS:	176 Mead Road Amsterdam NY 12010	CONTACT:	Laura Grose
LAT/LONG:	42.932553 / 74.227067	INQUIRY #:	7837436.2s
		DATE:	December 02, 2024 6:23 pm

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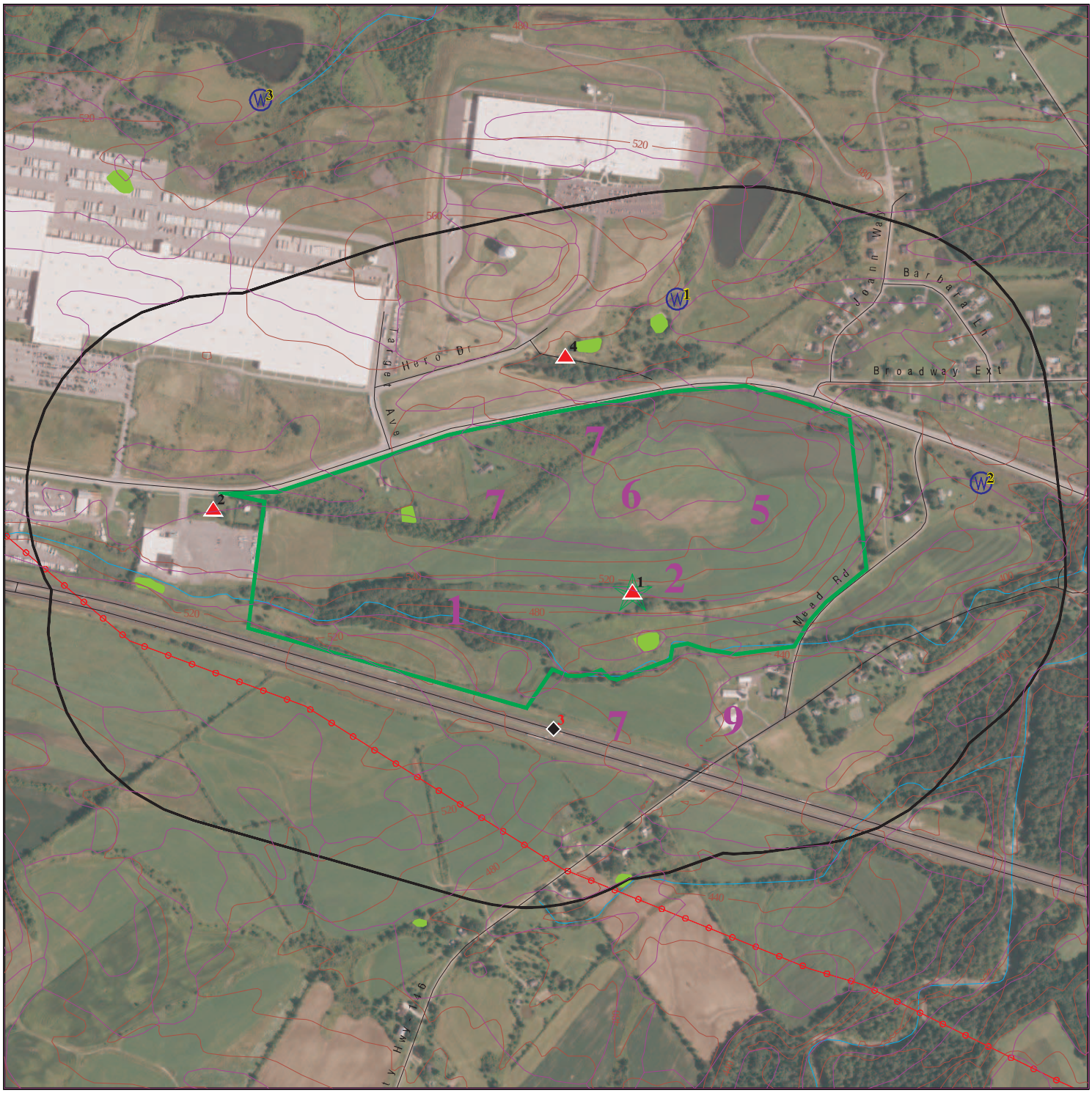
DETAIL MAP - 7837436.2S



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	State Highway 5S - Town of Florida	CLIENT:	Langan
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		DATE:	December 02, 2024 6:23 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
INDIAN LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LTANKS	0.500		0	0	0	NR	NR	0
HIST LTANKS	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
CBS UST	0.250		0	0	NR	NR	NR	0
MOSF UST	0.500		0	0	0	NR	NR	0
CBS	0.250		0	0	NR	NR	NR	0
MOSF	0.500		0	0	0	NR	NR	0
AST	0.250	1	0	0	NR	NR	NR	1
CBS AST	0.250		0	0	NR	NR	NR	0
MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
RES DECL	0.125		0	NR	NR	NR	NR	0
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ERP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills	0.125		2	NR	NR	NR	NR	2
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
SPILLS 90	0.125		0	NR	NR	NR	NR	0
SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	TP		NR	NR	NR	NR	NR	0
UST FINDER RELEASE	0.500		0	0	0	NR	NR	0
UST FINDER	0.250		0	0	NR	NR	NR	0
E MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
E DESIGNATION	0.125		0	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HSWDS	0.500		0	0	1	NR	NR	1
LEAD	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		1	0	NR	NR	NR	1
SPDES	TP		NR	NR	NR	NR	NR	0
VAPOR REOPENED	0.500		0	0	0	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
COOLING TOWERS	TP		NR	NR	NR	NR	NR	0
NYC OER	1.000		0	0	0	0	NR	0
ILI	0.500		0	0	0	NR	NR	0
MGP	1.000		0	0	0	0	NR	0
NYC LAND USE	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		1	4	0	1	0	0	6

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 **FLORIDALE FARM** **AST** **S107785991**
Target **176 MEAD ROAD** **N/A**
Property **AMSTERDAM, NY 12010**

Actual:
507 ft.

AST:

Name:	FLORIDALE FARM
Address:	176 MEAD ROAD
City,State,Zip:	AMSTERDAM, NY 12010
Region:	STATE
DEC Region:	4
Site Status:	Unregulated/Closed
Facility Id:	4-600621
Program Type:	PBS
UTM X:	563667.85238
UTM Y:	4753926.26983
Expiration Date:	N/A
Site Type:	Farm

Affiliation Records:

Site Id:	37954
Affiliation Type:	Facility Owner
Company Name:	RONALD J. MEAD
Contact Type:	Not reported
Contact Name:	Not reported
Address1:	176 MEAD ROAD
Address2:	Not reported
City:	AMSTERDAM
State:	NY
Zip Code:	12010
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Mail Contact
Company Name:	FLORIDALE FARM
Contact Type:	Not reported
Contact Name:	RONALD J. MEAD
Address1:	176 MEAD ROAD
Address2:	Not reported
City:	AMSTERDAM
State:	NY
Zip Code:	12010
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Facility Operator
Company Name:	FLORIDALE FARM
Contact Type:	Not reported
Contact Name:	RONALD J. MEAD
Address1:	Not reported
Address2:	Not reported

FLORIDALE FARM (Continued) **S107785991**

City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Emergency Contact
Company Name:	RONALD J. MEAD
Contact Type:	Not reported
Contact Name:	JAMES M. MEAD
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(518) 842-1399
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Tank Info:

Tank Number:	1
Tank Id:	97747
Material Code:	0008
Common Name of Substance:	Diesel

Equipment Records:

A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
F01 - Pipe External Protection - Painted/Asphalt Coating
I00 - Overfill - None
C01 - Pipe Location - Aboveground
G01 - Tank Secondary Containment - Diking (Aboveground)
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)

Tank Location:	Aboveground - contact with soil.... Tank bottom rests on soil, allowing no visual inspection.
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	11/01/1998
Capacity Gallons:	3000
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	03/01/2001
Register:	True
Modified By:	MJGRIFFI

FLORIDALE FARM (Continued) **S107785991**

Last Modified:	05/09/2022
Material Name:	diesel
Tank Number:	2
Tank Id:	98616
Material Code:	0009
Common Name of Substance:	Gasoline

Equipment Records:

B00 - Tank External Protection - None
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
H00 - Tank Leak Detection - None
I00 - Overfill - None
C01 - Pipe Location - Aboveground
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

Tank Location:	Aboveground - contact with soil.... Tank bottom rests on soil, allowing no visual inspection.
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	300
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	03/01/2001
Register:	True
Modified By:	MJGRIFFI
Last Modified:	05/09/2022
Material Name:	gasoline

---

2 **POLE TOP NAT GRID RT 5S** **NY Spills** **S111456501**
WNW **1767 ST HIGHWAY 5S** **N/A**
< 1/8 **AMSTERDAM, NY**
0.024 mi.
128 ft.

Relative:
Higher

Actual:
530 ft.

SPILLS:

Name:	POLE TOP NAT GRID RT 5S
Address:	1767 ST HIGHWAY 5S
City,State,Zip:	AMSTERDAM, NY
Spill Number/Closed Date:	1110405 / 2012-03-06
Facility ID:	1110405
Facility Type:	ER
DER Facility ID:	412714
Site ID:	458240
DEC Region:	4
Spill Cause:	Equipment Failure
Spill Class:	C3
SWIS:	2926
Spill Date:	2011-11-22
Investigator:	BXBROWN
Referred To:	Not reported

POLE TOP NAT GRID RT 5S (Continued) **S111456501**

Reported to Dept:	2011-11-22
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2011-11-22
Spill Record Last Update:	2013-01-16
Spiller Name:	Not reported
Spiller Company:	NAT GRID
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	MATT LAFONTAINA
Latitude:	42.9340413
Longitude:	-74.2373983
DEC Memo:	11/23/11 - Large 15 kva box transformer located outside abandoned warehouse building on south side of Rt 5S. Property recently purchased and being renovated. NG planned to re-energize transformer, upon inspection found it to be leaking non-PCB oil to the ground following underground conduits. Removed transformer, will be installing new today or Friday. EPS called to clean up. Vac truck on site to dewater excavation that resulted from the removal of the transformer and foundation. EPS then removed approximately 5 yards of impacted soil and stockpiled/covered on the property for later disposal. Remaining excavation filled with water, no sheen noticed this morning. No further action anticipated other than disposal of stockpiled soil. Area now served with muni water and sanitary sewer. BB 3/6/12 - Disposal complete, closed. BB
Remarks:	soil and roadway/unknown if PCB, clean up underway

All Materials:

Site ID:	458240
Operable Unit ID:	1208351
Operable Unit:	01
Material ID:	2205663
Material Code:	0020A
Material Name:	transformer oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	20.00
Units:	G
Recovered:	Not reported
Resource Affected:	Soil
Oxygenate:	Not reported

3
SSW
< 1/8
0.043 mi.
225 ft.

NYS TWY MP 175.3 TRUCK 90
NYS TWY MP 175.3 I-90 W
FLORIDA, NY

NY Spills **S102111988**
N/A

Relative:
Lower

Actual:
493 ft.

SPILLS:

Name:	NYS TWY MP 175.3 TRUCK 90
Address:	NYS TWY MP 175.3 I-90 W
City,State,Zip:	FLORIDA, NY
Spill Number/Closed Date:	9203815 / 1992-08-03
Facility ID:	9203815
Facility Type:	ER
DER Facility ID:	182778
Site ID:	220982
DEC Region:	4
Spill Cause:	Traffic Accident
Spill Class:	C4
SWIS:	2926
Spill Date:	1992-07-01
Investigator:	HOY
Referred To:	Not reported
Reported to Dept:	1992-07-01
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Police Department
Cleanup Ceased:	1992-07-01
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1992-08-03
Spill Record Last Update:	1999-09-13
Spiller Name:	Not reported
Spiller Company:	ROBERT EURKINIACK TRUCK
Spiller Address:	Not reported
Spiller Company:	001
Contact Name:	Not reported
Latitude:	Not reported
Longitude:	Not reported
DEC Memo:	Not reported
Remarks:	TWY MAINT. TO CLEAN TRACTOR-TRAILER ACCIDENT.

All Materials:

Site ID:	220982
Operable Unit ID:	971193
Operable Unit:	01
Material ID:	411588
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	15.00
Units:	G
Recovered:	.00
Resource Affected:	Soil
Oxygenate:	Not reported

4
NNW
< 1/8
0.068 mi.
357 ft.

MONTGOMERY CO - FORMER FARM
250 HIRSHFIELD RD
AMSTERDAM, NY 12010

RCRA NonGen / NLR
FINDS
ECHO
MANIFEST

1004762019
NYR000092726

Relative:
Higher

Actual:
515 ft.

RCRA Listings:

Date Form Received by Agency:	20070101
Handler Name:	Montgomery Co - Former Farm
Handler Address:	Hirshfield Rd
Handler City,State,Zip:	AMSTERDAM, NY 12010
EPA ID:	NYR000092726
Contact Name:	WALT LIPPMANN
Contact Address:	PO BOX 1500
Contact City,State,Zip:	FONDA, NY 12068
Contact Telephone:	518-382-1774
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	02
Land Type:	County
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Ny
State District:	NYSDEC R4
Mailing Address:	PO BOX 1500
Mailing City,State,Zip:	FONDA, NY 12068
Owner Name:	Montgomery County
Owner Type:	County
Operator Name:	Montgomery County
Operator Type:	County
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	Ignitable Waste

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name: MONTGOMERY COUNTY	
Legal Status:	County
Date Became Current:	20010101
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 1500
Owner/Operator City,State,Zip:	FONDA, NY 12068
Owner/Operator Telephone:	518-853-8334
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name: MONTGOMERY COUNTY	
Legal Status:	County
Date Became Current:	20010101
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 1500
Owner/Operator City,State,Zip:	FONDA, NY 12068
Owner/Operator Telephone:	518-853-8334
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: MONTGOMERY COUNTY	
Legal Status:	County
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 1500
Owner/Operator City,State,Zip:	FONDA, NY 12068
Owner/Operator Telephone:	518-853-8334
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20060101
Handler Name: MONTGOMERY CO - FORMER FARM
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20070101
Handler Name: MONTGOMERY CO - FORMER FARM
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20001212
Handler Name: MONTGOMERY CO - FORMER FARM
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

FINDS:
Registry ID: 110004566210

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Click Here for FRS Facility Detail Report:

Environmental Interest/Information System:
The Resource Conservation and Recovery Act Information System (RCRAInfo) is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1004762019
Registry ID:	110004566210

DFR URL:

Name:	MONTGOMERY CO - FORMER FARM
Address:	250 HIRSHFIELD RD
City,State,Zip:	AMSTERDAM, NY 12010

NY MANIFEST:

EPA ID:	NYR000092726
Country:	USA
Name:	Montgomery County
Address:	250 HIRSHFIELD RD
Address 2:	Not reported
City,State,Zip:	AMSTERDAM, NY 12010
Zip 4:	Not reported
Location Address 1:	250 HIRSHFIELD RD
Location Address 2:	Not reported
Location City,State,Zip:	FLORIDA, NY 12010
Location Zip 4:	Not reported
Facility Status:	Not reported
Total Tanks:	Not reported
Code:	BP

Mailing:

Mailing Name:	Montgomery County
Mailing Contact:	Michael J Yevoli
Mailing Address 1:	PO BOX 1500 PARK ST
Mailing Address 2:	Not reported
Mailing City,State,Zip:	FONDA, NY 12068
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	5188538334

Manifest Data:

Document ID:	NJA3100926
Manifest Status:	Not reported
Trans1 State ID:	40317AE
Year:	2000
Trans2 State ID:	10376NJ39
Generator Ship Date:	10/31/2000
Trans1 Recv Date:	12/22/2000
Trans2 Recv Date:	12/28/2000

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

TSD Site Recv Date:	12/28/2000
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYR000092726
Trans1 EPA ID:	NY0001031814
Trans2 EPA ID:	NJD003812047
TSDF ID 1:	NJD002200046
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported
Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code 1:	BENZENE
Waste Code 2:	Not reported
Waste Code 3:	Not reported
Waste Code 4:	Not reported
Waste Code 5:	Not reported
Waste Code 6:	Not reported
Quantity:	00050
Units:	Pounds
Number of Containers:	001
Container Type:	Metal drums, barrels, kegs
Handling Method:	Burn
Specific Gravity:	01.00
Waste Code 7:	BENZENE
Waste Code 8:	Not reported
Waste Code:	Not reported
Waste Code 10:	Not reported
Waste Code 11:	Not reported
Quantity:	00800
Units:	Pounds
Number of Containers:	005
Container Type:	Metal drums, barrels, kegs
Handling Method:	Burn
Specific Gravity:	01.00

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5 **AMSTERDAM TERMINAL** **HSWDS** **S108146447**
WNW **RT. 5S** **N/A**
1/4-1/2 **FLORIDA, NY 12010**
0.334 mi.
1761 ft.

Relative:
Higher

Actual:
532 ft.

HSWDS:

Facility ID:	Not reported
Region:	4
Facility Status:	Unknown
Owner Type:	Puplic
Owner:	Prelco Realty & Developement C
Owner Address:	RD#1 Amsterdam

AMSTERDAM TERMINAL (Continued) **S108146447**

Owner Phone:	Unknown
Operator Type:	Puplic
Operator:	Prelco Realty & Devel. Corp.
Operator:	Prelco Realty & Devel. Corp.
Operator Phone:	Unknown
EPA ID:	NYD037373024
Registry:	Not on NYS Registry of Inactive Haz Waste Disposal Sites
Registry Site ID:	None
RCRA Permitted:	Unknown
Site Code:	Industrial Site
Owner City State:	Amsterdam, NY 12010
Operator City State:	Florida, NY 12010
Quadrange:	Tribes Hill
Latitude:	42 56'06"N
Longitude:	74 14'37"W
Acres:	0.00
Operator Date:	Unknown
Close Date:	Unknown
Completed:	PA
Active:	Unknown
PCB's Disposed:	Unknown
Pesticides Disposed:	Unknown
Metals Disposed:	Unknown
Asbestos Disposed:	Unknown
Volatile Organic Compounds Disposed:	Unknown
Semi Volatile Organic Compounds Disposed:	Unknown
Analytical Info Exists for Air:	Not reported
Analytical Info Exists for Ground:	None
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Sediments:	Not reported
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Substance:	Not reported
Analytical Info Exists for Waste:	Not reported
Analytical Info Exists for Leachate:	Not reported
Analytical Info Exists for EP Toxicity:	Not reported
Analytical Info Exists for TCLP:	Not reported
Threat to Environment/Public Health:	Environmental/Public
Surface Water Contamination:	Unknown
Surface Water Body Class:	Unknown
Groundwater Contamination:	Unknown
Groundwater Classification:	Unknown
Drinking Water Contamination:	Unknown
Drinking Water Supply is Active:	Unknown
Any Known Fish or Wildlife:	Unknown
Hazardous Exposure:	Unknown
Site Has Controlled Acess:	Unknown
Ambient Air Contamination:	Unknown
Direct Contact:	Unknown
EPA Hazardous Ranking System Score:	Unknown
Inventory:	F
Nefrap:	Not reported
Mailing:	Not reported
Tax Map No:	Not reported
Qualify:	0
Next Action:	Not reported
Agencies:	Not reported
Air:	Not reported

AMSTERDAM TERMINAL (Continued) **S108146447**

Building:	Not reported
Site Desc:	Not reported
Drink:	Not reported
Eptox:	Not reported
Fish:	Not reported
Ground:	Not reported
Ground Desc:	Not reported
Hazardous Threat:	Not reported
Haz Threat Desc:	Not reported
Leachate:	Not reported
Preparer:	Not reported
Sediment:	Not reported
Soil:	Not reported
Surface:	Not reported
Status:	Not reported
Surface Soil:	Not reported
Surface:	Not reported
TCLP:	Not reported
Waste:	Not reported

Count: 2 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
AMSTERDAM	1026610513	KNOWLES, ROGER	P.O. BOX 1040 1779 STATE HIGHW	12010	PRP
AMSTERDAM	1003863604	AMSTERDAM TRANSFER	FLORIDA NEW YORK	12010	SEMS-ARCHIVE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/07/2024
Date Data Arrived at EDR: 06/25/2024
Date Made Active in Reports: 09/19/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 09/24/2024
Next Scheduled EDR Contact: 01/09/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/24/2024
Date Data Arrived at EDR: 08/08/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Annually

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 11/20/2024
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-8678
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

LTANKS: Spills Information Database
Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 07/30/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 5

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/15/2024
Date Data Arrived at EDR: 03/19/2024
Date Made Active in Reports: 06/17/2024
Number of Days to Update: 90

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/26/2024
Number of Days to Update: 70

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 10/24/2005
Next Scheduled EDR Contact: 01/23/2006
Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

CBS: Chemical Bulk Storage Site Listing

These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/26/2024
Number of Days to Update: 70

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

MOSF: Major Oil Storage Facility Site Listing

These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/26/2024
Number of Days to Update: 70

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/26/2024
Number of Days to Update: 70

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

TANKS: Storage Tank Faciliy Listing
This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 11/26/2024
Number of Days to Update: 70
Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

RES DECL: Restrictive Declarations Listing
A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 09/10/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 76
Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Varies

ENV RES DECL: Environmental Restrictive Declarations
The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 07/17/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/22/2024
Number of Days to Update: 72
Source: New York City Department of City Planning
Telephone: 212-720-3300
Last EDR Contact: 09/09/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls
Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4
Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls
Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4
Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP NYC: Voluntary Cleanup Program Listing NYC

New York City voluntary cleanup program sites.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/15/2024
Number of Days to Update: 72

Source: New York City Office of Environmental Protection
Telephone: 212-788-8841
Last EDR Contact: 09/04/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a $200 million Environmental Restoration or Brownfields Fund as part of the $1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/11/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/11/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 11/20/2024
Number of Days to Update: 49

Source: Department of Environmental Conservation
Telephone: 518-402-8678
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 02/27/2018
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 518-402-8694
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information

Lien information from the Oil Spill Fund.

Date of Government Version: 07/29/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/17/2024
Number of Days to Update: 79

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

SPILLS: Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 07/30/2024
Date Data Arrived at EDR: 07/31/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 5

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/03/2024
Date Data Arrived at EDR: 06/07/2024
Date Made Active in Reports: 06/20/2024
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/12/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 58

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/12/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/10/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/04/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/10/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/11/2024
Date Data Arrived at EDR: 07/11/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 1

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 12/09/2024
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 07/12/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 05/23/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33
Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/27/2023
Date Made Active in Reports: 02/22/2024
Number of Days to Update: 87
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2024
Date Data Arrived at EDR: 07/08/2024
Date Made Active in Reports: 09/26/2024
Number of Days to Update: 80

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/14/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 09/25/2024
Date Data Arrived at EDR: 10/01/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/01/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/06/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/15/2024
Number of Days to Update: 1

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing
Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 11/26/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/23/2024
Date Data Arrived at EDR: 06/28/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/01/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/13/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/13/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 57

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/08/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 09/05/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/01/2024
Date Made Active in Reports: 07/12/2024
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data
The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Varies

UST FINDER: UST Finder Database
EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database
US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Semi-Annually

E MANIFEST: Hazardous Waste Electronic Manifest System
EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 07/24/2023
Date Data Arrived at EDR: 04/18/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 09/17/2024
Next Scheduled EDR Contact: 12/30/2024
Data Release Frequency: Varies

PFAS 2: New York State Inactive Landfill Initiative
A list of landfills that were investigated and the analytical results for PFOA and PFOS for those landfills. These data represent the landfills from the ILI database that were investigated.

Date of Government Version: 12/12/2022
Date Data Arrived at EDR: 08/10/2023
Date Made Active in Reports: 10/25/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-9662
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

PFAS 3: PFAS Environmental Site Remediation List

A list of records included in the Environmental Remediation database whose material is listed as Perfluorooctanoic Acid or Perfluorooctane Sulfonic Acid.

Date of Government Version: 08/01/2024
Date Data Arrived at EDR: 08/01/2024
Date Made Active in Reports: 08/05/2024
Number of Days to Update: 4

Source: Department of Environmental Conservation
Telephone: 518-402-9759
Last EDR Contact: 11/06/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

DEC surveyed select businesses, fire departments, fire training centers, bulk storage facilities, airports, and Department of Defense (DoD) facilities. The responses to the survey have helped to determine if these entities used or stored materials containing PFOA/PFOS including AFFF and dispersants used in Teflon coating operations. The results of this survey will be updated periodically as additional responses are received..

Date of Government Version: 01/16/2019
Date Data Arrived at EDR: 05/08/2019
Date Made Active in Reports: 06/24/2019
Number of Days to Update: 47

Source: Department of Environmental Conservation
Telephone: 518-402-9020
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 10/09/2024
Date Data Arrived at EDR: 11/05/2024
Date Made Active in Reports: 11/21/2024
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

Date of Government Version: 06/24/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/17/2024
Number of Days to Update: 83

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 09/18/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 08/29/2024
Date Data Arrived at EDR: 08/29/2024
Date Made Active in Reports: 09/03/2024
Number of Days to Update: 5

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING

The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 08/19/2024
Date Data Arrived at EDR: 09/10/2024
Date Made Active in Reports: 11/22/2024
Number of Days to Update: 73

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Semi-Annually

FIN ASSURANCE 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 07/02/2024
Date Made Active in Reports: 09/25/2024
Number of Days to Update: 85

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 01/06/2025
Data Release Frequency: Quarterly

FIN ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/30/2024
Date Data Arrived at EDR: 08/30/2024
Date Made Active in Reports: 09/13/2024
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NYC LEAD: Lead-based Paint Testing Results

The results of the inspections for all classrooms serving students under six in applicable buildings. Identifies all classrooms, whether there was observation of peeling paint, and if there was, standard response protocol was followed.

Date of Government Version: 07/10/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/17/2024
Number of Days to Update: 79

Source: New York City Department of Education
Telephone: 212-374-5141
Last EDR Contact: 10/31/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

NYC LEAD 2: Recent Lead Paint Violations

Pursuant to New York City?s Housing Maintenance Code, the Department of Housing Preservation and Development (HPD) issues violations against conditions in rental dwelling units that have been verified to violate the New York City Housing Maintenance Code (HMC) or the New York State Multiple Dwelling Law (MDL). Violations are issued when an inspection verifies that a violation of the HMC or MDL exists. It is closed when the violation is corrected, as observed/verified by HPD or as certified by the landlord.

Date of Government Version: 07/29/2024
Date Data Arrived at EDR: 07/30/2024
Date Made Active in Reports: 10/17/2024
Number of Days to Update: 79

Source: New York City Department of Housing Preservation & Development
Telephone: 212-863-8200
Last EDR Contact: 10/30/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 04/12/2024
Date Data Arrived at EDR: 05/09/2024
Date Made Active in Reports: 08/06/2024
Number of Days to Update: 89

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 10/09/2024
Next Scheduled EDR Contact: 01/27/2025
Data Release Frequency: No Update Planned

VAPOR REOPENED: Vapor Intrusion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 02/08/2022
Date Made Active in Reports: 05/06/2022
Number of Days to Update: 87

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: Varies

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 08/25/2024
Date Data Arrived at EDR: 08/28/2024
Date Made Active in Reports: 11/08/2024
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

COOLING TOWERS: Registered Cooling Towers

This data includes the location of cooling towers registered with New York State. The data is self-reported by owners/property managers of cooling towers in service in New York State. In August 2015, the New York State Department of Health released emergency regulations requiring the owners of cooling towers to register them with New York State.

Date of Government Version: 07/02/2024
Date Data Arrived at EDR: 07/10/2024
Date Made Active in Reports: 10/01/2024
Number of Days to Update: 83

Source: Department of Health
Telephone: 518-402-7650
Last EDR Contact: 10/08/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Varies

NYC LAND USE: New York City Land Use Information
Land use colors

Date of Government Version: 06/18/2024
Date Data Arrived at EDR: 09/10/2024
Date Made Active in Reports: 11/25/2024
Number of Days to Update: 76

Source: New York City Department of City Planning
Telephone: 212-720-3300
Last EDR Contact: 09/10/2024
Next Scheduled EDR Contact: 12/23/2024
Data Release Frequency: Varies

MGP: Manufactured Gas Plants Listing
From the late 1800's to the mid 1900's, hundreds of manufactured gas plants across New York State supplied homes and industry with fuel for heating, cooking, and lighting. Today, the New York State DEC is overseeing the investigation and cleanup of contamination left behind from these plants.

Date of Government Version: 08/28/2024
Date Data Arrived at EDR: 08/28/2024
Date Made Active in Reports: 10/01/2024
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-9662
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

ILI: New York State Inactive Landfill Initiative
A solid waste site priority list of mitigation and remedial activities to address sites causing, or substantially contributing to, impairments of drinking water quality. Inactive solid waste disposal sites, primarily landfills, and their potential impact on New York?s drinking water resources from site-related contaminants, with a focus on emerging contaminants.

Date of Government Version: 05/16/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/26/2024
Number of Days to Update: 88

Source: Department of Environmental Conservation
Telephone: 518-402-8671
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/10/2025
Data Release Frequency: Varies

NYC OER: OER Cleanup Sites Listing
Properties remediated under OER's oversight, both in the E-Designation program and the NYC Voluntary Cleanup Program. Includes sites completed and in progress.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/15/2024
Number of Days to Update: 72

Source: Office of Environmental Remediation
Telephone: 212-788-8841
Last EDR Contact: 09/04/2024
Next Scheduled EDR Contact: 12/16/2024
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

CORTLAND COUNTY:

AST - CORTLAND: Cortland County Storage Tank Listing
A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/16/2019
Number of Days to Update: 57

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

UST - CORTLAND: Cortland County Storage Tank Listing
A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/16/2019
Number of Days to Update: 57

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Quarterly

NASSAU COUNTY:

AST - NASSAU: Registered Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 11/27/2023
Date Data Arrived at EDR: 11/28/2023
Date Made Active in Reports: 02/06/2024
Number of Days to Update: 70

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

AST NCFM: Storage Tank Database
A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

TANKS NASSAU: Registered Tank Database in Nassau County
A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 11/27/2023
Date Data Arrived at EDR: 11/28/2023
Date Made Active in Reports: 02/06/2024
Number of Days to Update: 70

Source: Nassau County Department of Health
Telephone: 516-227-9691
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

UST - NASSAU: Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 11/27/2023
Date Data Arrived at EDR: 11/28/2023
Date Made Active in Reports: 02/06/2024
Number of Days to Update: 70

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 10/17/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

UST NCFM: Storage Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

ROCKLAND COUNTY:

AST - ROCKLAND: Petroleum Bulk Storage Database
A listing of aboveground storage tank sites located in Rockland County. Rockland County?s Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: No Update Planned

UST - ROCKLAND: Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County. Rockland County?s Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189

Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 11/19/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: No Update Planned

SUFFOLK COUNTY:

AST - SUFFOLK: Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 06/28/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 02/07/2019
Number of Days to Update: 63

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

TANKS SUFFOLK: Storage Tank Database
This county is not included in the state?s database. These are facilities that have no tank information in the storage tank database.

Date of Government Version: 06/28/2018
Date Data Arrived at EDR: 02/05/2019
Date Made Active in Reports: 03/08/2019
Number of Days to Update: 31

Source: Department of Health Services
Telephone: 631-854-2516
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Varies

UST - SUFFOLK: Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 06/28/2018
Date Data Arrived at EDR: 12/06/2018
Date Made Active in Reports: 02/07/2019
Number of Days to Update: 63

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 10/16/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

AST - WESTCHESTER: Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/13/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 79

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Semi-Annually

UST - WESTCHESTER: Listing of Storage Tanks
A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 07/31/2024
Date Data Arrived at EDR: 08/13/2024
Date Made Active in Reports: 10/31/2024
Number of Days to Update: 79

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 10/24/2024
Next Scheduled EDR Contact: 02/03/2025
Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/05/2024
Date Data Arrived at EDR: 08/06/2024
Date Made Active in Reports: 10/25/2024
Number of Days to Update: 80

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/05/2024
Next Scheduled EDR Contact: 02/17/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 09/25/2024
Next Scheduled EDR Contact: 01/13/2025
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/07/2024
Next Scheduled EDR Contact: 02/24/2025
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/09/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 10/03/2024
Next Scheduled EDR Contact: 01/20/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Day Care Providers
Source: Department of Health
Telephone: 212-676-2444

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

STATE HIGHWAY 5S - TOWN OF FLORIDA
176 MEAD ROAD
AMSTERDAM, NY 12010

TARGET PROPERTY COORDINATES

Latitude (North):	42.932553 - 42° 55' 57.19''
Longitude (West):	74.227067 - 74° 13' 37.44''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	563071.2
UTM Y (Meters):	4753400.0
Elevation:	507 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14106184 AMSTERDAM, NY
Version Date:	2019
West Map:	14106292 TRIBES HILL, NY
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

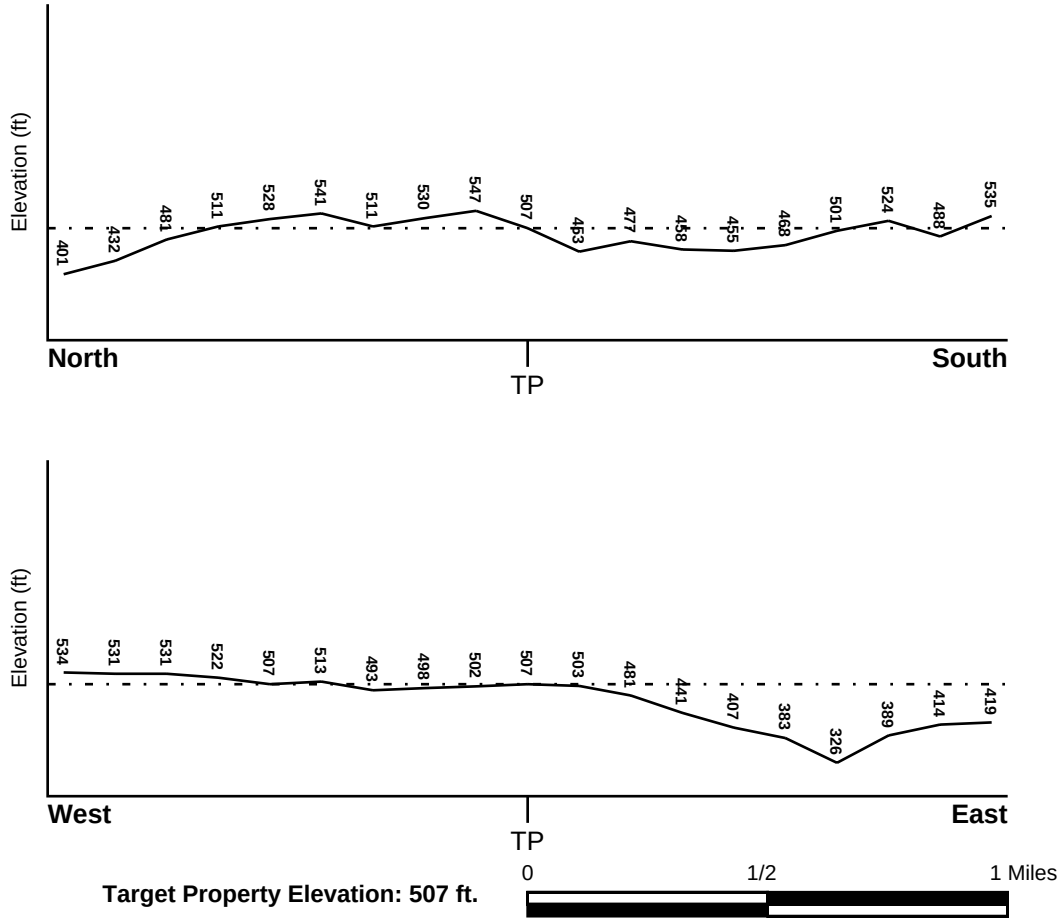
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
Not Reported	

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
AMSTERDAM	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

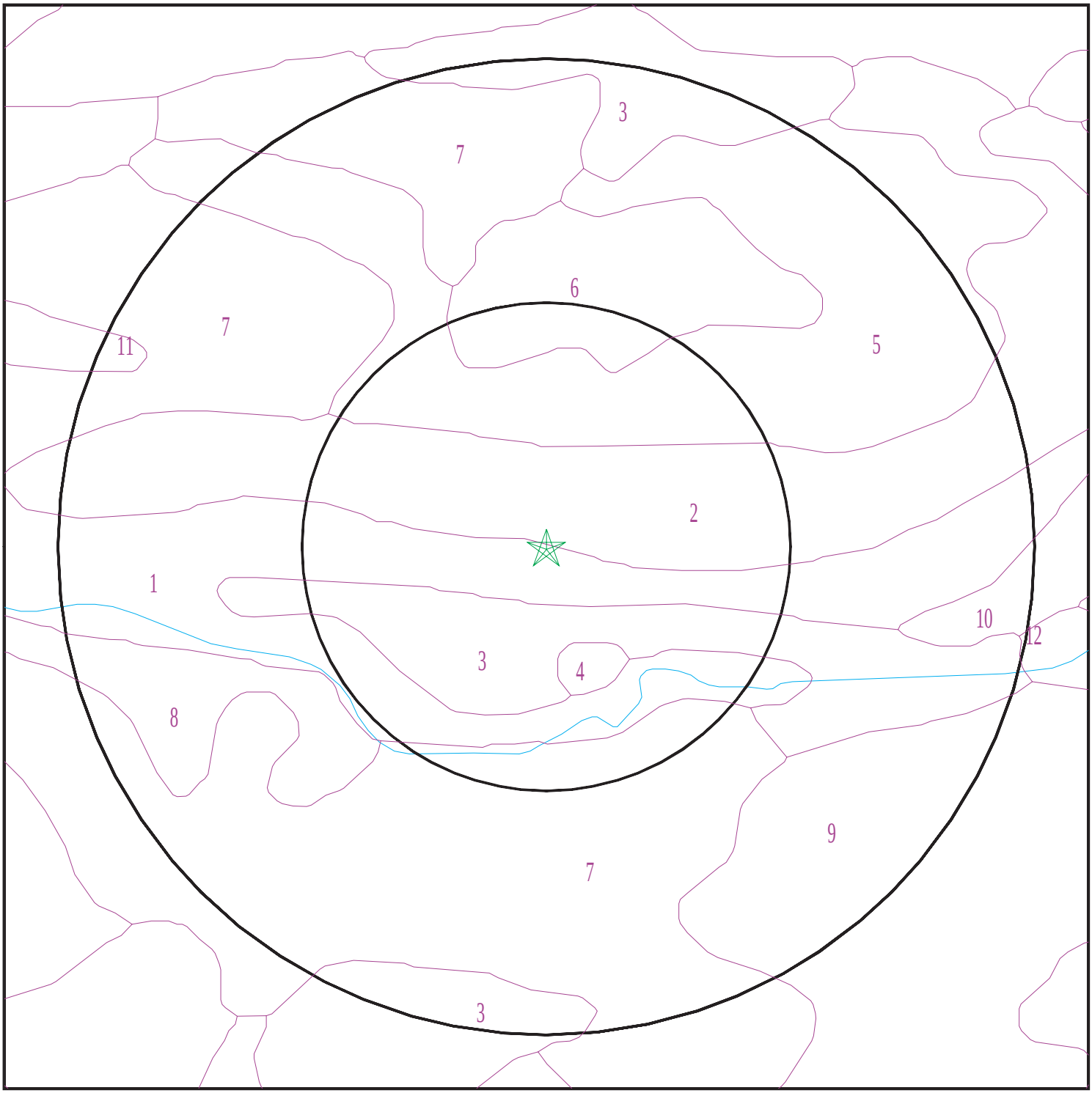
Era:	Paleozoic
System:	Ordovician
Series:	Middle Ordovician (Mohawkian)
Code:	O2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7837436.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	State Highway 5S - Town of Florida	CLIENT:	Langan
ADDRESS:	176 Mead Road Amsterdam NY 12010	CONTACT:	Laura Grose
LAT/LONG:	42.932553 / 74.227067	INQUIRY #:	7837436.2s
		DATE:	December 02, 2024 6:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 2

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: Lansing

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	20 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	20 inches	31 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	31 inches	59 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 5

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 6

Soil Component Name: Angola

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	9 inches	24 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	24 inches	27 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 7

Soil Component Name: Appleton

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
2	11 inches	16 inches	silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
3	16 inches	25 inches	gravelly silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
4	25 inches	59 inches	gravelly silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 8

Soil Component Name: Manheim

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	27 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6
3	27 inches	50 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6

Soil Map ID: 9

Soil Component Name: Churchville

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	31 inches	83 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 10

Soil Component Name: Rhinebeck

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	12 inches	27 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1
3	27 inches	70 inches	stratified silt loam to clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.1

Soil Map ID: 11

Soil Component Name: Churchville

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	31 inches	83 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 12

Soil Component Name: Lansing

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	7 inches	20 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	20 inches	31 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	31 inches	59 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000865778	1/4 - 1/2 Mile North
2	USGS40000865715	1/4 - 1/2 Mile ENE
3	USGS40000865840	1/2 - 1 Mile NW
5	USGS40000865575	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

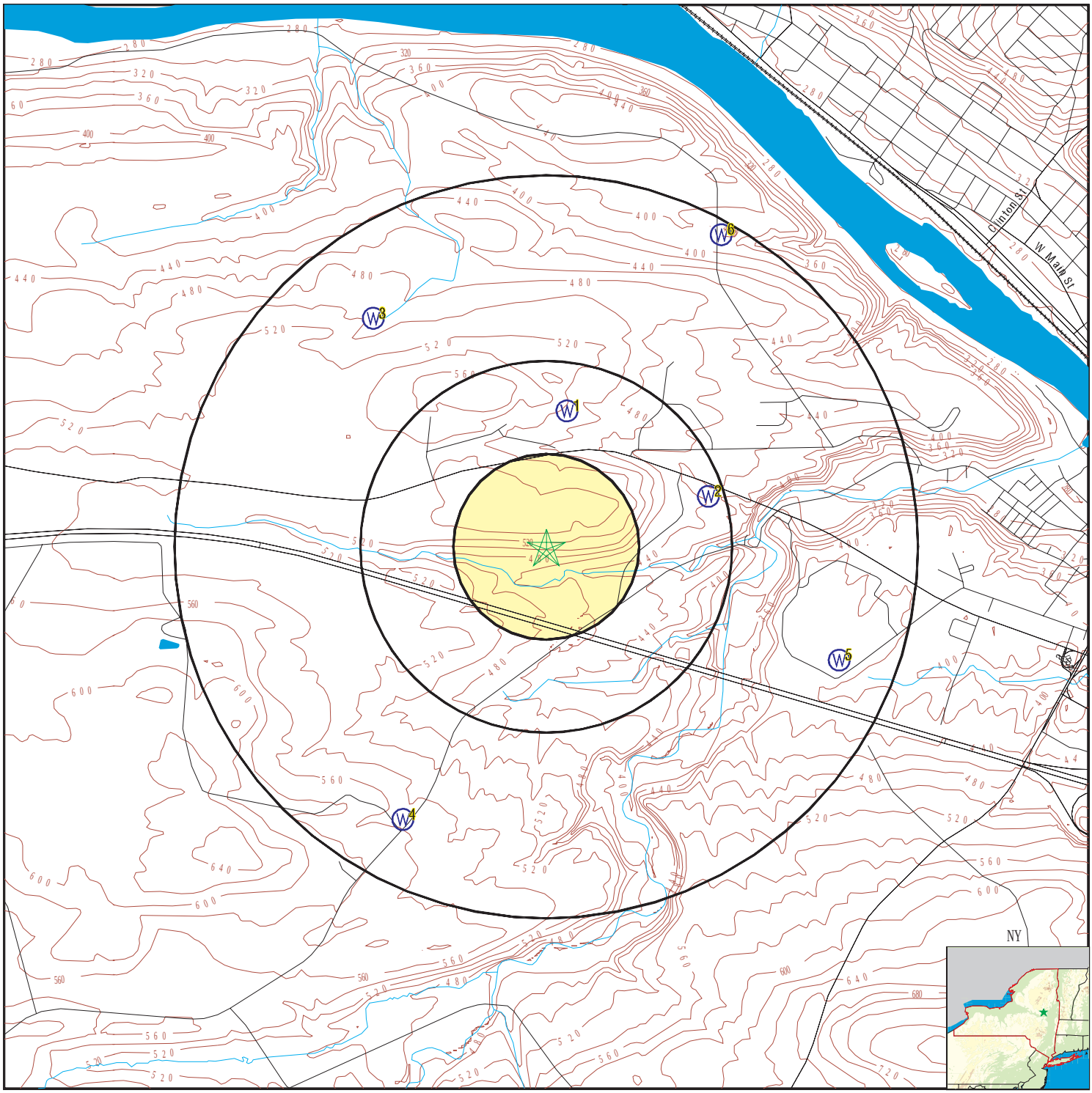
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
4	NYWS50000060531	1/2 - 1 Mile SSW
6	NYWS50000060787	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 7837436.2s



County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME:	State Highway 5S - Town of Florida	CLIENT:	Langan
ADDRESS:	176 Mead Road Amsterdam NY 12010	CONTACT:	Laura Grose
LAT/LONG:	42.932553 / 74.227067	INQUIRY #:	7837436.2s
		DATE:	December 02, 2024 6:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
North
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000865778**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 313	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	202	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

2
ENE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000865715**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 314	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	217	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

3
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000865840**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 312	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	186	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

4
SSW
1/2 - 1 Mile
Higher

NY WELLS **NYWS50000060531**

WELLS:

DEC Well #:	MT00804	Well Depth (ft):	130
Bedrock Depth (ft):	Not Reported	Groundwater Depth (ft):	111

Casing Depth (ft):	33	Casing 1 Diameter (in):	6
Casing 1 Length (ft):	33	Casing 2 Diameter (in):	Not Reported
Casing 2 Length (ft):	Not Reported	Screened Well:	N
Screen Length (ft):	Not Reported	Avg Discharge Rate (gpm):	5.5
Well Purpose:	Not Reported	Driller Registration #:	NYRD10100
Report Date:	20-MAY-03	Drilling Start Date:	28-APR-03
Drilling Completion Date:	05-MAY-03		

5
ESE **FED USGS** **USGS40000865575**
1/2 - 1 Mile
Lower

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 487	Type:	Well
Description:	Not Reported	HUC:	02020004
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1959
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	238	Well Hole Depth Units:	ft

6
NNE **NY WELLS** **NYWS50000060787**
1/2 - 1 Mile
Lower

WELLS:

DEC Well #:	MT01069	Well Depth (ft):	227
Bedrock Depth (ft):	-999	Groundwater Depth (ft):	103
Casing Depth (ft):	225	Casing 1 Diameter (in):	6
Casing 1 Length (ft):	227	Casing 2 Diameter (in):	Not Reported
Casing 2 Length (ft):	Not Reported	Screened Well:	N
Screen Length (ft):	Not Reported	Avg Discharge Rate (gpm):	12
Well Purpose:	Not Reported	Driller Registration #:	NYRD10005
Report Date:	24-JAN-07	Drilling Start Date:	12-DEC-06
Drilling Completion Date:	13-DEC-06		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
MONTGOMERY	AMSTERDAM	101	3.35	1.6	44
MONTGOMERY	CANAJOHARIE	43	3.1	2.37	8.2
MONTGOMERY	CHARLESTON	2	2.5	0.7	4.9
MONTGOMERY	FLORIDA	12	8.13	5.6	24.1
MONTGOMERY	GLEN	13	4.63	2.44	14.2
MONTGOMERY	MINDEN	6	7.85	3.45	20.9
MONTGOMERY	MOHAWK	18	4.43	2.59	20.6
MONTGOMERY	PALATINE	20	5.3	4.56	16.3
MONTGOMERY	ROOT	7	7.11	3.42	28.5
MONTGOMERY	ST. JOHNSVILLE	5	6.14	5.26	9.5

Federal EPA Radon Zone for MONTGOMERY County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for MONTGOMERY COUNTY, NY

Number of sites tested: 26

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.820 pCi/L	100%	0%	0%
Basement	2.020 pCi/L	81%	19%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells
Source: New York Department of Health
Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database
Source: Department of Environmental Conservation
Telephone: 518-402-8072
These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon
Source: Department of Health
Telephone: 518-402-7556
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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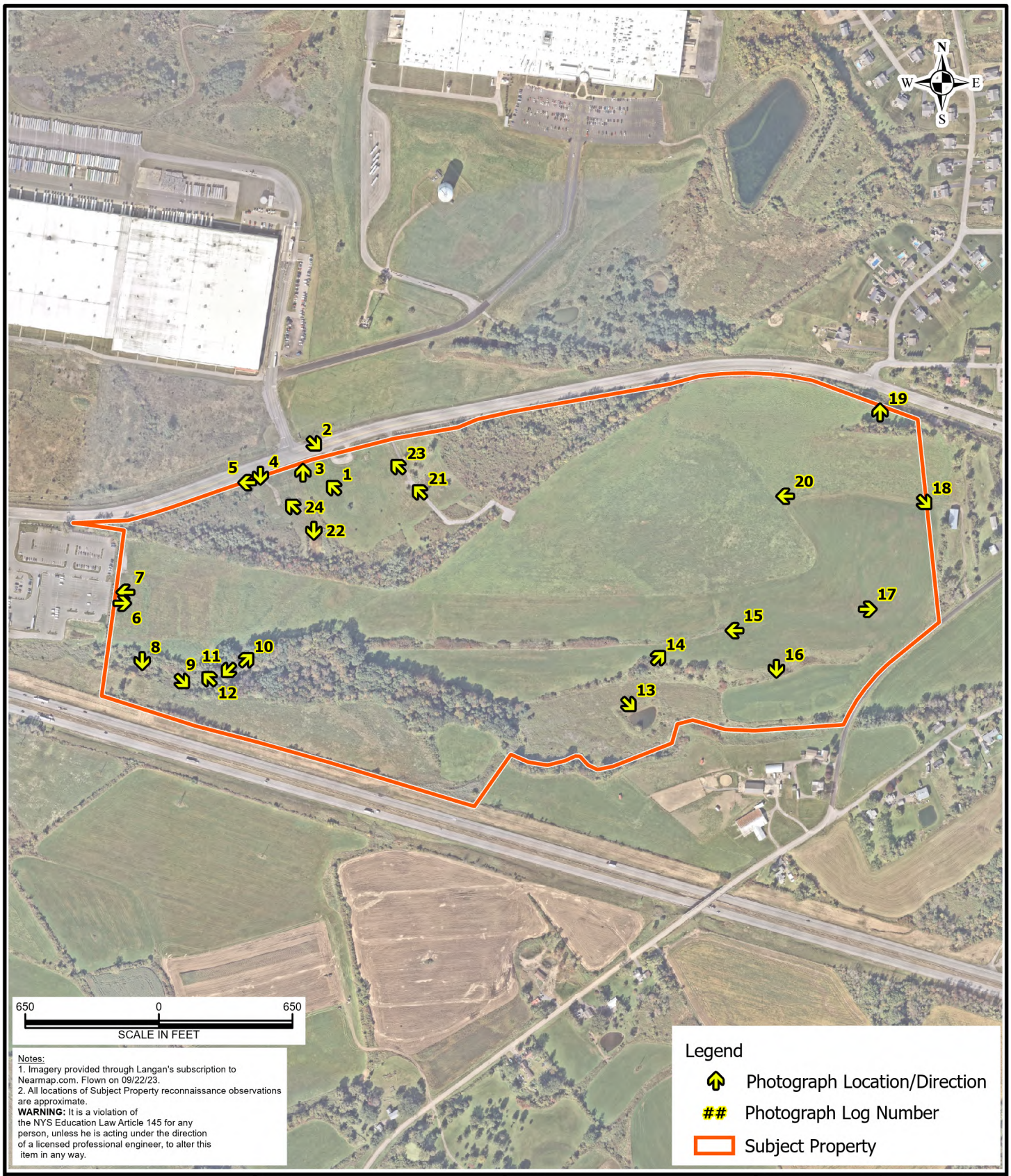
Appendix D Site Reconnaissance Checklist and Photographs



Notes:
1. Imagery provided through Langan's subscription to Nearmap.com. Flown on 09/22/23.
2. All locations of Subject Property reconnaissance observations are approximate.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

LANGAN

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

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www.langan.com

Project

MSV1 - STATE HIGHWAY 5S

FLORIDA

MONTGOMERY COUNTY NY

Figure Title

PHOTOGRAPH LOCATION MAP

Project No.	170886701
Date	12/17/2024
Scale	1" = 650 feet
Drawn By	LB

Figure

D-1

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Path: \\langan.com\data\NYC\data7\170886701\Project Data\ArcGIS\APRX\170886701\170886701.aprx

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Site Reconnaissance Photographs

Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	1

Direction Photo Taken:

Northwest

Description:

View of State Highway 5S (NY-5S) and the north-adjoining property at 1800 NY-5S



Date	Photo No.
12-09-24	2

Direction Photo Taken:

Southeast

Description:

View of the subject property from NY-5S



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	3

Direction Photo Taken:

North

Description:

View of municipal stormwater access manhole along the northern subject property boundary



Date	Photo No.
12-09-24	4

Direction Photo Taken:

South

Description:

View of unpaved driveway in the northwestern part of the subject property



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	5

Direction Photo Taken:

West

Description:

Stormwater drainage pipe along the northwestern subject property boundary



Date	Photo No.
12-09-24	6

Direction Photo Taken:

East

Description:

View of agricultural fields in the western part of the subject property



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	7

Direction Photo Taken:

West

Description:

View of the west-adjoining property at 1785 NY-5S



Date	Photo No.
12-09-24	8

Direction Photo Taken:

South

Description:

View of the unnamed tributary of South Chuctanunda Creek in the southern part of the subject property



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	9

Direction Photo Taken:

Southeast

Description:

View of an unidentified pipe in the unnamed tributary of South Chuctanunda Creek within the southwestern part of the subject property



Date	Photo No.
12-09-24	10

Direction Photo Taken:

Northeast

Description:

View of miscellaneous debris (metal and 2-inch-diameter polyvinyl chloride pipes)



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	11

Direction Photo Taken:

Southwest

Description:

View of miscellaneous waste (e.g., refrigerators, bathtubs, sinks, metal framing, couches, automobile frames, mattress frames, tires, washing machines, two 5-gallon propane tanks) in the western part of the subject property



Date	Photo No.
12-09-24	12

Direction Photo Taken:

Northwest

Description:

View of a 55-gallon polyethylene drum in the western part of the subject property



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	13

Direction Photo Taken:

Southeast

Description:

View of a freshwater pond in the southeastern part of the subject property



Date	Photo No.
12-09-24	14

Direction Photo Taken:

Northeast

Description:

View of a natural gas pipeline marker in the southern part of the subject property



LANGAN

Site Reconnaissance Photographs

Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	15

Direction Photo Taken:

West

Description:

View of miscellaneous debris within brush in the southeastern part of the subject property



Date	Photo No.
12-09-24	16

Direction Photo Taken:

South

Description:

View of the southeast-adjoining property at 176 Mead Road



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	17

Direction Photo Taken:

East

Description:

View of Mead Road followed by the east-adjoining property at Mead Road



Date	Photo No.
12-09-24	18

Direction Photo Taken:

Southeast

Description:

View of the east-adjoining property at Mead Road



Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	19

Direction Photo Taken:

North

Description:

View of a natural gas pipeline marker in the northeastern part of the subject property with Mead Road in the background



Date	Photo No.
12-09-24	20

Direction Photo Taken:

West

Description:

View of agricultural fields located in the central part of the subject property



LANGAN

Site Reconnaissance Photographs

Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	21

Direction Photo Taken:

Northwest

Description:

View of unpaved access road in the northern part of the subject property



Date	Photo No.
12-09-24	22

Direction Photo Taken:

South

Description:

View of standing water in the northwestern part of the subject property



LANGAN

Site Reconnaissance Photographs

Client Name:	Subject Property Location:	Project No.
Amazon.com Services LLC	MSV1 - 176 Mead Road, Florida, New York	170886701

Date	Photo No.
12-09-24	23

Direction Photo Taken:

Northwest

Description:

View of car battery located near northern property boundary along NY-5S.



Date	Photo No.
12-09-24	24

Direction Photo Taken:

Northwest

Description:

View of miscellaneous debris in the northwestern part of the subject property



LANGAN

PHASE I ESA SITE RECONNAISSANCE CHECKLIST

GENERAL INFORMATION
Langan personnel: Shawn Martin
Date of site reconnaissance: 12/09/2024
Business name / subject property occupant:
Full subject property address: 176 Mead Road, Florida, New York
Weather conditions: Snowing/Raining, 20-30°

Features, Activities, Uses, and Conditions	Identified/Observed?		Report Section(s)
General Subject Property Setting	**Yes**	**No**	
Current use(s) of the subject property	☒	☐	2.0
Past use(s) of the subject property	☒	☐	3.1
Current use(s) of adjoining properties	☒	☐	4.1
Past use(s) of adjoining properties	☒	☐	4.2
Current or past uses in the surrounding area	☒	☐	4.1 and 4.2
Geologic, hydrogeologic, hydrologic, and topographic conditions	☒	☐	2.2
Structures and other improvements at the subject property	☐	☒	2.3
Roads	☒	☐	2.3
Potable water supply/source for the subject property	☐	☒	2.4
Sewage disposal system for the subject property	☐	☒	2.4

Interior/Exterior Features	At Exterior?		Report Section(s) (if yes)
	Yes	**No**	
Hazardous substances and petroleum products in connection with identified uses	☐	☒	2.5
Storage tanks	☐	☒	2.5.1 and 2.5.2
Strong, pungent, or noxious odors and their sources	☐	☒	2.6
Standing surface water and pools or sumps containing liquids likely to be hazardous substances or petroleum products	☐	☒	2.5
Drums, totes, and intermediate bulk containers	☒	☐	2.5.3
Hazardous substance and petroleum product containers not in connection with identified uses	☐	☒	2.5.4
Unidentified substance containers	☒	☐	2.5.4
PCB-containing items	☐	☒	2.5.4
Heating/cooling	☐	☒	2.4
Stains or corrosion on floors, walls, or ceilings	☐	☒	2.5 and 2.7
Drains and sumps	☐	☒	2.8
Pits, ponds, or lagoons	☒	☐	2.2.3
Stained soil or pavement	☐	☒	2.5 and 2.7
Stressed vegetation	☐	☒	2.9
Solid waste	☒	☐	2.7
Water/wastewater	☐	☒	2.8 and 2.9
Wells	☐	☒	2.2.3
Septic systems or cesspools	☐	☒	2.8

Appendix E Agency Records and Other Reports

Laura Grose

From: Laura Grose
Sent: Tuesday, December 10, 2024 9:28 AM
To: clerk@townofflorida.com
Subject: FOIL - 176 Mead Road

Dear Sir or Madam:

Pursuant to the Federal Freedom of Information Act (5 U.S.C 552 et seq.) dealing with the examination and duplication of documents maintained by public agencies, Langan is requesting any information or copies of files regarding environmental conditions on the above property, such as environmental permits, notices of violations, spill/discharge incidents, storage or disposal of hazardous substances, Underground Storage Tanks (UST), Leaking Underground Storage Tanks (LTANK), asbestos abatement, and any other environmental reports that your department may have.

The Subject Property is located at **176 Mead Road** in **Florida, New York**. The Subject Property is identified as Parcels 54.-1-36, 54.-1-37, 55.-1-1.1, 55.-2-4.1, 54.-1-35.11, 54.-1-35.121, 54.-1-35.131, 54.-1-35.141, 54.-1-35.151, and 54.-1-35.161. The Subject Property is bound to the north by NY-5S; to the east by Mead Road and agricultural land; to the south by a dairy farm, agricultural land, residential properties, and New York State Thruway (NYS Thruway); and to the west by a warehouse (DAB4 - 1785 State Highway 5S, Amsterdam, New York).

Please contact me at 914-323-7432 with any questions or send your response to my attention at lgrose@langan.com or at the below address:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
1 North Broadway
Suite 910
White Plains, New York 10601

Thank you in advance for your cooperation.

Sincerely,

Laura Grose
Senior Staff Scientist
LANGAN

Direct: 914.323.7432
Mobile: 914.274.7683
File Sharing Link

Phone: 914.323.7400 Fax: 914.323.7401
1 North Broadway
Suite 910
White Plains, NY 10601
www.langan.com

NEW YORK NEW JERSEY CONNECTICUT MASSACHUSETTS PENNSYLVANIA VIRGINIA WASHINGTON, DC
OHIO ILLINOIS NORTH CAROLINA TENNESSEE FLORIDA TEXAS ARIZONA COLORADO UTAH WASHINGTON CALIFORNIA
ATHENS CALGARY DUBAI LONDON PANAMA

Carbon Neutral Operations | Diversity, Equity & Inclusion — Grow Your Career Here | SAFE — Stay Accident Free Everyday



LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

December 9, 2024

New York State Department of Environmental Conservation
Region 7 Office
615 Erie Blvd. West
Syracuse, New York 13204

Re: Freedom of Information Request
176 Mead Road
Florida, New York
Langan Project No.: 170886701

Dear Sir or Madam:

Pursuant to the Federal Freedom of Information Act (5 U.S.C 552 et seq.) dealing with the examination and duplication of documents maintained by public agencies, Langan is requesting any information or copies of files regarding environmental conditions on the above property, such as environmental permits, notices of violations, spill/discharge incidents, storage or disposal of hazardous substances, Underground Storage Tanks (UST), Leaking Underground Storage Tanks (LTANK), asbestos abatement, and any other environmental reports that your department may have.

The Subject Property is located at **175 Mead Road** in **Florida, New York**. The Subject Property is identified as Parcels 54.-1-36, 54.-1-37, 55.-1-1.1, 55.-2-4.1, 54.-1-35.11, 54.-1-35.121, 54.-1-35.131, 54.-1-35.141, 54.-1-35.151, and 54.-1-35.161. The Subject Property is bound to the north by NY-5S; to the east by Mead Road and agricultural land; to the south by a dairy farm, agricultural land, residential properties, and New York State Thruway (NYS Thruway); and to the west by a warehouse (DAB4 - 1785 State Highway 5S, Amsterdam, New York).

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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
1 North Broadway
Suite 910
White Plains, New York 10601

Thank you in advance for your cooperation.

Sincerely,

Langan Engineering, Environmental, Surveying
Landscape Architecture, and Geology, D.P.C.

Laura P. Grose
Senior Staff Scientist

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

December 9, 2024

Records Access Office
New York State Department of Health
Corning Tower, Room 2364
Albany, New York 12237-0044
foil@health.ny.gov

Re: Freedom of Information Request
176 Mead Road
Florida, New York
Langan Project No.: 170886701

Dear Sir or Madam:

Pursuant to the Federal Freedom of Information Act (5 U.S.C 552 et seq.) dealing with the examination and duplication of documents maintained by public agencies, Langan is requesting any information or copies of files regarding environmental conditions on the above property, such as environmental permits, notices of violations, spill/discharge incidents, storage or disposal of hazardous substances, Underground Storage Tanks (UST), Leaking Underground Storage Tanks (LTANK), asbestos abatement, and any other environmental reports that your department may have.

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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
1 North Broadway
Suite 910
White Plains, New York 10601

Thank you in advance for your cooperation.

Sincerely,

Langan Engineering, Environmental, Surveying
Landscape Architecture, and Geology, D.P.C.

Laura P. Grose
Senior Staff Scientist

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

December 23, 2024

United States Environmental Protection Agency
Region 2 Office
290 Broadway
New York, New York 10007

Re: Freedom of Information Request
176 Mead Road
Florida, New York
Langan Project No.: 170886701

Dear Sir or Madam:

Pursuant to the Federal Freedom of Information Act (5 U.S.C 552 et seq.) dealing with the examination and duplication of documents maintained by public agencies, Langan is requesting any information or copies of files and any environmental reports that your department may have regarding perfluorochemical concentrations resulting from applications of biosolids on the above property.

The Subject Property is located at **176 Mead Road** in **Amsterdam, New York**. The Subject Property is identified as Parcel 54.-1-36. The Subject Property is bound to the north by NY-5S; to the east by Mead Road and agricultural land; to the south by a dairy farm, agricultural land, residential properties, and New York State Thruway (NYS Thruway); and to the west by a warehouse (DAB4 - 1785 State Highway 5S, Amsterdam, New York).

Please contact me at 914-323-7432 with any questions or send your response to my attention at lgrose@langan.com or at the below address:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
1 North Broadway
Suite 910
White Plains, New York 10601

Thank you in advance for your cooperation.

Sincerely,

Langan Engineering, Environmental, Surveying
Landscape Architecture, and Geology, D.P.C.

Laura P. Grose
Senior Staff Scientist

No Information Found for the Submitted Address

No records were found within the EPA's Facility Registry System (FRS) list of address records for the provided search location. The No Records <https://epa.gov/envirofacts/embed/myproperty/certificate/176%20mead%20road/amsteram/ny> is a link to a printable document stating that no record(s) were found for the provided search location.

You searched on:
Address Searched: 176 mead road
City Searched: amsteram
State Searched: NY

WARNING:

The address entered could not be matched exactly against the EPA's Facility Registry System (FRS) list of address records. Please make sure you have entered the address correctly for the location you are interested in.

If you would like to utilize additional search tools to investigate areas of interest, please visit the Envirofacts Multisystem Search <https://epa.gov/envirofacts/multisystem/search> or the Facility Registry System <https://www.epa.gov/frs/frs-query>

Disclaimer: The MyProperty reports are provided solely for informational purposes. They do not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. EPA maintains the application to enhance public access to environmental information. This service has continual data updates, and we will correct errors brought to our attention, as appropriate.

My Environment (find.html)

176 Mead Rd, Amsterdam, New York, 12010

Select a new Location:

GO

MyMap

To view facilities and sites regulated by EPA, click on the menu icon at upper left, select “Layers”, turn on the checkboxes for the layers you want to see, and then click the “X” to close the menu.



More Map

MyAir

The Air Quality Index (AQI) is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. Read more about air quality (https://airnow.gov/index.cfm?

action=aqibasics.index).

Upper Hudson Valley Region, NY; December 9, 2024		
	Current:	Good
	Forecast:	Good

Data table is not defined.

Data table is not defined.

More Air

MyWater

The Assessment Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS) provides information reported by the states to EPA about the conditions in their surface waters. This information is required every two years under Clean Water Act Sections 305(b) and 303(d). Read more about water quality (https://www.epa.gov/waterdata/assessing-and-reporting-water-quality-questions-and-answers).

More Water

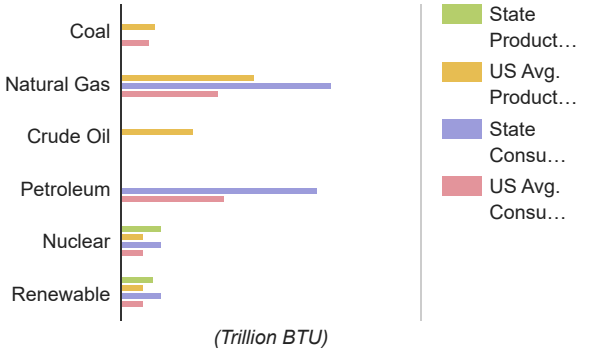
MyEnergy

The State Energy Data System (SEDS) is the U.S. Energy Information Administration's (EIA) source for comprehensive State energy statistics. Included are estimates of energy production, consumption, prices, and expenditures broken down by energy source and sector.

Select a Year: 2022

State Data | Comparisons

New York: 2022 Energy Production vs. Consumption by Source



Data Source: DOE EIA

More Energy

MyHealth

Toxic air pollutants, or air toxics, are those pollutants known or suspected of causing cancer or other serious health problems, such as birth defects. Not all air pollutants are considered – please visit the AirToxScreen (https://www.epa.gov/AirToxScreen/2020-airtoxscreen) website for more information on the 2020 AirToxScreen data.

No data found for the specified location.

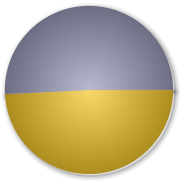
More Health

MyClimate

In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110--161) (https://www.gpo.gov/fdsys/pkg/PLAW-110publ161/pdf/PLAW-110publ161.pdf), EPA launched the Greenhouse Gas Reporting Program (GHGRP). The program requires annual reporting of greenhouse gas (GHG) data and other relevant information from large direct emissions sources and suppliers of certain fossil fuels and industrial gases in the United States.

Read More (https://www2.epa.gov/enviro/greenhouse-gas-overview)

2022 Greenhouse Gas Emissions by Sector
(Metric Tons of CO_2e)
New York - Montgomery County



Sectors
- Petroleum and Natural Gas Systems
- Metals

Data reported to EPA as of 08/16/2024

More Climate

MyLand

The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. Read more about the NPL (https://www2.epa.gov/superfund/superfund-national-priorities-list-npl).

More Land

LAST UPDATED ON TUE AUG 27 2024

Previous Reports

WINSTANLEY ENTERPRISES, LLC
Commercial Development & Asset Management

Phase I – Environmental Site Assessment

Highway 5S and Mead Road Parcels
Florida, New York 12010



TETRA TECH

April 1, 2019

Phase I Environmental Site Assessment

10 Parcels Along State Highway 5S and Mead Road
Florida, New York

Submitted to:

WE Acquisitions LLC
April 1, 2019

TETRA TECH

April 1, 2019

Mr. Ken Grant
WE Acquisitions LLC
150 Baker Avenue Extension, Suite 303
Concord, Massachusetts 01742

Re: Phase I Environmental Site Assessment
10 Parcels Along State Highway 5S and Mead Road
Florida, New York 12010

Dear Mr. Grant:

Tetra Tech is pleased to submit this Phase I Environmental Site Assessment for the ten properties located along State Highway 5S and Mead Road in Florida, New York (the Site). This investigation included a review of the Site history, a Site reconnaissance visit, interviews, and a review of local and regulatory files pertaining to the Site and surrounding area. This report consists of two parts: a summary which presents a narrative of our findings and recommendations, followed by a detailed description of the research conducted.

We appreciate the opportunity to provide these services to you. Please contact us if you have any questions regarding this project.

Very truly yours,



Ian S. Cannan, CHMM
Senior Project Scientist



John H. Insall, L.E.P.
Senior Project Manager

P:\254457\143-254457-19002\DOCS\REPORTS\ASTM_PHASEI_ESA\ALBANYPARCELS_PHASEI_ESA_DRAFT-2018-12-17.DOCX

Marlborough Technology Park
100 Nickerson Road, Marlborough, MA 01752
Tel 508.786.2200 Fax 508.786.2201 tetratech.com

TABLE OF CONTENTS

1.0 SUMMARY OF FINDINGS 1

2.0 PURPOSE AND LIMITATIONS 4

3.0 SITE DESCRIPTION 6

4.0 INFORMATION PROVIDED BY USER, OWNER, KEY SITE MANAGER AND OCCUPANTS 7

5.0 PHYSICAL SETTING 9

6.0 SITE VISIT OBSERVATIONS 10

7.0 SITE HISTORY 15

8.0 ADJOINING PROPERTIES 16

9.0 REGULATORY REVIEW 17

10.0 REFERENCES 20

LIST OF FIGURES

Figure 1 Project Locus Map

Figure 2 Site and Adjacent Properties

LIST OF APPENDICES

Appendix A Limitations

Appendix B Statement and Qualifications of Environmental Professional

Appendix C Regulatory Database Report

Appendix D Questionnaires Completed by User, Key Site Manager, and Owner

Appendix E Documentation

1.0 SUMMARY OF FINDINGS

Tetra Tech, Inc. evaluated the ten properties located along State Highway 5S and Mead Road in Florida, New York (the Site) for evidence of Recognized Environmental Conditions (RECs), which are defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products in, on or at a property (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The objective of the Phase I study was to render an opinion as to whether there is evidence of RECs in connection with the property.

SITE DESCRIPTION

The Site is comprised of ten individual parcels of land located in the Town of Florida, New York. Three of the parcels (Assessor Parcels 54.-1-35-11, -121, and -161) are undeveloped vacant rural land. Assessor Parcel 54.-1-36 is undeveloped vacant industrial land. Two parcels are single family residences (Assessor Parcels 54.-1-35-131 and -151). An active dairy farm is located at Assessor Parcel 55.-1-1.1. Assessor Parcels 54.-1-37 and 55.-2-4.1 are currently used for the cultivation of crops. Finally, Assessor Parcel 54.-1-35.141 is a vacant former farm stand or garden center.

SITE HISTORY

The Site history was established back to approximately 1890, when a residence was constructed at 176 Mead Road (Assessor Parcel 55-1-1.1). The Site and surrounding lands were likely associated with agricultural or similar low intensity use from the late 1800s to the late 1980s. In the late 1980s and early 1990s residences were constructed at 1733 and 1711 State Highway 5S. Subsequently a farm stand was established Assessor Parcel 54.-1-35.141 in approximately 1999 and was active for a few years and is believed to have ceased operations in the mid-2000s. In the late 1990s or early 2000s municipal water and sewerage were made available during development of the surrounding area for commercial use.

REVIEW OF REGULATORY RECORDS

A review of standard state and federal environmental record sources pertaining to the Site and surrounding area was conducted using the Environmental Database Resources (EDR) database service. The EDR report was issued on November 2, 2018, using the minimum search distances recommended in the ASTM Standard. The local regulatory review included a New York Freedom of Information Law request to review files at the County of Montgomery and Town of Florida offices. As of the date of this report no response from the Town of Florida has been provided. The County of Montgomery responded that they do not have relevant records and that the Town of Florida is the Records Access Officer for the subject properties.

The Site was not identified in the federal or state databases reviewed.

Several properties were identified in the surrounding area in the state spills database involving the releases of relatively small quantities of oil.

The property identified as 176 Mead Road (Assessor Parcel 55.-1-1.1), also identified as the Floridale Farm, is associated with the NYDEC Petroleum Bulk Storage (PBS) program for three above-ground

petroleum storage tanks. Based on the Site visit the portion of 176 Mead Road that was subject to the PBS program abuts the Site to the South. The PBS listing indicates that this facility included one 3,000-gallon diesel AST and one 300-gallon gasoline AST. Both of these petroleum AST were closed in March 2001. There are no records of spills or releases or petroleum associated with this facility. Therefore, this incident does not represent at REC or HREC at the Site.

This property is identified as RD#1 in Amsterdam, NY, and is located approximately 2,000 feet west of and potentially upgradient from the Site. This facility is found on the list of known or suspected hazardous substance waste disposal sites, which also includes delisted Inactive Hazardous Waste Disposal Sites and non-registry sites where EPA Preliminary Assessment or Site Investigation Reports were prepared. This site is eligible to be but will not automatically become a NY State Superfund site. This listing is associated with Prelco Reality & Development Corp. and EPA ID NYD037373024. This listing does not represent a REC or HREC at the Site.

SITE RECONNAISSANCE

A Site visit was conducted on November 5, 2018 by Ian Cannan of Tetra Tech. At the time of the Site visit the skies were overcast with cool temperatures (40-50º F) and intermittent rain showers. Mr. Ernest J. Daviero (owner of 1711 State Highway 5S) and Mr. John Frasier (owner of 1733 State Highway 5S) accompanied Mr. Cannan during the portions of the Site visit on their respective properties. The unoccupied portions of the Site were visually inspected by Mr. Cannan via available access points and public roadways. The Site visit was limited by overgrown vegetation and scrub brush along the borders of developed properties and covering much of the undeveloped properties. Where accessible, crop lands (or cleared and mowed fields) were observed from public access points and interior roadways. The interior portions of crop lands (or vacant fields) were viewed from a distance due to limited accessibility. We note that Assessor Parcel 55.-1-1.1 includes fields/crops and an associated dairy farm. However, for the purpose of this report the “Site” was limited to the portion of this property that lies north of the tributary to South Chuctanunda Creek that flows easterly through this parcel. Therefore, a detailed inspection of the dairy farm operations and associated buildings was not performed as part of this Site visit.

FINDINGS AND OPINIONS

The following summarizes known or suspect environmental conditions associated with the property, including recognized environmental conditions (RECs), historical RECs, and *de minimis* conditions.

- At Assessor Parcel 54.-1-35.131 (1711 State Highway 5S) home heating oil is stored in a 250-gallon above-ground storage tank (AST) in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. This AST is not considered a REC, historical REC, or *de minimis* condition.

- The property identified as Assessor Parcel 54.-1-35-151 (1733 State Highway 5S) also has a 250-gallon home heating oil AST in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. The heating oil AST was not connected to the furnace and the connection point was capped at the bottom of the AST. During the interview Mr. Frasier indicated that the heating oil AST contains some residual oil, and at the time of the Site visit the tank was observed to be less than ¼ full. Also, during the Site reconnaissance visible oil staining was observed upon the concrete surface at the bottom of the AST. There were no strong or pungent odors from the staining and no evidence that a release had occurred from the tank. Also, the concrete floor in the area of the stain did not display

evidence of obvious cracks or conveyances to the subsurface. During the interview Mr. Frasier indicated that the staining was attributable to minor drips during replacement of the oil filter at the bottom of the AST. This AST is not considered a REC or historical REC, based on the available information and observations as documented in this report. The presence of the unused former AST with residual stored oil and residual oil staining of the concrete surface is considered a *de minimis* condition.

- A small accumulation of used tires was observed at Assessor Parcel 55.-2-4.1 at the central-eastern boundary of the property. The accumulation did not suggest the on-site disposal of solid waste or dumping. The small accumulation of tires was consistent with practices that are typical of this type of rural property. The accumulation of tires is not considered a REC, historical REC, or *de minimis* condition.

CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Site. Any exceptions to, or deletions from, this practice are described in Section 2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property**.**

RECOMMENDATIONS

There are no requirements to take response actions at the Site. The following recommendations are made:

- We recommend that the unused AST at 1733 State Highway 5S be decommissioned and removed from the property.

- We recommend that accumulated pile of apparent used tires (solid waste) be removed from Assessor Parcel 55.-2-4.1.

2.0 PURPOSE AND LIMITATIONS

PURPOSE

Tetra Tech conducted this investigation in general conformance with the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The purpose of the protocol is to provide a standard investigative approach that would be sufficient to provide "all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial or customary practice under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)."

Tetra Tech, Inc. evaluated the ten properties located along State Highway 5S and Mead Road in Florida, New York (the Site) for evidence of Recognized Environmental Conditions (RECs), which are defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products in, on or at a property (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The objective of the Phase I study was to render an opinion as to whether there is evidence of RECs in connection with the property.

LIMITATIONS

This report is subject to the limitations outlined in Appendix A. This study and report have been prepared on behalf of and for the exclusive use of WE Acquisitions LLC solely for use in an environmental evaluation of the Site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of Tetra Tech. However, Tetra Tech acknowledges and agrees that, subject to the Terms and Conditions of our contract dated October 31, 2018, and the Limitations provided in Appendix A, the report may be conveyed to the client's attorney, lender, title insurer, regulatory agencies, and potential purchasers associated with the proximate purchase or refinancing of the Site by our client. Tetra Tech would be pleased to discuss the conditions of dissemination of the report to additional parties associated with the transaction. The report has been prepared in accordance with the Terms and Conditions set forth in our contract dated October 31, 2018. All uses of this report are subject to, and deemed acceptance of, the conditions and restrictions contained therein. No other warranty, express or implied, is made.

EXCEPTIONS TO THE ASTM STANDARD

There were no exceptions to the ASTM standard with the exception of the following:

- At the property identified by Assessor Parcel 54.-1-35.141 a vacant building was present which was locked and inaccessible. At the time of the Site visit a representative of the owner of this property was not present to interview or obtain entry into the building. There were no strong odors, unknown pipes/vents, or other evidence of oil or hazardous substance storage or use associated with the structure. A subsequent written interview with the owner of this property was conducted and documented on a questionnaire prepared by Lori Monge. No additional information suggesting the use or storage of oil or hazardous substance was provided.

- At the property identified by Assessor Parcel 55.-2-4.1 a vacant pole barn building was present which was locked and inaccessible. At the time of the Site visit a representative of the owner of this property was not present to interview or obtain entry into the building. There were no strong odors, unknown pipes/vents, or other evidence of oil or hazardous substance storage or use associated with the structure. A subsequent written interview with the owner of this property was requested; however, at this time no response to the written questionnaire has been provided.

- For the following parcels: 54.-1-36; 55.-1-1.1; and 55.-2-4.1. interviews with the property owners were not performed. During the Site visit representatives of these owners were not available to answer questions or accompany Tetra Tech personnel. Questionnaires were provided; however, responses to the questions listed in ASTM E1527-13, Sections 10.8 and 10.9 were not provided.

- The parcel identified as 55.-1-1.1 (176 Mead Rd.) includes an apparent active working dairy farm. The limits of the Site as defined by the User of this report do not include the portion of this parcel which is the active dairy farm; however, according to current assessor records, this parcel is not sub-divided. The dairy farm portion of the 176 Mead Rd. parcel was not evaluated pursuant to ASTM E1527-13.

3.0 SITE DESCRIPTION

The Site is comprised of ten individual parcels of land located in the Town of Florida, New York. Three of the parcels (Assessor Parcels 54.-1-35-11, -121, and -161) are undeveloped vacant rural land. Assessor Parcel 54.-1-36 is undeveloped vacant industrial land. Two parcels are single family residences (Assessor Parcels 54.-1-35-131 and -151). An active dairy farm is located at Assessor Parcel 55.-1-1.1. Assessor Parcels 54.-1-37 and 55.-2-4.1 are currently used for the cultivation of crops. Finally, Assessor Parcel 54.-1-35.141 is a vacant former farm stand or garden center.

The following summarizes the parcels that comprise the Site, their current zoning designation, property size and current ownership information:

Site Address	Assessor Parcel ID	Zoning Designation	Total Size (acres)	Property Owner	Property Owner Address
St. Hwy 5S Florida, NY 12010	54.-1-35-161	314 – Rural vac <10	3.40	Vincent J. Montagnino and Pamela J. Montagnino	129 Waterstreet Rd. Amsterdam, NY12010
St. Hwy 5S Florida, NY 12010	54.-1-35.121	314 – Rural vac <10	2.50	Mark and Gina M. Johnson	140 Bieniek Dr. Fort Johnson, NY 12070
St. Hwy 5S Florida, NY 12010	54.-1-35.11	314 – Rural vac <10	2.80	Dominick J. and Mary S. Megna	16 Pershing Rd. Amsterdam, NY 12010
St. Hwy 5S Florida, NY 12010	54.-1-36	340 – Vacant Industrial	16.50	Lott Holdings, Corp.	PO Box 651 St. Hwy 5S Amsterdam, NY 12010
St. Hwy 5S Florida, NY 12010	54.-1-35.141	312 – Vac w/imprv	5.10	Miguel and Lori T. Monge	34 Kimball St. Amsterdam, NY 12010
1733 St. Hwy 5S Florida, NY 12010	54.-1-35-151	210 – 1 Family Residential	2.70	John M. Fraiser	1733 St. Hwy 5S Amsterdam, NY 12010
1711 St. Hwy 5S Florida, NY 12010	54.-1-35.131	210 – 1 Family Residential	4.60	Ernest J. and Loreen Daviero	1711 St. Hwy 5S Amsterdam, NY 12010
176 Mead Rd. Florida, NY 12010	55.-1-1.1	112 – Dairy Farm	131	Mead Brothers Properties	322 Snooks Corners Rd. Amsterdam, NY 12010
St. Hwy 5S Florida, NY 12010	55.-2-4.1	120 – Field Crops	42	Mead Brothers Properties	322 Snooks Corners Rd. Amsterdam, NY 12010
St. Hwy 5S Florida, NY 12010	54.-1-37	120 – Field Crops	10.60	Lott Holdings, Corp.	PO Box 651 St. Hwy 5S Amsterdam, NY 12010

4.0 INFORMATION PROVIDED BY USER, OWNER, KEY SITE MANAGER AND OCCUPANTS

USER

"User's Responsibilities. The purpose of this section is to describe tasks that will help identify the possibility of recognized environmental conditions in connection with the property. These tasks do not require the technical expertise of an environmental professional and are generally not performed by environmental professionals performing a Phase I Environmental Site Assessments." ASTM 1527-13

The User of the report is WE Acquisitions LLC. The User of the report was sent a questionnaire regarding their knowledge of the topics discussed in ASTM E 1527-13 Section 6.0. A copy of the completed questionnaire is in Appendix D.

The User has informed Tetra Tech of the User's knowledge of environmental cleanup liens or activity or use limitations, specialized knowledge of recognized environmental conditions, knowledge that the price of the property is significantly less than the price of comparable properties, any commonly known information within the local community regarding recognized environmental conditions at the property, or any obvious indicators that point to the presence or likely presence of contamination at the property.

The User of the study has informed us that the purpose of the ASTM environmental site assessment is for purchase of the Site.

OWNER AND KEY SITE MANAGER QUESTIONNAIRE

"The property owner and key Site manager (if any is identified) shall be asked these questions prior to the Site visit." (ASTM Standard E 1527-13).

The Property Owners were individually sent questionnaires regarding their knowledge of the topics discussed in ASTM E 1527-13 Sections 10.8 and 10.9. Section 10.8 refers to the availability of existing environmental reports or documents relating to the Site. Section 10.9 queries knowledge of regulatory, administrative or legal notices or proceedings relating to hazardous substances or petroleum products at the property. A Key Site Manager was not identified as each parcel is individually owned.

The completed questionnaires are presented in Appendix D.

INTERVIEWS WITH OWNER, KEY SITE MANAGER AND OCCUPANTS

The objective of interviews is to obtain information indicating recognized environmental conditions in connection with the property. The property owner and key Site manager shall be interviewed, as well as a reasonable number of the occupants of the property. Interviews with past owners, operators, and occupants of the property who are likely to have material information regarding the potential for contamination at the property shall be conducted to the extent that they have been identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. Questions may be asked in person, by telephone, or in writing at the discretion of the environmental professional. (ASTM Standard E 1527-13)

Sources Interviewed

Owners: Mr. Ernest J. Daviero – 1711 State Highway 5S (Assessor Parcel 54.-1-35.131)

Mr. John Frasier – 1733 State Highway 5S (Assessor Parcel 54.-1-35-151)

Key Site Manager: there were no key site managers identified for the properties

Occupant(s): Mr. Ernest J. Daviero – 1711 State Highway 5S (Assessor Parcel 54.-1-35.131)

Mr. John Frasier – 1733 State Highway 5S (Assessor Parcel 54.-1-35-151)

On November 5, 2018, Mr. Ernest Daviero, the owner of the residential property located at 1711 State Highway 5S, was interviewed during the Site visit. Mr. Daviero has owned the property since approximately 1992 when it was built as a modular home. During the Site visit Mr. Daviero answered questions regarding his knowledge of the history of the property and information on the use/storage of oil or hazardous substances.

On November 5, 2018, Mr. John Frasier, the owner of the residential property located at 1733 State Highway 5S, was interviewed during the Site visit. Mr. Frasier indicated that he has owned the property for about 14 years. During the Site visit Mr. Frasier answered questions regarding his knowledge of the history of the property and information on the use/storage of oil or hazardous substances.

5.0 PHYSICAL SETTING

A current USGS 7.5 minute topographic map showing the area on which the property is located shall be reviewed, provided it is reasonably ascertainable. It is the only standard physical setting source and the only physical setting source that is required to be obtained. One or more additional sources may be obtained in the discretion of the environmental professional. (ASTM Standard E 1527-13)

TOPOGRAPHY

General Topography: The general location of the Site on a topographic map is shown on Figure 1. The majority of the Site is located near the point of a regional hill with moderate slopes downward to the north and east and steep slopes downward to the south and southeast.

Elevation: 500 to 550 feet above sea level

Nearest Surface Water Feature: The nearest surface water is a tributary to the South Chuctanunda Creek, which flows easterly along the southerly boundary of the Site. This tributary is a regulated stream per 6 NYCRR Chapter X, Subchapter B, Article 11, Part 876 – Mohawk River Drainage Basin, Item 162. The main branch of the South Chuctanunda Creek is located approximately 1,300 feet east of the Site. The South Chuctanunda Creek flows to the northeast into the Mohawk River approximately 6,000 feet east-northeast of the Site.

GEOLOGY

Bedrock Geology: According to the United States Geologic Survey Bedrock Geology map of the area, bedrock at the Site is mapped as Utica Shale from the Paleozoic era, Ordovician system of the Middle Ordovician Series. This rock is described as brownish-dark gray weathering, black, platey shale and argillite, sporadically with pyrite. During the Site visit visible rock outcrops were observed proximate to the intersection of State Highway 5S and Mead Road.

GROUNDWATER

Expected Depth to Groundwater: based on topography and nearby surface water features groundwater is estimated to occur at approximately 50 to 100 feet below the ground surface (bgs). However, localized areas of standing/perched water and ponds were observed at the Site.

Expected Groundwater Flow Direction: Based on observations during the Site visit, surrounding topography and nearby hydrogeologic features groundwater is anticipated to flow to the easterly toward Chuctanunda Creek and the Mohawk River.

6.0 SITE VISIT OBSERVATIONS

On a visit to the property the environmental professional shall visually and/or physically observe the property and any structure(s) located on the property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The periphery of the property shall be visually and physically observed, as well as the periphery of all structures on the property. On the interior of structures on the property, accessible common areas expected to be used by occupants or the public, maintenance and repair areas including boiler rooms, and a representative sample of occupant spaces, should be visually and/or physically observed. (ASTM Standard E1527-13)

A Site visit was conducted on November 5, 2018 by Ian Cannan of Tetra Tech. At the time of the Site visit the skies were overcast with cool temperatures (40-50º F) and intermittent rain showers. Mr. Ernest J. Daviero (owner of 1711 State Highway 5S) and Mr. John Frasier (owner of 1733 State Highway 5S) accompanied Mr. Cannan during the portions of the Site visit on their respective properties. The unoccupied portions of the Site were visually inspected by Mr. Cannan via available access points and public roadways. The Site visit was limited by overgrown vegetation and scrub brush along the borders of developed properties and covering much of the undeveloped properties. Where accessible, crop lands (or cleared and mowed fields) were observed from public access points and interior roadways. The interior portions of crop lands (or vacant fields) were viewed from a distance due to limited accessibility. We note that Assessor Parcel 55.-1-1.1 includes fields/crops and an associated dairy farm. However, for the purpose of this report the "Site" was limited to the portion of this property that lies north of the tributary to South Chuctanunda Creek that flows easterly through this parcel. Therefore, a detailed inspection of the dairy farm operations and associated buildings was not performed as part of this Site visit.

BUILDING DESCRIPTION

The locations of the buildings are shown on Figure 2.

Assessor Parcel ID	Building ID	Date Constructed	Utilities	Heated/Cooled
54.-1-35.131	1. Single Family Home	1991	electric, solar electric, private septic, public water, private water	hot water (oil)/No
54.-1-35.131	2. Detached Garage	1994	electric	No
54.-1-35.131	3. Shed	Mid-1990s	None	No
54.-1-35-151	1. Single Family Home	1989	electric, public water, public sewer, private septic, private water	forced hot air (wood, oil, propane)/No
54.-1-35-151	2. Detached Garage	1998	electric	No
54.-1-35-151	3. Lean-to	Mid-1990s	None	No
54.-1-35.141	1. Farm Stand Building	1999	None (former electric)	No
54.-1-35.141	2. Shed	Presumed 1999	None	No
55.-2-4.1	1. Pole Barn	1996	None	No

HAZARDOUS SUBSTANCES AND PETROLEUM STORAGE

	Yes	No	NA
Hazardous substance or petroleum drums or containers ≥ 5 gallons capacity?	☐	☒	☐

No oil or hazardous substance containers greater than 5-gallons were identified at the Site.

	Yes	No	NA
Hazardous substance or petroleum containers ≤ 5 gallons capacity?	☒	☐	☐

Small containers for the storage of common household chemicals and motor fuels (e.g. gasoline for lawn mowers) were identified at Assessor Parcel 54.-1-35.131 and Assessor Parcel 54.-1-35-151.

EVIDENCE OF STORAGE TANKS

	Yes	No	NA
Aboveground storage tanks?	☒	☐	☐
Underground storage tanks?	☐	☒	☐
Vent pipes?	☒	☐	☐
Fill pipes?	☒	☐	☐
Access ports?	☐	☒	☐

At Assessor Parcel 54.-1-35.131 (1711 State Highway 5S) home heating oil is stored in a 250-gallon above-ground storage tank (AST) in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. The oil filter and oil supply line were connected to the bottom of the AST. The heating oil AST was connected via an above-ground copper supply line to the boiler that is used to heat the residence. During the interview Mr. Daviero indicated that the oil AST is as old as the house (early 1990s). Also, Mr. Daviero stated that they have been keeping the oil level in the tank low recently, and the tank was observed to be less than 1/3 full at the time of the Site visit. There was no staining, petroleum odors or other evidence of a release of oil from the AST. Water moisture was observed on the exterior top of the AST, proximate to the fill and vent pipes. This AST is not considered a REC, historical REC, or de minimis condition.

The property identified as Assessor Parcel 54.-1-35-151 (1733 State Highway 5S) also has a 250-gallon home heating oil AST in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. The heating oil AST was not connected to the furnace and the connection point was capped at the bottom of the AST. During the interview Mr. Frasier indicated that the oil AST is believed to be original to the house. Mr. Frasier indicated that the heating oil AST has not been used for 2 or 3 years. Following the use of oil, the heating system was connected to propane; however, the propane system and tank were removed, and heating is currently via a wood pellet stove. Mr. Frasier also indicated that the heating oil AST contains some residual oil, and at the time of the Site visit the tank was observed to be less than ¼ full. This AST is not considered a REC or historical REC, based on the available information and observations as documented

in this report. The presence of the unused former AST with residual stored oil is considered a *de minimis* condition.

SOLID WASTE DISPOSAL

	Yes	No	NA
Evidence of filling, grading, mounds, depressions or dumping suggesting trash construction debris, demolition debris, or solid waste disposal?	☒	☐	☐

No areas of filling or significant soil waste disposal were identified or visually/physically observed during the Site visit. A small accumulation of used tires was observed at Assessor Parcel 55.-2-4.1 at the central-eastern boundary of the property. The presence of a small accumulation of used tires at Assessor Parcel 55.-2-4.1 is considered a *de minimis* condition.

INDICATIONS OF PCBS

	Yes	No	NA
Electrical or hydraulic equipment known or likely to contain PCBs?	☐	☒	☐

VISIBLE STAINING AND ODORS

☒	Stains or corrosion	☐	Stressed vegetation
☒	Stained soil or pavement	☐	Strong, pungent, or noxious odors

Visible water moisture was observed on the top and sides of the heating oil AST at the property identified as Assessor Parcel 54.-1-35.131 (1711 State Highway 5S). No oil/petroleum stains or odors were observed on the concrete floor beneath the water stain. There were no oil/petroleum stains along the length of the oil supply line from the AST to the boiler and no staining was observed proximate to the boiler. Also, the heating oil AST at this property had some visible evidence of corrosion (rust) along the edges of the end of the tank. However, there were no significant pits or areas of corrosion, and it is believed that the corrosion is consistent with the suspected age of the tank. This apparent water staining is not considered a REC, historical REC, or de minimis condition.

Visible oil staining was observed under the heating oil AST at the property identified as Assessor Parcel 54.-1-35-151 (1733 State Highway 5S). It was difficult to discern the extent of the staining that was attributable to oil vs. water stains which were observed in three separate areas of the basement at the time of the Site visit. There were no strong, pungent or noxious odors associated with the oil stain. No oil/petroleum staining was observed proximate to the furnace or between the AST and the furnace. During the interview Mr. Frasier indicated that the staining under the heating oil AST was associated with minor drips of heating oil during replacement of the oil filter at the bottom of the AST. Also, the heating oil AST at this property had some visible evidence of corrosion (rust) along the surface of the tank. However, there were no significant pits or areas of corrosion on the tank, and it is believed that the corrosion is consistent with the suspected age of the tank. The presence of the unused former AST with residual stored oil and residual oil staining of the concrete surface is considered a *de minimis* condition.

Evidence of visible staining was observed on the wood floor of the shed at the property identified as Assessor Parcel 54.-1-35.141. Several empty containers were observed inside the shed as well as a pile of debris. Upon inspection the stains were believed to be associated with water and there were no strong, pungent or noxious odors associated with the staining. This apparent water staining is not considered a REC, historical REC, or de minimis condition.

WATER AND WASTEWATER

☒	Standing surface water, pools of liquid	☐	Dry wells
☐	Floor drains	☒	Pits, ponds, lagoons
☒	Drains, ditches or streams	☒	Wells
☒	Sumps	☒	Septic systems, cess pools
		☐	Underground injection system

The following describes the observed conditions related to water and wastewater during the Site visit:

- **Assessor Parcel 54.-1-35.131 (1711 State Highway 5S)**
  - This property has a private septic system for the on-site disposal of sanitary wastewater. During the interview Mr. Daviero indicated that there have been no issues with the septic system and the septic tank was pumped out earlier in 2018. The location of the septic tank was observed. Proximate to the cover for the septic system some pooled rain water was observed. The standing water is suspected to be associated with recent rainfall. There were no strong, pungent or noxious odors, and no evidence of releases of oil or hazardous substances was discernable in the area of the septic system.
  - Standing water and a water stain was observed proximate to a sump in the basement of the residence. The sump is located west of the AST in the northwest corner of the basement. The water in the sump was clear and there was no visible sheen, staining or strong, pungent or noxious odors associated with the sump.
  - A low area and possible drainage pathway was observed in the southwestern portion of the property, behind the garage. Standing water was present proximate to the drainage ditch. The standing water is suspected to be associated with recent rainfall. The water was clear and there was no visible sheen, staining or strong, pungent or noxious odors associated with this area.
  - This property formerly utilized a private drinking water well; however, according to Mr. Daviero, the property was connected to the municipal water supply system several years ago.

- **Assessor Parcel 54.-1-35-151 (1733 State Highway 5S)**
  - This property formerly utilized a private septic system for the on-site disposal of sanitary wastewater. During the interview Mr. Frasier indicated that the system was converted to the municipal sewer system when a nearby commercial development was constructed in the late 1990s or early 2000s. The area of the former septic system was observed and there was no visible staining and there were no strong, pungent or noxious odors, and no evidence of releases of oil or hazardous substances was discernable in the area of the septic system.

  - This property formerly utilized a private drinking water well; however, according to Mr. Frasier, the property was connected to the municipal water supply in the late 1990s or early 2000s. The former well was observed to remain at the property. According to Mr. Frasier the well water had a sulfur odor.
  - Standing water and water staining were observed in the basement of the residence in three separate locations: in the southeast corner (near the AST); in the central western area; and along the northern wall. In the northeast corner a sump was observed with water flowing from the foundation walls into the sump. The water in the sump and the water stains in other areas of the basement were clear and there was no visible sheen, staining or strong, pungent or noxious odors associated with the water in the basement.
  - In the southeasterly portion of the property a man-made (dug) pond was observed. According to Mr. Frasier this area was excavated to make the pond using the naturally clayey soils of the area. There was no visible sheen, staining or strong, pungent or noxious odors associated with the pond.
  - In the eastern portion of the property (proximate to the former drinking water well) there was ponded surface water in low spots in the lawn. It is suspected that these areas of ponded water are associated with low permeability soils and recent rains at the time of the Site visit. There was no visible sheen, staining or strong, pungent or noxious odors associated with the standing water in this area.

- **Assessor Parcel 55.-1-1.1 (176 Mead Road)**
  - An attempt was made to observe the suspected pit/pond in the central portion of this parcel, just north of the stream. This pit/pond is not believed to contain liquids likely to be hazardous substances or petroleum products. There were no strong, pungent or noxious odors associated with this area.

7.0 SITE HISTORY

The objective of consulting historical sources is to develop a history of the previous uses of the property and surrounding area, in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the property. All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. (ASTM Standard E1527-13)

SITE HISTORY

Dates	Use
Late 1800s	Residence constructed at 176 Mead Road (Assessor Parcel 55.-1-1.1) circa 1890, surrounding lands likely developed for agricultural use around this period.
1890 to 1940s	Agricultural use associated with dairy farm at 176 Mead Road. Other parcels undeveloped or farm/crop land.
1942 to 1957	Aerial photos indicate development of pond in the central portion of the 176 Mean Road dairy farm property (Assessor Parcel 55.-1-1.1)
1940s to present	Agricultural use associated with dairy farm at 176 Mead Road. Other parcels undeveloped or farm/crop land.
1989 to present	Residence constructed at 1733 State Highway 5S, Assessor Parcel 54-1-35.151
1991 to present	Residence constructed at 1711 State Highway 5S, Assessor Parcel 54.-1-35.131
1996 to present	Pole Barn constructed at Assessor Parcel 55-2-4.1
1999 to mid-2000s	Farm stand established at Assessor Parcel 54.-1-35.141 (Backyard Gardner Farm Stand)
Mid-2000s to present	Assessor Parcel 54.-1-35.141 has vacant farm stand building and open fields/brush

The Site history was established back to approximately 1890, when a residence was constructed at 176 Mead Road (Assessor Parcel 55-1-1.1). The Site and surrounding lands were likely associated with agricultural or similar low intensity use from the late 1800s to the late 1980s. In the late 1980s and early 1990s residences were constructed at 1733 and 1711 State Highway 5S. Subsequently a farm stand was established Assessor Parcel 54.-1-35.141 in approximately 1999 and was active for a few years and is believed to have ceased operations in the mid-2000s. In the late 1990s or early 2000s municipal water and sewerage were made available during development of the surrounding area for commercial use.

8.0 ADJOINING PROPERTIES

To the extent that indications of current and past uses of adjoining properties are visually or physically observed on the site visit, or are identified in the interviews or record review, they shall be identified in the report if they are likely to indicate recognized environmental conditions in connection with the adjoining properties or the property. (ASTM Standard E1527-13)

CURRENT AND PAST USES OF ADJOINING PROPERTIES

	Address	Current Use	Past Use(s)
North	None	agricultural fields	likely agricultural
North	1800 State Highway 5S	Commercial (Target)	likely agricultural
North	Along Joann Way and Broadway	residential	likely agricultural
South	176 Mead Road	dairy farm	same
South	None	NY State Thruway	likely agricultural
South	Along Snooks Corners Road	agricultural fields	likely agricultural
East	118 Mead road	residential	likely agricultural
West	1767 State Highway 5S	residential	likely agricultural
West	1785 State Highway 5S	Vacant industrial (Lott Holding Corp.)	likely agricultural

GENERAL USES OF THE SURROUNDING PROPERTIES

The general uses of the surrounding properties include rural residential, agricultural and industrial. The most significant nearby use includes a commercial development (Target distribution center) at 1800 State Highway 5S and food products facility at One Nutritious Place (Beech-Nut Nutrition Company).

9.0 REGULATORY REVIEW

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the property. Some records to be reviewed pertain not just to the property but also pertain to properties within an additional approximate minimum search distance in order to help assess the likelihood of an impact to the property from migrating hazardous substances or petroleum products. Government information obtained from nongovernmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government makes the information available to the public. (ASTM Standard E1527-13)

A review of standard state and federal environmental record sources pertaining to the Site and surrounding area was conducted using the Environmental Database Resources (EDR) database service. The EDR report was issued on November 2, 2018, using the minimum search distances recommended in the ASTM Standard. The local regulatory review included a New York Freedom of Information Law request to review files at the County of Montgomery and Town of Florida offices. As of the date of this report no response from the Town of Florida has been provided. The County of Montgomery responded that they do not have relevant records and that the Town of Florida is the Records Access Officer for the subject properties. The findings of the regulatory database review and the local records are summarized below. All of the below-listed databases were searched. A check in the boxes below indicates that the Site or a property within the minimum search distance recommended by the ASTM Standard was identified on the specified database. The complete EDR report, which includes descriptions of the databases searched and dates the databases were issued, is in Appendix C. Copies of relevant local records are provided in Appendix E.

REGULATORY AGENCIES LISTING THE SITE

Federal		State		Local	
☐	NPL	☐	Sites	☐	Registered USTs
☐	Delisted NPL	☐	Spills	☐	Tank closure records
☐	CERCLIS	☐	Registered UST	☐	OHM storage records
☐	CERCLIS NFRAP	☐	SWL	☐	Spills / LUSTs
☐	RCRA CORRACTS	☐	PWS	☐	Other
☐	RCRA non-CORRACTS TSD	☐	Institutional/Engineering Controls registry (AULs)		
☐	RCRA Generators	☐	Other		
☐	Institutional/Engineering Controls registry (AULs)				
☐	ERNS				

Federal Databases: The Site was not identified in the federal databases reviewed.

State Databases: The Site was not found listed on the State databases reviewed.

REGULATORY AGENCIES LISTING ABUTTING/SURROUNDING PROPERTIES

Federal		State		Local	
☐	NPL (1.0 mile)	☐	Sites (1.0 mile)	☐	Registered USTs
☐	Delisted NPL (0.5 mile)	☒	Spills (0.5 mile)	☐	Tank closure records
☐	CERCLIS (0.5 mile)	☐	Registered UST (adjoining properties)	☐	OHM storage records
☐	CERCLIS NFRAP (0.5 mile)	☐	SWL (0.5 mile)	☐	Spills / LUSTs
☐	RCRA CORRACTS (1.0 mile)	☐	PWS	☐	Other
☐	RCRA non-CORRACTS TSD (0.5 mile)	☒	NY Petroleum Bulk Storage		
☐	RCRA Generators adjoining properties)	☒	Other		

Federal Databases: According to our review of the federal databases, there are no National Priority List (NPL) sites, delisted NPL sites, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), CERCLIS No Further Remedial Action Planned (CERCLIS NFRAP), Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) facilities, RCRA CORRACTS, or RCRA non-CORRACTS facilities, or RCRA Generators within the ASTM specified radii from the Site that required further review regarding potential RECs, HRECs at the Site with the exception of the following:

State Databases: According to our review of the state databases, there were no sites, spills, registered underground storage tank (USTs), solid waste landfills or public water supplies within the specified ASTM radii that required further review regarding potential RECs, HRECs at the Site with the exception of the following:

- **State Spills #9203815:** A spill of 15 gallons of diesel fuel occurred on property adjacent to and south of the Site on July 1, 1992 during a traffic accident involving a commercial vehicle. The oil spill was reported to the New York State Department of Environmental Conservation (NYSDEC). The cleanup was completed on the same day and the record indicates that the cleanup met applicable standards. Therefore, this incident does not represent at REC or HREC at the Site.

- **State Spill # 1110405:** On November 22, 2011, a spill of non-PCB transformer oil was reported to NYSDEC. The spill was related to a leaking transformer at a vacant warehouse building which released approximately 20 gallons of transformer oil. Approximately 5 cubic yards of petroleum-impacted soil were excavated and disposed. The spill report is listed as closed as of March 6, 2012 and the record indicates that no further action is anticipated. Based on the distance from the Site and the quantity of oil released this incident does not represent at REC or HREC at the Site.

- **State Spill # 1406532:** A spill of 5 gallons of petroleum was reported to NYSDEC on September 19, 2014. The spill was related to a leaking fuel line on a commercial truck. The spill was cleaned up via excavation and removal of oil-impacted soil and the record indicates that closure was completed on February 18, 2015. Therefore, this incident does not represent at REC or HREC at the Site.

- **State Spill # 8700862:** A spill of oil was reported to NYSDEC at 1467 State Highway 5S on February 5, 1987. Response actions were undertaken and the matter was closed to the satisfaction of the regulator on June 1, 1987. Therefore, this incident does not represent at REC or HREC at the Site.

- **Petroleum Bulk Storage:** The property identified as 176 Mead Road (Assessor Parcel 55.-1-1.1), also identified as the Floridale Farm, is associated with the NYDEC Petroleum Bulk Storage (PBS) program for three above-ground petroleum storage tanks. Based on the Site visit the portion of 176 Mead Road that was subject to the PBS program abuts the Site to the South. The PBS listing indicates that this facility included one 3,000-gallon diesel AST and one 300-gallon gasoline AST. Both of these petroleum AST were closed in March 2001. There are no records of spills or releases or petroleum associated with this facility. Therefore, this incident does not represent at REC or HREC at the Site.

- **Amsterdam Terminal - NYD037373024:** This property is identified as RD#1 in Amsterdam, NY, and is located approximately 2,000 feet west of and potentially upgradient from the Site. This facility is found on the list of known or suspected hazardous substance waste disposal sites, which also includes delisted Inactive Hazardous Waste Disposal Sites and non-registry sites where EPA Preliminary Assessment or Site Investigation Reports were prepared. This site is eligible to be but will not automatically become a NY State Superfund site. This listing is associated with Prelco Reality & Development Corp. and EPA ID NYD037373024. This incident does not represent at REC or HREC at the Site.

INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

The objective of interviews with local government officials is to obtain information indicating recognized environmental conditions in connection with the property. A reasonable attempt shall be made to interview at least one staff member of any one of the following types of local government agencies: local fire department that serves the property; local health agency; or local/regional office of state health agency having jurisdiction over hazardous waste disposal or other environmental matters in the area in which the property is located; or local agencies responsible for the issuance of building permits or groundwater use permits that document the presence of Activity and Use Limitations which may identify a recognized environmental condition in the area in which the property is located. (ASTM Standard E 1527-13). Many government agencies do not grant interviews, but respond to written requests for information by performing file searches of their records.

The local regulatory review included a New York Freedom of Information Law request to review files at the County of Montgomery and Town of Florida offices. The County of Montgomery responded that they do not have relevant records and that the Town of Florida is the Records Access Officer for the subject properties. As of the date of this report no response from the Town of Florida has been provided.

10.0 REFERENCES

United States Geological Survey. Bedrock Geology of the Central Mohawk Valley, New York, Fisher, D.W., New York State Museum, Map and Chart Series 33, 1980. Accessed November 9, 2018. https://ngmdb.usgs.gov/Prodesc/proddesc_23102.htm

United States Geological Survey. Topographic map of Amsterdam, NY, 5939997, 2013.

EDR®, Certified Sanborn® Map Report, Inquiry Number 5473446.3, November 2, 2018.

EDR®, The EDR Aerial Photo Decade Package, Inquiry Number 5473446.5, November 5, 2018.

EDR®, The EDR Radius Map™ report with GeoCheck®, Inquiry Number 5473446.2s, November 2, 2018.

County of Montgomery, State of New York, Image Mate Online, Real Property Tax Data, Accessed November 6, 2018. https://www.co.montgomery.ny.us/web/sites/departments/realproperty/gis.asp

Limitations

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the CLIENT. The work described in this report was carried out in accordance with the Terms and Conditions in our contract.

2. In preparing this report, ENGINEER has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to ENGINEER at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, ENGINEER did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.

3. Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, ENGINEER renders no opinion as to the presence of hazardous materials or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the Site or structure. In addition, ENGINEER renders no opinion as to the presence of hazardous material or oil, or the presence of indirect evidence relating to hazardous material or oil, where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces.

4. ENGINEER did not perform testing or analyses to determine the presence or concentration of asbestos at the Site or in the environment at the Site.

5. It is ENGINEER's understanding that the purpose of this report is to assess the physical characteristics of the subject Site with respect to the presence on the Site of hazardous material or oil. This stated purpose has been a significant factor in determining the scope and level of services provided for in the Agreement. Should the purpose for which the Report is to be used or the proposed use of the site(s) change, this Report is no longer valid and use of this Report by CLIENT or others without ENGINEER's review and written authorization shall be at the user's sole risk. Should ENGINEER be required to review the Report after its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as agreed between ENGINEER and the CLIENT.

6. The conclusions and recommendations contained in this report are based in part, where noted, upon the data obtained from a limited number of soil samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

7. Any water level readings made in test pits, borings, and/or observation wells were made at the times and under the conditions stated on the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

8. Except as noted within the text of the report, no quantitative laboratory testing was performed as part of the site assessment. Where such analyses have been conducted by an outside laboratory,



ENGINEER has relied upon the data provided and has not conducted an independent evaluation of the reliability of these data.

9. The conclusions and recommendations contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data may be preliminary screening level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed, and the conclusions and recommendations presented herein modified accordingly.

10. Chemical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the Site.

11. This Report was prepared for the exclusive use of the CLIENT. No other party is entitled to rely on the conclusions, observations, specifications, or data contained therein without the express written consent of ENGINEER.

12. The observations and conclusions described in this Report are based solely on the Scope of Services provided pursuant to the Agreement. ENGINEER has not performed any additional observations, investigations, studies, or testing not specifically stated therein. ENGINEER shall not be liable for the existence of any condition, the discovery of which required the performance of services not authorized under the Agreement.

13. The passage of time may result in significant changes in technology, economic conditions, or site variations that would render the Report inaccurate. Accordingly, neither the CLIENT, nor any other party, shall rely on the information or conclusions contained in this Report after six months from its date of submission without the express written consent of ENGINEER. Reliance on the Report after such period of time shall be at the user's sole risk. Should ENGINEER be required to review the Report after six months from its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between ENGINEER and the CLIENT.

14. ENGINEER has endeavored to perform its services based upon engineering practices accepted at the time they were performed. ENGINEER makes no other representations, express or implied, regarding the information, data, analysis, calculations, and conclusions contained herein.

15. The services provided by ENGINEER do not include legal advice. Legal counsel should be consulted regarding interpretation of applicable and relevant federal, state, and local statutes and regulations and other legal matters.

Appendix B

Statement and Qualifications of Environmental Professional

TETRA TECH

John H. Insall LEP
Senior Project Manager

EXPERIENCE SUMMARY

Mr. Insall has 30-years of diversified environmental consulting experience with specializations in site redevelopment, innovative remediation technologies, polychlorinated biphenyl (PCB) investigation and remediation, PCB building materials, hazardous building material evaluation, litigation support, expert witness testimony, and regulatory compliance auditing.

His areas of expertise include:

- In-situ site remediation including chemical oxidation, soil vapor extraction, petroleum remediation.
- Site redevelopment with a focus on re-use and waste minimization using re-use and engineered control strategies.
- Site investigation, evaluation, and remedial investigations.
- Site remediation.
- Underground storage tank management, evaluation, and remediation.
- Compliance auditing with respect to State and Federal regulations.
- RCRA hazardous waste auditing and consulting.
- Extensive experience with the Connecticut Transfer Act, RCRA, TSCA, and other Federal regulations.
- Health and safety management.
- Sustainability and energy optimization.
- Litigation Support/Expert Witness representation
- PCB site investigation, remediation, redevelopment, regulatory negotiation and management.
- Hazardous building materials.

RELEVANT EXPERIENCE

Expert Witness and Litigation Support

Former English Station Power Plant – United States Coast Guard Litigation, Litigation Support, New Haven, Connecticut, 2014 to 2017 - Provided litigation support in defense of the owner of the former English Station power plant. In 2015, the United States Department of Justice (DOJ) filed a cost recovery claim under the Oil Pollution Act (33 U.S.C. §2701 et seq.). The suit sought to recover treble damages for an imminent threat removal action completed by the United States Coast Guard (USCG) in 2014. The property owner filed a countersuit disputing the justification used by the USCG for the removal action. The suit was settled for a fraction of the DOJ claim amount in late 2017.

Former English Station Power Plant – Demolition Contractor Litigation, Expert Witness, New Haven, Connecticut, 2015 to present

Mr. Insall has been providing litigation support and is expected to be disclosed as an expert witness for the former property owner against a

EDUCATION

MS Coursework, Environmental Sciences, University of New Haven (1991-1993)

BA, Clark University, Worcester, Massachusetts (1987)

REGISTRATIONS / CERTIFICATIONS

CT Licensed Environmental Professional, No. 343 (2000)

PROFESSIONAL AFFILIATIONS

Environmental Professionals of Connecticut (EPOC)

OFFICE

Wethersfield, CT

YEARS OF EXPERIENCE

30

YEARS WITH TETRA TECH

9

demolition contractor regarding the responsible for releasing oil and PCBs at the site in 2011 and 2012. Mr. Insall has been the principal technical representative for the property owner on issues related to the site since 2012.

Confidential Connecticut Municipality, Litigation Support, 2016 to present – Currently providing litigation support to a New Haven County municipality in preparation for a suit against the owner of a heavily contaminated property. The property owner retains liability for a significant release of chlorinated solvents that have migrated off-site and onto nearby properties, affecting Town, State, and private properties. The municipality is the plaintiff and may pursue a CERCLA liability claim against the property owner.

Professional Liability Claim Defense, Litigation Support, Boyle | Shaughnessy Law, CT, 2016 – Provided litigation support for the defendant in a professional environmental engineering liability suit. Mr. Insall prepared a defense to claims made against the defendant (a licensed professional), and provided counter arguments to demonstrate that the defendant acted in a reasonable manner and met the standard of care for services provided.

Contaminated Drinking Water Well Claim, Litigation Support, Jacobi, Case & Speranzini, P.C., 2016-present – Providing litigation support for the plaintiff to recover damages that resulted from a private drinking water well that was contaminated with sodium chloride from snow clearing and disposal operations by a Connecticut municipality. The municipality disposed of snow, ice, and road salt in a right-of-way. The municipality denied that they had cleared and dumped snow in the right-of-way. Mr. Insall is expected to be disclosed as an expert witness for the client in 2019.

Small Manufacturer, Litigation Support, Confidential Client, NJ, 2016-2018 – Provided defense support in a litigation case against a small manufacturer in New Jersey. The manufacturer is accused of causing releases of chlorinated solvents to soil and groundwater from historical releases to a dry-well and hazardous waste underground storage tank. As part of the defense, Mr. Insall established evidence to demonstrate that a preceding site user (a large manufacturer) may have caused or contributed to the release. As a result of Mr. Insall's arguments, the client was successful in negotiating a 50-percent contribution settlement from the former user to pay for cleanup costs associated with historical releases.

Demolition Project, Expert Witness, Garcia & Milas, 2016 to present – Providing on-going litigation support and expert witness services in defense of a demolition contractor in connection with an EPA approved PCB remediation project of a former industrial property. Mr. Insall has been providing litigation support to the client since May 2016 and was disclosed as an expert witness in 2018.

Jacobi, Case & Speranzini, P.C., Expert Witness, Fairfield County, CT, 2016-present – Mr. Insall is providing expert witness services in a litigation case against a municipality (owner) and municipality-controlled development entity (operator) on behalf of a lease holder. The lease holder's space and improvements became unusable after the local Department of Health rendered the space unfit for occupancy due to fuel oil vapors emanating from a suspected underground storage tank release. The lease holder never used fuel oil nor operated underground storage tanks. The lease holder's improvements and business were lost as a result of the Department of Health order. The owner and operator have denied responsibility for the release. Mr. Insall testified in Fairfield Superior Court in June 2018 that failure of the owner/operator to notify the State of Connecticut under spill statute §22a-450 and failure to adequately investigate and remediate the spill resulted in the Client's loss. The court's decision is expected in late 2018.

Connecticut Licensed Environmental Professional (LEP) Services

Mr. Insall has been the LEP of record on dozens of Connecticut Transfer Act sites from 2000 to the present including dry-cleaners, auto body shops, laboratories, and industrial manufacturing plants. In the last two years, Mr. Insall submitted four LEP Verifications and several Form I Transfer Act filings. The Verifications were accepted by the State of Connecticut Department of Energy and Environmental Protection (DEEP). A No Audit Letter was issued for each Verification. The Form I filings were accepted without question.

Redevelopment and Site Remediation

Brownfields Remediation, Queens, NY, 1995 – Conducted a RI/FS at a multi-property Brownfields site in Queens New York for a national developer. After the RI/FS, Mr. Insall supervised soil and groundwater remediation on the property in preparation for unrestricted development of the site as an office building for a Federal facility. Remediation involved soil excavation, ex-situ low temperature thermal desorption, and groundwater treatment. The project was completed for the developer on-time and under budget.

Building Demolition and Redevelopment Services, Confidential Client, Boston, MA, 2016 – Provided consulting services to a private equity firm that planned to acquire a 750,000 square foot industrial plant. The client planned on redeveloping this property into a mixed-use retail and residential development. Mr. Insall supervised the completion of a hazardous building materials survey in preparation for demolition. Part of the effort was to identify building materials that contain PCBs. The scope of work included the collection of approximately 430 building material samples for PCB analysis including paint from structural steel, primer on structural steel, painted concrete, painted sheetrock, painted wood, caulks, attached materials and substrates, asphalt striping, concrete striping, asphalt, concrete, brick, water tank paint, roofing tars, floor tile mastic, painted steel ductwork, catch basin sediment, and stormwater. The results found that approximately 85-percent of the samples contained PCBs at concentrations that are regulated for disposal by the Commonwealth of Massachusetts and/or 40 CFR Part 761. Partner estimated that the cost of demolition waste disposal was approximately $5,000,000 higher than anticipated. The client planned to absorb the cost delta, but terminated the redevelopment project based on low market demand for the development.

PCB Remediation/Site Redevelopment, Central CT, 2006 to 2011 – Worked with the developer and their attorneys to design and negotiate an environmental undertaking agreement (EUA) with a Fortune 100 company to facilitate a private redevelopment project. The site was developed in the 1930s to manufacture machine parts and heavy equipment. Historical operations resulted in releases of chlorinated solvents, metals, petroleum hydrocarbons, cyanide, and PCBs.

The redevelopment project was designed to minimize costs associated with remediation and allow the redevelopment schedule to proceed with minimal interruption as a community retail center. The remediation strategy included soil excavation to the seasonal high-water table, excavation and off-site disposal of TSCA regulated PCB wastes, the collection of Dense Non Aqueous Phase Liquids (DNAPL), and the installation of a vented vapor barrier system to prevent vapor migration into the new structure.

Mr. Insall negotiated with EPA Region I, the State of Connecticut, the City of West Hartford, and a future anchor tenant (a supermarket chain) to allow re-use of PCB building material wastes and soils (<10 ppm) under the new structure and pavement, saving several millions of dollars. In addition, Mr. Insall negotiated with these parties to get approval for the re-use of 15,000-tons of low-level solvent impacted wastes in a landscaped berm, saving the development an additional $2,500,000 in waste disposal costs. The new retail center opened in December 2010, and is fully leased.

Site Characterization and RCRA Hazardous Waste Release Remediation, Confidential Client, North Haven, Connecticut, 2016-2018 - Provided LEP services for a Connecticut Transfer Act site including site characterization and remediation of a former printing facility in North Haven, Connecticut. Releases of RCRA hazardous wastes were identified in an exterior drum storage area. The release was excavated in 2017. Using extensive data analysis, Mr. Insall determined that low levels of tetrachloroethylene in groundwater at the site were not from on-site releases of hazardous waste, but from the adjacent and up-gradient Pratt & Whitney

property. As a result of the work, Mr. Insall was able to bring the site into compliance with Connecticut's Remediation Standard Regulations (RSRs) shortly after a property acquisition at a competitive cost.

Emergency Response Spill Remediation, Former American Standard Site, Plainfield, Connecticut. 2018. – During commercial redevelopment of a former industrial plant, a release of petroleum to soil and groundwater was identified in a former 500,000-gallon Aboveground Storage Tank (AST) containment. The release was reported to the State of Connecticut in May 2018, and petroleum impacted soil and groundwater remediation were completed in June 2018. Approximately 4,000-tons of petroleum impacted soil and 50,000-gallons of contaminated groundwater were removed from the release area. The AST containment is immediately adjacent to a freshwater wetland and surface water body. Mr. Insall presented an argument to the State of Connecticut that residual petroleum in groundwater would naturally attenuate and that further groundwater remediation, beyond dewatering, was not necessary. The State of Connecticut accepted the argument and remediation activities were completed in less than two weeks, saving the client significant time and expense.

Site Characterization and Hazardous Building Materials Survey, Confidential Client, Danbury, Connecticut, 2016 - Provided LEP oversight for a developer during the acquisition of a former industrial manufacturing plant in Danbury. As part of the work scope, Partner conducted a soil and groundwater investigation and hazardous building materials survey. Building materials were evaluated for asbestos, PCBs, mercury, and radioactive isotopes. The survey identified asbestos-containing materials and low levels of PCBs in some building materials. The investigation was completed to ensure that renovation of the building and waste disposal would be conducted in compliance with State and Federal regulations.

PCB Building Materials Sampling, Ansonia and Meriden, CT Brownfield/DECD Redevelopment Sites, 2016 to 2018 – Provided project oversight and technical review of PCBs building material evaluations as a subcontractor to a prime contractor. The investigations were funded under Federal Brownfields and Department of Economic and Community Development (DECD) grants to municipalities. The scope of work included the collection of samples of painted steel, painted concrete, caulks, and window glazing on each property. The surveys found that PCBs existed in building at regulated concentrations. Some of the materials (PCBs >1 and <50 ppm) are not regulated by the Federal PCB regulations contained in 40 CFR Part 761, but are regulated for the purposes of disposal under §22a-463 through 467 of the Connecticut General Statutes.

PCB Site Investigation and Redevelopment, Hartford, CT, 2011 to present – Currently working with a property owner and potential developers to investigate a former aerospace metals recycling facility for PCB contamination and develop a remedial action strategy. The site contains approximately 35-acres of land and is impacted with PCBs from historical operations. Mr. Insall has negotiated an investigation scope of work with Region I EPA under a Consent Order and Final Agreement (CAFO) in 2012, implemented the investigation, and devised a conceptual remediation strategy. Upon selection of a developer (buyer), the strategy will be adapted to the future use to allow most impacted soils to remain in place using redevelopment features such as filling the property to level the grade, new pavement, and new buildings as an engineered control cap.

PCB Site Investigation and Redevelopment, City of Hartford Proposed Parkville Roadway, Hartford, CT, 2015 to 2016 – Mr. Insall was awarded a contract by the City of Hartford to complete an investigation of a proposed roadway through a PCB contaminated property in 2015. The investigation was completed in 2016. The data identified PCBs ≥50 ppm in certain areas of concern, and lower levels of PCBs in other portions of the proposed roadway. The data were used to develop a cost estimate for remediation and roadway redevelopment using different redevelopment scenarios.

PCB Site Investigation and Redevelopment, New Haven, CT, 2011-2014 – Completed an investigation and redevelopment plan for an Amtrak Maintenance of Way (MOW) rail operations base impacted with PCBs. Mr. Insall designed a conceptual remedial approach to construct an engineered cap over the area that can be used as an elevated parking structure, eliminating the need for significant sub-grade excavation. The development plan was submitted to EPA Region I for review. The plan is under State of Connecticut and EPA review.

Residential Brownfields Redevelopment, Norwalk, CT, 1993 to 2006 – Supervised investigation and designed a remedial action plan for an old compressor manufacturing plant where metals, PAHs, PCBs, and chlorinated solvents were released to soil and groundwater. The remedial design was engineered to allow unrestricted residential development and included innovative soil re-use strategies, oxidation of petroleum compounds, removal of volatile chlorinated organics, and the use of a gas and water proof construction membrane to eliminate volatilization into the new structure.

Chromium/Cadmium Remediation, Bloomfield, CT, 2003 to 2013 – Conducted an investigation of a former communications manufacturing plant in Bloomfield, Connecticut and discovered a release of hexavalent chromium and cadmium to groundwater from a former wafer grinding operation. Mr. Insall designed an in-situ metals fixation remediation strategy. The strategy included the in-situ injection of iron sulfate heptahydrate and sodium hydroxide to precipitate dissolved metals to aquifer materials. The strategy was designed to remove metals and fix the source in the saturated zone. The remediation was completed in 2009, and natural attenuation monitoring is being conducted to monitor residual metal concentrations in groundwater.

PCB Remediation, LEP Verification Pending, New Haven, CT, 1999-present – Managing a PCB investigation and remediation project for a responsible party in New Haven, Connecticut. The property is a former brick yard that was filled with high concentration PCB wastes. The property is subject to the Toxic Substances Control Act (TSCA). Mr. Insall developed a strategy to manage PCB wastes in-situ in lieu of excavating the wastes. Mr. Insall and the developer negotiated with EPA Region I to leave most PCB wastes in place under a risk based TSCA approval. EPA Region 1 has indicated that our work plan is acceptable (December 2010) and protective of human health and the environment under 40 CFR 761.61(c). The strategy will allow wastes to remain below the saturated groundwater zone. As a result, the strategy has reduced the remediation cost from approximately $2,000,000 to $600,000.

Tetrachloroethylene (PCE) Release Remediation, Wethersfield, CT, 1997-1999 – Supervised the investigation and remediation of a tetrachloroethylene (PCE) release at a suburban dry cleaning establishment. The project involved dense non aqueous phase liquid (DNAPL) mapping, hydroegeological modeling to evaluate the distribution of the release area, and removal of sub-slab soils beneath the former dry cleaning and drum storage area.

In-Situ Petroleum Oxidation Project, Farmington, CT, 2006 – Designed and implemented an in-situ petroleum oxidation remediation project at a former biotechnology laboratory in Farmington, Connecticut. Historical operations resulted in the release of 25,000-gallons of No. 2 fuel oil to surficial groundwater and a wetland. The groundwater in the area is used for private drinking water supply. Mr. Insall designed a sodium persulfate treatment system to oxidize petroleum in place. The project included the installation and use of 15 injection points to deliver 10,000-gallons of treatment solution. After oxidation, a bioremediation agent was injected to polish remaining petroleum in saturated groundwater.

PCB Remediation, Cornerstone Real Estate Advisers, Stamford, CT, 2006 – Designed and executed a PCB remediation project to remove PCB contaminated soil in support of a large real estate transaction. As part of the project, Mr. Insall coordinated and completed the removal of over 100 tons of PCB impacted soil. The nature of the waste required specialized work practices and disposal. The project was completed in a timely fashion to ensure the sale of a high value piece of real estate. As part of the project, Mr. Insall assisted the client with effecting a transfer of liability from seller to buyer, which allowed the seller to end their involvement in the asset at the closing. The efficiently completed project facilitated a smooth real estate transaction and ended liability for the site for the client.

Pesticide Remediation, South Windsor, CT, 2006 – Designed and executed a pesticide remediation project to allow redevelopment of former agricultural land into a productive residential community. The project involved contaminant delineation; a Remedial Investigation/Feasibility Study (RI/FS) to identify the most cost effective remediation technology; and execution of a soil remediation program. As a result of Mr. Insall's evaluation, remediation costs were reduced from close to $1,000,000 to $80,000. Most of the cost savings were realized by the use of appropriate remediation goals for a non-regulated site rather than the regulatory criteria, which two

other consultants had advocated. The property was subsequently redeveloped and is generating revenue as a residential community.

In-Situ Chemical Oxidation, LEP Verification, 239 West Service Road, Hartford, CT, 2004-2015 – Designed and completed an in-situ chemical oxidation project at a former direct mail printing facility where chlorinated cleaning solvents were discharged to silt and clay deposits. Despite the complexity of native geology and difficulty associated with treating absorbed solvents, the project was successful in reducing chlorinated solvent groundwater concentrations by 75 to 80-percent over a two-year period. Residual solvent concentrations are below site-specific surface water protection criteria and residential volatilization criteria. In 2015, Mr. Insall's LEP Verification was accepted for this project, providing regulatory closure for the site.

Dry Cleaner Remediation, 95 Elm Street, Enfield, CT, 2007-2014 – Reviewed and designed an in-situ chemical oxidation pilot study and treatment design for a chlorinated VOC plume originating at an historical dry-cleaner. The chlorinated plume is up to 0.3-miles long and was treated with a network of sodium permanganate injection points to degrade the chlorinated compounds. The project was completed in 2009 and included the injection of 55,000-gallons of a sodium permanganate oxidant solution in the release area.

150 North Plains Industrial Road, LEP Verification, Wallingford, CT, 2009-2015 – Investigated a mixed-use property with low levels of chlorinated solvents in groundwater. Mr. Insall demonstrated that the release was originating off-site and submitted an LEP Verification for the site in 2015. The Verification was accepted, providing closure for the site.

Chlorinated Solvent and Petroleum Release Remediation, LEP Verification, Berlin, CT, 2006-2015 – Investigated and remediated an industrial brake parts manufacturing plant to remove petroleum and chlorinated hydrocarbon releases at this site. Mr. Insall submitted an LEP Verification for the site in 2015. The Verification was accepted, providing closure for the site under the Connecticut Transfer Act.

Industrial Transformer Release Investigation and Remediation, Confidential Client, 2016 – Mr. Insall was retained to oversee the investigation of a large industrial transformer oil leak. The project included a rapid evaluation of the transformer oil for PCB content to determine if the leak resulted in a spill of PCBs to the environment. The sampling found that the transformer was non-PCB containing. As a result, contaminated soil was excavated and recycled as petroleum contaminated soil.

Former Arch Chemical Site, LEP Verification, Cheshire, CT, 2006-2017 – Mr. Insall completed investigation and remediation of a former research and development laboratory used for chemical research, and more recently, biotechnology product research and development. The site was a RCRA Corrective Action site. RCRA Corrective Action was completed in 2012. Site investigation and remediation under the Connecticut Transfer Act were completed in 2017. The scope of work included a detailed site investigation, soil remediation, data analysis to demonstrate that the site was in compliance with the RSRs using alternate methods, and the submission of a LEP Verification. The LEP Verification was accepted and a Letter of No Audit was received in less than 30-days.

Former Industrial Campus, Hazardous Building Materials Investigation and Remediation, Shrewsbury, NJ, 2016-2017 – Mr. Insall supervised a hazardous building materials investigation and remediation project at a former industrial campus consisting of three multi-tenant industrial buildings to facilitate demolition. The investigation included building material sampling for mercury, lead, and asbestos. PCBs in building materials were not identified as a concern based on the date of construction. Mr. Insall determined that waste disposal would not require compliance with the disposal requirements for bulk product waste under 40 CFR Part 761.61. Asbestos abatement was required and completed, and halon fire suppression systems were removed from the building.

Oil Spill Remediation Oversight, Residential Oil Spill, Andover Companies, Avon, CT, 2018 – Mr. Insall is representing the Andover Companies, a third-party insurer, as a technical oversight representative on a residential oil spill in Avon, Connecticut. The goal of the project is to represent the client's interests and ensure that oil remediation by the responsible party is performed in a manner that minimizes future third party liability for the client. Portions of the oil spill have migrated off-site on to State of Connecticut land and off-site residential dwellings. Mr. Insall performs overall technical oversight, remediation plan and specification review, and negotiation with the State of Connecticut Oil & Chemical Spills Division. Mr. Insall also serves as the technical liaison to the responsible party's consultant.

Hazardous Waste Consulting

Hazardous Waste Receiving Chemist, Clean Harbors, Braintree, MA, 1989 to 1990 – Mr. Insall worked extensively in RCRA waste disposal and hazardous waste management for Clean Harbors, Inc. at their Treatment Storage, and Disposal (TSDF) in Braintree, Massachusetts. Mr. Insall was responsible for profiling incoming and outgoing hazardous waste, quality control inspection of waste streams, and resolving disposal problems associated with incoming and outgoing wastes.

U. S. Environmental Protection Agency Contractor, Alternative Remediation Contracts Strategy (ARCS) Program, 1992 to 1995 – Supervised the investigation of approximately 35 hazardous waste (CERCLA) sites under the EPA's ARCS program between 1993 and 1995. Mr. Insall used the Hazard Ranking System (HRS), acted as a liaison between state and Federal regulators, and assisted EPA Region 1 in determining HRS priority rankings for each site.

U. S. Army Corps of Engineers, Site Investigation Prioritization (SIP) Program, 1996 to1997 – Supervised the SIP Program in Connecticut for the U.S. Army Corps of Engineers in conjunction with U.S. EPA Region 1, to investigate hazardous waste and RCRA corrective action sites. Mr. Insall acted as the project manager for Connecticut sites.

RCRA Generator Closure, Yalesville Plating, Wallingford, CT – 2006-2007 – Mr. Insall supervised a RCRA generator closure project at a former-electronics electroplating shop. The closure included waste characterization and removal, an evaluation of the building slab, potential release pathways, and environmental media sampling. While a release was found, Mr. Insall was able to demonstrate that remediation of the release was not necessary, and that the site did not pose a threat to human health and the environment.

RCRA Separation Investigation, Confidential Client, Western PA Site, 2016 – Supervised a complicated investigation to separate RCRA Solid Waste Management Units (SWMUs) and hazardous waste operations for a chemical intermediary manufacturing unit within a larger chemical plant. The manufacturing unit is the sole worldwide manufacturing site for a specific chemical intermediary used by our client. Partner's client signed an agreement to purchase and operate the unit under a land lease. To accomplish this objective, the client required separation of the SWMUs and hazardous waste operations from the larger plant. Partner's task was to determine what actions were necessary to isolate the unit to operate as an autonomous unit, and develop a plan to complete the changes.

Compliance Auditing

Environmental Compliance Services, Okay Industries, Inc., New Britain, CT, 2011 to 2012 – Provided compliance assistance to a manufacturer on several compliance issues. Partner assisted the client with evaluating the design and specification of a belt degreaser to clean manufactured parts, the use of an alternate electroplating rinse water system to reduce wastewater disposal volumes and costs, and the development of a No Exposure Certification for stormwater.

Multimedia Compliance Audit, Amtrak Sunnyside Yard, Queens, NY (Stantec), 2013 – Worked with Amtrak's environmental compliance department, and the personnel at Amtrak's Sunnyside Yard to complete a multi-media compliance audit for the facility. The audit was completed by Mr. Insall over a one-week period. The audit

included RCRA hazardous waste, storm water, materials storage, and fueling operations. The data collected during the audit were used to score the facility using Amtrak's environmental compliance audit scoring system.

Environmental Compliance Audits, Wind River Environmental, Inc., MA and NJ Facilities, 2014 – Supervised the completion of septic residuals and transportation permit compliance audits for a septic residuals operator in the Northeast and Mid-Atlantic States. The audit was performed to review the firm's compliance with operating and collection state regulations. The audit included a review of the company's operations with respect to solid waste, septic residuals, and transportation regulations.

Environmental Compliance Audit, Marlite, Inc., Dover, OH, 2014 to 2015 – Completed a detailed compliance audit for a private equity client purchasing Marlite, Inc. and the real estate owned by the company. The audit included RCRA hazardous waste, the Clean Air Act, EPCRA, the Clean Water Act, materials storage, and stormwater permitting. The audit allowed the purchaser to make changes to plant operations and bring the facility into compliance before the closing.

Environmental Compliance Audit, Arrow Shed, LLC, Haskell, NJ, 2014 –Mr. Insall and Partner's team completed a multi-media compliance audit for a private equity client in preparation for an acquisition of this firm. The audit was completed concurrently with environmental investigation and remediation activities in preparation for an Industrial Site Recovery Act (ISRA) filing in New Jersey. The audit identified several minor compliance deficiencies which were corrected before the acquisition of the firm by our client.

Environmental Compliance Audit, Kline Services, Inc., Salunga, PA, 2014 – Mr. Insall and Partner's team completed a multi-media compliance audit for a private equity client in preparation for an acquisition of this firm. The audit included a review of septic residuals management, transportation, solid waste regulations, the Clean Air Act, the Clean Water Act, and RCRA hazardous waste.

Environmental Compliance Audit, Confidential Manufacturing Facility, Quincy, IL, 2015 to 2016 - Mr. Insall and Partner's team completed an environmental compliance audit for a heavy equipment manufacturing facility in preparation for the sale of the company. The audit identified several compliance deficiencies. As a result of Partner's efforts, the firm was able to bring storm water into compliance by minor modifications to the plant and filing a stormwater No Exposure Certification, saving the company annual stormwater sampling and compliance costs.

Environmental Compliance Audit, Earth Farms, LLC, Various Sites, NC, 2016 – Supervised and acted as the technical lead for a compliance audit of several septic residuals processing plants located in North Carolina. The goal was to ensure that the facilities were in compliance prior to acquisition by a private equity firm, and help the firm operate the facilities in compliance with State and federal regulations in the future.

Industrial Hygiene

Industrial Hygienist, Boston, MA, 1988-1989 – Worked for Covino Environmental Consultants as an industrial hygienist in the Boston area. Mr. Insall was responsible for managing large asbestos abatement projects, performing other industrial hygiene services, and working as a polarized light microscopist. Since that time, Mr. Insall has been engaged to investigate and oversee the remediation/abatement of hazardous building materials at dozens of properties in the Northeastern United States.

Due Diligence

Various Clients, National, 1991-present – Mr. Insall has over 30-years of experience conducting due diligence assessments for clients in the local, regional, and national markets including private equity firms, banks, lenders, developers, law firms, and institutions. The due diligence assessments have included national portfolios, corporate acquisitions, and individual industrial properties throughout the United States. Clients have included Aetna, Bank of America, Cornerstone Real Estate Advisers, Citicorp Real Estate, Fleet Bank, Shawmut Bank, JP Morgan, TD BankNorth, Morgan Stanley, Fairfield County Bank, and other real estate and financial institutions.

Sustainability

Sustainable Redevelopment, South Kent School, Kent, CT, 2013 – Mr. Insall worked with the South Kent School and a noted Master Planner on a feasibility investigation to develop a sustainable farm for the school. The scope of work included an investigation and evaluation of hazardous substance releases at the farm, a conceptual plan to manage farm wastes at a former dairy farm, and an evaluation of down-stream pond eutrophication caused by releases of nitrates from the farm and other sources.

Green Program Development, National REIT, 2007 to 2008 – Mr. Insall was a key planner and designer of a green program for a large commercial and hotel portfolio, with properties located across the United States. With the client, Mr. Insall designed and developed an energy audit protocol to help portfolio properties optimize and reduce energy consumption, increase water and waste recycling, and execute other sustainability initiatives. Data from the portfolio was entered into an interactive software tool designed to allow the owner to manage various energy and utility issues across the portfolio. The project was completed in 2008. One of the key goals of the project was not only to create a green real estate portfolio, but to create value by reducing operating expenses. Reductions in operating expenses were then directly translated into increases in Capex rates. This strategy is being used on an ongoing basis to maximize the portfolio value, and has the potential to generate tens of millions of dollars in value over time.

PRESENTATIONS/WEB BLOGS

Guest Speaker at University of Connecticut Law School, Environmental Law with University of Connecticut Professor Alan Kosloff, Esq. (2012-2015)

PCBs in Connecticut Schools Interview on National Public Radio (NPR). August 2015. http://wnpr.org/post/pcbs-our-schools-our-environment#stream/0

Don’t Let PCB Be a Roadblock to Redevelopment

PCBs: To Test Or Not To Test

Why It Pays to Add An Environmental Compliance Audit

How Environmental Liability Affects Private Equity

When Is Cleaning Up a Dry-Cleaner Worth the Risk?

Statement of Environmental Professional

As required by 40 CFR 312.21(d) the report shall include the following statements of the environmental professional(s) responsible for conducting the Phase I Environmental Site Assessment and preparation of the report. (ASTM E 1527-13)

I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in section 312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Signature

John H. Insall, L.E.P.
Senior Project Manager

Appendix B – Firm Qualifications



Founded in 1966, Tetra Tech is a $2.3 billion environmental, engineering, construction and technical services company with more than16,000 employees and 400 offices worldwide. We are proud of our current ranking as the #1 provider of Environmental Consulting services in the United States, according to Engineering News-Record.

Our *assessment*, *remediation* and *compliance* services include four primary areas that focus on environmental liability: site assessment; remedial design and implementation; regulatory compliance; and litigation support. We help clients identify, avoid, prevent and correct conditions that could cause environmental harm or conflict with environmental regulations.

The combination of our assessment and audit, remediation, and litigation support experience is essential to successful environmental problem solving. With this knowledge, we give clients the confidence and tools to address their environmental issues. Tetra Tech's hands-on experience includes:

- Site assessments and environmental compliance audits throughout the country for industrial, commercial, development, government, legal and banking clients;
- Soil gas surveys using state-of-the-art techniques, installation of soil borings and groundwater monitoring wells, and soil, sediment and groundwater sampling and analysis; and
- Remedial action implementation using a range of technologies such as soil venting, vapor extraction, air stripping, air sparging, soil stabilization/solidification, and on-site low temperature thermal extraction.

John Insall, LEP is a Senior Project Manager in Tetra Tech's site assessment, remediation and compliance group in Wethersfield, CT. He holds a B.A. from Clark University and completed MS Coursework at the University of New Haven. John has 30 years of diversified environmental consulting experience with specializations in site development, innovative remediation technologies, polychlorinated biphenyl (PCB) investigation and remediation, PCB building materials, hazardous building material evaluation, litigation support, expert witness testimony, and regulatory compliance auditing.

Ian Cannan, CHMM is a Senior Project Scientist and Certified Hazardous Materials Manager with nearly 15 years' experience in hazardous waste site cleanup/remediation and environmental compliance. He assists with Phase I Initial Site Investigations, Phase II Comprehensive Site Assessments, Phase III Remedial Action Plans, Release Abatement Measures, Immediate Response Actions, Phase IV Remedy Implementation Plans, Response Action Outcome Statements, and Activity and Use Limitations. His compliance experience includes RCRA/DOT Hazardous Waste Management; chemical inventory tracking/review; EPCRA Section 301, 302 303, 311, and 312 surveys and determinations; Air Source Registrations; SPCC Planning; Refrigerant Management; NPDES Construction General Permits and Remediation General Permits; stormwater best management practices; and construction related Stormwater Pollution Prevention Plans. Ian oversees soil treatment applications, O&M of water treatment/remedial technologies, operation of in-situ injection of chemical oxidation technologies, operation of field screening and monitoring instruments, and soil and groundwater sampling. He earned a B.S. in Environmental Science from Clarkson University.

Appendix C

Regulatory Database Report

1711 NY-5S
1711 NY-5S
Amsterdam, NY 12010

Inquiry Number: 5473446.2s
November 02, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	20
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-17
Physical Setting Source Map Findings	A-19
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1711 NY-5S
AMSTERDAM, NY 12010

COORDINATES

Latitude (North):	42.9341300 - 42° 56' 2.86''
Longitude (West):	74.2278700 - 74° 13' 40.33''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	563004.1
UTM Y (Meters):	4753574.5
Elevation:	548 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5939997 AMSTERDAM, NY
Version Date:	2013
West Map:	5939533 TRIBES HILL, NY
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150507
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1711 NY-5S
AMSTERDAM, NY 12010

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	NYS TWY MP 175.3 TRU	NYS TWY MP 175.3 I-9	NY Spills	Lower	335, 0.063, SSW
A2	POLE TOP NAT GRID RT	1767 ST HIGHWAY 5S	NY Spills	Lower	338, 0.064, West
3	MONTGOMERY CO - FORM	250 HIRSHFIELD RD	RCRA NonGen / NLR, FINDS, ECHO, MANIFEST	Lower	376, 0.071, NNW
A4	SYSCO TRUCK RT 5S	1785 RT 5S	NY Spills	Lower	502, 0.095, West
5	LIBERTY ENTERPRISES	RT 5S (1467)	NY Spills	Lower	620, 0.117, East
6	FLORIDALE FARM	176 MEAD ROAD	AST	Lower	1058, 0.200, East
7	AMSTERDAM TERMINAL	RT. 5S	HSWDS	Lower	2031, 0.385, West

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS ---------- Inactive Hazardous Waste Disposal Sites in New York State

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Facility Register

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
LTANKS ---------- Spills Information Database
HIST LTANKS ---------- Listing of Leaking Storage Tanks

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Petroleum Bulk Storage (PBS) Database
CBS UST ---------- Chemical Bulk Storage Database
MOSF UST ---------- Major Oil Storage Facilities Database
CBS ---------- Chemical Bulk Storage Site Listing
MOSF ---------- Major Oil Storage Facility Site Listing
CBS AST ---------- Chemical Bulk Storage Database
MOSF AST ---------- Major Oil Storage Facilities Database
INDIAN UST ---------- Underground Storage Tanks on Indian Land
TANKS ---------- Storage Tank Faciliy Listing

State and tribal institutional control / engineering control registries

RES DECL ---------- Restrictive Declarations Listing
ENG CONTROLS ---------- Registry of Engineering Controls
INST CONTROL ---------- Registry of Institutional Controls

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Agreements
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Brownfields Site List
ERP ---------- Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ---- Registered Recycling Facility List
SWTIRE ---- Registered Waste Tire Storage & Facility List
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
DEL SHWS ---- Delisted Registry Sites
US CDL ---- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST ---- Historical Petroleum Bulk Storage Database
HIST AST ---- Historical Petroleum Bulk Storage Database

Local Land Records

LIENS ---- Spill Liens Information
LIENS 2 ---- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
NY Hist Spills ---- SPILLS Database
SPILLS 90 ---- SPILLS 90 data from FirstSearch
SPILLS 80 ---- SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER - PCB Transformer Registration Database
RADINFO - Radiation Information Database
HIST FTTS - FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS - Incident and Accident Data
CONSENT - Superfund (CERCLA) Consent Decrees
INDIAN RESERV - Indian Reservations
FUSRAP - Formerly Utilized Sites Remedial Action Program
UMTRA - Uranium Mill Tailings Sites
LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
UXO - Unexploded Ordnance Sites
ECHO - Enforcement & Compliance History Information
DOCKET HWC - Hazardous Waste Compliance Docket Listing
FUELS PROGRAM - EPA Fuels Program Registered Listing
AIRS - Air Emissions Data
COAL ASH - Coal Ash Disposal Site Listing
DRYCLEANERS - Registered Drycleaners
E DESIGNATION - E DESIGNATION SITE LISTING
Financial Assurance - Financial Assurance Information Listing
SPDES - State Pollutant Discharge Elimination System
VAPOR REOPENED - Vapor Intrusion Legacy Site List
UIC - Underground Injection Control Wells
COOLING TOWERS - Registered Cooling Towers

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historical Auto Stations
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS - Recovered Government Archive State Hazardous Waste Facilities List
RGA LF - Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

State and tribal registered storage tank lists

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database.

A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FLORIDALE FARM Database: AST, Date of Government Version: 09/25/2018 Facility Id: 4-600621	176 MEAD ROAD	E 1/8 - 1/4 (0.200 mi.)	6	15

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 10/16/2018 has revealed that there are 4 NY Spills sites within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NYS TWY MP 175.3 TRU Date Closed: 1992-08-03 Spill Number: 9203815 Site ID: 220982	NYS TWY MP 175.3 I-9	SSW 0 - 1/8 (0.063 mi.)	1	8
POLE TOP NAT GRID RT Date Closed: 2012-03-06 Spill Number: 1110405 Site ID: 458240	1767 ST HIGHWAY 5S	W 0 - 1/8 (0.064 mi.)	A2	9
SYSCO TRUCK RT 5S Date Closed: 2015-02-18 Spill Number: 1406532 Site ID: 500006	1785 RT 5S	W 0 - 1/8 (0.095 mi.)	A4	13
LIBERTY ENTERPRISES Date Closed: 1987-06-01 Spill Number: 8700862 Site ID: 283702	RT 5S (1467)	E 0 - 1/8 (0.117 mi.)	5	14

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/01/2018 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MONTGOMERY CO - FORM EPA ID:: NYR000092726	***250 HIRSHFIELD RD***	***NNW 0 - 1/8 (0.071 mi.)***	***3***	***10***

HSWDS: The List includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity The latest version of the study is frozen in time. The sites on the study will not automatically be made superfund sites, rather each site will be further evaluated for listing in the registry. So overtime they will be added to the registry or not.

A review of the HSWDS list, as provided by EDR, and dated 01/01/2003 has revealed that there is 1 HSWDS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AMSTERDAM TERMINAL	RT. 5S	W 1/4 - 1/2 (0.385 mi.)	7	18

MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the MANIFEST list, as provided by EDR, and dated 07/01/2018 has revealed that there is 1 MANIFEST site within approximately 0.25 miles of the target property.

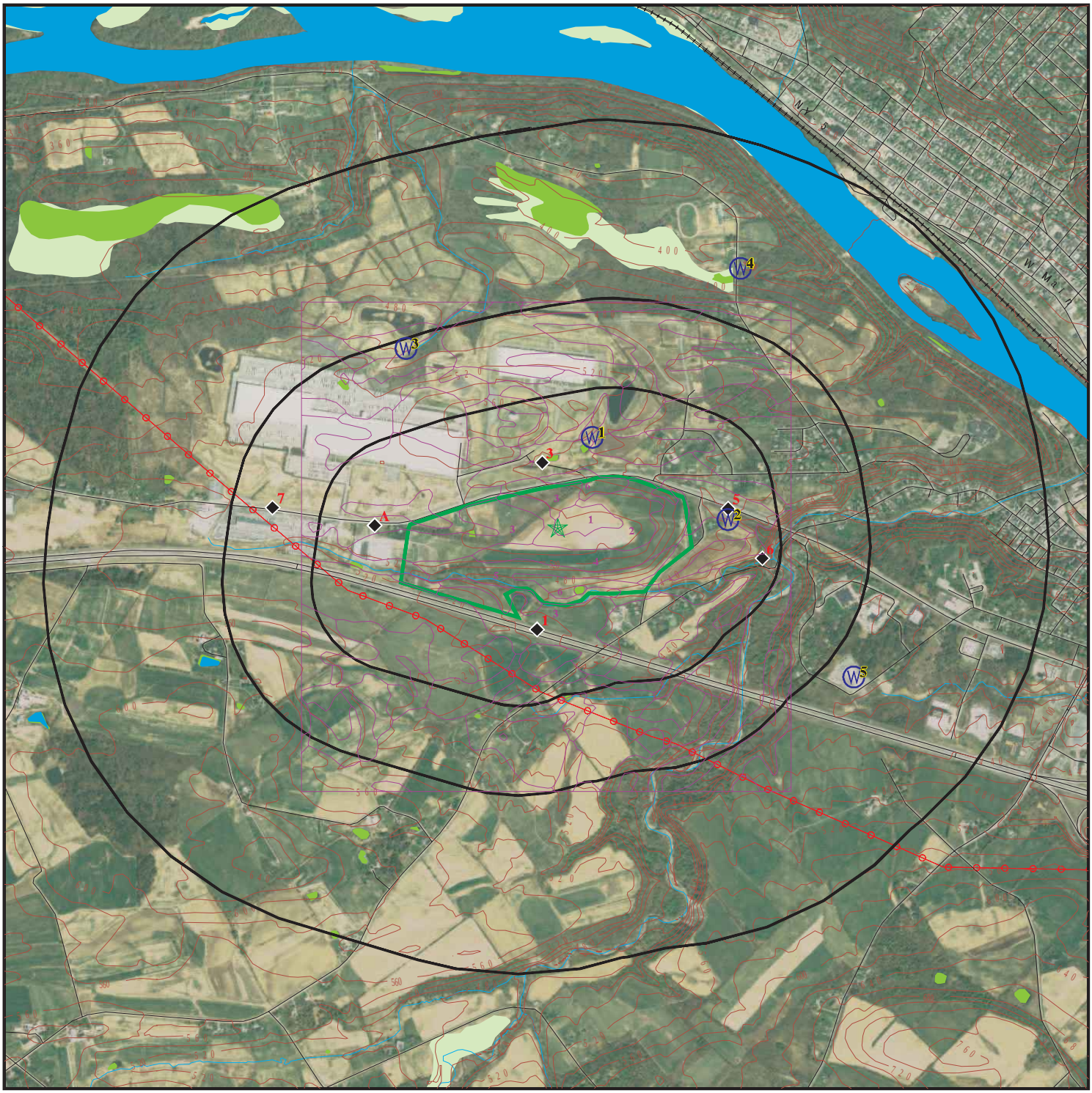
Lower Elevation	Address	Direction / Distance	Map ID	Page
MONTGOMERY CO - FORM EPA ID: NYR000092726	***250 HIRSHFIELD RD***	***NNW 0 - 1/8 (0.071 mi.)***	***3***	***10***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
AMSTERDAM TRANSFER	SEMS-ARCHIVE

OVERVIEW MAP - 5473446.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 1711 NY-5S	CLIENT: Tetra Tech Rizzo
ADDRESS: 1711 NY-5S Amsterdam NY 12010	CONTACT: Ian Cannan
LAT/LONG: 42.93413 / 74.22787	INQUIRY #: 5473446.2s DATE: November 02, 2018 11:48 am

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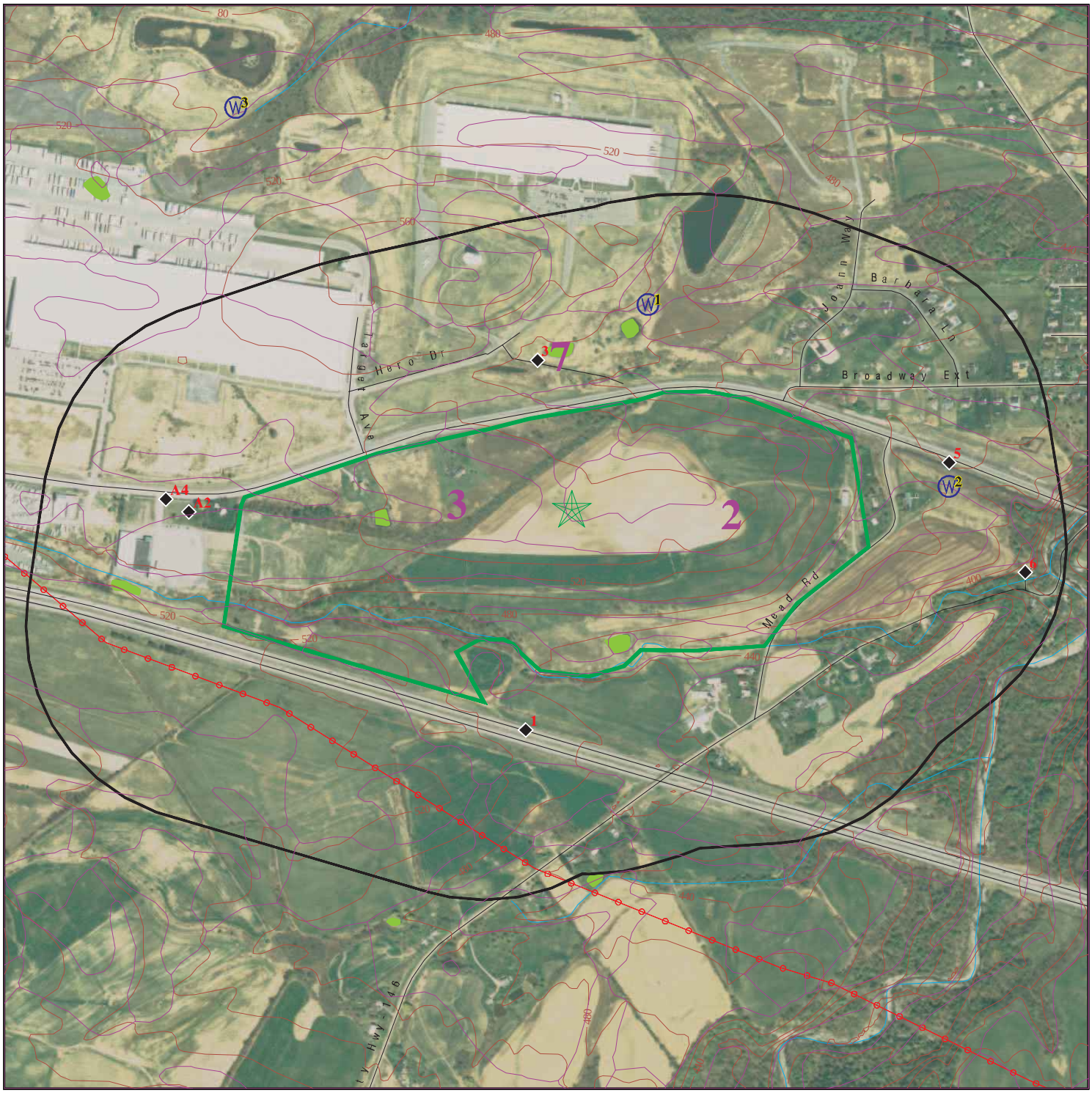
DETAIL MAP - 5473446.2S



SITE NAME:	1711 NY-5S	CLIENT:	Tetra Tech Rizzo
ADDRESS:	1711 NY-5S Amsterdam NY 12010	CONTACT:	Ian Cannan
		INQUIRY #:	5473446.2s
LAT/LONG:	42.93413 / 74.22787	DATE:	November 02, 2018 11:50 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
INDIAN LUST	0.500		0	0	0	NR	NR	0
LTANKS	0.500		0	0	0	NR	NR	0
HIST LTANKS	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
CBS UST	0.250		0	0	NR	NR	NR	0
MOSF UST	0.500		0	0	0	NR	NR	0
CBS	0.250		0	0	NR	NR	NR	0
MOSF	0.500		0	0	0	NR	NR	0
AST	0.250		0	1	NR	NR	NR	1
CBS AST	0.250		0	0	NR	NR	NR	0
MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
RES DECL	0.125		0	NR	NR	NR	NR	0
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ERP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
HIST UST	0.250		0	0	NR	NR	NR	0
HIST AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills	0.125		4	NR	NR	NR	NR	4
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
SPILLS 90	0.125		0	NR	NR	NR	NR	0
SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
E DESIGNATION	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HSWDS	0.500		0	0	1	NR	NR	1
MANIFEST	0.250		1	0	NR	NR	NR	1
SPDES	TP		NR	NR	NR	NR	NR	0
VAPOR REOPENED	0.500		0	0	0	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
COOLING TOWERS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		0	6	1	1	0	0	8

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SSW
< 1/8
0.063 mi.
335 ft.

NYS TWY MP 175.3 TRUCK 90
NYS TWY MP 175.3 I-90 W
FLORIDA, NY

NY Spills **S102111988**
N/A

Relative:
Lower

Actual:
493 ft.

SPILLS:

Facility ID:	9203815
Facility Type:	ER
Spill Number:	9203815
DER Facility ID:	182778
Site ID:	220982
DEC Region:	4
Closed Date:	1992-08-03
Spill Cause:	Traffic Accident
Spill Class:	C4
SWIS:	2926
Spill Date:	1992-07-01
Investigator:	HOY
Referred To:	Not reported
Reported to Dept:	1992-07-01
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Police Department
Cleanup Ceased:	1992-07-01
Cleanup Meets Std:	True
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1992-08-03
Spill Record Last Update:	1999-09-13
Spiller Name:	Not reported
Spiller Company:	ROBERT EURKINIACK TRUCK
Spiller Address:	Not reported
Spiller Company:	001
Contact Name:	Not reported
DEC Memo:	""
Remarks:	"TWY MAINT. TO CLEAN TRACTOR-TRAILER ACCIDENT."

All Materials:

Site ID:	220982
Operable Unit ID:	971193
Operable Unit:	01
Material ID:	411588
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	15.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

A2
West
< 1/8
0.064 mi.
338 ft.

POLE TOP NAT GRID RT 5S
1767 ST HIGHWAY 5S
AMSTERDAM, NY

Site 1 of 2 in cluster A

NY Spills **S111456501**
N/A

Relative:
Lower

Actual:
530 ft.

SPILLS:

Facility ID:	1110405
Facility Type:	ER
Spill Number:	1110405
DER Facility ID:	412714
Site ID:	458240
DEC Region:	4
Closed Date:	2012-03-06
Spill Cause:	Equipment Failure
Spill Class:	C3
SWIS:	2926
Spill Date:	2011-11-22
Investigator:	BXBROWN
Referred To:	Not reported
Reported to Dept:	2011-11-22
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Private Dwelling
Spill Notifier:	Other
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False
Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2011-11-22
Spill Record Last Update:	2013-01-16
Spiller Name:	Not reported
Spiller Company:	NAT GRID
Spiller Address:	Not reported
Spiller Company:	999
Contact Name:	MATT LAFONTAINA
DEC Memo:	"11/23/11 - Large 15 kva box transformer located outside abandoned warehouse building on south side of Rt 5S. Property recently purchased and being renovated. NG planned to re-energize transformer, upon inspection found it to be leaking non-PCB oil to the ground following underground conduits. Removed transformer, will be installing new today or Friday. EPS called to clean up. Vac truck on site to dewater excavation that resulted from the removal of the transformer and foundation. EPS then removed approximately 5 yards of impacted soil and stockpiled/covered on the property for later disposal. Remaining excavation filled with water, no sheen noticed this morning. No further action anticipated other than disposal of stockpiled soil. Area now served with muni water and sanitary sewer. BB 3/6/12 - Disposal complete, closed. BB"
Remarks:	"soil and roadway/unknown if PCB, clean up underway"

All Materials:

Site ID:	458240
Operable Unit ID:	1208351
Operable Unit:	01
Material ID:	2205663
Material Code:	0020A
Material Name:	transformer oil

POLE TOP NAT GRID RT 5S (Continued) **S111456501**

Case No.:	Not reported
Material FA:	Petroleum
Quantity:	20.00
Units:	G
Recovered:	Not reported
Oxygenate:	Not reported

3
NNW
< 1/8
0.071 mi.
376 ft.

MONTGOMERY CO - FORMER FARM **RCRA NonGen / NLR** **1004762019**
250 HIRSHFIELD RD **FINDS** **NYR000092726**
AMSTERDAM, NY 12010 **ECHO**
MANIFEST

Relative:
Lower

Actual:
515 ft.

RCRA NonGen / NLR:

Date form received by agency:	01/01/2007
Facility name:	MONTGOMERY CO - FORMER FARM
Facility address:	250 HIRSHFIELD RD AMSTERDAM, NY 12010
EPA ID:	NYR000092726
Mailing address:	PO BOX 1500 FONDA, NY 12068
Contact:	WALT LIPPMANN
Contact address:	PO BOX 1500 FONDA, NY 12068
Contact country:	US
Contact telephone:	518-382-1774
Contact email:	Not reported
EPA Region:	02
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	MONTGOMERY COUNTY
Owner/operator address:	PO BOX 1500 FONDA, NY 12068
Owner/operator country:	US
Owner/operator telephone:	518-853-8334
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	County
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2001
Owner/Op end date:	Not reported

Owner/operator name:	MONTGOMERY COUNTY
Owner/operator address:	PO BOX 1500 FONDA, NY 12068
Owner/operator country:	US
Owner/operator telephone:	518-853-8334
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	County
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2001

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 01/01/2006
Site name: MONTGOMERY CO - FORMER FARM
Classification: Not a generator, verified

Date form received by agency: 12/12/2000
Site name: MONTGOMERY CO - FORMER FARM
Classification: Conditionally Exempt Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110004566210

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Envid:	1004762019
Registry ID:	110004566210
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110004566210

NY MANIFEST:

Country:	USA
EPA ID:	NYR000092726
Facility Status:	Not reported
Location Address 1:	250 HIRSHFIELD RD
Code:	BP
Location Address 2:	Not reported
Total Tanks:	Not reported
Location City:	FLORIDA
Location State:	NY
Location Zip:	12010
Location Zip 4:	Not reported

NY MANIFEST:

EPAID:	NYR000092726
Mailing Name:	MONTGOMERY COUNTY
Mailing Contact:	MICHAEL J YEVOLI
Mailing Address 1:	PO BOX 1500 PARK ST
Mailing Address 2:	Not reported
Mailing City:	FONDA
Mailing State:	NY
Mailing Zip:	12068
Mailing Zip 4:	Not reported
Mailing Country:	USA
Mailing Phone:	5188538334

NY MANIFEST:

Document ID:	NJA3100926
Manifest Status:	Not reported
seq:	01
Year:	2000
Trans1 State ID:	40317AE
Trans2 State ID:	10376NJ39
Generator Ship Date:	10/31/2000
Trans1 Recv Date:	12/22/2000
Trans2 Recv Date:	12/28/2000
TSD Site Recv Date:	12/28/2000
Part A Recv Date:	Not reported
Part B Recv Date:	Not reported
Generator EPA ID:	NYR000092726
Trans1 EPA ID:	NY0001031814
Trans2 EPA ID:	NJD003812047
TSDF ID 1:	NJD002200046
TSDF ID 2:	Not reported
Manifest Tracking Number:	Not reported
Import Indicator:	Not reported
Export Indicator:	Not reported
Discr Quantity Indicator:	Not reported
Discr Type Indicator:	Not reported
Discr Residue Indicator:	Not reported
Discr Partial Reject Indicator:	Not reported
Discr Full Reject Indicator:	Not reported
Manifest Ref Number:	Not reported

MONTGOMERY CO - FORMER FARM (Continued) **1004762019**

Alt Facility RCRA ID:	Not reported
Alt Facility Sign Date:	Not reported
MGMT Method Type Code:	Not reported
Waste Code:	D018 - BENZENE 0.5 MG/L TCLP
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00050
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00
Waste Code:	D018 - BENZENE 0.5 MG/L TCLP
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Waste Code:	Not reported
Quantity:	00800
Units:	P - Pounds
Number of Containers:	005
Container Type:	DM - Metal drums, barrels
Handling Method:	B Incineration, heat recovery, burning.
Specific Gravity:	01.00

Click this hyperlink while viewing on your computer to access
-1 additional NY MANIFEST: record(s) in the EDR Site Report.

A4 **SYSCO TRUCK RT 5S** **NY Spills** **S117362996**
West **1785 RT 5S** **N/A**
< 1/8 **AMSTERDAM, NY**
0.095 mi.
502 ft. **Site 2 of 2 in cluster A**

Relative:
Lower

Actual:
530 ft.

SPILLS:

Facility ID:	1406532
Facility Type:	ER
Spill Number:	1406532
DER Facility ID:	455024
Site ID:	500006
DEC Region:	4
Closed Date:	2015-02-18
Spill Cause:	Equipment Failure
Spill Class:	C3
SWIS:	2926
Spill Date:	2014-09-19
Investigator:	BXBROWN
Referred To:	Not reported
Reported to Dept:	2014-09-19
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Commercial Vehicle
Spill Notifier:	Responsible Party
Cleanup Ceased:	Not reported
Cleanup Meets Std:	False

SYSCO TRUCK RT 5S (Continued) **S117362996**

Last Inspection:	Not reported
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	2014-09-19
Spill Record Last Update:	2015-02-18
Spiller Name:	COLE
Spiller Company:	SYSCO FOOD SERVICE TRUCK
Spiller Address:	1785 ROUTE 5S
Spiller Company:	999
Contact Name:	COLE
DEC Memo:	"09/22/14 - Sysco food services truck broken fuel line to refrigeration unit on box trailer. They contacted Op-Tech, on scene with backhoe and dump truck. Stained area suggests more than the 5 gallons reported. Excavated material for disposal. Need to check back and also get disposal documentation. BB 2/18/15 - Disposal documentation received, no further action required. Closed. BB"
Remarks:	"tank leak clean up is pending getting a crew out"

All Materials:

Site ID:	500006
Operable Unit ID:	1249410
Operable Unit:	01
Material ID:	2250991
Material Code:	0008
Material Name:	diesel
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5.00
Units:	G
Recovered:	Not reported
Oxygenate:	Not reported

5
East
< 1/8
0.117 mi.
620 ft.

LIBERTY ENTERPRISES COONS OIL RT 5S **NY Spills** **S109374450**
RT 5S (1467) **N/A**
AMSTERDAM, NY

Relative:
Lower

Actual:
441 ft.

SPILLS:

Facility ID:	8700862
Facility Type:	ER
Spill Number:	8700862
DER Facility ID:	337393
Site ID:	283702
DEC Region:	4
Closed Date:	1987-06-01
Spill Cause:	Human Error
Spill Class:	B3
SWIS:	2901
Spill Date:	1987-02-05
Investigator:	tesperbe
Referred To:	Not reported
Reported to Dept:	1987-04-30
CID:	Not reported
Water Affected:	Not reported
Spill Source:	Tank Truck

LIBERTY ENTERPRISES COONS OIL RT 5S (Continued) **S109374450**

Spill Notifier:	Responsible Party
Cleanup Ceased:	1987-06-01
Cleanup Meets Std:	True
Last Inspection:	1987-05-05
Recommended Penalty:	False
UST Trust:	False
Remediation Phase:	0
Date Entered In Computer:	1987-05-06
Spill Record Last Update:	2013-08-09
Spiller Name:	BILL COONS COONS OIL INC
Spiller Company:	COONS @LIBERTY ENTERPRISE
Spiller Address:	RT 5S
Spiller Company:	001
Contact Name:	BILL COONS
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was SPERBECK / / : 5/5/87 1400 HRS.SPERBECK AT SCENE APPEARS TO HAVE BEEN A 5-10 GAL. SPILL DOES NOT SEEM TO BE NEXT TO HOUSE. 8700066, 8700862, 9911362, 0507229."
Remarks:	"1K TANK FILLED-SEEPED INTO DRAIN-COMPLAINTS OF ODORS.5/6/87 915 HRS. SPERBECK TOLD COONS TO DIG OUT AREA OF CONTAMINATION TO PREVENT ODORS"
	Not reported

All Materials:

Site ID:	283702
Operable Unit ID:	907347
Operable Unit:	01
Material ID:	470834
Material Code:	0001A
Material Name:	#2 fuel oil
Case No.:	Not reported
Material FA:	Petroleum
Quantity:	5.00
Units:	G
Recovered:	.00
Oxygenate:	Not reported

---

6 **FLORIDALE FARM** **AST** **S107785991**
East **176 MEAD ROAD** **N/A**
1/8-1/4 **AMSTERDAM, NY 12010**
0.200 mi.
1058 ft.

Relative: **Lower**

Actual: **360 ft.**

AST:

Region:	STATE
DEC Region:	4
Site Status:	Unregulated/Closed
Facility Id:	4-600621
Program Type:	PBS
UTM X:	563667.85238
UTM Y:	4753926.26983
Expiration Date:	N/A
Site Type:	Farm

Affiliation Records:

Site Id:	37954
Affiliation Type:	Facility Owner
Company Name:	RONALD J. MEAD
Contact Type:	Not reported

FLORIDALE FARM (Continued) **S107785991**

Contact Name:	Not reported
Address1:	176 MEAD ROAD
Address2:	Not reported
City:	AMSTERDAM
State:	NY
Zip Code:	12010
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Mail Contact
Company Name:	FLORIDALE FARM
Contact Type:	Not reported
Contact Name:	RONALD J. MEAD
Address1:	176 MEAD ROAD
Address2:	Not reported
City:	AMSTERDAM
State:	NY
Zip Code:	12010
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Facility Operator
Company Name:	FLORIDALE FARM
Contact Type:	Not reported
Contact Name:	RONALD J. MEAD
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported
Country Code:	001
Phone:	(518) 843-2789
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Site Id:	37954
Affiliation Type:	Emergency Contact
Company Name:	RONALD J. MEAD
Contact Type:	Not reported
Contact Name:	JAMES M. MEAD
Address1:	Not reported
Address2:	Not reported
City:	Not reported
State:	NN
Zip Code:	Not reported

FLORIDALE FARM (Continued) **S107785991**

Country Code:	001
Phone:	(518) 842-1399
EMail:	Not reported
Fax Number:	Not reported
Modified By:	TRANSLAT
Date Last Modified:	2004-03-04

Tank Info:

Tank Number:	1
Tank Id:	97747
Material Code:	0008
Common Name of Substance:	Diesel

Equipment Records:

G01 - Tank Secondary Containment - Diking (Aboveground)
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
C01 - Pipe Location - Aboveground
I00 - Overfill - None
F01 - Pipe External Protection - Painted/Asphalt Coating
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron

Tank Location:	1
Tank Type:	Steel/Carbon Steel/Iron
Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	11/01/1998
Capacity Gallons:	3000
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	03/01/2001
Register:	True
Modified By:	TRANSLAT
Last Modified:	04/14/2017
Material Name:	diesel

Tank Number:	2
Tank Id:	98616
Material Code:	0009
Common Name of Substance:	Gasoline

Equipment Records:

B00 - Tank External Protection - None
F00 - Pipe External Protection - None
H00 - Tank Leak Detection - None
I00 - Overfill - None
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
C01 - Pipe Location - Aboveground

Tank Location:	1
Tank Type:	Steel/Carbon Steel/Iron

FLORIDALE FARM (Continued) **S107785991**

Tank Status:	Closed - Removed
Pipe Model:	Not reported
Install Date:	Not reported
Capacity Gallons:	300
Tightness Test Method:	NN
Date Test:	Not reported
Next Test Date:	Not reported
Date Tank Closed:	03/01/2001
Register:	True
Modified By:	TRANSLAT
Last Modified:	04/14/2017
Material Name:	gasoline

---

7 **AMSTERDAM TERMINAL** **HSWDS** **S108146447**
West **RT. 5S** **N/A**
1/4-1/2 **FLORIDA, NY 12010**
0.385 mi.
2031 ft.

Relative: **Lower**

Actual: **532 ft.**

HSWDS:

Facility ID:	Not reported
Region:	4
Facility Status:	Unknown
Owner Type:	Puplic
Owner:	Prelco Realty & Developement C
Owner Address:	RD#1 Amsterdam
Owner Phone:	Unknown
Operator Type:	Puplic
Operator:	Prelco Realty & Devel. Corp.
Operator:	Prelco Realty & Devel. Corp.
Operator Phone:	Unknown
EPA ID:	NYD037373024
Registry:	Not on NYS Registry of Inactive Haz Waste Disposal Sites
Registry Site ID:	None
RCRA Permitted:	Unknown
Site Code:	Industrial Site
Owner City State:	Amsterdam, NY 12010
Operator City State:	Florida, NY 12010
Quadrange:	Tribes Hill
Latitude:	42 56'06"N
Longitude:	74 14'37"W
Acres:	0.00
Operator Date:	Unknown
Close Date:	Unknown
Completed:	PA
Active:	Unknown
PCB's Disposed:	Unknown
Pesticides Disposed:	Unknown
Metals Disposed:	Unknown
Asbestos Disposed:	Unknown
Volatile Organic Compounds Disposed:	Unknown
Semi Volatile Organic Compounds Disposed:	Unknown
Analytical Info Exists for Air:	Not reported
Analytical Info Exists for Ground:	None
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Sediments:	Not reported
Analytical Info Exists for Surface:	Not reported
Analytical Info Exists for Substance:	Not reported

AMSTERDAM TERMINAL (Continued) **S108146447**

Analytical Info Exists for Waste:	Not reported
Analytical Info Exists for Leachate:	Not reported
Analytical Info Exists for EP Toxicity:	Not reported
Analytical Info Exists for TCLP:	Not reported
Threat to Environment/Public Health:	Environmental/Public
Surface Water Contamination:	Unknown
Surface Water Body Class:	Unknown
Groundwater Contamination:	Unknown
Groundwater Classification:	Unknown
Drinking Water Contamination:	Unknown
Drinking Water Supply is Active:	Unknown
Any Known Fish or Wildlife:	Unknown
Hazardous Exposure:	Unknown
Site Has Controlled Acess:	Unknown
Ambient Air Contamination:	Unknown
Direct Contact:	Unknown
EPA Hazardous Ranking System Score:	Unknown
Inventory:	F
Nefrap:	Not reported
Mailing:	Not reported
Tax Map No:	Not reported
Qualify:	0
Next Action:	Not reported
Agencies:	Not reported
Air:	Not reported
Building:	Not reported
Site Desc:	Not reported
Drink:	Not reported
Eptox:	Not reported
Fish:	Not reported
Ground:	Not reported
Ground Desc:	Not reported
Hazardous Threat:	Not reported
Haz Threat Desc:	Not reported
Leachate:	Not reported
Preparer:	Not reported
Sediment:	Not reported
Soil:	Not reported
Surface:	Not reported
Status:	Not reported
Surface Soil:	Not reported
Surface:	Not reported
TCLP:	Not reported
Waste:	Not reported

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address
AMSTERDAM	1003863604	AMSTERDAM TRANSFER	FLORIDA NEW YORK

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/18/2018
Date Data Arrived at EDR: 06/27/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/30/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 01/02/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-457-2051
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

LTANKS: Spills Information Database
Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 10/16/2018
Date Made Active in Reports: 10/22/2018
Number of Days to Update: 6
Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/16/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/10/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 09/26/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/26/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 10/24/2005
Next Scheduled EDR Contact: 01/23/2006
Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF: Major Oil Storage Facility Site Listing

These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 09/26/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/26/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CBS: Chemical Bulk Storage Site Listing

These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 09/26/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/26/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 09/26/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 09/26/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

TANKS: Storage Tank Faciliy Listing

This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 09/25/2018
Date Data Arrived at EDR: 09/26/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 16

Source: Department of Environmental Conservation
Telephone: 518-402-9543
Last EDR Contact: 09/26/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENV RES DECL: Environmental Restrictive Declarations

The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 05/15/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 42

Source: New York City Department of City Planning
Telephone: 212-720-3300
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Varies

RES DECL: Restrictive Declarations Listing

A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 11/18/2010
Date Data Arrived at EDR: 06/30/2014
Date Made Active in Reports: 07/21/2014
Number of Days to Update: 21

Source: NYC Department of City Planning
Telephone: 212-720-3401
Last EDR Contact: 09/21/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 21

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 21

Source: Department of Environmental Conservation
Telephone: 518-402-9553
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 21

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Semi-Annually

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP NYC: Voluntary Cleanup Program Listing NYC
New York City voluntary cleanup program sites.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/29/2018
Date Made Active in Reports: 05/14/2018
Number of Days to Update: 46

Source: New York City Office of Environmental Protection
Telephone: 212-788-8841
Last EDR Contact: 09/17/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/24/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List
A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/30/2018
Number of Days to Update: 20

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing
In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a $200 million Environmental Restoration or Brownfields Fund as part of the $1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 21

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 02/27/2018
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 518-402-8694
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: No Update Planned

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 01/02/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-402-8705
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/25/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/22/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/03/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 08/09/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 21

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information

Lien information from the Oil Spill Fund.

Date of Government Version: 08/08/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 22

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

SPILLS: Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 10/16/2018
Date Made Active in Reports: 10/22/2018
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/16/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/12/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/12/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/17/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/27/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/03/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/21/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/11/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/11/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/07/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/04/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/02/2018
Date Data Arrived at EDR: 07/05/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/03/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/30/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/17/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 80

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/01/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/20/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/29/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/07/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 30

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/05/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/22/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Quarterly

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 07/23/2018
Date Data Arrived at EDR: 07/23/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 15

Source: Department of Environmental Conservation
Telephone: 518-402-8452
Last EDR Contact: 11/22/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing
A listing of coal ash disposal site locations.

Date of Government Version: 06/29/2018
Date Data Arrived at EDR: 07/03/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 35

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 06/28/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Registered Drycleaners
A listing of all registered drycleaning facilities.

Date of Government Version: 03/07/2018
Date Data Arrived at EDR: 03/30/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 67

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING
The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 08/21/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 22

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance information.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 01/02/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 29

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/29/2017
Date Data Arrived at EDR: 04/06/2018
Date Made Active in Reports: 06/05/2018
Number of Days to Update: 60

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory
The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 07/01/2018
Date Data Arrived at EDR: 08/01/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Quarterly

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 07/18/2018
Date Data Arrived at EDR: 07/31/2018
Date Made Active in Reports: 08/07/2018
Number of Days to Update: 7

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 10/22/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: No Update Planned

VAPOR REOPENED: Vapor Intrusion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 02/15/2018
Date Made Active in Reports: 03/27/2018
Number of Days to Update: 40

Source: Department of Environmenal Conservation
Telephone: 518-402-9814
Last EDR Contact: 08/17/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 09/04/2018
Date Data Arrived at EDR: 09/06/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 09/06/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Quarterly

COOLING TOWERS: Registered Cooling Towers

This data includes the location of cooling towers registered with New York State. The data is self-reported by owners/property managers of cooling towers in service in New York State. In August 2015, the New York State Department of Health released emergency regulations requiring the owners of cooling towers to register them with New York State.

Date of Government Version: 07/10/2018
Date Data Arrived at EDR: 07/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 56

Source: Department of Health
Telephone: 518-402-7650
Last EDR Contact: 10/17/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

CORTLAND COUNTY:

AST - CORTLAND: Cortland County Storage Tank Listing

A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 07/11/2018
Date Data Arrived at EDR: 09/19/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 23

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Quarterly

UST - CORTLAND: Cortland County Storage Tank Listing

A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 07/11/2018
Date Data Arrived at EDR: 09/19/2018
Date Made Active in Reports: 10/12/2018
Number of Days to Update: 23

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Quarterly

NASSAU COUNTY:

AST - NASSAU: Registered Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: No Update Planned

AST NCFM: Storage Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 10/25/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

TANKS NASSAU: Registered Tank Database in Nassau County
A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35
Source: Nassau County Department of Health
Telephone: 516-227-9691
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

UST - NASSAU: Registered Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35
Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: No Update Planned

UST NCFM: Storage Tank Database
A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34
Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 10/25/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

ROCKLAND COUNTY:

AST - ROCKLAND: Petroleum Bulk Storage Database
A listing of aboveground storage tank sites located in Rockland County. Rockland County?s Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189
Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 08/29/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: No Update Planned

UST - ROCKLAND: Petroleum Bulk Storage Database
A listing of underground storage tank sites located in Rockland County. Rockland County?s Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017
Date Data Arrived at EDR: 03/17/2017
Date Made Active in Reports: 09/22/2017
Number of Days to Update: 189
Source: Rockland County Health Department
Telephone: 914-364-2605
Last EDR Contact: 08/29/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: No Update Planned

SUFFOLK COUNTY:

AST - SUFFOLK: Storage Tank Database
A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13
Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: No Update Planned

UST - SUFFOLK: Storage Tank Database
A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/23/2015
Number of Days to Update: 13

Source: Suffolk County Department of Health Services
Telephone: 631-854-2521
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

AST - WESTCHESTER: Listing of Storage Tanks
A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 07/20/2018
Date Data Arrived at EDR: 08/21/2018
Date Made Active in Reports: 08/30/2018
Number of Days to Update: 9

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Semi-Annually

UST - WESTCHESTER: Listing of Storage Tanks
A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 07/20/2018
Date Data Arrived at EDR: 08/21/2018
Date Made Active in Reports: 08/30/2018
Number of Days to Update: 9

Source: Westchester County Department of Health
Telephone: 914-813-5161
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/10/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 09/10/2018
Number of Days to Update: 31

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 07/13/2018
Date Made Active in Reports: 08/01/2018
Number of Days to Update: 19

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/21/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 08/23/2018
Date Data Arrived at EDR: 08/23/2018
Date Made Active in Reports: 09/18/2018
Number of Days to Update: 26

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/06/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers
Source: Department of Health
Telephone: 212-676-2444

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

1711 NY-5S
1711 NY-5S
AMSTERDAM, NY 12010

TARGET PROPERTY COORDINATES

Latitude (North):	42.93413 - 42° 56' 2.87''
Longitude (West):	74.22787 - 74° 13' 40.33''
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	563004.1
UTM Y (Meters):	4753574.5
Elevation:	548 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5939997 AMSTERDAM, NY
Version Date:	2013
West Map:	5939533 TRIBES HILL, NY
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

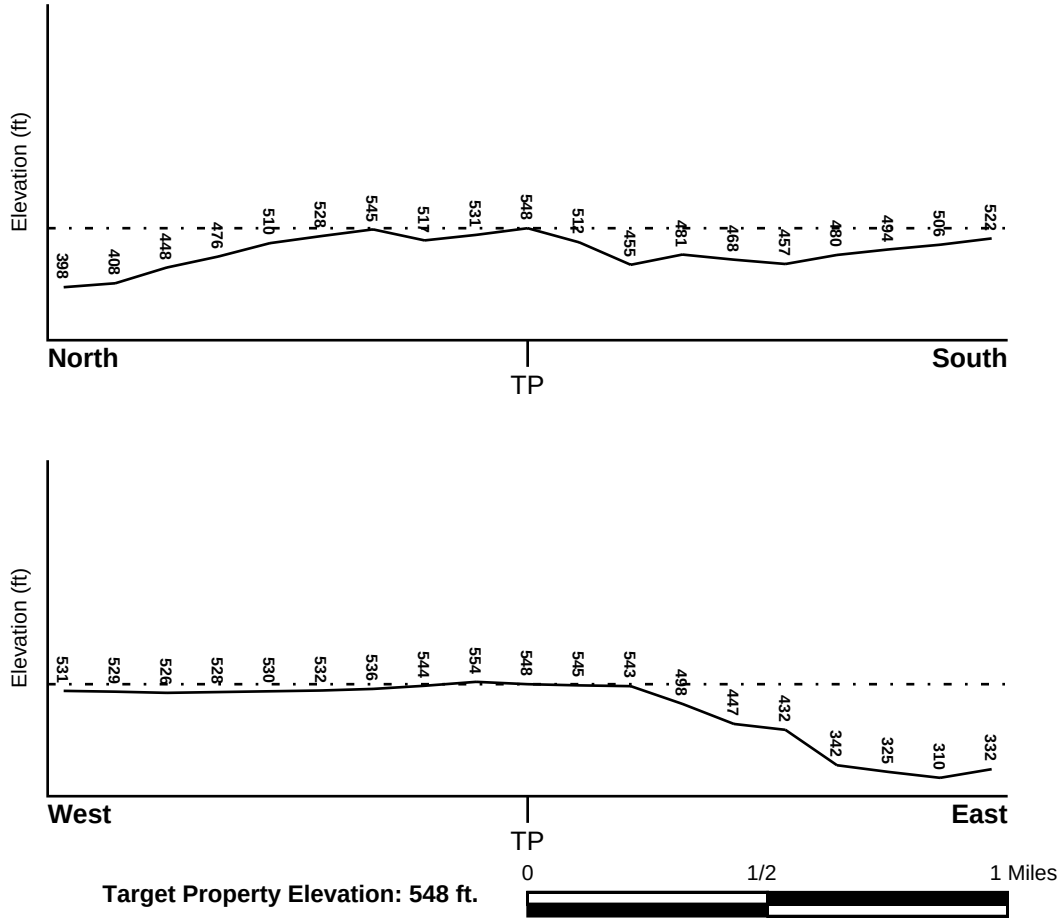
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
Not Reported	

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
AMSTERDAM	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

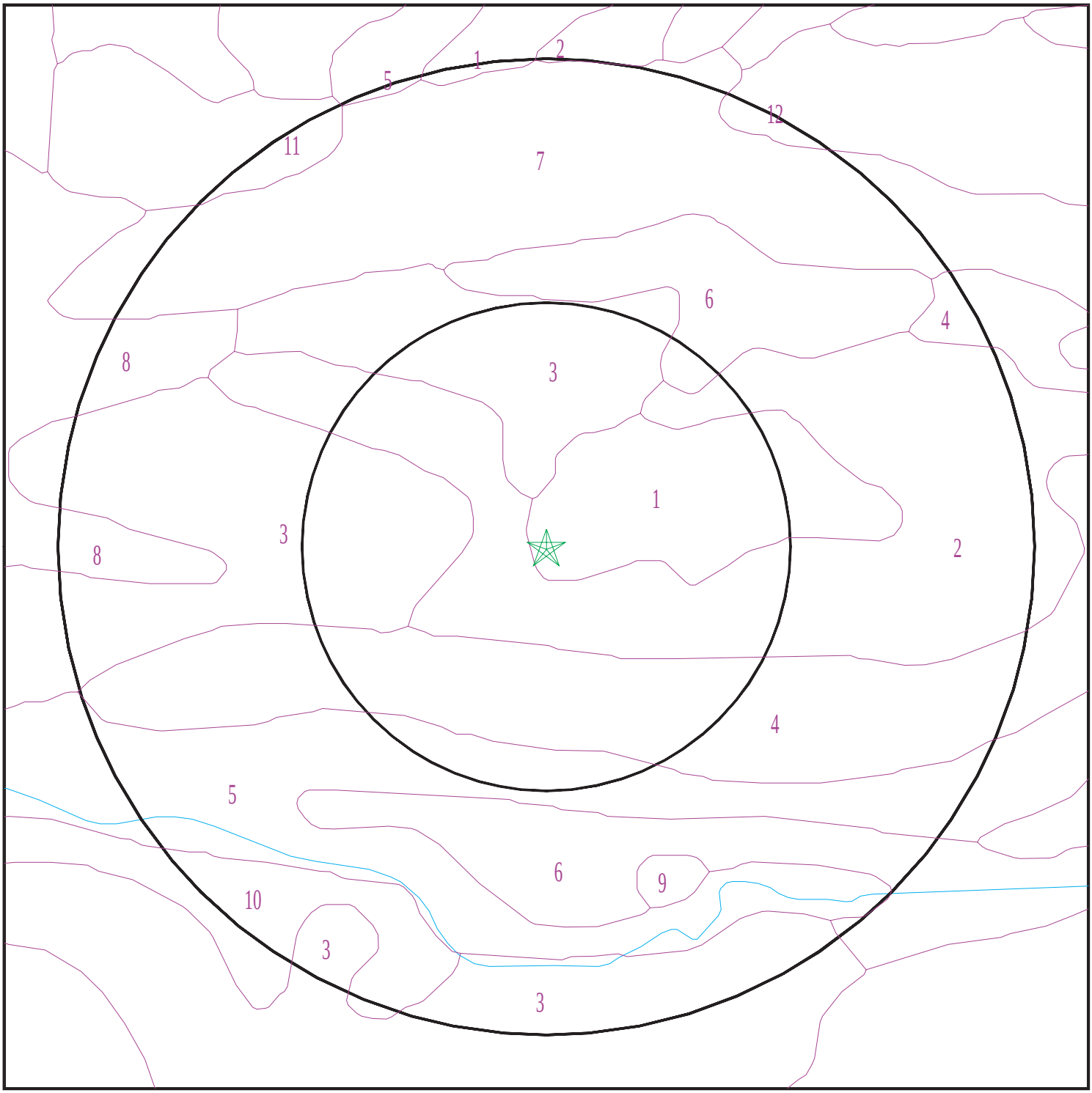
Era:	Paleozoic
System:	Ordovician
Series:	Middle Ordovician (Mohawkian)
Code:	O2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5473446.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	1711 NY-5S	CLIENT:	Tetra Tech Rizzo
ADDRESS:	1711 NY-5S Amsterdam NY 12010	CONTACT:	Ian Cannan
LAT/LONG:	42.93413 / 74.22787	INQUIRY #:	5473446.2s
		DATE:	November 02, 2018 11:50 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Angola

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	9 inches	24 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	24 inches	27 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 3

Soil Component Name: Appleton

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
2	11 inches	16 inches	silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
3	16 inches	25 inches	gravelly silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4
4	25 inches	59 inches	gravelly silt loam	Not reported	Not reported	Max: 4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 5

Soil Component Name: Palatine

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	18 inches	channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	18 inches	27 inches	very channery silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	27 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 6

Soil Component Name: Lansing

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	7 inches	20 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	20 inches	31 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	31 inches	59 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 7

Soil Component Name: Darien

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	7 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	9 inches	31 inches	channery silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
4	31 inches	59 inches	channery silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 8

Soil Component Name: Churchville

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	7 inches	31 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	31 inches	83 inches	channery loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 9

Soil Component Name: Water

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 10

Soil Component Name: Manheim

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6
2	9 inches	27 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6
3	27 inches	50 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Clayey Gravel	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.6

Soil Map ID: 11

Soil Component Name: Lansing

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	7 inches	20 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	20 inches	31 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	31 inches	59 inches	gravelly silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 12

Soil Component Name: Hudson

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	5 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	11 inches	25 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
4	25 inches	59 inches	stratified clay to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000865778	1/4 - 1/2 Mile NNE
2	USGS40000865715	1/4 - 1/2 Mile East
3	USGS40000865840	1/2 - 1 Mile NW
5	USGS40000865575	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

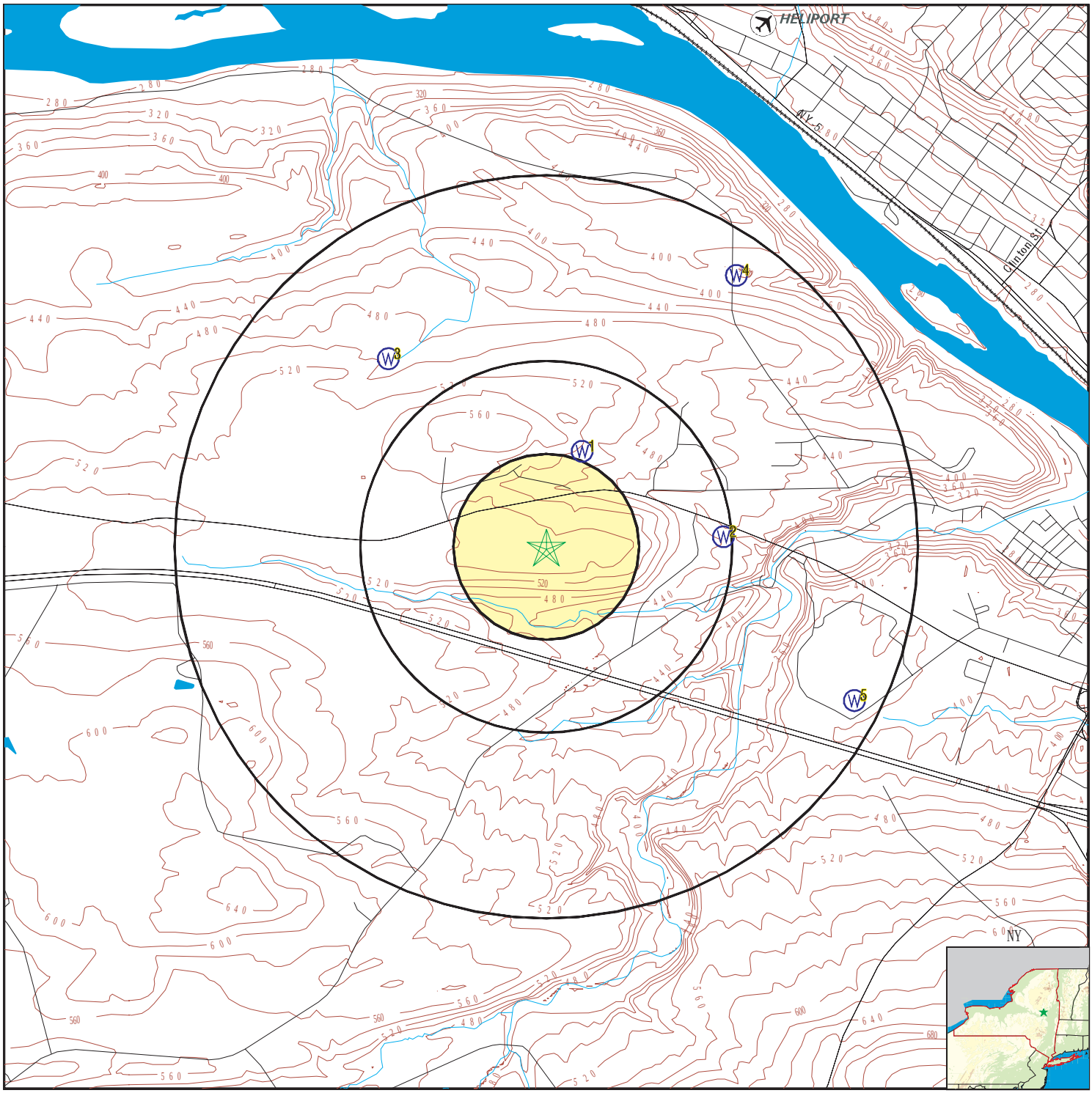
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
4	NYWS30000010202	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 5473446.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 1711 NY-5S	CLIENT: Tetra Tech Rizzo
ADDRESS: 1711 NY-5S Amsterdam NY 12010	CONTACT: Ian Cannan
LAT/LONG: 42.93413 / 74.22787	INQUIRY #: 5473446.2s DATE: November 02, 2018 11:50 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000865778**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 313	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	202	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

2
East
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000865715**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 314	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	217	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

3
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000865840**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 312	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	186	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

4
NE
1/2 - 1 Mile
Lower

NY WELLS **NYWS30000010202**

DEC Well #:	MT1069	Location Description:	QUEEN ANNE RD
Well Depth (ft):	227	Bedrock Depth (ft):	-999
Groundwater Depth (ft):	103	Casing Depth(ft):	227
Screened Well:	N	Avg Dischg Rate (g/m):	12

Driller Registration #: NYRD10005

5
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000865575**

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	MT 487	Type:	Well
Description:	Not Reported	HUC:	02020004
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1959
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	238	Well Hole Depth Units:	ft

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
MONTGOMERY	AMSTERDAM	101	3.35	1.6	44
MONTGOMERY	CANAJOHARIE	43	3.1	2.37	8.2
MONTGOMERY	CHARLESTON	2	2.5	0.7	4.9
MONTGOMERY	FLORIDA	12	8.13	5.6	24.1
MONTGOMERY	GLEN	13	4.63	2.44	14.2
MONTGOMERY	MINDEN	6	7.85	3.45	20.9
MONTGOMERY	MOHAWK	18	4.43	2.59	20.6
MONTGOMERY	PALATINE	20	5.3	4.56	16.3
MONTGOMERY	ROOT	7	7.11	3.42	28.5
MONTGOMERY	ST. JOHNSVILLE	5	6.14	5.26	9.5

Federal EPA Radon Zone for MONTGOMERY County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for MONTGOMERY COUNTY, NY

Number of sites tested: 26

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	0.820 pCi/L	100%	0%	0%
Basement	2.020 pCi/L	81%	19%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands
Source: Department of Environmental Conservation
Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells
Source: New York Department of Health
Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database
Department of Environmental Conservation
Telephone: 518-402-8072
These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon
Source: Department of Health
Telephone: 518-402-7556
Radon Test Results

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Office of the County Clerk

MONTGOMERY
COUNTY NY
Made of Something Stronger

Helen A. Bartone
County Clerk
Clerk of Supreme &
County Courts

November 7, 2018

TETRA TECH
1200 SCOTTSVILLE RD
BUILDING C, SUITE 320
ROCHESTER, NY 14624

RE: FREEDOM OF INFORMATION LAW REQUEST

ATTN: IAN S CANNAN, CHMM

Please be advised that as Records Access Officer I am in receipt of your Freedom of Information Law request for the information listed.

I cannot provide the information requested. I am not the Records Access Officer for the Town of Florida.

Thank you for the opportunity to serve you.

Sincerely,

Helen A. Bartone

HELEN A BARTONE
MONTGOMERY COUNTY CLERK

Enc

TETRA TECH

November 6, 2018

Montgomery County Clerk
Montgomery County Office Building
PO Box 1500 – 64 Broadway
Fonda, NY 12068-1500

Re: Written Request for Public Records Review
10 Parcels in Town of Florida, NY

Dear Sir or Madam:

Under the New York Freedom of Information Law, we are requesting an opportunity to obtain copies of public records. Please find enclosed the written request for public records on the form required by Montgomery County. This request relates to review of the following properties located in Montgomery County New York:

Site Address	Assessor Designation
St. Hwy 5S Florida, NY 12010	54.-1-35-161
St. Hwy 5S Florida, NY 12010	54.-1-37
St. Hwy 5S Florida, NY 12010	54.-1-35.121
St. Hwy 5S Florida, NY 12010	54.-1-35.141
St. Hwy 5S Florida, NY 12010	54.-1-36
St. Hwy 5S Florida, NY 12010	54.-1-35.11
1733 St. Hwy 5S Florida, NY 12010	54.-1-35-151
1711 St. Hwy 5S Florida, NY 12010	54.-1-35.131
176 Mead Rd. Florida, NY 12010	55.-1-1.1
St. Hwy 5S Florida, NY 12010	55.-2-4.1

1200 Scottsville Rd., Building C, Suite 320
Rochester, NY 14624
Tel 845.695.0279 tetratech.com

This inquiry is part of a ASTM Phase I Environmental Site Assessment, and we are requesting information or records pertaining to the following local/county records:

- Releases of oil and/or hazardous substances;
- Permits, approvals or licenses for the storage of oil and/or hazardous substances;
- Lists of brownfields;
- Lists of landfills or solid waste disposal;
- List of hazardous waste or contaminated sites;
- List of registered/permitted storage tanks;
- Records of activity and use limitations;
- Records of emergency release reports; and/or
- Records of contaminated drinking water wells.

If there are any fees for copying these records, please inform me of the cost. Please contact the undersigned at 845-695-0249 or ian.cannan@tetratech.com if you have any questions or require additional information regarding this request.

Very truly yours,

Ian S. Cannan, CHMM
Sr. Project Scientist

Attachments

P:\254457\143-254457-19002\PROJMGMT\CORRESPONDENCE\PUBLICRECORDSREQUEST\PUBLICRECORDSREQUEST_MONTGOMERYCOUNTY-2018-11-06.DOCX

7

COUNTY OF MONTGOMERY

REQUEST FOR ACCESS TO PUBLIC RECORDS

I APPLY TO INSPECT THE FOLLOWING RECORD(S) for the parcels listed on the attached letter for the DEPARTMENT.

the following departments: Public Health, Fire Service/Department, Planning, Building Permit/Inspection, Soil and Water Conservation

Ian Cannan
Requested By (please print)

Signature

1200 Scottsville Rd., Bld. C, Suite 320, Rochester, NY 14624
Mailing Address

November 6, 2018
Date

APPROVED _____

DENIED _____ (reasons checked below)

___ Confidential disclosure
___ Part of Investigatory Files
___ Unwarranted Invasion of Personal Privacy
___ Record Which This Agency is Legal Custodian Cannot Be Found
___ Record is Not Maintained by this Agency
___ Exempted by Statute Other Than Freedom of Information Act
___ Other (Specify)

SIGNATURE_____ DATE: _____

TITLE/DEPT. OR AGENCY HEAD _____

DEPT. HEAD: Return Form to Records Access Officer

NOTICE: You have the right to appeal a denial of this application to the County Attorney within 30 days of receipt of denial.

I HEREBY APPEAL: _____ _____
Signature Date

PLEASE RETURN COMPLETED FORM TO THE RECORDS ACCESS OFFICER

TOWN OF FLORIDA

214 Ft. Hunter Road, Amsterdam, NY 12010
www.co.montgomery.ny.us/florida/default.aspx

Supervisor	Eric M. Mead 322 Snooks Corners Road Amsterdam, NY 12010	Phone: 518-365-1680
Town Clerk, Collector, Registrar	Emily Staley 214 Ft. Hunter Road Amsterdam, NY 12010	Phone: 518-843-6372 Fax: 518-843-3324
Superintendent of Highways	Steven Anderson	Town Barn: 518-842-1539 Cell: 518-848-4362
Town Justice	Hon. Lou Carleo 168 Hartley Road Amsterdam, NY 12010	Phone: 518-843-6468
Town Justice	Hon. Stephen Brown 844 Ft. Hunter Road Amsterdam, NY 12010	Phone: 518-843-6468
Councilperson	Steven Rackowski 686 Bulls Head Road Amsterdam, NY 12010	Phone: 518-887-5309
Councilperson	Harold Alikonis 357 Mckinney Road Amsterdam, NY 12010	Phone: 518-843-1355
Councilperson	Guy Robataille 703 Thayer Road Amsterdam, NY 12010	Phone: 518-887-2924
Councilperson	Ronald Phillips 795 Pattersonville Road Pattersonville, NY 12137	Phone: 518-887-5740
Assessor	Rosemary Smith 5849 State Highway 30 Amsterdam, NY 12010	Phone: 518-842-6939
Assessor	Wilda Lang, Chairman 233 Millers Corners Road Amsterdam, NY 12010	Phone: 518-843-3032
Assessor	Lisa Jablonski	Phone:
Building Inspector	John Sampone 530 Sager Road Amsterdam, NY 12010	Phone: 518-627-0219
Zoning Enforcement Officer	Paul Slansky 254 Main Street Ft. Hunter, NY 12069	Phone: 518-770-6497
Fire Enforcement Officer	George King 167 Queen Anne Street Amsterdam, NY 12010	Phone: 518-829-7310
Animal Control Officer	Keith Rackowski 292 Fort Hunter Road Amsterdam, NY 12010	Phone: 518-842-0426
Historian	Timothy Sievers 368 Thayer Road Amsterdam, NY 12010	Phone: 518-842-5249

TOWN OF FLORIDA
(Continued)

Town Attorney	Deborah Slezak, Esq.	Phone: 518-377-6700
Town Health Officer	Dr. Govind Rao Amsterdam, NY 12010	Phone: 518-843-4414

Town Clerk's Office is located at
214 Ft. Hunter Road, Amsterdam, NY 12010
Phone: 518-843-6372

Board Meeting - 3rd Monday at 7:00 p.m.

Appendix D

Questionnaires

INTERVIEW NOTES

Date/Time:	November 5, 2016	**Tetra Tech Contact:**	Ian Cannan
Contact:	Ernie Daviero	**Ref. No.:**	143-254457-19002
Property:	1711 St. Hwy 5S Amsterdam, NY 12010 54.-1-35.131	**Subject:**	ASTM E1527-13

Ian Cannan visited the referenced property and interviewed Mr. Ernie Daviero regarding his knowledge of Recognized Environmental Conditions (RECs) in connection with his property. Mr. Daviero did not have affirmative answers to the questions required per ASTM E1527-13 regarding knowledge of RECs with the exception of the following:

- The furnace for the property is fueled by heating oil which is stored in an aboveground storage tank located in the basement of the residence.

- Wastewater from the property is discharged to an on-site septic system located in the front (toward State Highway 5S) of the property. The septic system was pumped out earlier this year (2018).

INTERVIEW NOTES

Date/Time:	November 5, 2016	**Tetra Tech Contact:**	Ian Cannan
Contact:	John Fraiser	**Ref. No.:**	143-254457-19002
Property:	1733 St. Hwy 5S Amsterdam, NY 12010 54.-1-35.151	**Subject:**	ASTM E1527-13

Ian Cannan visited the referenced property and interviewed Mr. John Fraiser regarding his knowledge of Recognized Environmental Conditions (RECs) in connection with his property. Mr. Fraiser did not have affirmative answers to the questions required per ASTM E1527-13 regarding knowledge of RECs with the exception of the following:

- The furnace for the property was fueled by heating oil in the past which was stored in an aboveground storage tank (AST) located in the basement of the residence. The heating oil AST remains in the basement but has been disconnected from the furnace. Oil was last used for heating at the residence about 2 or 3 years ago, when the system was converted to propane. Propane is no longer used for heating purposes, and the former propane AST was removed. Mr. Fraiser indicated that there are some oil stains under the AST from unavoidable drips during past oil filter replacements. Mr. Fraiser indicated he has tried cleaning the stained surface, but some staining remains.

- Wastewater from the property is currently discharge to the municipal sewer system. However, in the past wastewater was discharged to an on-site septic system located in the back (away from State Highway 5S) of the property. The septic system has not been used since the late 1990s or early 2000s.

ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS: PROJECT NO.

[illegible]

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked (these questions)." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☐
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☐
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☐

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Fuller Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☒	☐	☐
Environmental compliance audit reports	☒	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☒	☐	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☒	☐	☐
Community right to know plan	☒	☐	☐
Safety plans, preparedness and prevention plans, spill prevention, control measure and control plans, facility response plans, etc.	☒	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☒	☐	☐
Notices or other correspondence from any governmental			

Agency relating to past or current violations of environmental laws that impact on the property or relating to environmental laws concerning the property	X		
Hazardous waste generator, refiner or reporter	X		
Geotechnical studies	X		
Risk assessments	X		
Remedial Activity and Use Limitations	X		

Do you have contact information for the prior owner of the property? Yes ☐ No ☒
If yes, please provide information below

Prior Owner's Name

Contact person

Address

Telephone

Do you have contact information for the prior occupant of the property? Yes ☐ No ☒
If yes, please provide information below

ORIGINAL OCCUPANT

Prior Occupant's Name ERNEST DAVIDSON

Contact person [illegible]

Address

Telephone 518 [illegible]

Do you have information on the prior facility manager of the property? Yes ☐ No ☒
If yes, please provide information below

N/A

Prior Facility Manager's Name

Contact person

Address

Telephone

THIS FORM WAS COMPLETED BY:

Property Owner ☒ Key Site Manager ☐ User ☐

Name ERNEST J DAVIDSON JR.

Address 1711 State Hwy RT 5S, Amst NY 12020

User Signature Date 11/15/18

Ernest J Davidson Jr.

ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☑

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☑	☐	☐
Environmental compliance audit reports	☑	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☑	☐	☐
Registrations for underground and aboveground storage tanks	☑	☐	☐
Material safety data sheets	☑	☐	☐
Community-right-to-know plan	☑	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☑	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☑	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☑	☐	☐
Hazardous waste generator notices or reports	☑	☐	☐
Geotechnical studies	☑	☐	☐
Risk Assessments	☑	☐	☐
Recorded Activity and Use Limitations	☑	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☐ **No** ☐
If yes, please provide information below:

Prior Owner's Name: Dean Seffis

Contact person:

Address: Town of Charlston

Telephone:

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☐
If yes, please provide information below:

As ~~above~~ Above

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☐
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☑ Key Site Manager ☐ User ☐

Name John Frasier 12010

Address 1733 State Hwy 5S Amsterdam N.Y.

User Signature _____ Date 11-14-18

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☒	☐	☐
Environmental compliance audit reports	☒	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☒	☐	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☒	☐	☐
Community-right-to-know plan	☒	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☒	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☒	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☒	☐	☐
Hazardous waste generator notices or reports	☒	☐	☐
Geotechnical studies	☒	☐	☐
Risk Assessments	☒	☐	☐
Recorded Activity and Use Limitations	☒	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☒ **No** ☐
If yes, please provide information below:

Prior Owner's Name: William Polumbo Jr.
Contact person: _____
Address: 35 Candlewood Dr. Williamstown MASS 01267
Telephone: _____

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☒ Key Site Manager ☐ User ☐

Name Dominick Megna

Address 29 Coolidge Rd Amsterdam N.Y. 12010

User Signature _____ Date 11/18/18

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

St. Hwy 55
Town of Florida
Section 54 Block 1 Lot 35.14

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☑

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☑	☐	☐
Environmental compliance audit reports	☑	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☑	☐	☐
Registrations for underground and aboveground storage tanks	☑	☐	☐
Material safety data sheets	☑	☐	☐
Community-right-to-know plan	☑	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☑	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☑	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☑	☐	☐
Hazardous waste generator notices or reports	☑	☐	☐
Geotechnical studies	☑	☐	☐
Risk Assessments	☑	☐	☐
Recorded Activity and Use Limitations	☑	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☑ **No** ☒
If yes, please provide information below:

Prior Owner's Name: Diane Yacur

Contact person:

Address: 74 Chapman Street

Telephone: Ballston Spa, New York 12020

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☑ Key Site Manager ☐ User ☐

Name Lori T. Monge

Address 34 Kimball Street, Amsterdam NY 12010

User Signature Lori T. Monge Date 11/17/2018

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☑

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☑	☐	☐
Environmental compliance audit reports	☑	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☑	☐	☐
Registrations for underground and aboveground storage tanks	☑	☐	☐
Material safety data sheets	☑	☐	☐
Community-right-to-know plan	☑	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☑	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☑	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☑	☐	☐
Hazardous waste generator notices or reports	☑	☐	☐
Geotechnical studies	☑	☐	☐
Risk Assessments	☑	☐	☐
Recorded Activity and Use Limitations	☑	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Owner's Name _____

Contact person _____

Address _____

Telephone _____

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☐
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☑ Key Site Manager ☐ User ☐

Name MARK and GINA JOHNSON

Address 140 Bieniek DR. FT. JOHNSON, N.Y. 12070

User Signature Mark Johnson Gina Johnson Date 11/19/18

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☑
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☑

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☑	☐	☐
Environmental compliance audit reports	☑	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☑	☐	☐
Registrations for underground and aboveground storage tanks	☑	☐	☐
Material safety data sheets	☑	☐	☐
Community-right-to-know plan	☑	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☑	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☑	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☑	☐	☐
Hazardous waste generator notices or reports	☑	☐	☐
Geotechnical studies	☑	☐	☐
Risk Assessments	☑	☐	☐
Recorded Activity and Use Limitations	☑	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☑ **No** ☐
If yes, please provide information below:

Prior Owner's Name: William J. Palumbo Jr.
Contact person:
Address: 35 Candlewood Drive
Telephone: Williamstown, MASS 01267

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☑
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☑ Key Site Manager ☐ User ☐

Name Pamela J. Montagnino

Address 129 Water Street Rd.

User Signature Pamela J. Montagnino Date _____

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	X		
Environmental compliance audit reports	X		
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	X		
Registrations for underground and aboveground storage tanks	X		
Material safety data sheets	X		
Community-right-to-know plan	X		
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	X		
Reports regarding hydrogeologic conditions on the property or surrounding area	X		
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	X		
Hazardous waste generator notices or reports	X		
Geotechnical studies	X		
Risk Assessments	X		
Recorded Activity and Use Limitations	X		

Do you have contact information for the **prior owner** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Owner's Name _____

Contact person _____

Address _____

Telephone _____

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Occupant's Name Cytech

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☒ Key Site Manager ☐ User ☐

Name RANDY LOTT LOTT HOLDINGS CORP

Address P.O. Box 651 AMSTERDAM, N.Y. 12010

User Signature _____ Date 11/16/18

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ASTM E1527-13 Sections 10.8 and 10.9: Information Provided by Owner & Manager

SITE ADDRESS:

PROJECT NO:

143-254457-19002

QUESTIONNAIRE FOR PROPERTY OWNER AND KEY SITE MANAGER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☐	☒ PHASE I TECTA REPORT	☐
Environmental compliance audit reports	☒	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☒	☐	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☒	☐	☐
Community-right-to-know plan	☒	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☒	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☒	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☒	☐	☐
Hazardous waste generator notices or reports	☒	☐	☐
Geotechnical studies	☒	☐	☐
Risk Assessments	☒	☐	☐
Recorded Activity and Use Limitations	☒	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☒ **No** ☐
If yes, please provide information below:

Prior Owner's Name: FOR ALL PARCELS PLEASE SEE BROOKE FOLEY WHO IS
Contact person: HANDING UP THIS PURCHASE AND HAS NAMES OF EACH PARCEL & OWNERSHIP.
Address:
Telephone:

Do you have contact information for the **prior occupant** of the property? **Yes** ☒ **No** ☐
If yes, please provide information below:

Prior Occupant's Name: SAME AS ABOVE

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

prospective Property Owner ☒ Key Site Manager ☐ User ☐

Name KEN GRANT

Address 150 Baker Ave Suite 303

User Signature _____ Date 11/20/18

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ASTM E1527-13 Sections 6, 10.8 and 10.9: Information Provided by User

SITE ADDRESS:

10 Parcels in Town of Florida, NY

PROJECT NO:

143-254457-19002

"User's Responsibilities. The purpose of this section is to describe tasks to be performed by the user. The "All Appropriate Inquiries" Final Rule (40 CFR Part 312) requires that these tasks be performed by or on behalf of a party seeking to qualify for an LLP to CERCLA liability. These tasks must also be completed by or on behalf of EPA Brownfield Assessment and Characterization grantees. While such information is not required to be provided to the environmental professional, the environmental professional shall request that the user provide the results of these tasks as such information can assist the environmental professional in identifying recognized environmental conditions." ASTM E1527-13

	Yes	No
Are you aware of any commonly known information within the local community related to environmental conditions at the property? For example,	☐	☒
Do you know of specific chemicals that are present or once were present at the property?	☐	☒
Do you know of spills or other chemical releases that have taken place at the property?	☐	☒
Do you know the past uses of the property?	☒	☐
Do you know of any environmental cleanups that have taken place at the property?	☐	☒
Have you checked, or engaged a title company or title professional to check reasonably ascertainable recorded land title records, lien records and judicial records for environmental liens or activity and use limitations currently recorded against the property?	☐	☒
Do you know of any environmental cleanup liens or activity and use limitations currently or formerly recorded against the property? For example, AULs such as engineering controls, land use restrictions or institutional controls that are in place at the Site?	☐	☒
Do you have any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property? For example, do you have specialized knowledge of the chemicals and processes used by this type of business?	☐	☒
If this is a transaction involving the purchase of a parcel of commercial real estate, do you have actual knowledge that the purchase price of the property is significantly less than the purchase price of comparable properties? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? If yes, identify an explanation for the lower price and provide a written record of such explanation.	☐	☒
Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	☐	☒

What is the purpose for the environmental site assessment?

Purchase of property ☐ Refinancing of property ☐ Sale of property X☐X

Other_____

(If the User does not identify the purpose of the study, the ASTM standard assumes that the purpose of the study is to qualify for landowner liability protection under CERCLA.)

QUESTIONNAIRE FOR PROPERTY USER

"Prior to the site visit, the Property Owner, Key Site Manager (if any is identified) and User (if different from the property owner) shall be asked [these questions]." ASTM E1527-13

ASTM E1527-13, SECTION 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☐	☒
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☐	☒

ASTM E1527-13, SECTION 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to Tetra Tech?

	Not Aware of Document	Document Exists	Copy will be provided
Environmental site assessment reports	☒	☐	☐
Environmental compliance audit reports	☒	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☒	☐	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☒	☐	☐
Community-right-to-know plan	☒	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☒	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☒	☐	☐
Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☒	☐	☐
Hazardous waste generator notices or reports	☒	☐	☐
Geotechnical studies	☒	☐	☐
Risk Assessments	☒	☐	☐
Recorded Activity and Use Limitations	☒	☐	☐

Do you have contact information for the **prior owner** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Owner's Name _____

Contact person _____

Address _____

Telephone _____

Do you have contact information for the **prior occupant** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

Telephone _____

Do you have information on the **prior facility manager** of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

Telephone _____

THIS FORM WAS COMPLETED BY:

Property Owner ☒ Key Site Manager ☐ User ☐

Name **Ken Grant**

Address 150 Baker Ave Suite 303

User Signature _____ Date 12/14/18

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Appendix E

Documentation

Historic Research Documentation

1711 NY-5S

1711 NY-5S

Amsterdam, NY 12010

Inquiry Number: 5473446.3

November 02, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

11/02/18

Site Name:

1711 NY-5S
1711 NY-5S
Amsterdam, NY 12010
EDR Inquiry # 5473446.3

Client Name:

Tetra Tech Rizzo
100 Nickerson Road
Marlborough, MA 01752
Contact: Ian Cannan

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Tetra Tech Rizzo were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 37C9-4CBA-AD9D

PO # NA

Project 143-254457-19002

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 37C9-4CBA-AD9D

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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1711 NY-5S

1711 NY-5S

Amsterdam, NY 12010

Inquiry Number: 5473446.5

November 05, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

11/05/18

Site Name:

1711 NY-5S
1711 NY-5S
Amsterdam, NY 12010
EDR Inquiry # 5473446.5

Client Name:

Tetra Tech Rizzo
100 Nickerson Road
Marlborough, MA 01752
Contact: Ian Cannan

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2017	1"=625'	Flight Year: 2017	USDA/NAIP
2013	1"=625'	Flight Year: 2013	USDA/NAIP
2009	1"=625'	Flight Year: 2009	USDA/NAIP
2006	1"=625'	Flight Year: 2006	USDA/NAIP
1995	1"=625'	Acquisition Date: May 07, 1995	USGS/DOQQ
1988	1"=750'	Flight Date: May 07, 1988	USGS
1986	1"=625'	Flight Date: May 12, 1986	USDA
1978	1"=1000'	Flight Date: May 11, 1978	USGS
1973	1"=1000'	Flight Date: April 30, 1973	USGS
1959	1"=625'	Flight Date: October 21, 1959	USGS
1957	1"=625'	Flight Date: July 02, 1957	USGS
1942	1"=625'	Flight Date: January 01, 1942	FirstSearch

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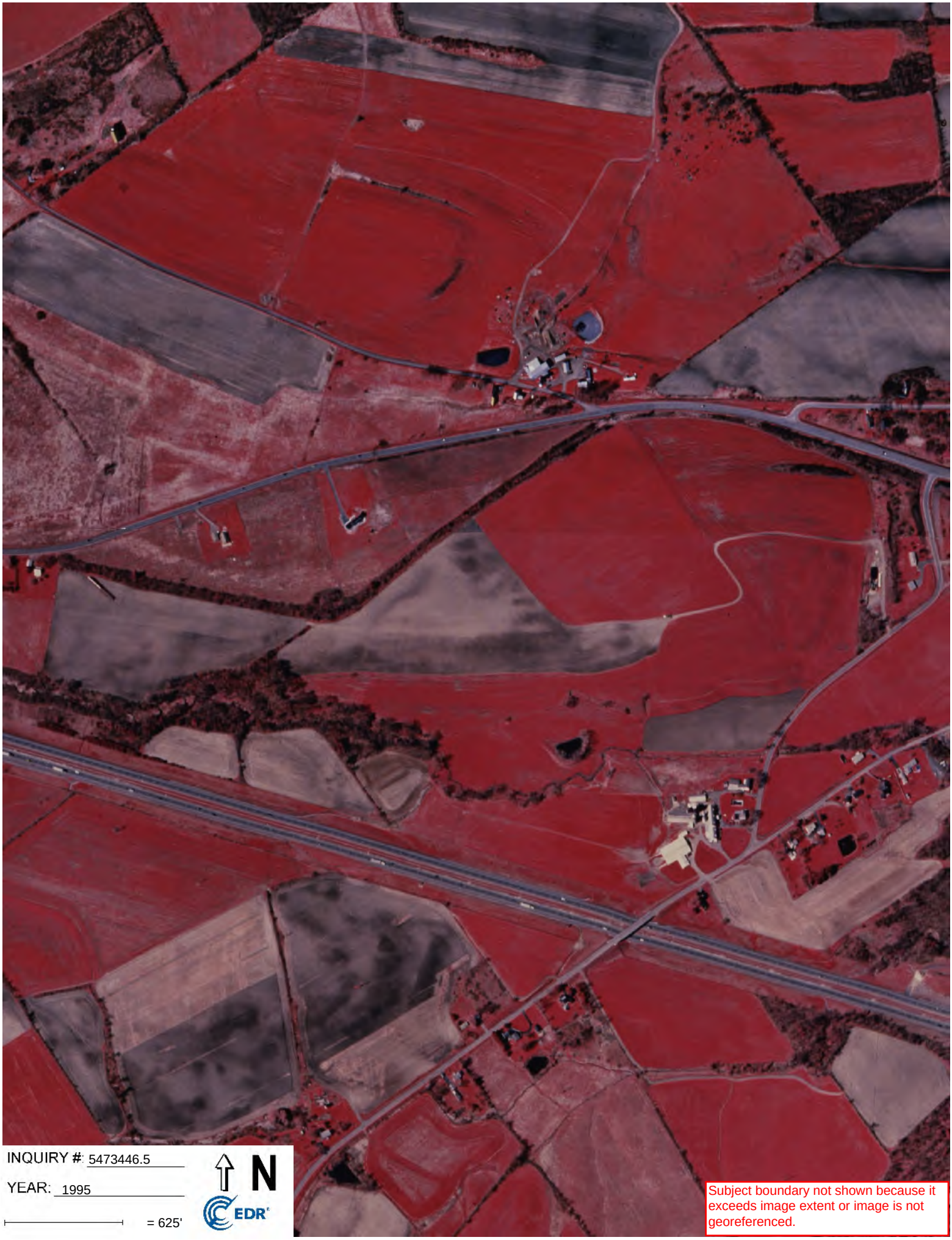
INQUIRY #: 5473446.5
YEAR: 2017
= 625'
N
EDR


INQUIRY #: 5473446.5
YEAR: 2013
= 625'
N
EDR


INQUIRY #: 5473446.5
YEAR: 2009
= 625'
N
EDR


INQUIRY #: 5473446.5
YEAR: 2006
= 625'
N
EDR



INQUIRY #: 5473446.5

YEAR: 1995

= 625'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 5473446.5

YEAR: 1988

= 750'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5473446.5
YEAR: 1986
= 625'
N
EDR



INQUIRY #: 5473446.5

YEAR: 1978

= 1000'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 5473446.5

YEAR: 1973

= 1000'

N

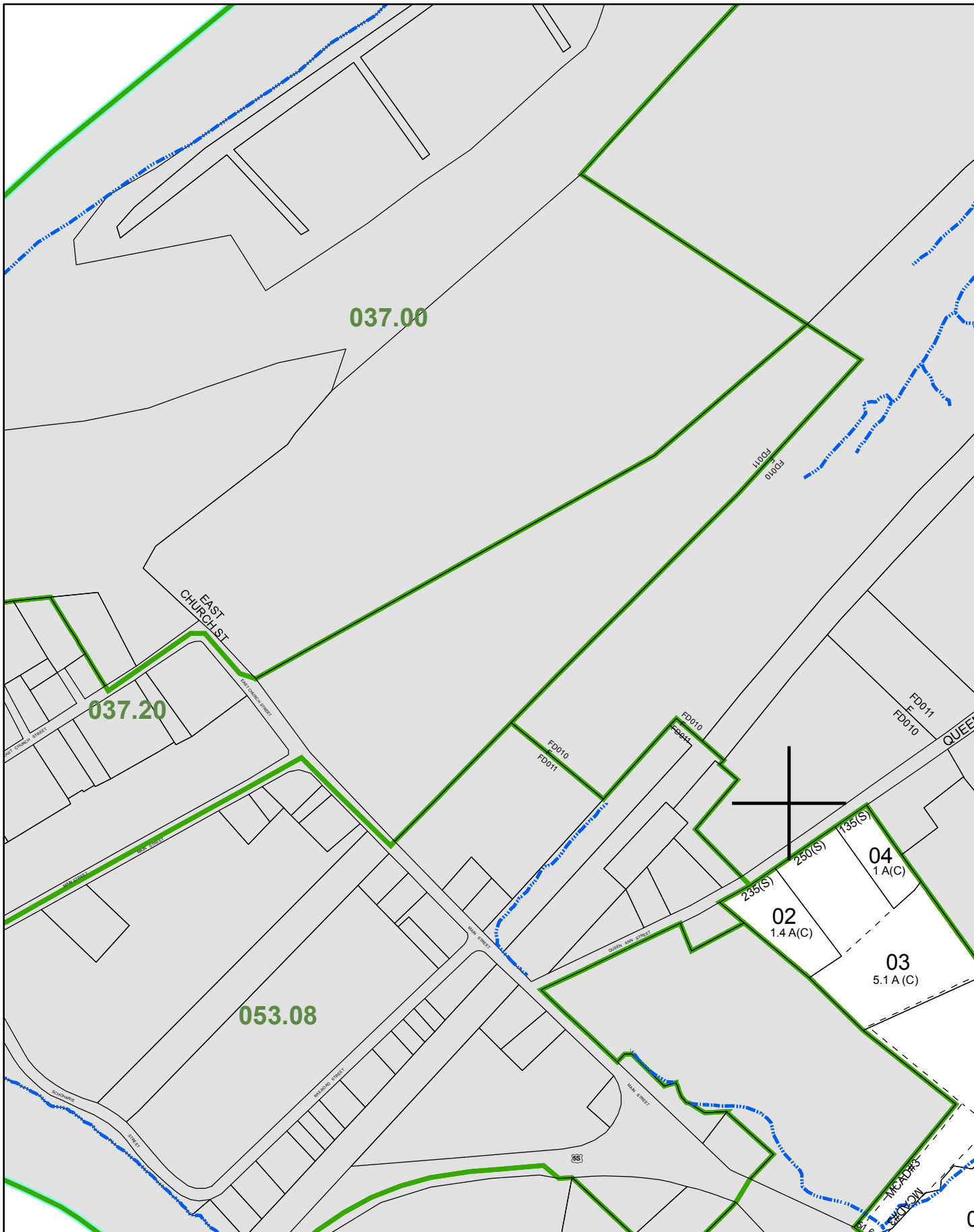
EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5473446.5
YEAR: 1959
= 625'
N
EDR


INQUIRY #: 5473446.5
YEAR: 1957
= 625'
N
EDR


INQUIRY #: 5473446.5
YEAR: 1942
= 625'
N
EDR



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EAST CHURCH ST
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MAIN STREET
QUEEN ANN STREET
RAILROAD STREET
SCHOHARIE STREET
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FD011
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FD010
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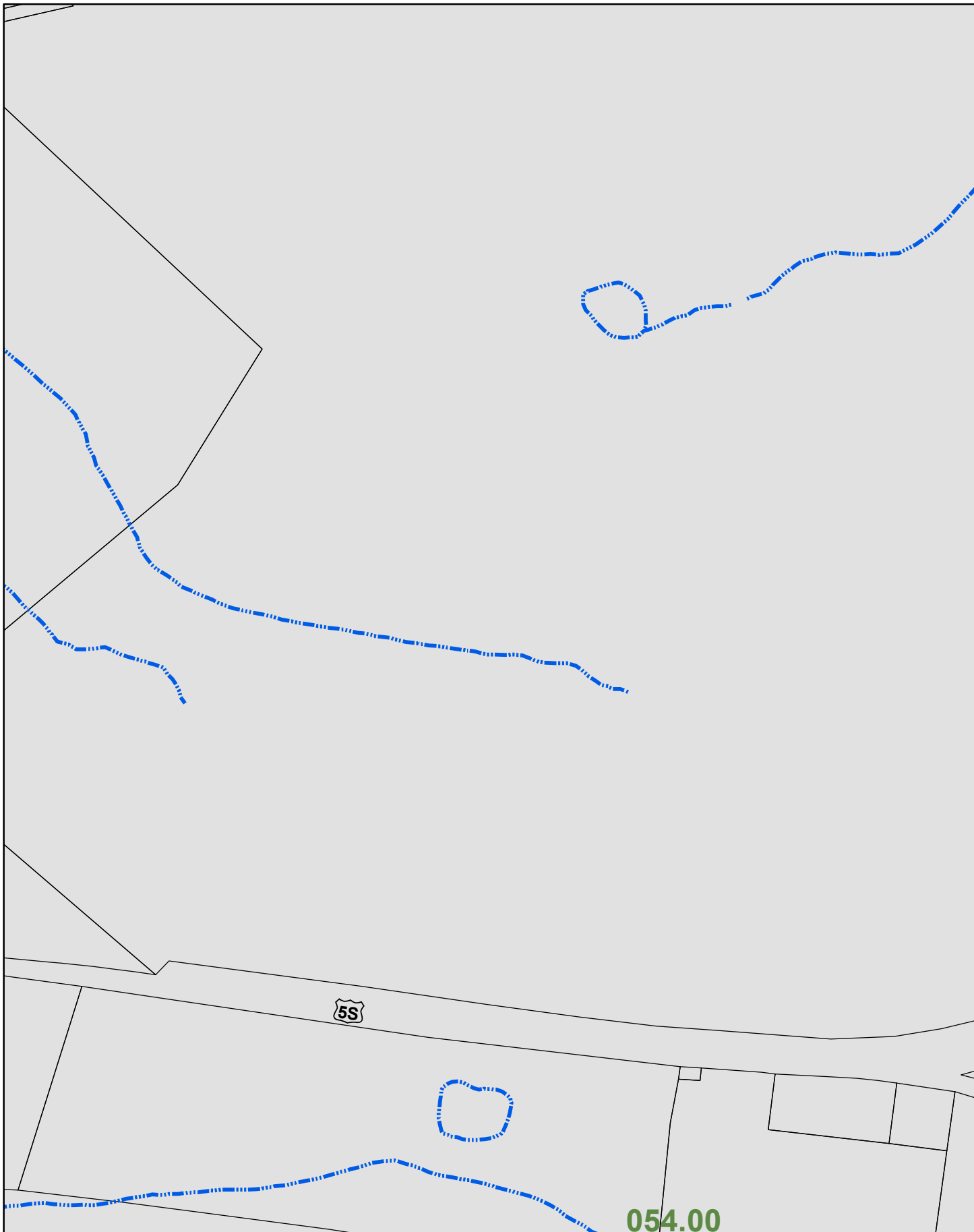
5.1 A (C)
MCAD#3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054.00

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.11
		Property Class:	314 - Rural vac<10
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	314 - Rural vac<10
		Zoning Code:	-
		Neighborhood Code:	00200
Land Assessment:	2018 - $13,400	**Total Assessment:**	2018 - $13,400
Total Acreage/Size:	2.80	**School District:**	Amsterdam
Full Market Value:	2018 - $13,400	**Legal Property Desc:**	
Deed Book:	1238	**Deed Page:**	96
Grid East:	564975	**Grid North:**	1494597

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Dominick J Megna
16 Pershing Rd
Amsterdam NY 12010

Mary S Megna
16 Pershing Rd
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
1/10/2005	$12,500	311 - Res vac land	Right of Way	Megna, Dominick J	No	No	No	1238	96

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	No Public	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year

Land Types

Type	Size
Undeveloped	1.00 acres
Residual	1.80 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.121
		Property Class:	314 - Rural vac<10
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	314 - Rural vac<10
		Zoning Code:	-
		Neighborhood Code:	00200
Land Assessment:	2018 - $12,500	**Total Assessment:**	2018 - $12,500
Total Acreage/Size:	2.50	**School District:**	Amsterdam
Full Market Value:	2018 - $12,500	**Legal Property Desc:**	
Deed Book:	1238	**Deed Page:**	97
Grid East:	564620	**Grid North:**	1494437

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Mark Johnson
140 Bieniek Dr
Fort Johnson NY 12070

Gina M Johnson
140 Bieniek Dr
Fort Johnson NY 12070

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
1/10/2005	$1,900	311 - Res vac land	Right of Way	Johnson, Mark	No	No	No	1238	97

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	No Public	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year

Land Types

Type	Size
Undeveloped	1.00 acres
Residual	1.50 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %

Property Description Report For: 1711 St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.131
		Property Class:	210 - 1 Family Res
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	210 - 1 Family Res
		Zoning Code:	-
		Neighborhood Code:	00200
Land Assessment:	2018 - $22,800	**Total Assessment:**	2018 - $175,000
Total Acreage/Size:	4.60	**School District:**	Amsterdam
Full Market Value:	2018 - $175,000	**Legal Property Desc:**	
Deed Book:	501	**Deed Page:**	112
Grid East:	564319	**Grid North:**	1494258

Area

Living Area:	1,593 sq. ft.	**First Story Area:**	1,593 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	1

Structure

Building Style:	Ranch	**Bathrooms (Full - Half):**	2 - 0
Bedrooms:	3	**Kitchens:**	1
Fireplaces:	0	**Basement Type:**	Full
Porch Type:	Porch-Open	**Porch Area:**	255.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	Normal	**Overall Grade:**	Good
Year Built:	1991		

Owners

Ernest J Daviero, Jr
1711 State Hwy 5S
Amsterdam NY 12010

Loreen Daviero
1711 State Hwy 5S
Amsterdam NY 12010

Sales

No Sales Information Available

Utilities

Sewer Type:	Private	**Water Supply:**	Private
Utilities:	Electric	**Heat Type:**	Hot wtr/stm
Fuel Type:	Oil	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year
Gar-1.0 det	24 × 32	Average	Normal	1994
Porch-open/deck	15 × 17	Average	Normal	1994

Land Types

Type	Size
Primary	1.00 acres
Residual	3.60 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %
2018	BAS STAR	$30,000	0	1998				0

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.141
		Property Class:	312 - Vac w/imprv
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	312 - Vac w/imprv
		Zoning Code:	-
		Neighborhood Code:	00888
Land Assessment:	2018 - $20,300	**Total Assessment:**	2018 - $26,100
Total Acreage/Size:	5.10	**School District:**	Amsterdam
Full Market Value:	2018 - $26,100	**Legal Property Desc:**	
Deed Book:	652	**Deed Page:**	238
Grid East:	563968	**Grid North:**	1494182

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Miguel Monge
34 Kimball Street
Amsterdam NY 12010

Lori T Monge
34 Kimball Street
Amsterdam NY 12010

Sales

No Sales Information Available

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	No Public	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year
Gar-1.0 det	24 × 24	Economy	Fair	1999

Land Types

Type	Size
Primary	1.00 acres
Residual	4.10 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %

Property Description Report For: 1733 St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.151
		Property Class:	210 - 1 Family Res
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	210 - 1 Family Res
		Zoning Code:	-
		Neighborhood Code:	00200
Land Assessment:	2018 - $17,100	**Total Assessment:**	2018 - $130,000
Total Acreage/Size:	2.70	**School District:**	Amsterdam
Full Market Value:	2018 - $130,000	**Legal Property Desc:**	
Deed Book:	1729	**Deed Page:**	162
Grid East:	563657	**Grid North:**	1494145

Area

Living Area:	1,160 sq. ft.	**First Story Area:**	960 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	200 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	1.5

Structure

Building Style:	Cape cod	**Bathrooms (Full - Half):**	1 - 1
Bedrooms:	3	**Kitchens:**	1
Fireplaces:	0	**Basement Type:**	Full
Porch Type:	Porch-Open	**Porch Area:**	976.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	Normal	**Overall Grade:**	Average
Year Built:	1989		

Owners

John M Fraiser
1733 State HWY 5S
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
3/6/2009	$1	210 - 1 Family Res	Land Only	Fraiser, John	No	No	Yes	1729	162
9/3/2004	$157,500	210 - 1 Family Res	Land & Building	Serfis , Dean W	Yes	Yes	No	745	281
2/20/2004	$0	210 - 1 Family Res	Land Only	Serfis , Dean W	Yes	No	No	732	282

Utilities

Sewer Type:	Comm/public	**Water Supply:**	Comm/public
Utilities:	Electric	**Heat Type:**	Hot air
Fuel Type:	Oil	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year
Gar-1.0 det	26 × 34	Average	Normal	1998
Porch-open/deck	976 sq ft	Average	Normal	1998
Canpy-roof	15 × 24	Average	Normal	1998

Land Types

Type	Size
Primary	1.00 acres
Residual	1.70 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %
2018	BAS STAR	$30,000	0	2005				0

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-35.161
		Property Class:	314 - Rural vac<10
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	314 - Rural vac<10
		Zoning Code:	-
		Neighborhood Code:	00200
Land Assessment:	2018 - $15,200	**Total Assessment:**	2018 - $15,200
Total Acreage/Size:	3.40	**School District:**	Amsterdam
Full Market Value:	2018 - $15,200	**Legal Property Desc:**	
Deed Book:	736	**Deed Page:**	202
Grid East:	563285	**Grid North:**	1494123

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Vincent J Montagnino
129 Waterstreet Rd
Amsterdam NY 12010

Pamela J Montagnino
129 Waterstreet Rd
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
8/20/2002	$0	311 - Res vac land	Land & Building	Montagnino, Vincent J	No	No	No	736	202

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	No Public	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year

Land Types

Type	Size
Undeveloped	1.00 acres
Residual	2.40 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %

Image Mate Online

Navigation Tax Maps | ORPS Links Assessment Info

Property Info
Owner/Sales
Tax Info

Municipality of Florida

SWIS:	272600	Tax ID:	54.-1-36

Tax Map ID / Property Data

Status:	Active	Roll Section:	Taxable
Address:	St Hwy 5S		
Property Class:	340 - Vacant indus	Site Property Class:	N/A
Site:	N/A	In Ag. District:	No
Zoning Code:	N/A	Bldg. Style:	N/A
Neighborhood:	N/A	School District:	Amsterdam
Legal Property Description:	Legal description not given for property		
Land Assessment:	2018 - $16,500	Total Assessment:	2018 - $16,500
Total Acreage/Size:	16.50	Full Market Value:	2018 - $16,500
Deed Book:	2014	Deed Page:	56588
Grid East:	563204	Grid North:	1493611

Special Districts for 2018

Description	Units	Percent	Type	Value
Empire zone	0	0		0

View t
image

Florida fire prot	0	0		0

Land Types

No Land Types

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	54.-1-37
		Property Class:	120 - Field crops
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	120 - Field crops
		Zoning Code:	-
		Neighborhood Code:	00500
Land Assessment:	2018 - $23,200	**Total Assessment:**	2018 - $23,200
Total Acreage/Size:	10.60	**School District:**	Amsterdam
Full Market Value:	2018 - $23,200	**Legal Property Desc:**	
Deed Book:	2014	**Deed Page:**	56588
Grid East:	563784	**Grid North:**	1493170

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Lott Holdings, Corp.
P.O. Box 651
Sthwy 5S
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
3/7/2014	$0	322 - Rural vac>10	Land & Building	1767 Route 5S Holdings LL	No	No	Yes	2014	56588
10/27/2011	$315,000	322 - Rural vac>10	Land & Building	Sopramco III REO, LLC	No	Yes	Yes	2011	44409
1/9/2008	$110,000	322 - Rural vac>10	Land & Building	Cytech Hardwoods Inc	Yes	No	Yes	1664	151

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	No Public	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year

Land Types

Type	Size
Residual	3.40 acres
Tillable	7.20 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %

Property Description Report For: 176 Mead Rd, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	55.-1-1.1
		Property Class:	112 - Dairy farm
		Site:	RES 1
		In Ag. District:	Yes
		Site Property Class:	112 - Dairy farm
		Zoning Code:	-
		Neighborhood Code:	00500
Land Assessment:	2018 - $294,100	**Total Assessment:**	2018 - $610,000
Total Acreage/Size:	131.00	**School District:**	Amsterdam
Full Market Value:	2018 - $610,000	**Legal Property Desc:**	life estate
Deed Book:	2016	**Deed Page:**	67485
Grid East:	565563	**Grid North:**	1492824

Area

Living Area:	2,136 sq. ft.	**First Story Area:**	1,110 sq. ft.
Second Story Area:	1,026 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	2

Structure

Building Style:	Old style	**Bathrooms (Full - Half):**	2 - 0
Bedrooms:	3	**Kitchens:**	1
Fireplaces:	1	**Basement Type:**	Full
Porch Type:	Porch-Screen	**Porch Area:**	378.00
Basement Garage Cap:	0	**Attached Garage Cap:**	609.00 sq. ft.
Overall Condition:	Normal	**Overall Grade:**	Average
Year Built:	1890		

Owners

Mead Brothers Properties
322 Snooks Corners Rd
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
5/7/2016	$0	241 - Rural res&ag	Land & Building	Mead, Family Partnership	No	No	No	2016	67485

Utilities

Sewer Type:	Private	**Water Supply:**	Private
Utilities:	Electric	**Heat Type:**	Hot wtr/stm
Fuel Type:	Oil	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year
Barn-1.0 gen	45 × 138	Economy	Normal	1940
Barn-1.0 gen	13,754 sq ft	Economy	Normal	1940
Shed-machine	16 × 16	Economy	Fair	1940
Gar-1.0 att	21 × 29	Average	Normal	1940
Porch-screen	14 x 27	Average	Normal	1890
Canpy-roof	14 x 24	Average	Normal	1890
Quonset hut	40 x 80	Average	Normal	1980

Land Types

Type	Size	
Primary	0.99 acres	
Tillable	126.00 acres	
Woodland	0 Sq.Ft.	4.00

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0
Montg co agri dist 3	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %
2018	AG. D CO	$211,200	0	2003				0
2018	ENH STAR	$66,800	0	2014				0

Property Description Report For: St Hwy 5S, Municipality of Florida

No Photo Available

		Status:	Active
		Roll Section:	Taxable
		Swis:	272600
		Tax Map ID #:	55.-2-4.1
		Property Class:	120 - Field crops
		Site:	RES 1
		In Ag. District:	No
		Site Property Class:	120 - Field crops
		Zoning Code:	-
		Neighborhood Code:	00500
Land Assessment:	2018 - $91,200	**Total Assessment:**	2018 - $130,800
Total Acreage/Size:	42.00	**School District:**	Amsterdam
Full Market Value:	2018 - $130,800	**Legal Property Desc:**	
Deed Book:	2016	**Deed Page:**	67487
Grid East:	566740	**Grid North:**	1494008

Area

Living Area:	0 sq. ft.	**First Story Area:**	0 sq. ft.
Second Story Area:	0 sq. ft.	**Half Story Area:**	0 sq. ft.
Additional Story Area:	0 sq. ft.	**3/4 Story Area:**	0 sq. ft.
Finished Basement:	0 sq. ft.	**Number of Stories:**	0

Structure

Building Style:	0	**Bathrooms (Full - Half):**	0 - 0
Bedrooms:	0	**Kitchens:**	0
Fireplaces:	0	**Basement Type:**	0
Porch Type:	0	**Porch Area:**	0.00
Basement Garage Cap:	0	**Attached Garage Cap:**	0.00 sq. ft.
Overall Condition:	0	**Overall Grade:**	
Year Built:			

Owners

Mead Brothers Properties
322 Snooks Corners Rd
Amsterdam NY 12010

Sales

Sale Date	Price	Property Class	Sale Type	Prior Owner	Value Usable	Arms Length	Addl. Parcels	Deed Book	Deed Page
3/30/2016	$0	105 - Vac farmland	Land & Building	Mead, Ronald J	No	No	Yes	2016	67487

Utilities

Sewer Type:	None	**Water Supply:**	None
Utilities:	Electric	**Heat Type:**	0
Fuel Type:	0	**Central Air:**	No

Improvements

Structure	Size	Grade	Condition	Year
Barn-pole	96 × 40	Average	Normal	1996

Land Types

Type	Size
Tillable	41.00 acres
Woodland	1.00 acres

Special Districts for 2018

Description	Units	Percent	Type	Value
Florida fire prot	0	0		0

Exemptions

Year	Description	Amount	Exempt %	Start Yr	End Yr	V Flag	H Code	Own %
2018	AG. D CO	$68,800	0	2012				0

WINSTANLEY ENTERPRISES, LLC
Commercial Development & Asset Management

Phase II – Environmental Site Assessment

State Highway 5S and Mead Road Parcels
Florida, New York 12010



TETRA TECH

April 24, 2019

Phase II Environmental Site Assessment
State Highway 5S and Mead Road Parcels
Florida, New York 12010



Prepared for:

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WE Acquisitions LLC
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Concord, Massachusetts 01742

Prepared by:

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April 24, 2019

CONTENTS

Section **Page**

EXECUTIVE SUMMARY **2**

1.0 INTRODUCTION **5**

1.1 INTRODUCTION 5
1.2 USER RELIANCE 5

2.0 BACKGROUND **6**

2.1 SITE DESCRIPTION 6
2.2 SITE HISTORY 6
2.3 PHASE I ESA FINDINGS AND CONCLUSIONS 6

3.0 PHASE II SCOPE OF WORK **8**

3.1 SCOPE OF WORK 8
3.2 SOIL BORING AND SAMPLING 8
3.3 FIELD SCREENING RESULTS 8
3.4 ANALYTICAL RESULTS 8

4.0 DATA QUALITY REVIEW **10**

4.1 DATA QUALITY OBJECTIVES 10
4.2 ANALYTICAL DETECTION LIMITS 10
4.3 LAB QUALITY CONTROL AND DATA LIMITATIONS 10

5.0 CONCLUSIONS AND RECOMMENDATIONS **11**

6.0 SIGNATURES **12**

FIGURES

TABLES

APPENDICES

APPENDIX A ANALYTICAL DATA REPORTS

APPENDIX B FIELD NOTES

EXECUTIVE SUMMARY

Tetra Tech has completed a Phase II Environmental Site Assessment (ESA) of the State Highway 5S and Mead Road parcels located in Florida, New York 12010 (the Site)(Figure 1). The Site is comprised of ten individual parcels of land located in the Town of Florida, New York. Three of the parcels (Assessor Parcels 54.-1-35-11, -121, and -161) are undeveloped vacant rural land. Assessor Parcel 54.-1-36 is undeveloped vacant industrial land. Two parcels are single family residences (Assessor Parcels 54.-1-35-131 and -151). An active dairy farm is located at Assessor Parcel 55.-1-1.1. Assessor Parcels 54.-1-37 and 55.-2-4.1 are currently used for the cultivation of crops. Finally, Assessor Parcel 54.-1-35.141 is a vacant former farm stand or garden center (Figure 2).

Background

Tetra Tech completed a Phase I Environmental Site Assessment (ESA) at the Site in accordance with the American Society for Testing and Material (ASTM) standard for Phase I ESAs E1527-13 on April 1, 2019. The Site history was established back to approximately 1890, when a residence was constructed at 176 Mead Road (Assessor Parcel 55-1-1.1). The Site and surrounding lands were likely associated with agricultural or similar low intensity use from the late 1800s to the late 1980s. In the late 1980s and early 1990s residences were constructed at 1733 and 1711 State Highway 5S. Subsequently a farm stand was established Assessor Parcel 54.-1-35.141 in approximately 1999 and was active for a few years and is believed to have ceased operations in the mid-2000s. In the late 1990s or early 2000s municipal water and sewerage were made available during development of the surrounding area for commercial use. The Site is not identified in environmental database records. Several off-site properties are identified in environmental databases and include state spill sites, and New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) sites. Based on their distance and direction, the off-site properties are unlikely to impact soil or groundwater at the Site.

Tetra Tech did not identify Recognized Environmental Conditions (RECs), Historical Recognized Conditions (HRECs), or Controlled Recognized Environmental Conditions (CRECs) associated with the Site as defined by the ASTM standard. One de minimis condition and one environmental issue were identified during the Phase I ESA and discussed below.

The property identified as Assessor Parcel 54.-1-35-151 (1733 State Highway 5S) also has a 250-gallon home heating oil AST in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. The heating oil AST was not connected to the furnace and the connection point was capped at the bottom of the AST. During an interview with Mr. John Frasier (the site contact/owner), Mr. Frasier indicated that the heating oil AST contains some residual oil, and at the time of the Site visit the tank was observed to be less than ¼ full. Also, during the Site reconnaissance visible oil staining was observed upon the concrete surface at the bottom of the AST. There were no strong or pungent odors from the staining and no evidence that a release had occurred from the tank. Also, the concrete floor in the area of the stain did not display evidence of obvious cracks or conveyances to the subsurface. During the interview, Mr. Frasier indicated that the staining was attributable to minor drips during replacement of the oil filter at the bottom of the AST. This AST is not considered a REC or historical REC, based on the available information and observations. The presence of the unused former AST with residual stored oil and residual oil staining of the concrete surface is considered a *de minimis* condition.

A small accumulation of used tires was observed at Assessor Parcel 55.-2-4.1 at the central-eastern boundary of the property. The accumulation did not suggest the on-site disposal of solid waste or dumping. The small accumulation of tires was consistent with practices that are typical of this type of rural property. The accumulation of tires is not considered a REC, historical REC, or *de minimis* condition but was identified as an environmental issue.

Based on the findings of the Phase I ESA, Tetra Tech recommended that the unused AST at 1733 State Highway 5S be decommissioned and removed from the property and that the accumulated pile of used tires (solid waste) be removed from Assessor Parcel 55.-2-4.1.

Phase II ESA Scope of Work

Since the Client (WE Acquisitions LLC) intends to redevelop the Site, the Client requested that Tetra Tech conduct a Phase II ESA at the Site to evaluate the environmental condition of soils and confirm that hazardous substance releases have not occurred. The scope of the Phase II ESA included soil sampling and laboratory analysis of soils collected from 18 soil boring advanced at the Site (Figure 3). The soil borings were advanced to a depth of 6 feet below grade (fbg) at each location. Soils at each boring location were field screened for evidence of contamination. One selected soil sample from each location was then submitted for laboratory analysis. Soil samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260, Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270D, pesticides by EPA Method 8081B, herbicides by EPA Method 8151A, and total 8 Resource Conservation and Recovery Act (RCRA) Metals by EPA Method 6010D. The samples were analyzed by Contest Analytical Laboratories, Inc. of East Longmeadow, Massachusetts.

Soil Sampling and Analytical Results

No soil staining, odors or positive photoionization detector (PID) field screening results were recorded. The soils at each boring location appeared to be consistent with natural soils. VOCs, PAHs, pesticides and herbicides were not detected in the soil samples. Very low levels of toluene were detected in soil sample TT-SB-14 (0.0068 mg/kg) and the duplicate sample collected at TT-SB-13 (0.0028 mg/kg)(but not parent sample TT-SB-13) and below the cleanup standard (0.7 mg/kg). These samples were collected from an open agricultural field and no source of toluene (such as stormwater runoff) exists in this area. Since toluene was not detected in parent sample TT-SB-13, Tetra Tech determined that the detection is a laboratory induced artifact rather than a constituent in soil (i.e. a false positive).

Low levels of metals were detected in the soil samples at concentrations that are consistent with the background values for metals published in the *Concentrations of Selected Analytes in Rural New York State Surface Soils: A Summary Report on the Statewide Rural Surface Soil Survey* publication dated August 2005 published by NYSDEC and the New York State Department of Health (NYSDOH).

The analytical results indicate that the soils are in compliance with the Unrestricted Use Soil Cleanup Objectives published in 6 NYCRR Part 375 (Environmental Remediation Programs)(Subparts 375-1 to 375-4 & 375-6 dated December 14, 2006) and/or NYSDEC publication CP-51 (Soil Cleanup Guidance dated October 21, 2010. Laboratory analytical data reports are included in Appendix A. Field notes are included as Appendix B. Analytical results are presented in Table 1.

Conclusions

Based on the analytical results, a release of hazardous substances has not occurred at the Site. Soil site-wide may be used at the Site or exported off-site in an unrestricted manner as clean fill. Based on the Phase II ESA results, no further environmental investigation is recommended.

1.0 INTRODUCTION

1.1 INTRODUCTION

Tetra Tech has completed a Phase II Environmental Site Assessment (ESA) of the State Highway 5S and Mead Road Parcels located in Florida, New York 12010 (the Site)(Figure 1). A summary of the investigation and the soil sampling results are presented herein.

1.2 USER RELIANCE

This study and report have been prepared on behalf of and for the exclusive use of WE Acquisitions LLC solely for use in an environmental evaluation of the Site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of Tetra Tech. However, Tetra Tech acknowledges and agrees that, subject to the Terms and Conditions of our contract dated March 11, 2019, the report may be conveyed to the client's attorney, lender, insurer, title insurer, regulatory agencies, and potential purchasers associated with the proximate purchase or refinancing of the Site by our client. Tetra Tech would be pleased to discuss the conditions of dissemination of the report to additional parties associated with the transaction. The report has been prepared in accordance with the Terms and Conditions set forth in our contract dated March 11, 2019. All uses of this report are subject to, and deemed acceptance of, the conditions and restrictions contained therein. No other warranty, express or implied, is made.

2.0 BACKGROUND

This section provides a brief description of the Site and the results of a Phase I Environmental Site Assessment (ESA) prepared by Tetra Tech in accordance with the American Society for Testing and Material (ASTM) standard for Phase I ESAs E1527-13 on April 1, 2019.

2.1 SITE DESCRIPTION

The Site is comprised of ten individual parcels of land located in the Town of Florida, New York (Figure 1). Three of the parcels (Assessor Parcels 54.-1-35-11, -121, and -161) are undeveloped vacant rural land. Assessor Parcel 54.-1-36 is undeveloped vacant industrial land. Two parcels are single family residences (Assessor Parcels 54.-1-35-131 and -151). An active dairy farm is located at Assessor Parcel 55.-1-1.1. Assessor Parcels 54.-1-37 and 55.-2-4.1 are currently used for the cultivation of crops. Finally, Assessor Parcel 54.-1-35.141 is a vacant former farm stand or garden center (Figure 2).

2.2 SITE HISTORY

The Site history was established back to approximately 1890, when a residence was constructed at 176 Mead Road (Assessor Parcel 55-1-1.1). The Site and surrounding lands were likely associated with agricultural or similar low intensity use from the late 1800s to the late 1980s. In the late 1980s and early 1990s residences were constructed at 1733 and 1711 State Highway 5S. Subsequently a farm stand was established Assessor Parcel 54.-1-35.141 in approximately 1999 and was active for a few years and is believed to have ceased operations in the mid-2000s. In the late 1990s or early 2000s municipal water and sewerage were made available during development of the surrounding area for commercial use. The Site is not identified in environmental database records. Several off-site properties are identified in environmental databases and include state spill sites, and New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) sites. Based on their distance and direction, the off-site properties are unlikely to impact soil or groundwater at the Site.

2.3 PHASE I ESA FINDINGS AND CONCLUSIONS

the west. Tetra Tech did not identify Recognized Environmental Conditions (RECs), Historical Recognized Conditions (HRECs), or Controlled Recognized Environmental Conditions (CRECs) associated with the Site as defined by the ASTM standard. One de minimis condition and one environmental issue were identified during the Phase I ESA and discussed below.

The property identified as Assessor Parcel 54.-1-35-151 (1733 State Highway 5S) also has a 250-gallon home heating oil AST in the basement of the residence. The AST was observed to be in average condition and no visible defects or active leaks of oil were observed. The heating oil AST was not connected to the furnace and the connection point was capped at the bottom of the AST. During an interview with Mr. John Frasier (the site contact/owner), Mr. Frasier indicated that the heating oil AST contains some residual oil, and at the time of the Site visit the tank was observed to be less than ¼ full. Also, during the Site reconnaissance visible oil staining was observed upon the concrete surface at the bottom of the AST. There were no strong or pungent odors from the staining and no evidence that a release had occurred from

the tank. Also, the concrete floor in the area of the stain did not display evidence of obvious cracks or conveyances to the subsurface. During the interview, Mr. Frasier indicated that the staining was attributable to minor drips during replacement of the oil filter at the bottom of the AST. This AST is not considered a REC or historical REC, based on the available information and observations. The presence of the unused former AST with residual stored oil and residual oil staining of the concrete surface is considered a *de minimis* condition.

A small accumulation of used tires was observed at Assessor Parcel 55.-2-4.1 at the central-eastern boundary of the property. The accumulation did not suggest the on-site disposal of solid waste or dumping. The small accumulation of tires was consistent with practices that are typical of this type of rural property. The accumulation of tires is not considered a REC, historical REC, or *de minimis* condition but was identified as an environmental issue.

Based on the findings of the Phase I ESA, Tetra Tech recommended that the unused AST at 1733 State Highway 5S be decommissioned and removed from the property and that the accumulated pile of used tires (solid waste) be removed from Assessor Parcel 55.-2-4.1.

3.0 PHASE II SCOPE OF WORK

3.1 SCOPE OF WORK

Since the Client (WE Acquisitions LLC) intends to redevelop the Site, the Client requested that Tetra Tech conduct a Phase II ESA at the Site to evaluate the environmental condition of soils and confirm that hazardous substance releases have not occurred. The scope of the Phase II ESA included soil sampling and laboratory analysis of soils collected from 18 soil boring advanced at the Site (Figure 3). The soil borings were advanced to a depth of 6 feet below grade (fbg) at each location. Soils at each boring location were field screened for evidence of contamination. One selected soil sample from each location was then submitted for laboratory analysis. Soil samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260, Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270D, pesticides by EPA Method 8081B, herbicides by EPA Method 8151A, and total 8 Resource Conservation and Recovery Act (RCRA) Metals by EPA Method 6010D. The samples were analyzed by Contest Analytical Laboratories, Inc. of East Longmeadow, Massachusetts

3.2 SOIL BORING AND SAMPLING

Tetra Tech performed soil boring and sampling at the Site on March 25 and 29, 2019. Prior to sampling, Tetra Tech contacted the public utility clearance service and obtained utility clearance for the work. The soil boring and sampling were performed by Cascades Technical Services, LLC (Cascades) using a Geoprobe 7822DT direct push rig. Mr. Joseph Hutchins and Mr. Richard Reagan of Cascades operated the Geoprobe.

3.3 FIELD SCREENING RESULTS

Mr. Ian Canaan of Tetra Tech supervised the soil sampling, conducted field screening and selected soil samples for laboratory analysis. Soil at the Site consists of topsoil trending to brown to gray silty clay and clay with some sand and gravel. Traces of shale (apparent bedrock) were encountered from 4 to 6 fbg in some locations). No soil staining, odors or positive photoionization detector (PID) field screening results were recorded. The soils at each boring location appeared to be consistent with natural soils. Mr. Ian Canaan of Tetra Tech supervised the soil boring activities, screened soils, and collected samples for laboratory analysis.

3.4 ANALYTICAL RESULTS

VOCs, PAHs, pesticides and herbicides were not detected in the soil samples. Very low levels of toluene were detected in soil sample TT-SB-14 (0.0068 mg/kg) and the duplicate sample collected at TT-SB-13 (0.0028 mg/kg)(but not parent sample TT-SB-13) and below the cleanup standard (0.7 mg/kg). These samples were collected from an open agricultural field and no source of toluene (such as stormwater runoff) exists in this area. Since toluene was not detected in parent sample TT-SB-13, Tetra Tech determined that the detection is a laboratory induced artifact rather than a constituent in soil (i.e. a false positive).

Low levels of metals were detected in the soil samples at concentrations that are consistent with the background values for metals published in the *Concentrations of Selected Analytes in Rural New York State Surface Soils: A Summary Report on the Statewide Rural Surface Soil Survey* publication dated August 2005 published by NYSDEC and the New York State Department of Health (NYSDOH).

The analytical results indicate that the soils are in compliance with the Unrestricted Use Soil Cleanup Objectives published in 6 NYCRR Part 375 (Environmental Remediation Programs)(Subparts 375-1 to 375-4 & 375-6 dated December 14, 2006) and/or NYSDEC publication CP-51 (Soil Cleanup Guidance dated October 21, 2010. Laboratory analytical data reports are included in Appendix A. Field notes are included as Appendix B. Analytical results are presented in Table 1.

4.0 DATA QUALITY REVIEW

4.1 DATA QUALITY OBJECTIVES

Data quality objectives established for the Phase II ESA include the following:

1. The data must be adequate to detect the constituents of concern most typically associated with hazardous substance releases at agricultural properties.
2. The data must be analyzed following established analytical procedures.
3. The laboratory must be licensed by the State of New York.
4. The data must be reproducible, accurate and precise.
5. Analytical detection limits must be below the Unrestricted Use Soil Cleanup Objectives published in 6 NYCRR Part 375 and/or NYSDEC publication CP-51.

Based on our review of the laboratory reports, the data quality objectives were met.

4.2 ANALYTICAL DETECTION LIMITS

Analytical detection limits were below the cleanup standards for most compounds. However, the minimum laboratory detection limits were slightly above the cleanup standards for a few compounds such as aldrin, 4,4-DDT, 4,4-DDD, and 4,4-DDE because the standards for some of these compounds are below the minimum analytical limits that the lab can attain. Based on the absence of pesticide detection in all samples, Tetra Tech did not identify this as a significant data quality limitation.

4.3 LAB QUALITY CONTROL AND DATA LIMITATIONS

Based on Tetra Tech's review of the laboratory data, no significant quality issues or data quality limitations were identified (Appendix A. As a result, the data were deemed to be suitable and reliable for use in determining if hazardous substance releases have occurred.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical results, a release of hazardous substances has not occurred at the Site. Soil site-wide may be used at the Site or exported off-site in an unrestricted manner as clean fill. Based on the Phase II ESA results, no further environmental investigation is recommended.

6.0 SIGNATURES

Tetra Tech appreciates the opportunity to work with WE Acquisitions LLC on this project. If you have any questions concerning the findings or conclusions contained in this report, please contact John Insall, LEP at (860) 571-8011.

Environmental Professional



Ian Canaan, CHMM
Senior Project Scientist

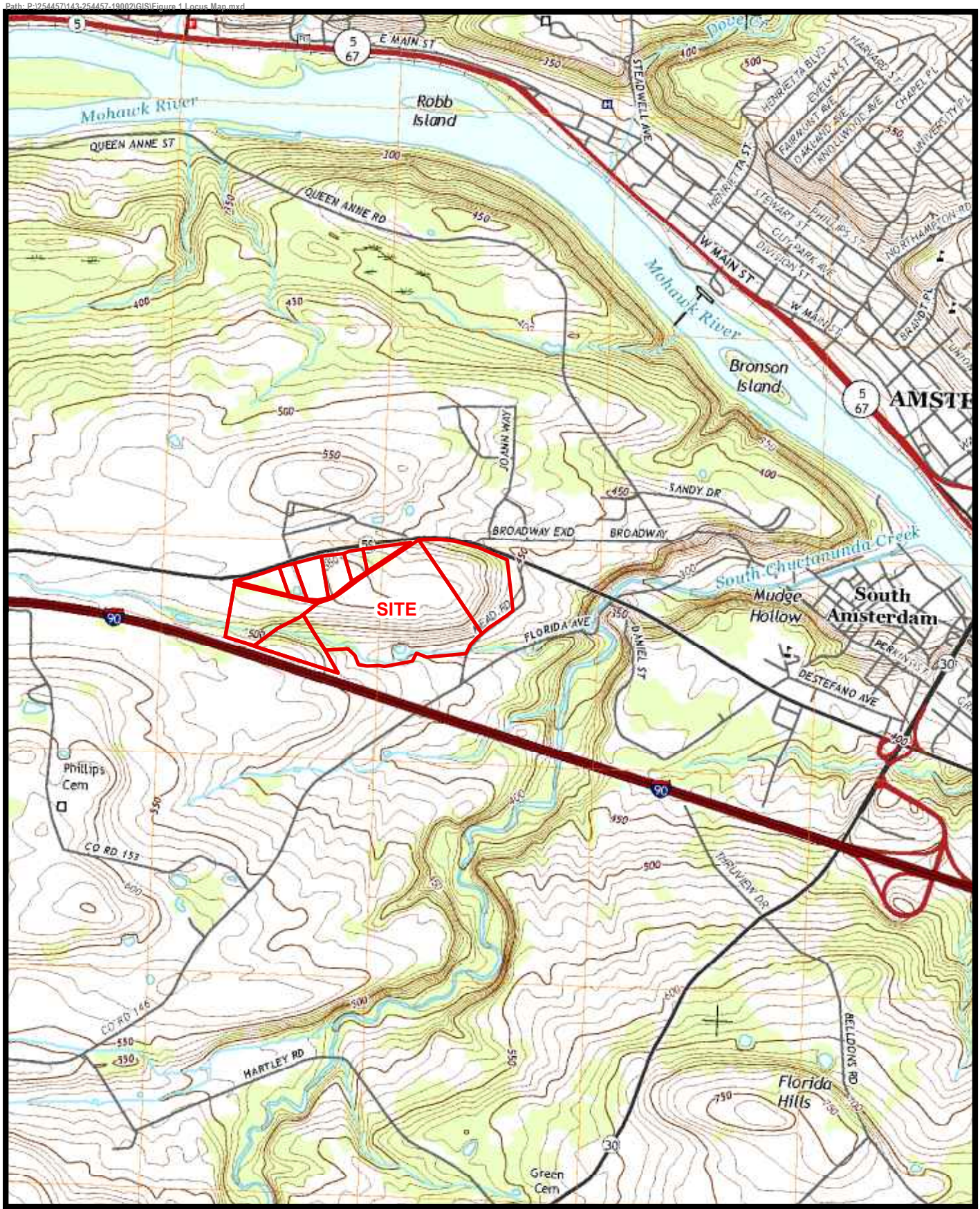


John Insall, LEP
Senior Project Manager

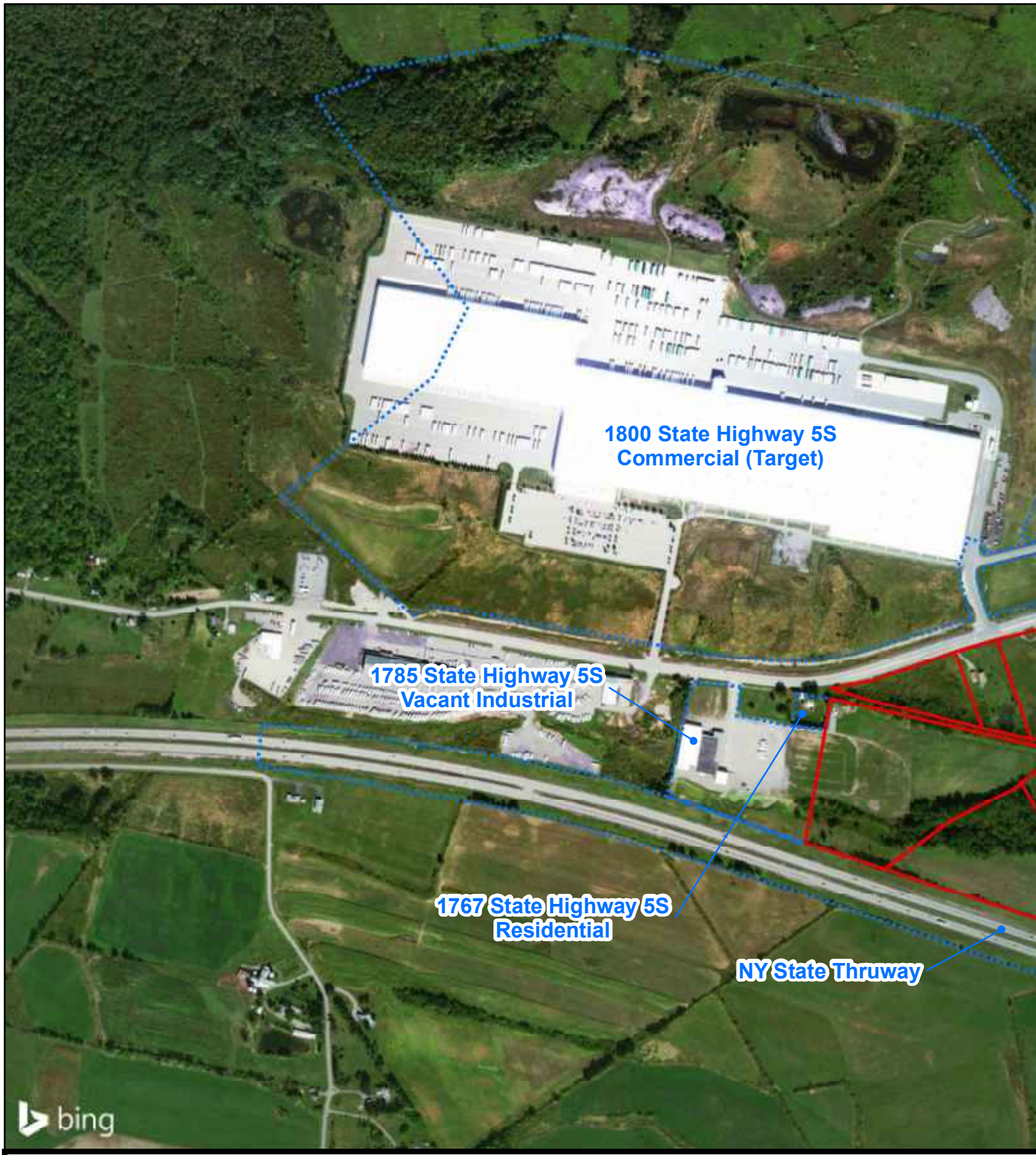


John Adams, PG (000700)
Senior Vice President

Path: P:\254457\143-254457-19002\GIS\Figure 1 Locus Map.mxd



TETRA TECH www.tetratech.com 100 Nickerson Road Marlborough, MA 01752 Phone (508) 786-2200 Fax: (508) 786-2201	N 0 1,000 2,000 Feet	Information obtained from USGS Quadrangle of Amsterdam New York, dated 2016 Source: USGS	WE Acquisitions, LLC State Highway 5S and Old Route 5S Florida, Montgomery County, NY **Site Locus Map**	Project No.: 143-254457-19002 Date: November 14, 2018 Designed By: SK Figure 1



Legend

Site

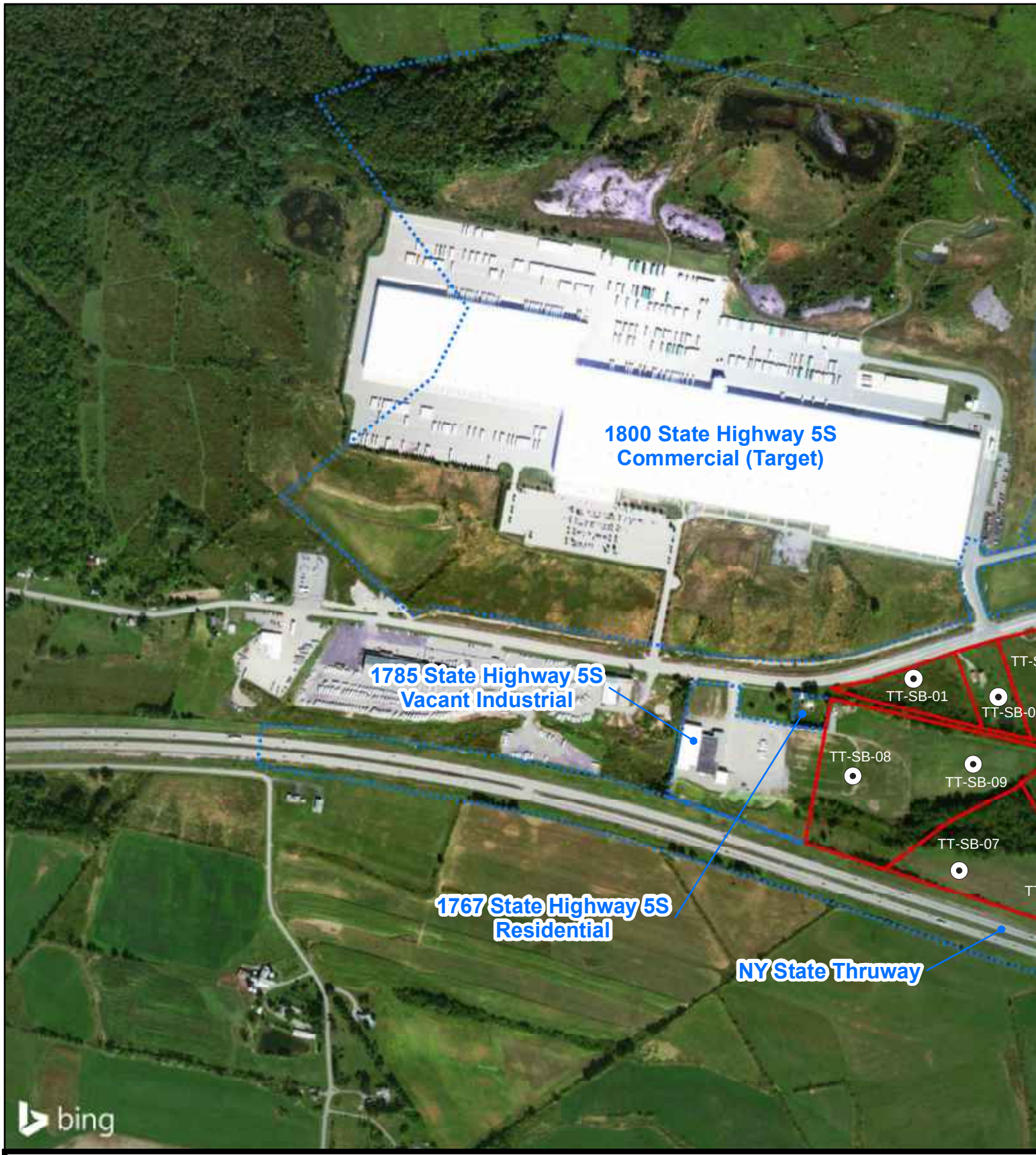
Adjacent Properties

*** Approximate boundaries based on GISMO, the GIS system for Montgomery County, NY**

0 350 700

Feet

Source: Bing Aerial



Legend

Site

Adjacent Properties

*** Approximate boundaries based on GISMO, the GIS system for Montgomery County, NY**

0 350 700

Feet

Source: Bing Aerial

Table 1
Soil Analytical Results
Highway 5S and Mead Road Parcels
Florida, New York

ConTest WO# 19C1374 & 19C1653	Units	6 NYCRR Part 375.6.8	19C1374-01	19C1374-02	19C1374-03	19C1374-04	19C1374-05	19C1374-06	19C1374-07	19C1374-08	19C1374-09
Tetra Tech Project No. 143-254457-19003		**Unrestricted Use**	TT-SB-01 (2-4)	TT-SB-02 (2-4)	TT-SB-03 (4-6)	TT-SB-04 (4-6)	TT-SB-05 (1.3-4)	TT-SB-06 (0-1.8)	TT-SB-07 (2-4)	TT-SB-08 (4-6)	TT-SB-09 (4-6)
Highway 5S and Mead Road Parcels		**Soil Cleanup**	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19	25-Mar-19
Florida, New York		**Objective (SCO)**									
Volatile Organic Compounds (VOCs) Method 8260C			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Acetone	mg/Kg	0.05	<0.083	<0.081	<0.076	<0.073	<0.087	<0.098	<0.086	<0.077	<0.078
Acrylonitrile	mg/Kg	NE	<0.0050	<0.0048	<0.0045	<0.0044	<0.0052	<0.0059	<0.0051	<0.0046	<0.0047
tert-Amyl Methyl Ether (TAME)	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Benzene	mg/Kg	0.06	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Bromobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Bromochloromethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Bromodichloromethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Bromoform	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Bromomethane	mg/Kg	NE	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
2-Butanone (MEK)	mg/Kg	100*	<0.033	<0.032	<0.030	<0.029	<0.035	<0.039	<0.034	<0.031	<0.031
tert-Butyl Alcohol (TBA)	mg/Kg	NE	<0.033	<0.032	<0.030	<0.029	<0.035	<0.039	<0.034	<0.031	<0.031
n-Butylbenzene	mg/Kg	12	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
sec-Butylbenzene	mg/Kg	11	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
tert-Butylbenzene	mg/Kg	5.9	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
tert-Butyl Ethyl Ether (TBEE)	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Carbon Disulfide	mg/Kg	100*	<0.0050	<0.0048	<0.0045	<0.0044	<0.0052	<0.0059	<0.0051	<0.0046	<0.0047
Carbon Tetrachloride	mg/Kg	0.76	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Chlorobenzene	mg/Kg	1.1	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Chlorodibromomethane	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Chloroethane	mg/Kg	NE	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
Chloroform	mg/Kg	0.37	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
Chloromethane	mg/Kg	NE	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
2-Chlorotoluene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
4-Chlorotoluene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2-Dibromo-3-chloropropane (DBCP)	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2-Dibromoethane (EDB)	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Dibromomethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2-Dichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,3-Dichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,4-Dichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
trans-1,4-Dichloro-2-butene	mg/Kg	NE	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
Dichlorodifluoromethane (Freon 12)	mg/Kg	NE	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
1,1-Dichloroethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2-Dichloroethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1-Dichloroethylene	mg/Kg	NE	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
cis-1,2-Dichloroethylene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
trans-1,2-Dichloroethylene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2-Dichloropropane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,3-Dichloropropane	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
2,2-Dichloropropane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1-Dichloropropene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
cis-1,3-Dichloropropene	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
trans-1,3-Dichloropropene	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Diethyl Ether	mg/Kg	NE	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
Diisopropyl Ether (DIPE)	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
1,4-Dioxane	mg/Kg	NE	<0.083	<0.081	<0.076	<0.073	<0.087	<0.098	<0.086	<0.077	<0.078
Ethylbenzene	mg/Kg	1	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Hexachlorobutadiene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
2-Hexanone (MBK)	mg/Kg	NE	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
Isopropylbenzene (Cumene)	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
p-Isopropyltoluene (p-Cymene)	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Methyl Acetate	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Methyl tert-Butyl Ether (MTBE)	mg/Kg	0.93	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
Methyl Cyclohexane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Methylene Chloride	mg/Kg	0.05	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
4-Methyl-2-pentanone (MIBK)	mg/Kg	NE	<0.017	<0.016	<0.015	<0.015	<0.017	<0.020	<0.017	<0.015	<0.016
Naphthalene	mg/Kg	NE	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
n-Propylbenzene	mg/Kg	3.9	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Styrene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1,1,2-Tetrachloroethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1,2,2-Tetrachloroethane	mg/Kg	NE	<0.00083	<0.00081	<0.00076	<0.00073	<0.00087	<0.00098	<0.00086	<0.00077	<0.00078
Tetrachloroethylene	mg/Kg	1.3	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Tetrahydrofuran	mg/Kg	NE	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
Toluene	mg/Kg	0.7	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2,3-Trichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,2,4-Trichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,3,5-Trichlorobenzene	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1,1-Trichloroethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1,2-Trichloroethane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Trichloroethylene	mg/Kg	0.47	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Trichlorofluoromethane (Freon 11)	mg/Kg	NE	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
1,2,3-Trichloropropane	mg/Kg	NE	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	mg/Kg	NE	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
1,2,4-Trimethylbenzene	mg/Kg	3.6	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
1,3,5-Trimethylbenzene	mg/Kg	8.4	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Vinyl Chloride	mg/Kg	0.02	<0.0083	<0.0081	<0.0076	<0.0073	<0.0087	<0.0098	<0.0086	<0.0077	<0.0078
m+p Xylene	mg/Kg	0.26	<0.0033	<0.0032	<0.0030	<0.0029	<0.0035	<0.0039	<0.0034	<0.0031	<0.0031
o-Xylene	mg/Kg	0.26	<0.0017	<0.0016	<0.0015	<0.0015	<0.0017	<0.0020	<0.0017	<0.0015	<0.0016
Poly Aromatic Hydrocarbons (PAHs) by Method 8270D											
Acenaphthene	mg/Kg	20	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Acenaphthylene	mg/Kg	100	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Anthracene	mg/Kg	100	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Benzo(a)anthracene	mg/Kg	1	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Benzo(a)pyrene	mg/Kg	1	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Benzo(b)fluoranthene	mg/Kg	1	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Benzo(g,h,i)perylene	mg/Kg	100	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Benzo(k)fluoranthene	mg/Kg	0.8	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Chrysene	mg/Kg	1	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Dibenz(a,h)anthracene	mg/Kg	0.33	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Fluoranthene	mg/Kg	100	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Fluorene	mg/Kg	30	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
Indeno(1,2,3-cd)pyrene	mg/Kg	0.5	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18
2-Methylnaphthalene	mg/Kg	0.41*	<0.21	<0.22	<0.19	<0.19	<0.22	<0.23	<0.25	<0.19	<0.18

Table 1
Soil Analytical Results
Highway 5S and Mead Road Parcels
Florida, New York

ConTest WO# 19C1374 & 19C1653	Units	6 NYCRR Part 375.6.8	19C1653-01	19C1653-02	19C1653-03	19C1653-04	19C1653-05	19C1653-06	19C1653-07
Tetra Tech Project No. 143-254457-19003		Unrestricted Use	TB-1	DUP-1	TT-SB-13 (0-2)	TT-SB-14 (0-2)	TT-SB-15 (2-4)	TT-SB-16 (0-2)	TT-SB-17 (2-4)
Highway 5S and Mead Road Parcels		Soil Cleanup	25-Mar-19	29-Mar-19	29-Mar-19	29-Mar-19	29-Mar-19	29-Mar-19	29-Mar-19
Florida, New York		Objective (SCO)	30-Mar-19	30-Mar-19	30-Mar-19	30-Mar-19	30-Mar-19	30-Mar-19	30-Mar-19
Volatile Organic Compounds (VOCs) Method 8260C			Soil	Soil	Soil	Soil	Soil	Soil	Soil
Acetone	mg/Kg	0.05	<0.10	<0.071	<0.10	<0.12	<0.082	<0.087	<0.11
Acrylonitrile	mg/Kg	NE	<0.0060	<0.0043	<0.0061	<0.0072	<0.0049	<0.0052	<0.0063
tert-Amyl Methyl Ether (TAME)	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Benzene	mg/Kg	0.06	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Bromobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Bromochloromethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Bromodichloromethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Bromoform	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Bromomethane	mg/Kg	NE	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
2-Butanone (MEK)	mg/Kg	100*	<0.040	<0.028	<0.041	<0.048	<0.033	<0.035	<0.042
tert-Butyl Alcohol (TBA)	mg/Kg	NE	<0.040	<0.028	<0.041	<0.048	<0.033	<0.035	<0.042
n-Butylbenzene	mg/Kg	12	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
sec-Butylbenzene	mg/Kg	11	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
tert-Butylbenzene	mg/Kg	5.9	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
tert-Butyl Ethyl Ether (TBEE)	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Carbon Disulfide	mg/Kg	100*	<0.0060	<0.0043	<0.0061	<0.0072	<0.0049	<0.0052	<0.0063
Carbon Tetrachloride	mg/Kg	0.76	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Chlorobenzene	mg/Kg	1.1	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Chlorodibromomethane	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Chloroethane	mg/Kg	NE	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
Chloroform	mg/Kg	0.37	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
Chloromethane	mg/Kg	NE	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
2-Chlorotoluene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
4-Chlorotoluene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2-Dibromo-3-chloropropane (DBCP)	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2-Dibromoethane (EDB)	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Dibromomethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2-Dichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,3-Dichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,4-Dichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
trans-1,4-Dichloro-2-butene	mg/Kg	NE	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
Dichlorodifluoromethane (Freon 12)	mg/Kg	NE	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
1,1-Dichloroethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2-Dichloroethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1-Dichloroethylene	mg/Kg	NE	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
cis-1,2-Dichloroethylene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
trans-1,2-Dichloroethylene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2-Dichloropropane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,3-Dichloropropane	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
2,2-Dichloropropane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1-Dichloropropene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
cis-1,3-Dichloropropene	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
trans-1,3-Dichloropropene	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Diethyl Ether	mg/Kg	NE	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
Diisopropyl Ether (DIPE)	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
1,4-Dioxane	mg/Kg	NE	<0.10	<0.071	<0.10	<0.12	<0.082	<0.087	<0.11
Ethylbenzene	mg/Kg	1	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Hexachlorobutadiene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
2-Hexanone (MBK)	mg/Kg	NE	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
Isopropylbenzene (Cumene)	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
p-Isopropyltoluene (p-Cymene)	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Methyl Acetate	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Methyl tert-Butyl Ether (MTBE)	mg/Kg	0.93	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
Methyl Cyclohexane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Methylene Chloride	mg/Kg	0.05	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
4-Methyl-2-pentanone (MIBK)	mg/Kg	NE	<0.020	<0.014	<0.020	<0.024	<0.016	<0.017	<0.021
Naphthalene	mg/Kg	NE	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
n-Propylbenzene	mg/Kg	3.9	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Styrene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1,1,2-Tetrachloroethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1,2,2-Tetrachloroethane	mg/Kg	NE	<0.0010	<0.00071	<0.0010	<0.0012	<0.00082	<0.00087	<0.0011
Tetrachloroethylene	mg/Kg	1.3	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Tetrahydrofuran	mg/Kg	NE	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
Toluene	mg/Kg	0.7	<0.0020	0.0028	<0.0020	0.0068	<0.0016	<0.0017	<0.0021
1,2,3-Trichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,2,4-Trichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,3,5-Trichlorobenzene	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1,1-Trichloroethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1,2-Trichloroethane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Trichloroethylene	mg/Kg	0.47	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Trichlorofluoromethane (Freon 11)	mg/Kg	NE	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
1,2,3-Trichloropropane	mg/Kg	NE	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	mg/Kg	NE	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
1,2,4-Trimethylbenzene	mg/Kg	3.6	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
1,3,5-Trimethylbenzene	mg/Kg	8.4	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Vinyl Chloride	mg/Kg	0.02	<0.010	<0.0071	<0.010	<0.012	<0.0082	<0.0087	<0.011
m+p Xylene	mg/Kg	0.26	<0.0040	<0.0028	<0.0041	<0.0048	<0.0033	<0.0035	<0.0042
o-Xylene	mg/Kg	0.26	<0.0020	<0.0014	<0.0020	<0.0024	<0.0016	<0.0017	<0.0021
Poly Aromatic Hydrocarbons (PAHs) by Method 8270D									
Acenaphthene	mg/Kg	20	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Acenaphthylene	mg/Kg	100	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Anthracene	mg/Kg	100	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Benzo(a)anthracene	mg/Kg	1	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Benzo(a)pyrene	mg/Kg	1	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Benzo(b)fluoranthene	mg/Kg	1	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Benzo(g,h,i)perylene	mg/Kg	100	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Benzo(k)fluoranthene	mg/Kg	0.8	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Chrysene	mg/Kg	1	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Dibenz(a,h)anthracene	mg/Kg	0.33	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Fluoranthene	mg/Kg	100	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Fluorene	mg/Kg	30	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
Indeno(1,2,3-cd)pyrene	mg/Kg	0.5	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24
2-Methylnaphthalene	mg/Kg	0.41*	NA	NA	<0.21	<0.21	<0.21	<0.22	<0.24

APPENDIX A
LABORATORY ANALYTICAL DATA REPORTS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 5, 2019

John Insall
Tetra Tech - CT
912 Silas Deane Highway
Wethersfield, CT 06109

Project Location: Florida, NY
Client Job Number:
Project Number: 143-254457-19003
Laboratory Work Order Number: 19C1374

Enclosed are results of analyses for samples received by the laboratory on March 27, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kerry K. McGee
Project Manager

Table of Contents

Sample Summary 4

Case Narrative 6

Sample Results 9

19C1374-01 9

19C1374-02 15

19C1374-03 22

19C1374-04 28

19C1374-05 34

19C1374-06 40

19C1374-07 46

19C1374-08 52

19C1374-09 58

19C1374-10 64

19C1374-11 71

19C1374-12 77

Sample Preparation Information 83

QC Data 85

Volatile Organic Compounds by GC/MS 85

B226979 85

Semivolatile Organic Compounds by GC/MS 90

B227315 90

Organochloride Pesticides by GC/ECD 93

B227071 93

Herbicides by GC/ECD 96

B226813 96

Table of Contents (continued)

Metals Analyses (Total) 97

B226895 97

B226973 97

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) 98

B227324 98

Pesticides Degradation Report 99

Dual Column RPD Report 101

Flag/Qualifier Summary 107

Certifications 108

Chain of Custody/Sample Receipt 113

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Tetra Tech - CT
912 Silas Deane Highway
Wethersfield, CT 06109
ATTN: John Insall

REPORT DATE: 4/5/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 143-254457-19003

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19C1374

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Florida, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TT-SB-01 (2-4)	19C1374-01	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-02 (2-4)	19C1374-02	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8151A	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-03 (4-6)	19C1374-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-04 (4-6)	19C1374-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-05 (1.3-4)	19C1374-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-06 (0-1.8)	19C1374-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Tetra Tech - CT
912 Silas Deane Highway
Wethersfield, CT 06109
ATTN: John Insall

REPORT DATE: 4/5/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 143-254457-19003

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19C1374

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Florida, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TT-SB-07 (2-4)	19C1374-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-08 (4-6)	19C1374-08	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-09 (4-6)	19C1374-09	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-10 (0-2)	19C1374-10	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8151A	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-11 (4-6)	19C1374-11	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-12 (0-2)	19C1374-12	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8151, samples were derivatized on 03/30/19.

For method 8151, sample analysis bracketed by LCS to monitor esterification. All recoveries in the bracketing LCS met method criteria.

For method 8270, only PAHs were requested and reported.

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SW-846 8151A

Qualifications:

S-12

Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.

Analyte & Samples(s) Qualified:

2,4-Dichlorophenylacetic acid [2C]

19C1374-10[TT-SB-10 (0-2)]

SW-846 8260C

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Chloromethane

19C1374-01[TT-SB-01 (2-4)], 19C1374-02[TT-SB-02 (2-4)], 19C1374-03[TT-SB-03 (4-6)], 19C1374-04[TT-SB-04 (4-6)], 19C1374-05[TT-SB-05 (1.3-4)], 19C1374-06[TT-SB-06 (0-1.8)], 19C1374-07[TT-SB-07 (2-4)], 19C1374-08[TT-SB-08 (4-6)], 19C1374-09[TT-SB-09 (4-6)], 19C1374-10[TT-SB-10 (0-2)], 19C1374-11[TT-SB-11 (4-6)], 19C1374-12[TT-SB-12 (0-2)], B226979-BLK1, B226979-BS1, B226979-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Trichlorofluoromethane (Freon 11)

B226979-BSD1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Acetone

19C1374-01[TT-SB-01 (2-4)], 19C1374-02[TT-SB-02 (2-4)], 19C1374-03[TT-SB-03 (4-6)], 19C1374-04[TT-SB-04 (4-6)], 19C1374-05[TT-SB-05 (1.3-4)], 19C1374-06[TT-SB-06 (0-1.8)], 19C1374-07[TT-SB-07 (2-4)], 19C1374-08[TT-SB-08 (4-6)], 19C1374-09[TT-SB-09 (4-6)], 19C1374-10[TT-SB-10 (0-2)], 19C1374-11[TT-SB-11 (4-6)], 19C1374-12[TT-SB-12 (0-2)], B226979-BLK1, B226979-BS1, B226979-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

Bromoform

B226979-BS1, B226979-BSD1, S034134-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane

19C1374-01[TT-SB-01 (2-4)], 19C1374-02[TT-SB-02 (2-4)], 19C1374-03[TT-SB-03 (4-6)], 19C1374-04[TT-SB-04 (4-6)], 19C1374-05[TT-SB-05 (1.3-4)], 19C1374-06[TT-SB-06 (0-1.8)], 19C1374-07[TT-SB-07 (2-4)], 19C1374-08[TT-SB-08 (4-6)], 19C1374-09[TT-SB-09 (4-6)], 19C1374-10[TT-SB-10 (0-2)], 19C1374-11[TT-SB-11 (4-6)], 19C1374-12[TT-SB-12 (0-2)], B226979-BLK1, B226979-BS1, B226979-BSD1, S034134-CCV1

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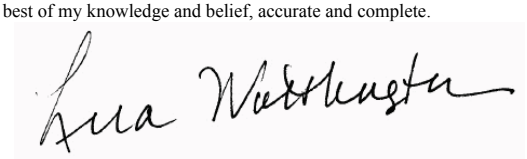
The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.083	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Acrylonitrile	ND	0.0050	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Bromomethane	ND	0.0083	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 10:25	MFF
2-Butanone (MEK)	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
tert-Butyl Alcohol (TBA)	ND	0.033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Carbon Disulfide	ND	0.0050	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Chlorodibromomethane	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Chloroethane	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Chloroform	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Chloromethane	ND	0.0083	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 10:25	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2-Dibromoethane (EDB)	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
trans-1,4-Dichloro-2-butene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1-Dichloroethylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,3-Dichloropropane	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
2,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
cis-1,3-Dichloropropene	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
trans-1,3-Dichloropropene	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Diethyl Ether	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,4-Dioxane	ND	0.083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Methyl Acetate	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Methyl Cyclohexane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Methylene Chloride	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Naphthalene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1,2,2-Tetrachloroethane	ND	0.00083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Tetrahydrofuran	ND	0.0083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2,3-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2,4-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,3,5-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
Vinyl Chloride	ND	0.0083	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
m+p Xylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:25	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.0	70-130		3/29/19 10:25
Toluene-d8	96.8	70-130		3/29/19 10:25
4-Bromofluorobenzene	98.1	70-130		3/29/19 10:25

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:00	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	79.8	30-130		4/4/19 14:00
2-Fluorobiphenyl	78.7	30-130		4/4/19 14:00
p-Terphenyl-d14	85.8	30-130		4/4/19 14:00

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Aldrin [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
alpha-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
beta-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
delta-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
gamma-BHC (Lindane) [1]	ND	0.0025	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Chlordane [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
4,4'-DDD [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
4,4'-DDE [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
4,4'-DDT [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Dieldrin [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endosulfan I [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Heptachlor [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Heptachlor epoxide [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Hexachlorobenzene [1]	ND	0.0075	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Methoxychlor [1]	ND	0.063	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:04	WAL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	82.9	30-150		4/2/19 23:04
Decachlorobiphenyl [2]	92.0	30-150		4/2/19 23:04
Tetrachloro-m-xylene [1]	94.5	30-150		4/2/19 23:04
Tetrachloro-m-xylene [2]	99.3	30-150		4/2/19 23:04

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.7	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Barium	160	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Cadmium	0.26	0.21	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Chromium	22	0.43	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Lead	10	0.64	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Mercury	ND	0.030	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:36	TBC
Selenium	ND	4.3	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB
Silver	ND	0.43	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 12:50	EJB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-01 (2-4) | Sampled: 3/25/2019 09:25

Sample ID: 19C1374-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.0		% Wt	1		SM 2540G	4/3/19	4/4/19 0:49	AVF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.081	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Acrylonitrile	ND	0.0048	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Bromomethane	ND	0.0081	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 10:50	MFF
2-Butanone (MEK)	ND	0.032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
tert-Butyl Alcohol (TBA)	ND	0.032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Carbon Disulfide	ND	0.0048	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Chlorodibromomethane	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Chloroform	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Chloromethane	ND	0.0081	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 10:50	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2-Dibromoethane (EDB)	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
trans-1,4-Dichloro-2-butene	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1-Dichloroethylene	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,3-Dichloropropane	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
2,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
cis-1,3-Dichloropropene	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
trans-1,3-Dichloropropene	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,4-Dioxane	ND	0.081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Ethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Methyl Acetate	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Methyl Cyclohexane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Naphthalene	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1,2,2-Tetrachloroethane	ND	0.00081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Tetrahydrofuran	ND	0.0081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Toluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2,3-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2,4-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,3,5-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
Vinyl Chloride	ND	0.0081	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
m+p Xylene	ND	0.0032	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF
o-Xylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 10:50	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.6	70-130		3/29/19 10:50
Toluene-d8	96.4	70-130		3/29/19 10:50
4-Bromofluorobenzene	95.2	70-130		3/29/19 10:50

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:26	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	76.9	30-130		4/4/19 14:26
2-Fluorobiphenyl	78.7	30-130		4/4/19 14:26
p-Terphenyl-d14	83.3	30-130		4/4/19 14:26

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Aldrin [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
alpha-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
beta-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
delta-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
gamma-BHC (Lindane) [1]	ND	0.0026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Chlordane [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
4,4'-DDD [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
4,4'-DDE [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
4,4'-DDT [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Dieldrin [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endosulfan I [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Heptachlor [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Heptachlor epoxide [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Hexachlorobenzene [1]	ND	0.0078	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Methoxychlor [1]	ND	0.065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	3/31/19	4/2/19 23:31	WAL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	82.7	30-150		4/2/19 23:31
Decachlorobiphenyl [2]	90.5	30-150		4/2/19 23:31
Tetrachloro-m-xylene [1]	94.4	30-150		4/2/19 23:31
Tetrachloro-m-xylene [2]	96.3	30-150		4/2/19 23:31

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Herbicides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [1]	ND	33	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 14:27	TG
2,4,5-TP (Silvex) [1]	ND	3.3	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 14:27	TG
2,4,5-T [1]	ND	3.3	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 14:27	TG
Dalalpon [1]	ND	82	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 14:27	TG
Dicamba [1]	ND	3.3	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 14:27	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,4-Dichlorophenylacetic acid [1]	98.6	30-150		4/1/19 14:27
2,4-Dichlorophenylacetic acid [2]	117	30-150		4/1/19 14:27

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY
Sample Description:
Work Order: 19C1374
Date Received: 3/27/2019
Field Sample #: TT-SB-02 (2-4)
Sampled: 3/25/2019 10:12
Sample ID: 19C1374-02
Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	5.1	2.2	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Barium	100	2.2	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Cadmium	0.26	0.22	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Chromium	18	0.44	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Lead	7.9	0.65	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Mercury	0.051	0.033	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:37	TBC
Selenium	ND	4.4	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB
Silver	ND	0.44	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:30	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-02 (2-4) | Sampled: 3/25/2019 10:12

Sample ID: 19C1374-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.0		% Wt	1		SM 2540G	4/3/19	4/4/19 0:49	AVF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.076	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Acrylonitrile	ND	0.0045	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Bromomethane	ND	0.0076	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 11:14	MFF
2-Butanone (MEK)	ND	0.030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
tert-Butyl Alcohol (TBA)	ND	0.030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Carbon Disulfide	ND	0.0045	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Chlorodibromomethane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Chloroform	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Chloromethane	ND	0.0076	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 11:14	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2-Dibromoethane (EDB)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
trans-1,4-Dichloro-2-butene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,3-Dichloropropane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
cis-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
trans-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,4-Dioxane	ND	0.076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Ethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Methyl Acetate	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Methyl Cyclohexane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Naphthalene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1,2,2-Tetrachloroethane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Tetrahydrofuran	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Toluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,3,5-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
Vinyl Chloride	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
m+p Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF
o-Xylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.0	70-130		3/29/19 11:14
Toluene-d8	98.0	70-130		3/29/19 11:14
4-Bromofluorobenzene	95.9	70-130		3/29/19 11:14

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 14:52	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	76.6	30-130		4/4/19 14:52
2-Fluorobiphenyl	77.2	30-130		4/4/19 14:52
p-Terphenyl-d14	86.0	30-130		4/4/19 14:52

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Aldrin [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
alpha-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
beta-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
delta-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
gamma-BHC (Lindane) [1]	ND	0.0022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Chlordane [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
4,4'-DDD [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
4,4'-DDE [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
4,4'-DDT [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Dieldrin [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endosulfan I [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endosulfan II [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endosulfan sulfate [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endrin [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endrin aldehyde [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Endrin ketone [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Heptachlor [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Heptachlor epoxide [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Hexachlorobenzene [1]	ND	0.0067	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Methoxychlor [1]	ND	0.056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 2:39	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	74.2	30-150		4/3/19 2:39
Decachlorobiphenyl [2]	93.8	30-150		4/3/19 2:39
Tetrachloro-m-xylene [1]	90.9	30-150		4/3/19 2:39
Tetrachloro-m-xylene [2]	96.7	30-150		4/3/19 2:39

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.4	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Barium	64	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Cadmium	0.29	0.19	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Chromium	11	0.38	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Lead	7.0	0.57	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Mercury	ND	0.027	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:39	TBC
Selenium	ND	3.8	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB
Silver	ND	0.38	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:35	EJB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-03 (4-6) | Sampled: 3/25/2019 10:20

Sample ID: 19C1374-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.6		% Wt	1		SM 2540G	4/3/19	4/4/19 0:49	AVF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.073	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Acrylonitrile	ND	0.0044	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Bromomethane	ND	0.0073	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 11:39	MFF
2-Butanone (MEK)	ND	0.029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
tert-Butyl Alcohol (TBA)	ND	0.029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Carbon Disulfide	ND	0.0044	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Chlorodibromomethane	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Chloroform	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Chloromethane	ND	0.0073	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 11:39	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2-Dibromoethane (EDB)	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
trans-1,4-Dichloro-2-butene	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1-Dichloroethylene	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,3-Dichloropropane	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
cis-1,3-Dichloropropene	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
trans-1,3-Dichloropropene	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,4-Dioxane	ND	0.073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Ethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Methyl Acetate	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Methyl Cyclohexane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Naphthalene	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1,2,2-Tetrachloroethane	ND	0.00073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Tetrahydrofuran	ND	0.0073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Toluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,3,5-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
Vinyl Chloride	ND	0.0073	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
m+p Xylene	ND	0.0029	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF
o-Xylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 11:39	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.1	70-130		3/29/19 11:39
Toluene-d8	96.6	70-130		3/29/19 11:39
4-Bromofluorobenzene	95.3	70-130		3/29/19 11:39

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:18	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	76.4	30-130		4/4/19 15:18
2-Fluorobiphenyl	76.0	30-130		4/4/19 15:18
p-Terphenyl-d14	82.4	30-130		4/4/19 15:18

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Aldrin [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
alpha-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
beta-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
delta-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
gamma-BHC (Lindane) [1]	ND	0.0023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Chlordane [1]	ND	0.023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
4,4'-DDD [1]	ND	0.0046	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
4,4'-DDE [1]	ND	0.0046	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
4,4'-DDT [1]	ND	0.0046	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Dieldrin [1]	ND	0.0046	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endosulfan I [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endosulfan II [1]	ND	0.0092	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endosulfan sulfate [1]	ND	0.0092	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endrin [1]	ND	0.0092	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endrin aldehyde [1]	ND	0.0092	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Endrin ketone [1]	ND	0.0092	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Heptachlor [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Heptachlor epoxide [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Hexachlorobenzene [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Methoxychlor [1]	ND	0.057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:06	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	71.1	30-150		4/3/19 3:06
Decachlorobiphenyl [2]	88.4	30-150		4/3/19 3:06
Tetrachloro-m-xylene [1]	85.0	30-150		4/3/19 3:06
Tetrachloro-m-xylene [2]	86.6	30-150		4/3/19 3:06

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.8	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Barium	67	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Cadmium	0.32	0.19	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Chromium	12	0.39	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Lead	7.2	0.58	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Mercury	0.028	0.028	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:45	TBC
Selenium	ND	3.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB
Silver	ND	0.39	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:40	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-04 (4-6) | Sampled: 3/25/2019 10:50

Sample ID: 19C1374-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	85.6		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4) | Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.087	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Acrylonitrile	ND	0.0052	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Bromomethane	ND	0.0087	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 12:04	MFF
2-Butanone (MEK)	ND	0.035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
tert-Butyl Alcohol (TBA)	ND	0.035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Carbon Disulfide	ND	0.0052	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Chlorodibromomethane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Chloroethane	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Chloroform	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Chloromethane	ND	0.0087	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 12:04	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2-Dibromoethane (EDB)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
trans-1,4-Dichloro-2-butene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1-Dichloroethylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,3-Dichloropropane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
2,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
cis-1,3-Dichloropropene	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
trans-1,3-Dichloropropene	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Diethyl Ether	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4) | Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,4-Dioxane	ND	0.087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Methyl Acetate	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Methyl Cyclohexane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Methylene Chloride	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Naphthalene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1,2,2-Tetrachloroethane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Tetrahydrofuran	ND	0.0087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2,3-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2,4-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,3,5-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
Vinyl Chloride	ND	0.0087	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
m+p Xylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:04	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		3/29/19 12:04
Toluene-d8	98.3	70-130		3/29/19 12:04
4-Bromofluorobenzene	97.9	70-130		3/29/19 12:04

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4) | Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 15:43	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	81.9	30-130		4/4/19 15:43
2-Fluorobiphenyl	79.3	30-130		4/4/19 15:43
p-Terphenyl-d14	78.9	30-130		4/4/19 15:43

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Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4) | Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Aldrin [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
alpha-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
beta-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
delta-BHC [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
gamma-BHC (Lindane) [1]	ND	0.0026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Chlordane [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
4,4'-DDD [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
4,4'-DDE [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
4,4'-DDT [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Dieldrin [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endosulfan I [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Heptachlor [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Heptachlor epoxide [1]	ND	0.0065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Hexachlorobenzene [1]	ND	0.0078	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Methoxychlor [1]	ND	0.065	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 3:33	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.9	30-150		4/3/19 3:33
Decachlorobiphenyl [2]	98.4	30-150		4/3/19 3:33
Tetrachloro-m-xylene [1]	103	30-150		4/3/19 3:33
Tetrachloro-m-xylene [2]	107	30-150		4/3/19 3:33

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Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4)
Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.2	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Barium	190	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Cadmium	0.42	0.21	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Chromium	24	0.42	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Lead	10	0.64	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Mercury	0.057	0.032	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:46	TBC
Selenium	ND	4.2	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB
Silver	ND	0.42	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:45	EJB

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Date Received: 3/27/2019

Field Sample #: TT-SB-05 (1.3-4) | Sampled: 3/25/2019 11:35

Sample ID: 19C1374-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.1		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.098	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Acrylonitrile	ND	0.0059	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Benzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Bromobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Bromochloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Bromodichloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Bromoform	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Bromomethane	ND	0.0098	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 12:29	MFF
2-Butanone (MEK)	ND	0.039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
tert-Butyl Alcohol (TBA)	ND	0.039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
n-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Carbon Disulfide	ND	0.0059	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Chlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Chlorodibromomethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Chloroethane	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Chloroform	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Chloromethane	ND	0.0098	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 12:29	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2-Dibromoethane (EDB)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Dibromomethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
trans-1,4-Dichloro-2-butene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1-Dichloroethylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,3-Dichloropropane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
2,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
cis-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
trans-1,3-Dichloropropene	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Diethyl Ether	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,4-Dioxane	ND	0.098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Ethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Hexachlorobutadiene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Methyl Acetate	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Methyl Cyclohexane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Methylene Chloride	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Naphthalene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
n-Propylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Styrene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1,2,2-Tetrachloroethane	ND	0.00098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Tetrahydrofuran	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Toluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Trichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
Vinyl Chloride	ND	0.0098	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
m+p Xylene	ND	0.0039	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF
o-Xylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:29	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		3/29/19 12:29
Toluene-d8	97.5	70-130		3/29/19 12:29
4-Bromofluorobenzene	97.1	70-130		3/29/19 12:29

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Acenaphthylene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Anthracene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Benzo(a)anthracene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Benzo(a)pyrene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Benzo(b)fluoranthene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Benzo(g,h,i)perylene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Benzo(k)fluoranthene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Chrysene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Dibenz(a,h)anthracene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Fluoranthene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Fluorene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Indeno(1,2,3-cd)pyrene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
2-Methylnaphthalene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Naphthalene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Phenanthrene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR
Pyrene	ND	0.23	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:10	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	77.0	30-130		4/4/19 16:10
2-Fluorobiphenyl	63.0	30-130		4/4/19 16:10
p-Terphenyl-d14	64.5	30-130		4/4/19 16:10

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.027	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Aldrin [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
alpha-BHC [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
beta-BHC [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
delta-BHC [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
gamma-BHC (Lindane) [1]	ND	0.0027	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Chlordane [1]	ND	0.027	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
4,4'-DDD [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
4,4'-DDE [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
4,4'-DDT [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Dieldrin [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endosulfan I [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endosulfan II [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endosulfan sulfate [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endrin [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endrin aldehyde [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Endrin ketone [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Heptachlor [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Heptachlor epoxide [1]	ND	0.0069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Hexachlorobenzene [1]	ND	0.0082	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Methoxychlor [1]	ND	0.069	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG
Toxaphene [1]	ND	0.14	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:00	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	67.2	30-150		4/3/19 4:00
Decachlorobiphenyl [2]	71.3	30-150		4/3/19 4:00
Tetrachloro-m-xylene [1]	68.1	30-150		4/3/19 4:00
Tetrachloro-m-xylene [2]	66.1	30-150		4/3/19 4:00

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	7.5	2.3	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Barium	66	2.3	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Cadmium	0.58	0.23	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Chromium	16	0.47	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Lead	15	0.70	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Mercury	0.094	0.033	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:48	TBC
Selenium	ND	4.7	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB
Silver	ND	0.47	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:51	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-06 (0-1.8) | Sampled: 3/25/2019 13:25

Sample ID: 19C1374-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	72.7		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.086	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Acrylonitrile	ND	0.0051	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Bromomethane	ND	0.0086	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 12:53	MFF
2-Butanone (MEK)	ND	0.034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
tert-Butyl Alcohol (TBA)	ND	0.034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Carbon Disulfide	ND	0.0051	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Chlorodibromomethane	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Chloroethane	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Chloroform	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Chloromethane	ND	0.0086	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 12:53	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2-Dibromoethane (EDB)	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
trans-1,4-Dichloro-2-butene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1-Dichloroethylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,3-Dichloropropane	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
2,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
cis-1,3-Dichloropropene	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
trans-1,3-Dichloropropene	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Diethyl Ether	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,4-Dioxane	ND	0.086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Methyl Acetate	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Methyl Cyclohexane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Methylene Chloride	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Naphthalene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1,2,2-Tetrachloroethane	ND	0.00086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Tetrahydrofuran	ND	0.0086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2,3-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2,4-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,3,5-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
Vinyl Chloride	ND	0.0086	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
m+p Xylene	ND	0.0034	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 12:53	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.0	70-130		3/29/19 12:53
Toluene-d8	96.7	70-130		3/29/19 12:53
4-Bromofluorobenzene	94.8	70-130		3/29/19 12:53

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Acenaphthylene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Anthracene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Benzo(a)anthracene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Benzo(a)pyrene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Benzo(b)fluoranthene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Benzo(g,h,i)perylene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Benzo(k)fluoranthene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Chrysene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Dibenz(a,h)anthracene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Fluoranthene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Fluorene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
2-Methylnaphthalene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Naphthalene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Phenanthrene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR
Pyrene	ND	0.25	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 16:35	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	62.8	30-130		4/4/19 16:35
2-Fluorobiphenyl	61.4	30-130		4/4/19 16:35
p-Terphenyl-d14	75.7	30-130		4/4/19 16:35

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.029	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Aldrin [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
alpha-BHC [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
beta-BHC [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
delta-BHC [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
gamma-BHC (Lindane) [1]	ND	0.0029	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Chlordane [1]	ND	0.029	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
4,4'-DDD [1]	ND	0.0058	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
4,4'-DDE [1]	ND	0.0058	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
4,4'-DDT [1]	ND	0.0058	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Dieldrin [1]	ND	0.0058	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endosulfan I [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endosulfan II [1]	ND	0.012	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endosulfan sulfate [1]	ND	0.012	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endrin [1]	ND	0.012	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endrin aldehyde [1]	ND	0.012	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Endrin ketone [1]	ND	0.012	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Heptachlor [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Heptachlor epoxide [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Hexachlorobenzene [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Methoxychlor [1]	ND	0.073	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG
Toxaphene [1]	ND	0.15	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:27	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	86.8	30-150		4/3/19 4:27
Decachlorobiphenyl [2]	97.3	30-150		4/3/19 4:27
Tetrachloro-m-xylene [1]	87.0	30-150		4/3/19 4:27
Tetrachloro-m-xylene [2]	92.2	30-150		4/3/19 4:27

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	7.9	2.4	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Barium	65	2.4	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Cadmium	0.48	0.24	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Chromium	17	0.49	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Lead	12	0.73	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Mercury	0.12	0.035	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:49	TBC
Selenium	ND	4.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB
Silver	ND	0.49	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 13:57	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-07 (2-4) | Sampled: 3/25/2019 13:40

Sample ID: 19C1374-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	68.5		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.077	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Acrylonitrile	ND	0.0046	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Bromomethane	ND	0.0077	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 13:20	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
tert-Butyl Alcohol (TBA)	ND	0.031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Carbon Disulfide	ND	0.0046	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Chlorodibromomethane	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Chloromethane	ND	0.0077	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 13:20	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2-Dibromoethane (EDB)	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
trans-1,4-Dichloro-2-butene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,3-Dichloropropane	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
cis-1,3-Dichloropropene	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
trans-1,3-Dichloropropene	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,4-Dioxane	ND	0.077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Ethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Methyl Acetate	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Methyl Cyclohexane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Naphthalene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.00077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Tetrahydrofuran	ND	0.0077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Toluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,3,5-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
Vinyl Chloride	ND	0.0077	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
m+p Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF
o-Xylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.1	70-130		3/29/19 13:20
Toluene-d8	96.3	70-130		3/29/19 13:20
4-Bromofluorobenzene	94.7	70-130		3/29/19 13:20

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:01	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	66.2	30-130		4/4/19 17:01
2-Fluorobiphenyl	76.2	30-130		4/4/19 17:01
p-Terphenyl-d14	90.4	30-130		4/4/19 17:01

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Aldrin [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
alpha-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
beta-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
delta-BHC [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
gamma-BHC (Lindane) [1]	ND	0.0023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Chlordane [1]	ND	0.023	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
4,4'-DDD [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
4,4'-DDE [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
4,4'-DDT [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Dieldrin [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endosulfan I [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endosulfan II [1]	ND	0.0091	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endosulfan sulfate [1]	ND	0.0091	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endrin [1]	ND	0.0091	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endrin aldehyde [1]	ND	0.0091	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Endrin ketone [1]	ND	0.0091	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Heptachlor [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Heptachlor epoxide [1]	ND	0.0057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Hexachlorobenzene [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Methoxychlor [1]	ND	0.057	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 4:54	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	69.0	30-150		4/3/19 4:54
Decachlorobiphenyl [2]	84.4	30-150		4/3/19 4:54
Tetrachloro-m-xylene [1]	84.6	30-150		4/3/19 4:54
Tetrachloro-m-xylene [2]	84.9	30-150		4/3/19 4:54

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.6	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Barium	62	1.9	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Cadmium	0.31	0.19	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Chromium	10	0.37	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Lead	7.2	0.56	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Mercury	0.032	0.027	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:51	TBC
Selenium	ND	3.7	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB
Silver	ND	0.37	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:02	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-08 (4-6) | Sampled: 3/25/2019 14:40

Sample ID: 19C1374-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	88.3		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.078	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Acrylonitrile	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Bromomethane	ND	0.0078	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 13:44	MFF
2-Butanone (MEK)	ND	0.031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
tert-Butyl Alcohol (TBA)	ND	0.031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Carbon Disulfide	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Chlorodibromomethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Chloroform	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Chloromethane	ND	0.0078	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 13:44	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2-Dibromoethane (EDB)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
trans-1,4-Dichloro-2-butene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1-Dichloroethylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,3-Dichloropropane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
2,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
cis-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
trans-1,3-Dichloropropene	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,4-Dioxane	ND	0.078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Ethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Methyl Acetate	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Methyl Cyclohexane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Naphthalene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1,2,2-Tetrachloroethane	ND	0.00078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Tetrahydrofuran	ND	0.0078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Toluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2,3-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2,4-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,3,5-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
Vinyl Chloride	ND	0.0078	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
m+p Xylene	ND	0.0031	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF
o-Xylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 13:44	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.7	70-130		3/29/19 13:44
Toluene-d8	97.1	70-130		3/29/19 13:44
4-Bromofluorobenzene	97.3	70-130		3/29/19 13:44

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Acenaphthylene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Benzo(a)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Benzo(a)pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Benzo(b)fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Benzo(g,h,i)perylene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Benzo(k)fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Chrysene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Dibenz(a,h)anthracene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Fluoranthene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Fluorene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Indeno(1,2,3-cd)pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
2-Methylnaphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Naphthalene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Phenanthrene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR
Pyrene	ND	0.18	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:27	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	60.4	30-130		4/4/19 17:27
2-Fluorobiphenyl	71.2	30-130		4/4/19 17:27
p-Terphenyl-d14	90.3	30-130		4/4/19 17:27

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Aldrin [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
alpha-BHC [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
beta-BHC [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
delta-BHC [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
gamma-BHC (Lindane) [1]	ND	0.0022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Chlordane [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
4,4'-DDD [1]	ND	0.0044	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
4,4'-DDE [1]	ND	0.0044	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
4,4'-DDT [1]	ND	0.0044	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Dieldrin [1]	ND	0.0044	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endosulfan I [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endosulfan II [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endosulfan sulfate [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endrin [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endrin aldehyde [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Endrin ketone [1]	ND	0.0088	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Heptachlor [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Heptachlor epoxide [1]	ND	0.0055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Hexachlorobenzene [1]	ND	0.0066	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Methoxychlor [1]	ND	0.055	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:21	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	61.2	30-150		4/3/19 5:21
Decachlorobiphenyl [2]	78.2	30-150		4/3/19 5:21
Tetrachloro-m-xylene [1]	79.3	30-150		4/3/19 5:21
Tetrachloro-m-xylene [2]	77.5	30-150		4/3/19 5:21

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.8	1.7	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Barium	33	1.7	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Cadmium	0.34	0.17	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Chromium	8.4	0.35	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Lead	8.3	0.52	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Mercury	0.084	0.026	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:53	TBC
Selenium	ND	3.5	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB
Silver	0.70	0.35	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:07	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-09 (4-6) | Sampled: 3/25/2019 14:58

Sample ID: 19C1374-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.4		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.091	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Acrylonitrile	ND	0.0055	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Bromomethane	ND	0.0091	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 14:09	MFF
2-Butanone (MEK)	ND	0.036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
tert-Butyl Alcohol (TBA)	ND	0.036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Carbon Disulfide	ND	0.0055	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Chlorodibromomethane	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Chloroform	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Chloromethane	ND	0.0091	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 14:09	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2-Dibromoethane (EDB)	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
trans-1,4-Dichloro-2-butene	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1-Dichloroethylene	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,3-Dichloropropane	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
cis-1,3-Dichloropropene	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
trans-1,3-Dichloropropene	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,4-Dioxane	ND	0.091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Methyl Acetate	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Methyl Cyclohexane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Naphthalene	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1,2,2-Tetrachloroethane	ND	0.00091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Tetrahydrofuran	ND	0.0091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,3,5-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
Vinyl Chloride	ND	0.0091	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
m+p Xylene	ND	0.0036	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:09	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.4	70-130		3/29/19 14:09
Toluene-d8	96.9	70-130		3/29/19 14:09
4-Bromofluorobenzene	95.6	70-130		3/29/19 14:09

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 17:54	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	74.9	30-130		4/4/19 17:54
2-Fluorobiphenyl	76.9	30-130		4/4/19 17:54
p-Terphenyl-d14	86.2	30-130		4/4/19 17:54

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Aldrin [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
alpha-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
beta-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
delta-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
gamma-BHC (Lindane) [1]	ND	0.0026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Chlordane [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
4,4'-DDD [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
4,4'-DDE [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
4,4'-DDT [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Dieldrin [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endosulfan I [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Heptachlor [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Heptachlor epoxide [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Hexachlorobenzene [1]	ND	0.0077	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Methoxychlor [1]	ND	0.064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 5:48	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	68.9	30-150		4/3/19 5:48
Decachlorobiphenyl [2]	77.0	30-150		4/3/19 5:48
Tetrachloro-m-xylene [1]	66.2	30-150		4/3/19 5:48
Tetrachloro-m-xylene [2]	64.5	30-150		4/3/19 5:48

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Herbicides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [1]	ND	32	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 15:06	TG
2,4,5-TP (Silvex) [1]	ND	3.2	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 15:06	TG
2,4,5-T [1]	ND	3.2	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 15:06	TG
Dalalpon [1]	ND	80	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 15:06	TG
Dicamba [1]	ND	3.2	µg/kg dry	1		SW-846 8151A	3/28/19	4/1/19 15:06	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,4-Dichlorophenylacetic acid [1]	135	30-150		4/1/19 15:06
2,4-Dichlorophenylacetic acid [2]	**159** *	30-150	S-12	4/1/19 15:06

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.2	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Barium	110	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Cadmium	0.48	0.21	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Chromium	18	0.42	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Lead	12	0.63	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Mercury	0.061	0.031	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:54	TBC
Selenium	ND	4.2	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB
Silver	ND	0.42	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:28	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-10 (0-2) | Sampled: 3/25/2019 15:40

Sample ID: 19C1374-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.8		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.076	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Acrylonitrile	ND	0.0046	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Benzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Bromobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Bromochloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Bromodichloromethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Bromoform	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Bromomethane	ND	0.0076	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 14:32	MFF
2-Butanone (MEK)	ND	0.030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
tert-Butyl Alcohol (TBA)	ND	0.030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
n-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
sec-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
tert-Butylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Carbon Disulfide	ND	0.0046	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Carbon Tetrachloride	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Chlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Chlorodibromomethane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Chloroethane	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Chloroform	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Chloromethane	ND	0.0076	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 14:32	MFF
2-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
4-Chlorotoluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2-Dibromoethane (EDB)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Dibromomethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,3-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,4-Dichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
trans-1,4-Dichloro-2-butene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2-Dichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1-Dichloroethylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
cis-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
trans-1,2-Dichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,3-Dichloropropane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
2,2-Dichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1-Dichloropropene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
cis-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
trans-1,3-Dichloropropene	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Diethyl Ether	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,4-Dioxane	ND	0.076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Ethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Hexachlorobutadiene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
2-Hexanone (MBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Isopropylbenzene (Cumene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Methyl Acetate	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Methyl Cyclohexane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Methylene Chloride	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Naphthalene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
n-Propylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Styrene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1,1,2-Tetrachloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1,2,2-Tetrachloroethane	ND	0.00076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Tetrachloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Tetrahydrofuran	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Toluene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2,3-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2,4-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,3,5-Trichlorobenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1,1-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1,2-Trichloroethane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Trichloroethylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2,3-Trichloropropane	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,2,4-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
1,3,5-Trimethylbenzene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
Vinyl Chloride	ND	0.0076	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
m+p Xylene	ND	0.0030	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF
o-Xylene	ND	0.0015	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:32	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.2	70-130		3/29/19 14:32
Toluene-d8	97.1	70-130		3/29/19 14:32
4-Bromofluorobenzene	96.7	70-130		3/29/19 14:32

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Acenaphthylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Benzo(a)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Benzo(a)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Benzo(b)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Benzo(g,h,i)perylene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Benzo(k)fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Chrysene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Dibenz(a,h)anthracene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Fluoranthene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Fluorene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Indeno(1,2,3-cd)pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
2-Methylnaphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Naphthalene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Phenanthrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR
Pyrene	ND	0.19	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:20	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	80.6	30-130		4/4/19 18:20
2-Fluorobiphenyl	79.5	30-130		4/4/19 18:20
p-Terphenyl-d14	91.6	30-130		4/4/19 18:20

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Aldrin [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
alpha-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
beta-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
delta-BHC [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
gamma-BHC (Lindane) [1]	ND	0.0022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Chlordane [1]	ND	0.022	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
4,4'-DDD [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
4,4'-DDE [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
4,4'-DDT [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Dieldrin [1]	ND	0.0045	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endosulfan I [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endosulfan II [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endosulfan sulfate [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endrin [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endrin aldehyde [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Endrin ketone [1]	ND	0.0090	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Heptachlor [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Heptachlor epoxide [1]	ND	0.0056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Hexachlorobenzene [1]	ND	0.0067	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Methoxychlor [1]	ND	0.056	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:15	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	66.3	30-150		4/3/19 6:15
Decachlorobiphenyl [2]	82.2	30-150		4/3/19 6:15
Tetrachloro-m-xylene [1]	79.2	30-150		4/3/19 6:15
Tetrachloro-m-xylene [2]	78.2	30-150		4/3/19 6:15

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	5.2	1.8	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Barium	31	1.8	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Cadmium	0.33	0.18	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Chromium	9.4	0.36	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Lead	7.9	0.55	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Mercury	0.051	0.028	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:56	TBC
Selenium	ND	3.6	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB
Silver	0.86	0.36	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:33	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-11 (4-6) | Sampled: 3/25/2019 16:10

Sample ID: 19C1374-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	89.1		% Wt	1		SM 2540G	4/3/19	4/4/19 0:50	AVF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1	R-05	SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Acrylonitrile	ND	0.0071	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Bromomethane	ND	0.012	mg/Kg dry	1	V-34	SW-846 8260C	3/29/19	3/29/19 14:57	MFF
2-Butanone (MEK)	ND	0.047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
tert-Butyl Alcohol (TBA)	ND	0.047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Carbon Disulfide	ND	0.0071	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Chloroethane	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Chloroform	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Chloromethane	ND	0.012	mg/Kg dry	1	L-04	SW-846 8260C	3/29/19	3/29/19 14:57	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
trans-1,4-Dichloro-2-butene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1-Dichloroethylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
2,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Diethyl Ether	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Methyl Acetate	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Methyl Cyclohexane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Methylene Chloride	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Naphthalene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Toluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2,3-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2,4-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,3,5-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
m+p Xylene	ND	0.0047	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	3/29/19	3/29/19 14:57	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	99.3	70-130		3/29/19 14:57
Toluene-d8	96.0	70-130		3/29/19 14:57
4-Bromofluorobenzene	95.1	70-130		3/29/19 14:57

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/3/19	4/4/19 18:46	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	76.3	30-130		4/4/19 18:46
2-Fluorobiphenyl	92.5	30-130		4/4/19 18:46
p-Terphenyl-d14	108	30-130		4/4/19 18:46

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Aldrin [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
alpha-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
beta-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
delta-BHC [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
gamma-BHC (Lindane) [1]	ND	0.0026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Chlordane [1]	ND	0.026	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
4,4'-DDD [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
4,4'-DDE [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
4,4'-DDT [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Dieldrin [1]	ND	0.0051	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endosulfan I [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Heptachlor [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Heptachlor epoxide [1]	ND	0.0064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Hexachlorobenzene [1]	ND	0.0077	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Methoxychlor [1]	ND	0.064	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	3/31/19	4/3/19 6:42	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	79.1	30-150		4/3/19 6:42
Decachlorobiphenyl [2]	82.1	30-150		4/3/19 6:42
Tetrachloro-m-xylene [1]	62.6	30-150		4/3/19 6:42
Tetrachloro-m-xylene [2]	60.5	30-150		4/3/19 6:42

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.8	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Barium	72	2.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Cadmium	0.54	0.21	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Chromium	16	0.41	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Lead	13	0.62	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Mercury	0.094	0.033	mg/Kg dry	1		SW-846 7471B	3/29/19	4/1/19 12:57	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	3/29/19	4/1/19 14:38	EJB

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1374

Date Received: 3/27/2019

Field Sample #: TT-SB-12 (0-2) | Sampled: 3/25/2019 16:35

Sample ID: 19C1374-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.0		% Wt	1		SM 2540G	4/3/19	4/4/19 0:51	AVF

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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19C1374-01 [TT-SB-01 (2-4)]	B227324	04/03/19
19C1374-02 [TT-SB-02 (2-4)]	B227324	04/03/19
19C1374-03 [TT-SB-03 (4-6)]	B227324	04/03/19
19C1374-04 [TT-SB-04 (4-6)]	B227324	04/03/19
19C1374-05 [TT-SB-05 (1.3-4)]	B227324	04/03/19
19C1374-06 [TT-SB-06 (0-1.8)]	B227324	04/03/19
19C1374-07 [TT-SB-07 (2-4)]	B227324	04/03/19
19C1374-08 [TT-SB-08 (4-6)]	B227324	04/03/19
19C1374-09 [TT-SB-09 (4-6)]	B227324	04/03/19
19C1374-10 [TT-SB-10 (0-2)]	B227324	04/03/19
19C1374-11 [TT-SB-11 (4-6)]	B227324	04/03/19
19C1374-12 [TT-SB-12 (0-2)]	B227324	04/03/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-01 [TT-SB-01 (2-4)]	B226973	1.51	50.0	03/29/19
19C1374-02 [TT-SB-02 (2-4)]	B226973	1.51	50.0	03/29/19
19C1374-03 [TT-SB-03 (4-6)]	B226973	1.51	50.0	03/29/19
19C1374-04 [TT-SB-04 (4-6)]	B226973	1.51	50.0	03/29/19
19C1374-05 [TT-SB-05 (1.3-4)]	B226973	1.53	50.0	03/29/19
19C1374-06 [TT-SB-06 (0-1.8)]	B226973	1.47	50.0	03/29/19
19C1374-07 [TT-SB-07 (2-4)]	B226973	1.49	50.0	03/29/19
19C1374-08 [TT-SB-08 (4-6)]	B226973	1.53	50.0	03/29/19
19C1374-09 [TT-SB-09 (4-6)]	B226973	1.58	50.0	03/29/19
19C1374-10 [TT-SB-10 (0-2)]	B226973	1.52	50.0	03/29/19
19C1374-11 [TT-SB-11 (4-6)]	B226973	1.54	50.0	03/29/19
19C1374-12 [TT-SB-12 (0-2)]	B226973	1.55	50.0	03/29/19

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-01 [TT-SB-01 (2-4)]	B226895	0.636	50.0	03/29/19
19C1374-02 [TT-SB-02 (2-4)]	B226895	0.592	50.0	03/29/19
19C1374-03 [TT-SB-03 (4-6)]	B226895	0.636	50.0	03/29/19
19C1374-04 [TT-SB-04 (4-6)]	B226895	0.630	50.0	03/29/19
19C1374-05 [TT-SB-05 (1.3-4)]	B226895	0.616	50.0	03/29/19
19C1374-06 [TT-SB-06 (0-1.8)]	B226895	0.626	50.0	03/29/19
19C1374-07 [TT-SB-07 (2-4)]	B226895	0.631	50.0	03/29/19
19C1374-08 [TT-SB-08 (4-6)]	B226895	0.629	50.0	03/29/19
19C1374-09 [TT-SB-09 (4-6)]	B226895	0.631	50.0	03/29/19
19C1374-10 [TT-SB-10 (0-2)]	B226895	0.623	50.0	03/29/19
19C1374-11 [TT-SB-11 (4-6)]	B226895	0.611	50.0	03/29/19
19C1374-12 [TT-SB-12 (0-2)]	B226895	0.578	50.0	03/29/19

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-01 [TT-SB-01 (2-4)]	B227071	10.2	10.0	03/31/19
19C1374-02 [TT-SB-02 (2-4)]	B227071	10.1	10.0	03/31/19
19C1374-03 [TT-SB-03 (4-6)]	B227071	10.3	10.0	03/31/19

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Sample Extraction Data

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-04 [TT-SB-04 (4-6)]	B227071	10.2	10.0	03/31/19
19C1374-05 [TT-SB-05 (1.3-4)]	B227071	10.0	10.0	03/31/19
19C1374-06 [TT-SB-06 (0-1.8)]	B227071	10.0	10.0	03/31/19
19C1374-07 [TT-SB-07 (2-4)]	B227071	10.0	10.0	03/31/19
19C1374-08 [TT-SB-08 (4-6)]	B227071	10.0	10.0	03/31/19
19C1374-09 [TT-SB-09 (4-6)]	B227071	10.0	10.0	03/31/19
19C1374-10 [TT-SB-10 (0-2)]	B227071	10.0	10.0	03/31/19
19C1374-11 [TT-SB-11 (4-6)]	B227071	10.0	10.0	03/31/19
19C1374-12 [TT-SB-12 (0-2)]	B227071	10.0	10.0	03/31/19

Prep Method: SW-846 8151-SW-846 8151A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-02 [TT-SB-02 (2-4)]	B226813	20.1	5.00	03/28/19
19C1374-10 [TT-SB-10 (0-2)]	B226813	20.1	5.00	03/28/19

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-01 [TT-SB-01 (2-4)]	B226979	7.77	10.0	03/29/19
19C1374-02 [TT-SB-02 (2-4)]	B226979	8.17	10.0	03/29/19
19C1374-03 [TT-SB-03 (4-6)]	B226979	7.62	10.0	03/29/19
19C1374-04 [TT-SB-04 (4-6)]	B226979	8.02	10.0	03/29/19
19C1374-05 [TT-SB-05 (1.3-4)]	B226979	7.42	10.0	03/29/19
19C1374-06 [TT-SB-06 (0-1.8)]	B226979	7.02	10.0	03/29/19
19C1374-07 [TT-SB-07 (2-4)]	B226979	8.51	10.0	03/29/19
19C1374-08 [TT-SB-08 (4-6)]	B226979	7.33	10.0	03/29/19
19C1374-09 [TT-SB-09 (4-6)]	B226979	7.06	10.0	03/29/19
19C1374-10 [TT-SB-10 (0-2)]	B226979	7.07	10.0	03/29/19
19C1374-11 [TT-SB-11 (4-6)]	B226979	7.37	10.0	03/29/19
19C1374-12 [TT-SB-12 (0-2)]	B226979	5.42	10.0	03/29/19

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1374-01 [TT-SB-01 (2-4)]	B227315	30.5	1.00	04/03/19
19C1374-02 [TT-SB-02 (2-4)]	B227315	30.9	1.00	04/03/19
19C1374-03 [TT-SB-03 (4-6)]	B227315	30.5	1.00	04/03/19
19C1374-04 [TT-SB-04 (4-6)]	B227315	30.6	1.00	04/03/19
19C1374-05 [TT-SB-05 (1.3-4)]	B227315	30.4	1.00	04/03/19
19C1374-06 [TT-SB-06 (0-1.8)]	B227315	30.8	1.00	04/03/19
19C1374-07 [TT-SB-07 (2-4)]	B227315	30.2	1.00	04/03/19
19C1374-08 [TT-SB-08 (4-6)]	B227315	30.9	1.00	04/03/19
19C1374-09 [TT-SB-09 (4-6)]	B227315	30.9	1.00	04/03/19
19C1374-10 [TT-SB-10 (0-2)]	B227315	30.1	1.00	04/03/19
19C1374-11 [TT-SB-11 (4-6)]	B227315	30.7	1.00	04/03/19
19C1374-12 [TT-SB-12 (0-2)]	B227315	30.1	1.00	04/03/19

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B226979 - SW-846 5035										
Blank (B226979-BLK1)				Prepared & Analyzed: 03/29/19						
Acetone	ND	0.10	mg/Kg wet							R-05
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.040	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.0060	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							L-04
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B226979 - SW-846 5035											
Blank (B226979-BLK1)				Prepared & Analyzed: 03/29/19							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet								
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet								
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0477*		mg/Kg wet	0.0500		95.4	70-130				
Surrogate: Toluene-d8	*0.0480*		mg/Kg wet	0.0500		96.1	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0483*		mg/Kg wet	0.0500		96.6	70-130				
LCS (B226979-BS1)				Prepared & Analyzed: 03/29/19							
Acetone	0.180	0.10	mg/Kg wet	0.200		90.0	70-160			R-05	†
Acrylonitrile	0.0167	0.0060	mg/Kg wet	0.0200		83.4	70-130				
tert-Amyl Methyl Ether (TAME)	0.0193	0.0010	mg/Kg wet	0.0200		96.4	70-130				
Benzene	0.0163	0.0020	mg/Kg wet	0.0200		81.5	70-130				
Bromobenzene	0.0201	0.0020	mg/Kg wet	0.0200		101	70-130				
Bromochloromethane	0.0176	0.0020	mg/Kg wet	0.0200		87.9	70-130				
Bromodichloromethane	0.0191	0.0020	mg/Kg wet	0.0200		95.7	70-130				
Bromoform	0.0230	0.0020	mg/Kg wet	0.0200		115	70-130			V-20	
Bromomethane	0.0111	0.010	mg/Kg wet	0.0200		55.4	40-130			V-34	†
2-Butanone (MEK)	0.187	0.040	mg/Kg wet	0.200		93.6	70-160				†
tert-Butyl Alcohol (TBA)	0.193	0.040	mg/Kg wet	0.200		96.5	40-130				†
n-Butylbenzene	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130				
sec-Butylbenzene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130				
tert-Butylbenzene	0.0213	0.0020	mg/Kg wet	0.0200		107	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0188	0.0010	mg/Kg wet	0.0200		93.9	70-130				
Carbon Disulfide	0.0185	0.0060	mg/Kg wet	0.0200		92.7	70-130				
Carbon Tetrachloride	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130				
Chlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130				
Chlorodibromomethane	0.0210	0.0010	mg/Kg wet	0.0200		105	70-130				
Chloroethane	0.0192	0.020	mg/Kg wet	0.0200		95.8	70-130				
Chloroform	0.0169	0.0040	mg/Kg wet	0.0200		84.3	70-130				

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B226979 - SW-846 5035												
LCS (B226979-BS1)				Prepared & Analyzed: 03/29/19								
Chloromethane	0.0117	0.010	mg/Kg wet	0.0200		**58.7**	*	70-130			L-04	
2-Chlorotoluene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130				
4-Chlorotoluene	0.0203	0.0020	mg/Kg wet	0.0200		102		70-130				
1,2-Dibromo-3-chloropropane (DBCP)	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130				
1,2-Dibromoethane (EDB)	0.0197	0.0010	mg/Kg wet	0.0200		98.4		70-130				
Dibromomethane	0.0182	0.0020	mg/Kg wet	0.0200		91.0		70-130				
1,2-Dichlorobenzene	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130				
1,3-Dichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		108		70-130				
1,4-Dichlorobenzene	0.0203	0.0020	mg/Kg wet	0.0200		102		70-130				
trans-1,4-Dichloro-2-butene	0.0219	0.0040	mg/Kg wet	0.0200		110		70-130				
Dichlorodifluoromethane (Freon 12)	0.0106	0.020	mg/Kg wet	0.0200		53.1		40-160				†
1,1-Dichloroethane	0.0171	0.0020	mg/Kg wet	0.0200		85.7		70-130				
1,2-Dichloroethane	0.0183	0.0020	mg/Kg wet	0.0200		91.3		70-130				
1,1-Dichloroethylene	0.0175	0.0040	mg/Kg wet	0.0200		87.3		70-130				
cis-1,2-Dichloroethylene	0.0175	0.0020	mg/Kg wet	0.0200		87.3		70-130				
trans-1,2-Dichloroethylene	0.0176	0.0020	mg/Kg wet	0.0200		88.0		70-130				
1,2-Dichloropropane	0.0179	0.0020	mg/Kg wet	0.0200		89.3		70-130				
1,3-Dichloropropane	0.0177	0.0010	mg/Kg wet	0.0200		88.4		70-130				
2,2-Dichloropropane	0.0186	0.0020	mg/Kg wet	0.0200		92.9		70-130				
1,1-Dichloropropene	0.0170	0.0020	mg/Kg wet	0.0200		85.2		70-130				
cis-1,3-Dichloropropene	0.0191	0.0010	mg/Kg wet	0.0200		95.5		70-130				
trans-1,3-Dichloropropene	0.0202	0.0010	mg/Kg wet	0.0200		101		70-130				
Diethyl Ether	0.0174	0.020	mg/Kg wet	0.0200		87.2		70-130				
Diisopropyl Ether (DIPE)	0.0177	0.0010	mg/Kg wet	0.0200		88.5		70-130				
1,4-Dioxane	0.209	0.10	mg/Kg wet	0.200		104		40-160				†
Ethylbenzene	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
Hexachlorobutadiene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-160				
2-Hexanone (MBK)	0.197	0.020	mg/Kg wet	0.200		98.6		70-160				†
Isopropylbenzene (Cumene)	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
p-Isopropyltoluene (p-Cymene)	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				
Methyl Acetate	0.0189	0.0020	mg/Kg wet	0.0200		94.5		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0230	0.0040	mg/Kg wet	0.0200		115		70-130				
Methyl Cyclohexane	0.0196	0.0020	mg/Kg wet	0.0200		98.2		70-130				
Methylene Chloride	0.0159	0.020	mg/Kg wet	0.0200		79.7		40-160				†
4-Methyl-2-pentanone (MIBK)	0.193	0.020	mg/Kg wet	0.200		96.6		70-160				†
Naphthalene	0.0202	0.0040	mg/Kg wet	0.0200		101		40-130				†
n-Propylbenzene	0.0209	0.0020	mg/Kg wet	0.0200		104		70-130				
Styrene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130				
1,1,1,2-Tetrachloroethane	0.0211	0.0020	mg/Kg wet	0.0200		105		70-130				
1,1,2,2-Tetrachloroethane	0.0214	0.0010	mg/Kg wet	0.0200		107		70-130				
Tetrachloroethylene	0.0189	0.0020	mg/Kg wet	0.0200		94.5		70-130				
Tetrahydrofuran	0.0173	0.010	mg/Kg wet	0.0200		86.7		70-130				
Toluene	0.0181	0.0020	mg/Kg wet	0.0200		90.5		70-130				
1,2,3-Trichlorobenzene	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130				
1,2,4-Trichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		108		70-130				
1,3,5-Trichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
1,1,1-Trichloroethane	0.0179	0.0020	mg/Kg wet	0.0200		89.5		70-130				
1,1,2-Trichloroethane	0.0188	0.0020	mg/Kg wet	0.0200		94.2		70-130				
Trichloroethylene	0.0177	0.0020	mg/Kg wet	0.0200		88.6		70-130				
Trichlorofluoromethane (Freon 11)	0.0143	0.010	mg/Kg wet	0.0200		71.3		70-130				
1,2,3-Trichloropropane	0.0198	0.0020	mg/Kg wet	0.0200		99.3		70-130				

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes	
Batch B226979 - SW-846 5035													
LCS (B226979-BS1)				Prepared & Analyzed: 03/29/19									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0163	0.010	mg/Kg wet	0.0200		81.6		70-130					
1,2,4-Trimethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130					
1,3,5-Trimethylbenzene	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130					
Vinyl Chloride	0.0134	0.010	mg/Kg wet	0.0200		66.8		40-130					†
m+p Xylene	0.0410	0.0040	mg/Kg wet	0.0400		102		70-130					
o-Xylene	0.0203	0.0020	mg/Kg wet	0.0200		101		70-130					
Surrogate: 1,2-Dichloroethane-d4	*0.0478*		mg/Kg wet	0.0500		95.6		70-130					
Surrogate: Toluene-d8	*0.0486*		mg/Kg wet	0.0500		97.1		70-130					
Surrogate: 4-Bromofluorobenzene	*0.0487*		mg/Kg wet	0.0500		97.4		70-130					
LCS Dup (B226979-BSD1)				Prepared & Analyzed: 03/29/19									
Acetone	0.241	0.10	mg/Kg wet	0.200		120		70-160	**28.8**	*	25	R-05	†
Acrylonitrile	0.0192	0.0060	mg/Kg wet	0.0200		96.2		70-130	14.3		25		
tert-Amyl Methyl Ether (TAME)	0.0202	0.0010	mg/Kg wet	0.0200		101		70-130	4.79		25		
Benzene	0.0169	0.0020	mg/Kg wet	0.0200		84.5		70-130	3.60		25		
Bromobenzene	0.0198	0.0020	mg/Kg wet	0.0200		98.8		70-130	1.87		25		
Bromochloromethane	0.0186	0.0020	mg/Kg wet	0.0200		92.8		70-130	5.42		25		
Bromodichloromethane	0.0191	0.0020	mg/Kg wet	0.0200		95.6		70-130	0.136		25		
Bromoform	0.0238	0.0020	mg/Kg wet	0.0200		119		70-130	3.08		25	V-20	
Bromomethane	0.0112	0.010	mg/Kg wet	0.0200		56.1		40-130	1.27		25	V-34	†
2-Butanone (MEK)	0.213	0.040	mg/Kg wet	0.200		107		70-160	13.0		25		†
tert-Butyl Alcohol (TBA)	0.197	0.040	mg/Kg wet	0.200		98.5		40-130	2.02		25		†
n-Butylbenzene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130	4.35		25		
sec-Butylbenzene	0.0224	0.0020	mg/Kg wet	0.0200		112		70-130	2.81		25		
tert-Butylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-160	3.99		25		†
tert-Butyl Ethyl Ether (TBEE)	0.0190	0.0010	mg/Kg wet	0.0200		94.9		70-130	1.05		25		
Carbon Disulfide	0.0187	0.0060	mg/Kg wet	0.0200		93.6		70-130	0.923		25		
Carbon Tetrachloride	0.0188	0.0020	mg/Kg wet	0.0200		94.0		70-130	0.790		25		
Chlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		103		70-130	0.477		25		
Chlorodibromomethane	0.0212	0.0010	mg/Kg wet	0.0200		106		70-130	0.881		25		
Chloroethane	0.0193	0.020	mg/Kg wet	0.0200		96.5		70-130	0.760		25		
Chloroform	0.0174	0.0040	mg/Kg wet	0.0200		86.9		70-130	3.04		25		
Chloromethane	0.0120	0.010	mg/Kg wet	0.0200		**60.1**	*	70-130	2.26		25	L-04	
2-Chlorotoluene	0.0204	0.0020	mg/Kg wet	0.0200		102		70-130	1.94		25		
4-Chlorotoluene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130	1.47		25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0232	0.0020	mg/Kg wet	0.0200		116		70-130	6.52		25		
1,2-Dibromoethane (EDB)	0.0194	0.0010	mg/Kg wet	0.0200		97.2		70-130	1.30		25		
Dibromomethane	0.0191	0.0020	mg/Kg wet	0.0200		95.6		70-130	4.90		25		
1,2-Dichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130	3.99		25		
1,3-Dichlorobenzene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130	1.33		25		
1,4-Dichlorobenzene	0.0207	0.0020	mg/Kg wet	0.0200		103		70-130	1.70		25		
trans-1,4-Dichloro-2-butene	0.0230	0.0040	mg/Kg wet	0.0200		115		70-130	4.69		25		
Dichlorodifluoromethane (Freon 12)	0.0108	0.020	mg/Kg wet	0.0200		53.8		40-160	1.37		25		†
1,1-Dichloroethane	0.0177	0.0020	mg/Kg wet	0.0200		88.4		70-130	3.02		25		
1,2-Dichloroethane	0.0183	0.0020	mg/Kg wet	0.0200		91.5		70-130	0.263		25		
1,1-Dichloroethylene	0.0178	0.0040	mg/Kg wet	0.0200		89.0		70-130	1.95		25		
cis-1,2-Dichloroethylene	0.0176	0.0020	mg/Kg wet	0.0200		88.0		70-130	0.867		25		
trans-1,2-Dichloroethylene	0.0177	0.0020	mg/Kg wet	0.0200		88.4		70-130	0.556		25		
1,2-Dichloropropane	0.0182	0.0020	mg/Kg wet	0.0200		91.0		70-130	1.80		25		
1,3-Dichloropropane	0.0184	0.0010	mg/Kg wet	0.0200		91.8		70-130	3.66		25		
2,2-Dichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		91.9		70-130	1.13		25		
1,1-Dichloropropene	0.0173	0.0020	mg/Kg wet	0.0200		86.7		70-130	1.73		25		

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B226979 - SW-846 5035												
LCS Dup (B226979-BSD1)				Prepared & Analyzed: 03/29/19								
cis-1,3-Dichloropropene	0.0193	0.0010	mg/Kg wet	0.0200		96.6		70-130	1.13	25		
trans-1,3-Dichloropropene	0.0206	0.0010	mg/Kg wet	0.0200		103		70-130	1.80	25		
Diethyl Ether	0.0177	0.020	mg/Kg wet	0.0200		88.6		70-130	1.57	25		
Diisopropyl Ether (DIPE)	0.0181	0.0010	mg/Kg wet	0.0200		90.4		70-130	2.13	25		
1,4-Dioxane	0.192	0.10	mg/Kg wet	0.200		95.8		40-160	8.55	50		† ‡
Ethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130	0.308	25		
Hexachlorobutadiene	0.0237	0.0020	mg/Kg wet	0.0200		118		70-160	4.92	25		
2-Hexanone (MBK)	0.208	0.020	mg/Kg wet	0.200		104		70-160	5.26	25		†
Isopropylbenzene (Cumene)	0.0215	0.0020	mg/Kg wet	0.0200		107		70-130	1.53	25		
p-Isopropyltoluene (p-Cymene)	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	2.59	25		
Methyl Acetate	0.0200	0.0020	mg/Kg wet	0.0200		99.9		70-130	5.57	25		
Methyl tert-Butyl Ether (MTBE)	0.0248	0.0040	mg/Kg wet	0.0200		124		70-130	7.60	25		
Methyl Cyclohexane	0.0198	0.0020	mg/Kg wet	0.0200		99.2		70-130	1.07	25		
Methylene Chloride	0.0159	0.020	mg/Kg wet	0.0200		79.6		40-160	0.0753	25		†
4-Methyl-2-pentanone (MIBK)	0.199	0.020	mg/Kg wet	0.200		99.7		70-160	3.15	25		†
Naphthalene	0.0206	0.0040	mg/Kg wet	0.0200		103		40-130	1.80	25		†
n-Propylbenzene	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130	0.230	25		
Styrene	0.0201	0.0020	mg/Kg wet	0.0200		101		70-130	0.535	25		
1,1,1,2-Tetrachloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130	2.65	25		
1,1,2,2-Tetrachloroethane	0.0218	0.0010	mg/Kg wet	0.0200		109		70-130	1.87	25		
Tetrachloroethylene	0.0197	0.0020	mg/Kg wet	0.0200		98.4		70-130	3.99	25		
Tetrahydrofuran	0.0181	0.010	mg/Kg wet	0.0200		90.5		70-130	4.35	25		
Toluene	0.0182	0.0020	mg/Kg wet	0.0200		91.2		70-130	0.814	25		
1,2,3-Trichlorobenzene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130	2.77	25		
1,2,4-Trichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		108		70-130	0.166	25		
1,3,5-Trichlorobenzene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	3.80	25		
1,1,1-Trichloroethane	0.0186	0.0020	mg/Kg wet	0.0200		93.2		70-130	4.01	25		
1,1,2-Trichloroethane	0.0196	0.0020	mg/Kg wet	0.0200		97.9		70-130	3.84	25		
Trichloroethylene	0.0179	0.0020	mg/Kg wet	0.0200		89.5		70-130	0.955	25		
Trichlorofluoromethane (Freon 11)	0.0136	0.010	mg/Kg wet	0.0200		**68.0**	*	70-130	4.81	25	L-07	
1,2,3-Trichloropropane	0.0185	0.0020	mg/Kg wet	0.0200		92.5		70-130	7.01	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0168	0.010	mg/Kg wet	0.0200		83.8		70-130	2.58	25		
1,2,4-Trimethylbenzene	0.0207	0.0020	mg/Kg wet	0.0200		103		70-130	2.38	25		
1,3,5-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		103		70-130	1.87	25		
Vinyl Chloride	0.0141	0.010	mg/Kg wet	0.0200		70.3		40-130	5.17	25		†
m+p Xylene	0.0406	0.0040	mg/Kg wet	0.0400		101		70-130	0.962	25		
o-Xylene	0.0203	0.0020	mg/Kg wet	0.0200		102		70-130	0.335	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0468*		mg/Kg wet	0.0500		93.6		70-130				
Surrogate: Toluene-d8	*0.0482*		mg/Kg wet	0.0500		96.3		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0475*		mg/Kg wet	0.0500		95.0		70-130				

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227315 - SW-846 3546										
Blank (B227315-BLK1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Surrogate: Nitrobenzene-d5	*2.20*		mg/Kg wet	3.33		65.9	30-130			
Surrogate: 2-Fluorobiphenyl	*2.35*		mg/Kg wet	3.33		70.5	30-130			
Surrogate: p-Terphenyl-d14	*2.75*		mg/Kg wet	3.33		82.4	30-130			
LCS (B227315-BS1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Acenaphthene	1.20	0.17	mg/Kg wet	1.67		72.1	40-140			
Acenaphthylene	1.20	0.17	mg/Kg wet	1.67		72.1	40-140			
Anthracene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140			
Benzo(a)anthracene	1.29	0.17	mg/Kg wet	1.67		77.2	40-140			
Benzo(a)pyrene	1.40	0.17	mg/Kg wet	1.67		84.3	40-140			
Benzo(b)fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.3	40-140			
Benzo(g,h,i)perylene	1.43	0.17	mg/Kg wet	1.67		86.1	40-140			
Benzo(k)fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.2	40-140			
Chrysene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140			
Dibenz(a,h)anthracene	1.38	0.17	mg/Kg wet	1.67		82.8	40-140			
Fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.5	40-140			
Fluorene	1.29	0.17	mg/Kg wet	1.67		77.2	40-140			
Indeno(1,2,3-cd)pyrene	1.44	0.17	mg/Kg wet	1.67		86.6	40-140			
2-Methylnaphthalene	1.10	0.17	mg/Kg wet	1.67		65.8	40-140			
Naphthalene	1.02	0.17	mg/Kg wet	1.67		61.4	40-140			
Phenanthrene	1.31	0.17	mg/Kg wet	1.67		78.7	40-140			
Pyrene	1.36	0.17	mg/Kg wet	1.67		81.9	40-140			
Surrogate: Nitrobenzene-d5	*2.20*		mg/Kg wet	3.33		65.9	30-130			
Surrogate: 2-Fluorobiphenyl	*2.38*		mg/Kg wet	3.33		71.3	30-130			
Surrogate: p-Terphenyl-d14	*2.84*		mg/Kg wet	3.33		85.1	30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227315 - SW-846 3546										
LCS Dup (B227315-BSD1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Acenaphthene	1.26	0.17	mg/Kg wet	1.67		75.3	40-140	4.40	30	
Acenaphthylene	1.25	0.17	mg/Kg wet	1.67		75.1	40-140	4.16	30	
Anthracene	1.31	0.17	mg/Kg wet	1.67		78.5	40-140	0.381	30	
Benzo(a)anthracene	1.30	0.17	mg/Kg wet	1.67		78.1	40-140	1.13	30	
Benzo(a)pyrene	1.44	0.17	mg/Kg wet	1.67		86.6	40-140	2.79	30	
Benzo(b)fluoranthene	1.35	0.17	mg/Kg wet	1.67		80.9	40-140	3.29	30	
Benzo(g,h,i)perylene	1.47	0.17	mg/Kg wet	1.67		88.4	40-140	2.68	30	
Benzo(k)fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140	4.38	30	
Chrysene	1.33	0.17	mg/Kg wet	1.67		79.7	40-140	1.14	30	
Dibenz(a,h)anthracene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140	2.69	30	
Fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.6	40-140	0.229	30	
Fluorene	1.32	0.17	mg/Kg wet	1.67		78.9	40-140	2.15	30	
Indeno(1,2,3-cd)pyrene	1.49	0.17	mg/Kg wet	1.67		89.5	40-140	3.27	30	
2-Methylnaphthalene	1.22	0.17	mg/Kg wet	1.67		73.2	40-140	10.7	30	
Naphthalene	1.09	0.17	mg/Kg wet	1.67		65.6	40-140	6.58	30	
Phenanthrene	1.31	0.17	mg/Kg wet	1.67		78.6	40-140	0.0763	30	
Pyrene	1.37	0.17	mg/Kg wet	1.67		82.3	40-140	0.512	30	
Surrogate: Nitrobenzene-d5	*2.31*		mg/Kg wet	3.33		69.4	30-130			
Surrogate: 2-Fluorobiphenyl	*2.54*		mg/Kg wet	3.33		76.2	30-130			
Surrogate: p-Terphenyl-d14	*2.83*		mg/Kg wet	3.33		84.8	30-130			
Matrix Spike (B227315-MS1)		**Source: 19C1374-02**		Prepared: 04/03/19 Analyzed: 04/04/19						
Acenaphthene	1.61	0.22	mg/Kg dry	2.13	ND	75.8	40-140			
Acenaphthylene	1.62	0.22	mg/Kg dry	2.13	ND	75.9	40-140			
Anthracene	1.70	0.22	mg/Kg dry	2.13	ND	79.8	40-140			
Benzo(a)anthracene	1.65	0.22	mg/Kg dry	2.13	ND	77.7	40-140			
Benzo(a)pyrene	1.79	0.22	mg/Kg dry	2.13	ND	84.3	40-140			
Benzo(b)fluoranthene	1.66	0.22	mg/Kg dry	2.13	ND	78.0	40-140			
Benzo(g,h,i)perylene	1.81	0.22	mg/Kg dry	2.13	ND	85.0	40-140			
Benzo(k)fluoranthene	1.68	0.22	mg/Kg dry	2.13	ND	79.0	40-140			
Chrysene	1.71	0.22	mg/Kg dry	2.13	ND	80.3	40-140			
Dibenz(a,h)anthracene	1.71	0.22	mg/Kg dry	2.13	ND	80.4	40-140			
Fluoranthene	1.70	0.22	mg/Kg dry	2.13	ND	79.8	40-140			
Fluorene	1.69	0.22	mg/Kg dry	2.13	ND	79.4	40-140			
Indeno(1,2,3-cd)pyrene	1.79	0.22	mg/Kg dry	2.13	ND	84.2	40-140			
2-Methylnaphthalene	1.62	0.22	mg/Kg dry	2.13	ND	76.3	40-140			
Naphthalene	1.49	0.22	mg/Kg dry	2.13	ND	70.0	40-140			
Phenanthrene	1.70	0.22	mg/Kg dry	2.13	ND	79.7	40-140			
Pyrene	1.75	0.22	mg/Kg dry	2.13	ND	82.0	40-140			
Surrogate: Nitrobenzene-d5	*3.22*		mg/Kg dry	4.26		75.7	30-130			
Surrogate: 2-Fluorobiphenyl	*3.32*		mg/Kg dry	4.26		78.0	30-130			
Surrogate: p-Terphenyl-d14	*3.60*		mg/Kg dry	4.26		84.6	30-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227315 - SW-846 3546										
Matrix Spike Dup (B227315-MSD1)	**Source: 19C1374-02**			Prepared: 04/03/19 Analyzed: 04/04/19						
Acenaphthene	1.69	0.22	mg/Kg dry	2.13	ND	79.4	40-140	4.66	30	
Acenaphthylene	1.69	0.22	mg/Kg dry	2.13	ND	79.4	40-140	4.53	30	
Anthracene	1.74	0.22	mg/Kg dry	2.13	ND	81.5	40-140	2.11	30	
Benzo(a)anthracene	1.68	0.22	mg/Kg dry	2.13	ND	79.0	40-140	1.71	30	
Benzo(a)pyrene	1.88	0.22	mg/Kg dry	2.13	ND	88.2	40-140	4.57	30	
Benzo(b)fluoranthene	1.72	0.22	mg/Kg dry	2.13	ND	80.9	40-140	3.67	30	
Benzo(g,h,i)perylene	1.86	0.22	mg/Kg dry	2.13	ND	87.2	40-140	2.63	30	
Benzo(k)fluoranthene	1.75	0.22	mg/Kg dry	2.13	ND	82.2	40-140	4.04	30	
Chrysene	1.72	0.22	mg/Kg dry	2.13	ND	80.7	40-140	0.472	30	
Dibenz(a,h)anthracene	1.81	0.22	mg/Kg dry	2.13	ND	85.2	40-140	5.82	30	
Fluoranthene	1.78	0.22	mg/Kg dry	2.13	ND	83.7	40-140	4.77	30	
Fluorene	1.76	0.22	mg/Kg dry	2.13	ND	82.6	40-140	3.95	30	
Indeno(1,2,3-cd)pyrene	1.88	0.22	mg/Kg dry	2.13	ND	88.5	40-140	4.98	30	
2-Methylnaphthalene	1.68	0.22	mg/Kg dry	2.13	ND	78.8	40-140	3.33	30	
Naphthalene	1.57	0.22	mg/Kg dry	2.13	ND	73.9	40-140	5.53	30	
Phenanthrene	1.70	0.22	mg/Kg dry	2.13	ND	80.0	40-140	0.426	30	
Pyrene	1.70	0.22	mg/Kg dry	2.13	ND	80.1	40-140	2.39	30	
Surrogate: Nitrobenzene-d5	*3.38*		mg/Kg dry	4.26		79.4	30-130			
Surrogate: 2-Fluorobiphenyl	*3.46*		mg/Kg dry	4.26		81.3	30-130			
Surrogate: p-Terphenyl-d14	*3.55*		mg/Kg dry	4.26		83.3	30-130			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227071 - SW-846 3546										
Blank (B227071-BLK1)			Prepared: 03/31/19 Analyzed: 04/02/19							
alpha-Chlordane	ND	0.0050	mg/Kg wet							
alpha-Chlordane [2C]	ND	0.0050	mg/Kg wet							
gamma-Chlordane	ND	0.0050	mg/Kg wet							
gamma-Chlordane [2C]	ND	0.0050	mg/Kg wet							
Alachlor	ND	0.020	mg/Kg wet							
Alachlor [2C]	ND	0.020	mg/Kg wet							
Aldrin	ND	0.0050	mg/Kg wet							
Aldrin [2C]	ND	0.0050	mg/Kg wet							
alpha-BHC	ND	0.0050	mg/Kg wet							
alpha-BHC [2C]	ND	0.0050	mg/Kg wet							
beta-BHC	ND	0.0050	mg/Kg wet							
beta-BHC [2C]	ND	0.0050	mg/Kg wet							
delta-BHC	ND	0.0050	mg/Kg wet							
delta-BHC [2C]	ND	0.0050	mg/Kg wet							
gamma-BHC (Lindane)	ND	0.0020	mg/Kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0020	mg/Kg wet							
Chlordane	ND	0.020	mg/Kg wet							
Chlordane [2C]	ND	0.020	mg/Kg wet							
4,4'-DDD	ND	0.0040	mg/Kg wet							
4,4'-DDD [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDE	ND	0.0040	mg/Kg wet							
4,4'-DDE [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDT	ND	0.0040	mg/Kg wet							
4,4'-DDT [2C]	ND	0.0040	mg/Kg wet							
Dieldrin	ND	0.0040	mg/Kg wet							
Dieldrin [2C]	ND	0.0040	mg/Kg wet							
Endosulfan I	ND	0.0050	mg/Kg wet							
Endosulfan I [2C]	ND	0.0050	mg/Kg wet							
Endosulfan II	ND	0.0080	mg/Kg wet							
Endosulfan II [2C]	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate [2C]	ND	0.0080	mg/Kg wet							
Endrin	ND	0.0080	mg/Kg wet							
Endrin [2C]	ND	0.0080	mg/Kg wet							
Endrin Aldehyde	ND	0.0080	mg/Kg wet							
Endrin Aldehyde [2C]	ND	0.0080	mg/Kg wet							
Endrin Ketone	ND	0.0080	mg/Kg wet							
Endrin Ketone [2C]	ND	0.0080	mg/Kg wet							
Heptachlor	ND	0.0050	mg/Kg wet							
Heptachlor [2C]	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide [2C]	ND	0.0050	mg/Kg wet							
Hexachlorobenzene	ND	0.0060	mg/Kg wet							
Hexachlorobenzene [2C]	ND	0.0060	mg/Kg wet							
Methoxychlor	ND	0.050	mg/Kg wet							
Methoxychlor [2C]	ND	0.050	mg/Kg wet							
Toxaphene	ND	0.10	mg/Kg wet							
Toxaphene [2C]	ND	0.10	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.145*		mg/Kg wet	0.200		72.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.157*		mg/Kg wet	0.200		78.5	30-150			
Surrogate: Tetrachloro-m-xylene	*0.158*		mg/Kg wet	0.200		78.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.147*		mg/Kg wet	0.200		73.6	30-150			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227071 - SW-846 3546										
LCS (B227071-BS1)				Prepared: 03/31/19 Analyzed: 04/02/19						
alpha-Chlordane	0.073	0.0050	mg/Kg wet	0.100		72.6	40-140			
alpha-Chlordane [2C]	0.072	0.0050	mg/Kg wet	0.100		72.1	40-140			
gamma-Chlordane	0.077	0.0050	mg/Kg wet	0.100		76.8	40-140			
gamma-Chlordane [2C]	0.073	0.0050	mg/Kg wet	0.100		72.6	40-140			
Alachlor	0.074	0.020	mg/Kg wet	0.100		73.9	40-140			
Alachlor [2C]	0.074	0.020	mg/Kg wet	0.100		74.4	40-140			
Aldrin	0.074	0.0050	mg/Kg wet	0.100		73.8	40-140			
Aldrin [2C]	0.072	0.0050	mg/Kg wet	0.100		71.7	40-140			
alpha-BHC	0.080	0.0050	mg/Kg wet	0.100		79.6	40-140			
alpha-BHC [2C]	0.069	0.0050	mg/Kg wet	0.100		68.7	40-140			
beta-BHC	0.071	0.0050	mg/Kg wet	0.100		71.2	40-140			
beta-BHC [2C]	0.065	0.0050	mg/Kg wet	0.100		65.4	40-140			
delta-BHC	0.065	0.0050	mg/Kg wet	0.100		65.2	40-140			
delta-BHC [2C]	0.064	0.0050	mg/Kg wet	0.100		64.0	40-140			
gamma-BHC (Lindane)	0.071	0.0020	mg/Kg wet	0.100		71.3	40-140			
gamma-BHC (Lindane) [2C]	0.070	0.0020	mg/Kg wet	0.100		69.7	40-140			
4,4'-DDD	0.081	0.0040	mg/Kg wet	0.100		80.7	40-140			
4,4'-DDD [2C]	0.080	0.0040	mg/Kg wet	0.100		79.8	40-140			
4,4'-DDE	0.079	0.0040	mg/Kg wet	0.100		79.4	40-140			
4,4'-DDE [2C]	0.073	0.0040	mg/Kg wet	0.100		73.2	40-140			
4,4'-DDT	0.082	0.0040	mg/Kg wet	0.100		82.3	40-140			
4,4'-DDT [2C]	0.064	0.0040	mg/Kg wet	0.100		63.7	40-140			
Dieldrin	0.077	0.0040	mg/Kg wet	0.100		76.8	40-140			
Dieldrin [2C]	0.078	0.0040	mg/Kg wet	0.100		77.8	40-140			
Endosulfan I	0.075	0.0050	mg/Kg wet	0.100		75.1	40-140			
Endosulfan I [2C]	0.074	0.0050	mg/Kg wet	0.100		74.5	40-140			
Endosulfan II	0.076	0.0080	mg/Kg wet	0.100		76.4	40-140			
Endosulfan II [2C]	0.076	0.0080	mg/Kg wet	0.100		75.5	40-140			
Endosulfan Sulfate	0.076	0.0080	mg/Kg wet	0.100		76.3	40-140			
Endosulfan Sulfate [2C]	0.074	0.0080	mg/Kg wet	0.100		73.6	40-140			
Endrin	0.077	0.0080	mg/Kg wet	0.100		77.4	40-140			
Endrin [2C]	0.075	0.0080	mg/Kg wet	0.100		74.7	40-140			
Endrin Aldehyde	0.083	0.0080	mg/Kg wet	0.100		83.1	40-140			
Endrin Aldehyde [2C]	0.077	0.0080	mg/Kg wet	0.100		77.2	40-140			
Endrin Ketone	0.080	0.0080	mg/Kg wet	0.100		79.9	40-140			
Endrin Ketone [2C]	0.074	0.0080	mg/Kg wet	0.100		74.2	40-140			
Heptachlor	0.060	0.0050	mg/Kg wet	0.100		59.5	40-140			
Heptachlor [2C]	0.070	0.0050	mg/Kg wet	0.100		70.0	40-140			
Heptachlor Epoxide	0.072	0.0050	mg/Kg wet	0.100		72.1	40-140			
Heptachlor Epoxide [2C]	0.073	0.0050	mg/Kg wet	0.100		73.1	40-140			
Hexachlorobenzene	0.077	0.0060	mg/Kg wet	0.100		76.8	40-140			
Hexachlorobenzene [2C]	0.070	0.0060	mg/Kg wet	0.100		70.0	40-140			
Methoxychlor	0.084	0.050	mg/Kg wet	0.100		84.3	40-140			
Methoxychlor [2C]	0.080	0.050	mg/Kg wet	0.100		80.0	40-140			
Surrogate: Decachlorobiphenyl	*0.138*		mg/Kg wet	0.200		68.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.146*		mg/Kg wet	0.200		73.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.142*		mg/Kg wet	0.200		71.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.136*		mg/Kg wet	0.200		67.8	30-150			

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227071 - SW-846 3546										
LCS Dup (B227071-BSD1)				Prepared: 03/31/19 Analyzed: 04/02/19						
alpha-Chlordane	0.078	0.0050	mg/Kg wet	0.100		77.7	40-140	6.71	30	
alpha-Chlordane [2C]	0.077	0.0050	mg/Kg wet	0.100		77.0	40-140	6.63	30	
gamma-Chlordane	0.080	0.0050	mg/Kg wet	0.100		79.8	40-140	3.78	30	
gamma-Chlordane [2C]	0.078	0.0050	mg/Kg wet	0.100		78.0	40-140	7.20	30	
Alachlor	0.078	0.020	mg/Kg wet	0.100		78.2	40-140	5.56	30	
Alachlor [2C]	0.082	0.020	mg/Kg wet	0.100		82.2	40-140	9.89	30	
Aldrin	0.079	0.0050	mg/Kg wet	0.100		79.2	40-140	7.10	30	
Aldrin [2C]	0.078	0.0050	mg/Kg wet	0.100		77.7	40-140	8.04	30	
alpha-BHC	0.088	0.0050	mg/Kg wet	0.100		88.1	40-140	10.2	30	
alpha-BHC [2C]	0.074	0.0050	mg/Kg wet	0.100		73.7	40-140	7.00	30	
beta-BHC	0.077	0.0050	mg/Kg wet	0.100		76.6	40-140	7.27	30	
beta-BHC [2C]	0.072	0.0050	mg/Kg wet	0.100		71.5	40-140	8.95	30	
delta-BHC	0.070	0.0050	mg/Kg wet	0.100		69.5	40-140	6.45	30	
delta-BHC [2C]	0.069	0.0050	mg/Kg wet	0.100		68.7	40-140	6.95	30	
gamma-BHC (Lindane)	0.077	0.0020	mg/Kg wet	0.100		77.5	40-140	8.25	30	
gamma-BHC (Lindane) [2C]	0.076	0.0020	mg/Kg wet	0.100		75.9	40-140	8.55	30	
4,4'-DDD	0.085	0.0040	mg/Kg wet	0.100		85.4	40-140	5.63	30	
4,4'-DDD [2C]	0.085	0.0040	mg/Kg wet	0.100		84.8	40-140	6.19	30	
4,4'-DDE	0.084	0.0040	mg/Kg wet	0.100		83.8	40-140	5.49	30	
4,4'-DDE [2C]	0.079	0.0040	mg/Kg wet	0.100		78.7	40-140	7.22	30	
4,4'-DDT	0.087	0.0040	mg/Kg wet	0.100		86.7	40-140	5.11	30	
4,4'-DDT [2C]	0.069	0.0040	mg/Kg wet	0.100		69.1	40-140	8.04	30	
Dieldrin	0.081	0.0040	mg/Kg wet	0.100		81.0	40-140	5.31	30	
Dieldrin [2C]	0.084	0.0040	mg/Kg wet	0.100		83.6	40-140	7.19	30	
Endosulfan I	0.079	0.0050	mg/Kg wet	0.100		78.6	40-140	4.54	30	
Endosulfan I [2C]	0.079	0.0050	mg/Kg wet	0.100		78.7	40-140	5.50	30	
Endosulfan II	0.081	0.0080	mg/Kg wet	0.100		80.9	40-140	5.67	30	
Endosulfan II [2C]	0.080	0.0080	mg/Kg wet	0.100		80.4	40-140	6.25	30	
Endosulfan Sulfate	0.084	0.0080	mg/Kg wet	0.100		84.4	40-140	10.0	30	
Endosulfan Sulfate [2C]	0.081	0.0080	mg/Kg wet	0.100		81.2	40-140	9.73	30	
Endrin	0.082	0.0080	mg/Kg wet	0.100		81.5	40-140	5.17	30	
Endrin [2C]	0.080	0.0080	mg/Kg wet	0.100		79.9	40-140	6.64	30	
Endrin Aldehyde	0.087	0.0080	mg/Kg wet	0.100		87.0	40-140	4.64	30	
Endrin Aldehyde [2C]	0.080	0.0080	mg/Kg wet	0.100		80.1	40-140	3.59	30	
Endrin Ketone	0.087	0.0080	mg/Kg wet	0.100		86.7	40-140	8.19	30	
Endrin Ketone [2C]	0.082	0.0080	mg/Kg wet	0.100		81.7	40-140	9.68	30	
Heptachlor	0.064	0.0050	mg/Kg wet	0.100		64.1	40-140	7.36	30	
Heptachlor [2C]	0.075	0.0050	mg/Kg wet	0.100		75.4	40-140	7.39	30	
Heptachlor Epoxide	0.076	0.0050	mg/Kg wet	0.100		76.4	40-140	5.76	30	
Heptachlor Epoxide [2C]	0.078	0.0050	mg/Kg wet	0.100		78.1	40-140	6.62	30	
Hexachlorobenzene	0.082	0.0060	mg/Kg wet	0.100		82.4	40-140	7.06	30	
Hexachlorobenzene [2C]	0.075	0.0060	mg/Kg wet	0.100		75.3	40-140	7.27	30	
Methoxychlor	0.088	0.050	mg/Kg wet	0.100		88.2	40-140	4.46	30	
Methoxychlor [2C]	0.086	0.050	mg/Kg wet	0.100		85.6	40-140	6.75	30	
Surrogate: Decachlorobiphenyl	*0.145*		mg/Kg wet	0.200		72.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.151*		mg/Kg wet	0.200		75.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.151*		mg/Kg wet	0.200		75.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.143*		mg/Kg wet	0.200		71.5	30-150			

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QUALITY CONTROL

Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B226813 - SW-846 8151										
Blank (B226813-BLK1)				Prepared: 03/28/19 Analyzed: 04/01/19						
2,4-D	ND	24	µg/kg wet							
2,4-D [2C]	ND	24	µg/kg wet							
2,4,5-TP (Silvex)	ND	2.4	µg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	2.4	µg/kg wet							
2,4,5-T	ND	2.4	µg/kg wet							
2,4,5-T [2C]	ND	2.4	µg/kg wet							
Dalapon	ND	60	µg/kg wet							
Dalapon [2C]	ND	60	µg/kg wet							
Dicamba	ND	2.4	µg/kg wet							
Dicamba [2C]	ND	2.4	µg/kg wet							
Surrogate: 2,4-Dichlorophenylacetic acid	*66.7*		µg/kg wet	95.2		70.1	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*62.0*		µg/kg wet	95.2		65.1	30-150			
LCS (B226813-BS1)				Prepared: 03/28/19 Analyzed: 04/01/19						
2,4-D	87.6	25	µg/kg wet	125		70.1	40-140			
2,4-D [2C]	84.9	25	µg/kg wet	125		67.9	40-140			
2,4,5-TP (Silvex)	9.91	2.5	µg/kg wet	12.5		79.3	40-140			
2,4,5-TP (Silvex) [2C]	9.44	2.5	µg/kg wet	12.5		75.6	40-140			
2,4,5-T	10.5	2.5	µg/kg wet	12.5		84.1	40-140			
2,4,5-T [2C]	8.09	2.5	µg/kg wet	12.5		64.7	40-140			
Dalapon	193	62	µg/kg wet	312		61.8	40-140			
Dalapon [2C]	183	62	µg/kg wet	312		58.6	40-140			
Dicamba	9.61	2.5	µg/kg wet	12.5		76.9	40-140			
Dicamba [2C]	9.20	2.5	µg/kg wet	12.5		73.6	40-140			
Surrogate: 2,4-Dichlorophenylacetic acid	*71.0*		µg/kg wet	100		71.0	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*70.4*		µg/kg wet	100		70.4	30-150			
LCS Dup (B226813-BSD1)				Prepared: 03/28/19 Analyzed: 04/01/19						
2,4-D	99.2	25	µg/kg wet	125		79.4	40-140	12.4	30	
2,4-D [2C]	97.1	25	µg/kg wet	125		77.7	40-140	13.4	30	
2,4,5-TP (Silvex)	11.3	2.5	µg/kg wet	12.5		90.3	40-140	13.0	30	
2,4,5-TP (Silvex) [2C]	10.5	2.5	µg/kg wet	12.5		83.9	40-140	10.5	30	
2,4,5-T	11.2	2.5	µg/kg wet	12.5		89.9	40-140	6.69	30	
2,4,5-T [2C]	9.73	2.5	µg/kg wet	12.5		77.8	40-140	18.4	30	
Dalapon	167	62	µg/kg wet	312		53.5	40-140	14.5	30	
Dalapon [2C]	161	62	µg/kg wet	312		51.6	40-140	12.7	30	
Dicamba	10.7	2.5	µg/kg wet	12.5		85.6	40-140	10.7	30	
Dicamba [2C]	10.4	2.5	µg/kg wet	12.5		83.0	40-140	11.9	30	
Surrogate: 2,4-Dichlorophenylacetic acid	*80.5*		µg/kg wet	100		80.5	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*79.8*		µg/kg wet	100		79.8	30-150			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B226895 - SW-846 7471										
Blank (B226895-BLK1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Mercury	ND	0.025	mg/Kg wet							
LCS (B226895-BS1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Mercury	3.42	0.38	mg/Kg wet	3.71		92.1	65-135			
LCS Dup (B226895-BSD1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Mercury	3.65	0.38	mg/Kg wet	3.71		98.4	65-135	6.61	30	
Batch B226973 - SW-846 3050B										
Blank (B226973-BLK1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Arsenic	ND	1.7	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Cadmium	ND	0.17	mg/Kg wet							
Chromium	ND	0.33	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
LCS (B226973-BS1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Arsenic	204	5.0	mg/Kg wet	202		101	82.7-117.3			
Barium	286	5.0	mg/Kg wet	270		106	82.6-117.8			
Cadmium	136	0.50	mg/Kg wet	141		96.4	83-117			
Chromium	173	1.0	mg/Kg wet	167		103	81.4-118			
Lead	75.7	1.5	mg/Kg wet	73.8		103	82.9-117.1			
Selenium	45.9	10	mg/Kg wet	49.9		92.1	79.2-120.6			
Silver	77.4	1.0	mg/Kg wet	71.1		109	79.7-120.1			
LCS Dup (B226973-BSD1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Arsenic	202	5.0	mg/Kg wet	202		100	82.7-117.3	0.627	30	
Barium	287	5.0	mg/Kg wet	270		106	82.6-117.8	0.306	30	
Cadmium	142	0.50	mg/Kg wet	141		101	83-117	4.30	30	
Chromium	172	1.0	mg/Kg wet	167		103	81.4-118	0.101	30	
Lead	73.1	1.5	mg/Kg wet	73.8		99.0	82.9-117.1	3.52	30	
Selenium	46.0	10	mg/Kg wet	49.9		92.1	79.2-120.6	0.0655	30	
Silver	76.1	1.0	mg/Kg wet	71.1		107	79.7-120.1	1.65	30	
MRL Check (B226973-MRL1)				Prepared: 03/29/19 Analyzed: 04/01/19						
Lead	0.577	0.49	mg/Kg wet	0.490		118	80-120			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227324 - % Solids										
Duplicate (B227324-DUP1)	**Source: 19C1374-01**			Prepared: 04/03/19 Analyzed: 04/04/19						
% Solids	77.4		% Wt		78.0			0.699	20	
Duplicate (B227324-DUP2)	**Source: 19C1374-03**			Prepared: 04/03/19 Analyzed: 04/04/19						
% Solids	87.1		% Wt		86.6			0.575	20	
Duplicate (B227324-DUP3)	**Source: 19C1374-08**			Prepared: 04/03/19 Analyzed: 04/04/19						
% Solids	88.1		% Wt		88.3			0.210	20	
Duplicate (B227324-DUP4)	**Source: 19C1374-12**			Prepared: 04/03/19 Analyzed: 04/04/19						
% Solids	77.9		% Wt		78.0			0.178	20	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

BREAKDOWN REPORT

Lab Sample ID:	S034270-PEM1	Analyzed:	04/02/2019

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	0.88
Endrin [1]	1.73

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	0.95
Endrin [2]	1.58

BREAKDOWN REPORT

Lab Sample ID:	S034270-PEM2	Analyzed:	04/03/2019

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.32
Endrin [1]	2.36

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.37
Endrin [2]	2.14

BREAKDOWN REPORT

Lab Sample ID:	S034270-PEM3	Analyzed:	04/03/2019

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.32
Endrin [1]	2.36

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BREAKDOWN REPORT

Lab Sample ID:	**S034270-PEM3**	**Analyzed:**	**04/03/2019**

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	1.37
Endrin [2]	2.14

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS

Lab Sample ID: B226813-BS1 Date(s) Analyzed: 04/01/2019 04/01/2019

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-T	1	16.256	0.000	0.000	10.5	
	2	16.208	0.000	0.000	8.09	30.5
2,4,5-TP (Silvex)	1	15.631	0.000	0.000	9.91	
	2	15.349	0.000	0.000	9.44	4.8
2,4-D	1	13.773	0.000	0.000	87.6	
	2	13.591	0.000	0.000	84.9	3.6
Dalapon	1	4.612	0.000	0.000	193	
	2	4.223	0.000	0.000	183	3.8
Dicamba	1	11.639	0.000	0.000	9.61	
	2	11.363	0.000	0.000	9.20	4.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS Dup

Lab Sample ID: B226813-BSD1 Date(s) Analyzed: 04/01/2019 04/01/2019

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-T	1	16.254	0.000	0.000	11.2	
	2	16.201	0.000	0.000	9.73	12.3
2,4,5-TP (Silvex)	1	15.629	0.000	0.000	11.3	
	2	15.345	0.000	0.000	10.5	4.7
2,4-D	1	13.772	0.000	0.000	99.2	
	2	13.587	0.000	0.000	97.1	1.9
Dalapon	1	4.614	0.000	0.000	167	
	2	4.225	0.000	0.000	161	5.4
Dicamba	1	11.639	0.000	0.000	10.7	
	2	11.362	0.000	0.000	10.4	5.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B227071-BS1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD6A Instrument ID (2): ECD6B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.887	6.857	6.917	0.081	
	2	6.930	6.899	6.959	0.080	1.2
4,4'-DDE	1	6.468	6.438	6.498	0.079	
	2	6.513	6.484	6.544	0.073	7.9
4,4'-DDT	1	7.093	7.063	7.123	0.082	
	2	7.158	7.129	7.189	0.064	24.7
Alachlor	1	5.933	5.903	5.963	0.074	
	2	5.747	5.717	5.777	0.074	0.0
Aldrin	1	5.839	5.810	5.870	0.074	
	2	5.789	5.759	5.819	0.072	2.7
alpha-BHC	1	5.187	5.158	5.218	0.080	
	2	5.151	5.121	5.181	0.069	14.8
alpha-Chlordane	1	6.406	6.376	6.436	0.073	
	2	6.383	6.353	6.413	0.072	1.4
beta-BHC	1	5.419	5.390	5.450	0.071	
	2	5.403	5.371	5.431	0.065	8.8
delta-BHC	1	5.523	5.494	5.554	0.065	
	2	5.570	5.539	5.599	0.064	1.6
Dieldrin	1	6.663	6.633	6.693	0.077	
	2	6.607	6.578	6.638	0.078	1.3
Endosulfan I	1	6.495	6.465	6.525	0.075	
	2	6.418	6.388	6.448	0.074	1.3
Endosulfan II	1	6.984	6.955	7.015	0.076	
	2	6.979	6.950	7.010	0.076	0.0
Endosulfan Sulfate	1	7.619	7.590	7.650	0.076	
	2	7.446	7.417	7.477	0.074	2.7
Endrin	1	6.824	6.795	6.855	0.077	
	2	6.820	6.791	6.851	0.075	2.6
Endrin Aldehyde	1	7.292	7.262	7.322	0.083	
	2	7.235	7.205	7.265	0.077	7.5
Endrin Ketone	1	7.832	7.803	7.863	0.080	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B227071-BS1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD6A Instrument ID (2): ECD6B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	7.847	7.817	7.877	0.074	7.8
gamma-BHC (Lindane)	1	5.368	5.339	5.399	0.071	
	2	5.347	5.318	5.378	0.070	1.4
gamma-Chlordane	1	6.316	6.286	6.346	0.077	
	2	6.284	6.254	6.314	0.073	5.3
Heptachlor	1	5.652	5.624	5.684	0.060	
	2	5.596	5.567	5.627	0.070	15.4
Heptachlor Epoxide	1	6.231	6.201	6.261	0.072	
	2	6.159	6.128	6.188	0.073	1.4
Hexachlorobenzene	1	5.093	5.064	5.124	0.077	
	2	5.069	5.040	5.100	0.070	9.5
Methoxychlor	1	7.471	7.442	7.502	0.084	
	2	7.707	7.677	7.737	0.080	4.9

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B227071-BSD1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD6A Instrument ID (2): ECD6B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.888	6.857	6.917	0.085	
	2	6.930	6.899	6.959	0.085	0.0
4,4'-DDE	1	6.469	6.438	6.498	0.084	
	2	6.514	6.484	6.544	0.079	6.1
4,4'-DDT	1	7.094	7.063	7.123	0.087	
	2	7.158	7.129	7.189	0.069	23.1
Alachlor	1	5.933	5.903	5.963	0.078	
	2	5.747	5.717	5.777	0.082	5.0
Aldrin	1	5.840	5.810	5.870	0.079	
	2	5.789	5.759	5.819	0.078	1.3
alpha-BHC	1	5.188	5.158	5.218	0.088	
	2	5.151	5.121	5.181	0.074	17.3
alpha-Chlordane	1	6.407	6.376	6.436	0.078	
	2	6.383	6.353	6.413	0.077	1.3
beta-BHC	1	5.419	5.390	5.450	0.077	
	2	5.403	5.371	5.431	0.072	6.7
delta-BHC	1	5.523	5.494	5.554	0.070	
	2	5.570	5.539	5.599	0.069	1.4
Dieldrin	1	6.664	6.633	6.693	0.081	
	2	6.608	6.578	6.638	0.084	3.6
Endosulfan I	1	6.496	6.465	6.525	0.079	
	2	6.418	6.388	6.448	0.079	0.0
Endosulfan II	1	6.985	6.955	7.015	0.081	
	2	6.980	6.950	7.010	0.080	1.2
Endosulfan Sulfate	1	7.620	7.590	7.650	0.084	
	2	7.446	7.417	7.477	0.081	3.6
Endrin	1	6.826	6.795	6.855	0.082	
	2	6.821	6.791	6.851	0.080	2.5
Endrin Aldehyde	1	7.292	7.262	7.322	0.087	
	2	7.235	7.205	7.265	0.080	8.4
Endrin Ketone	1	7.833	7.803	7.863	0.087	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B227071-BSD1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD6A Instrument ID (2): ECD6B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	7.848	7.817	7.877	0.082	5.9
gamma-BHC (Lindane)	1	5.369	5.339	5.399	0.077	
	2	5.348	5.318	5.378	0.076	2.6
gamma-Chlordane	1	6.316	6.286	6.346	0.080	
	2	6.284	6.254	6.314	0.078	2.5
Heptachlor	1	5.653	5.624	5.684	0.064	
	2	5.597	5.567	5.627	0.075	15.8
Heptachlor Epoxide	1	6.232	6.201	6.261	0.076	
	2	6.159	6.128	6.188	0.078	2.6
Hexachlorobenzene	1	5.094	5.064	5.124	0.082	
	2	5.070	5.040	5.100	0.075	8.9
Methoxychlor	1	7.472	7.442	7.502	0.088	
	2	7.708	7.677	7.737	0.086	2.3

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
S-12	Surrogate recovery is outside of control limits on confirmatory column, but within control limits on primary column. Data validation is not affected.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8081B in Soil	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Soil	
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8081B in Water	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Water	
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
1,4-Dioxane	NY
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Soil	
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
SW-846 8270D in Water	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

1961374

http://www.contestlabs.com Doc # 360 Rev 1 03242011

CHAIN OF CUSTODY RECORD (New York)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Tetra Tech
Address: 912 Silas Deane Highway, Wethersfield, CT
Phone: 860-571-8000
Project Name: Highway 55 & Mead Rd
Project Location: Florida, NY
Project Number: 143-254457-19003
Project Manager: John Insall
Con-Test Quote Name/Number:
Invoice Recipient: John Insall
Sampled By: Jan Cannan

Requested Turnaround Time
7-Day ☒ 10-Day ☐
Due Date:

Prior Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: John.Insall@tetratech.com
Fax To #:

| | | |

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

19C1374

http://www.contestlabs.com Doc # 360 Rev 1_03242017

CHAIN OF CUSTODY RECORD (New York)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: Tetra Tech
Address: 912 Silas Deane Highway, Wethersfield, CT
Phone: 860 571-8060
Project Name: Highway 55 & Mead Rd
Project Location: Florida, NY
Project Number: 143-254457-19003
Project Manager: John Insall
Con-Test Quote Name/Number:
Invoice Recipient: John Insall
Sampled By: Ian Cannon

Requested Turnaround Time
7-Day ☒ 10-Day ☐
Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: John.Insall@tetratech.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	VOCs (8260)	RCRA 8 Metals	PAHs (8270)	Pesticides (8081B)	Herbicides (8151A)	
								3	1	→	1		# of Containers
								S/W	1	→	1		[2] Preservation Code
								V	A	→	A		[3] Container Code
11	TT-SB-11 (4-6)	3/25/19	1610		X	S	U	X	X	X	X		
12	TT-SB-12 (0-2)		1635					X	X	X	X		

ANALYSIS REQUESTED

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 3/26/19
Received by: (signature)	Date/Time: 3/27/19 920
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Program & Regulatory Information
☐ AWQ STDS ☐ NY TOGS
☐ NYC Sewer Discharge ☐ NY CP-51
☐ Part 360 GW (Landfill)
☐ NY Restricted Use
☒ NY Unrestricted Use
☐ NY Part 375
Other:

Deliverables
☐ Enhanced Data Package
☐ NYSDEC EQuIS EDD
☐ EQuIS (Standard) EDD
☐ NY Regulatory EDD
☐ NY Regs Hits-Only EDD
Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP, LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

786259785787

Delivered
Wednesday 3/27/2019 at 9:20 am

DELIVERED

Signed for by: B.BECCA

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
MARLBOROUGH, MA US	EAST LONGMEADOW, MA US

Shipment Facts

TRACKING NUMBER
786259785787

SERVICE
FedEx Priority Overnight

WEIGHT
54 lbs / 24.49 kgs

DIMENSIONS
24x14x14 in.

DELIVERED TO
Shipping/Receiving

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
54 lbs / 24.49 kgs

TERMS
Third Party

PURCHASE ORDER NUMBER
143-254457-19003

PACKAGING
Your Packaging

SPECIAL HANDLING SECTION
Deliver Weekday, Additional Handling Surcharge

STANDARD TRANSIT
3/27/2019 by 10:30 am

SHIP DATE
Tue 3/26/2019

ACTUAL DELIVERY
Wed 3/27/2019 9:20 am

Travel History

Local Scan Time

Wednesday , 3/27/2019

9.20 am	EAST LONGMEADOW, MA	Delivered
8:10 am	WINDSOR LOCKS, CT	On FedEx vehicle for delivery
8:00 am	WINDSOR LOCKS, CT	At local FedEx facility

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Tetra Tech

Received By RAP Date 3/27/19 Time 9:20

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 5 Actual Temp - 4.0

Were samples within Temperature? 2-6°C T By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	12
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	3
Meoh-	12	250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-	24	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 12, 2019

John Insall
Tetra Tech - CT
912 Silas Deane Highway
Wethersfield, CT 06109

Project Location: Florida, NY
Client Job Number:
Project Number: 143-254457-19003
Laboratory Work Order Number: 19C1653

Enclosed are results of analyses for samples received by the laboratory on March 30, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kerry K. McGee
Project Manager

Table of Contents

Sample Summary 4

Case Narrative 5

Sample Results 7

19C1653-01 7

19C1653-02 9

19C1653-03 11

19C1653-04 17

19C1653-05 24

19C1653-06 30

19C1653-07 36

19C1653-08 42

Sample Preparation Information 48

QC Data 50

Volatile Organic Compounds by GC/MS 50

B227219 50

Semivolatile Organic Compounds by GC/MS 55

B227680 55

Organochloride Pesticides by GC/ECD 57

B227439 57

Herbicides by GC/ECD 62

B227075 62

Metals Analyses (Total) 63

B227097 63

B227581 63

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) 64

Table of Contents (continued)

B227645	64
Pesticides Degradation Report	65
Dual Column RPD Report	66
Flag/Qualifier Summary	76
Certifications	77
Chain of Custody/Sample Receipt	82

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Tetra Tech - CT
912 Silas Deane Highway
Wethersfield, CT 06109
ATTN: John Insall

REPORT DATE: 4/12/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 143-254457-19003

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19C1653

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Florida, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TB-1	19C1653-01	Trip Blank Soil		SW-846 8260C	
DUP-1	19C1653-02	Soil		SW-846 8260C	
TT-SB-13 (0-2)	19C1653-03	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-14 (0-2)	19C1653-04	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8151A	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-15 (2-4)	19C1653-05	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-16 (0-2)	19C1653-06	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-17 (2-4)	19C1653-07	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	
TT-SB-18 (0-2)	19C1653-08	Soil		SM 2540G	
				SW-846 6010D	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8260C	
				SW-846 8270D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8151, samples were derivatized on 04/02/19 .

For method 8151, sample analysis bracketed by LCS to monitor esterification. All recoveries in the bracketing LCS met method criteria.
For method 8270, only PAHs were requested and reported.

SW-846 8081B

Qualifications:

R-06

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

alpha-BHC
19C1653-03[TT-SB-13 (0-2)], B227439-MS1, B227439-MSD1

alpha-BHC [2C]
19C1653-03[TT-SB-13 (0-2)], B227439-MS1, B227439-MSD1

gamma-BHC (Lindane)
19C1653-03[TT-SB-13 (0-2)], B227439-MS1, B227439-MSD1

SW-846 8260C

Qualifications:

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

Acetone
B227219-BS1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

1,2-Dibromo-3-chloropropane (DB
B227219-BS1, B227219-BSD1, S034250-CCV1

Bromoform
B227219-BS1, B227219-BSD1, S034250-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Bromomethane
19C1653-01[TB-1], 19C1653-02[DUP-1], 19C1653-03[TT-SB-13 (0-2)], 19C1653-04[TT-SB-14 (0-2)], 19C1653-05[TT-SB-15 (2-4)], 19C1653-06[TT-SB-16 (0-2)], 19C1653-07[TT-SB-17 (2-4)], 19C1653-08[TT-SB-18 (0-2)], B227219-BLK1, B227219-BS1, B227219-BSD1, S034250-CCV1

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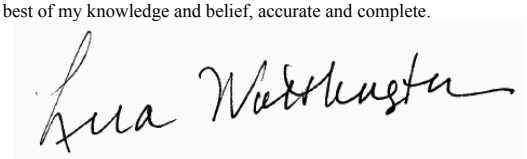
The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TB-1 | Sampled: 3/25/2019 08:00

Sample ID: 19C1653-01

Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Acrylonitrile	ND	0.0060	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Benzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Bromobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Bromochloromethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Bromodichloromethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Bromoform	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Bromomethane	ND	0.010	mg/Kg wet	1	V-34	SW-846 8260C	4/2/19	4/2/19 10:04	MFF
2-Butanone (MEK)	ND	0.040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
tert-Butyl Alcohol (TBA)	ND	0.040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
n-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Carbon Disulfide	ND	0.0060	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Chlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Chloroethane	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Chloroform	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Chloromethane	ND	0.010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Dibromomethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
2,2-Dichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Diethyl Ether	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TB-1 | Sampled: 3/25/2019 08:00

Sample ID: 19C1653-01

Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,4-Dioxane	ND	0.10	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Ethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Hexachlorobutadiene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Methyl Acetate	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Methyl Cyclohexane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Methylene Chloride	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Naphthalene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
n-Propylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Styrene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Tetrahydrofuran	ND	0.010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Toluene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Trichloroethylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
Vinyl Chloride	ND	0.010	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
m+p Xylene	ND	0.0040	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF
o-Xylene	ND	0.0020	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:04	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	95.9	70-130		4/2/19 10:04
Toluene-d8	96.5	70-130		4/2/19 10:04
4-Bromofluorobenzene	96.1	70-130		4/2/19 10:04

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: DUP-1 | Sampled: 3/29/2019 00:00

Sample ID: 19C1653-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Acrylonitrile	ND	0.0043	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Benzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Bromobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Bromochloromethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Bromodichloromethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Bromoform	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Bromomethane	ND	0.0071	mg/Kg wet	1	V-34	SW-846 8260C	4/2/19	4/2/19 10:29	MFF
2-Butanone (MEK)	ND	0.028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
tert-Butyl Alcohol (TBA)	ND	0.028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
n-Butylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
sec-Butylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
tert-Butylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Carbon Disulfide	ND	0.0043	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Carbon Tetrachloride	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Chlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Chlorodibromomethane	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Chloroethane	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Chloroform	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Chloromethane	ND	0.0071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
2-Chlorotoluene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
4-Chlorotoluene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2-Dibromoethane (EDB)	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Dibromomethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2-Dichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,3-Dichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,4-Dichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
trans-1,4-Dichloro-2-butene	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1-Dichloroethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2-Dichloroethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1-Dichloroethylene	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
cis-1,2-Dichloroethylene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
trans-1,2-Dichloroethylene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2-Dichloropropane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,3-Dichloropropane	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
2,2-Dichloropropane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1-Dichloropropene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
cis-1,3-Dichloropropene	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
trans-1,3-Dichloropropene	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Diethyl Ether	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: DUP-1 | Sampled: 3/29/2019 00:00

Sample ID: 19C1653-02

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,4-Dioxane	ND	0.071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Ethylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Hexachlorobutadiene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
2-Hexanone (MBK)	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Isopropylbenzene (Cumene)	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Methyl Acetate	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Methyl Cyclohexane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Methylene Chloride	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Naphthalene	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
n-Propylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Styrene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1,1,2-Tetrachloroethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1,2,2-Tetrachloroethane	ND	0.00071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Tetrachloroethylene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Tetrahydrofuran	ND	0.0071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Toluene	0.0028	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2,3-Trichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2,4-Trichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,3,5-Trichlorobenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1,1-Trichloroethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1,2-Trichloroethane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Trichloroethylene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2,3-Trichloropropane	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,2,4-Trimethylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
1,3,5-Trimethylbenzene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
Vinyl Chloride	ND	0.0071	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
m+p Xylene	ND	0.0028	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF
o-Xylene	ND	0.0014	mg/Kg wet	1		SW-846 8260C	4/2/19	4/2/19 10:29	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.3	70-130		4/2/19 10:29
Toluene-d8	96.5	70-130		4/2/19 10:29
4-Bromofluorobenzene	97.7	70-130		4/2/19 10:29

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Acrylonitrile	ND	0.0061	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Benzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Bromobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Bromochloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Bromodichloromethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Bromoform	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Bromomethane	ND	0.010	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 10:54	MFF
2-Butanone (MEK)	ND	0.041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
tert-Butyl Alcohol (TBA)	ND	0.041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
n-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
sec-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
tert-Butylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Carbon Disulfide	ND	0.0061	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Carbon Tetrachloride	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Chlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Chlorodibromomethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Chloroethane	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Chloroform	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Chloromethane	ND	0.010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
2-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
4-Chlorotoluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Dibromomethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,3-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,4-Dichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
trans-1,4-Dichloro-2-butene	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2-Dichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1-Dichloroethylene	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,3-Dichloropropane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
2,2-Dichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1-Dichloropropene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Diethyl Ether	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,4-Dioxane	ND	0.10	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Ethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Hexachlorobutadiene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
2-Hexanone (MBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Methyl Acetate	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Methyl Cyclohexane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Methylene Chloride	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Naphthalene	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
n-Propylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Styrene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Tetrachloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Tetrahydrofuran	ND	0.010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Toluene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1,1-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1,2-Trichloroethane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Trichloroethylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2,3-Trichloropropane	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
Vinyl Chloride	ND	0.010	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
m+p Xylene	ND	0.0041	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF
o-Xylene	ND	0.0020	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 10:54	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	96.5	70-130		4/2/19 10:54
Toluene-d8	97.2	70-130		4/2/19 10:54
4-Bromofluorobenzene	94.2	70-130		4/2/19 10:54

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 9:35	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	76.1	30-130		4/9/19 9:35
2-Fluorobiphenyl	74.7	30-130		4/9/19 9:35
p-Terphenyl-d14	86.6	30-130		4/9/19 9:35

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Aldrin [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
alpha-BHC [1]	ND	0.0059	mg/Kg dry	1	R-06	SW-846 8081B	4/4/19	4/5/19 20:22	TG
beta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
delta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
gamma-BHC (Lindane) [1]	ND	0.0024	mg/Kg dry	1	R-06	SW-846 8081B	4/4/19	4/5/19 20:22	TG
Chlordane [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
4,4'-DDD [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
4,4'-DDE [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
4,4'-DDT [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Dieldrin [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endosulfan I [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endosulfan II [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endosulfan sulfate [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endrin [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endrin aldehyde [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Endrin ketone [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Heptachlor [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Heptachlor epoxide [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Hexachlorobenzene [1]	ND	0.0071	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Methoxychlor [1]	ND	0.059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG
Toxaphene [1]	ND	0.12	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:22	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	58.6	30-150		4/5/19 20:22
Decachlorobiphenyl [2]	68.7	30-150		4/5/19 20:22
Tetrachloro-m-xylene [1]	60.4	30-150		4/5/19 20:22
Tetrachloro-m-xylene [2]	55.9	30-150		4/5/19 20:22

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.1	2.0	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Barium	76	2.0	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Cadmium	0.48	0.20	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Chromium	16	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Lead	15	0.61	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Mercury	0.073	0.031	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 10:51	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:11	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-13 (0-2) | Sampled: 3/29/2019 09:02

Sample ID: 19C1653-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.6		% Wt	1		SM 2540G	4/8/19	4/9/19 13:55	VLH

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Acrylonitrile	ND	0.0072	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Benzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Bromobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Bromochloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Bromodichloromethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Bromoform	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Bromomethane	ND	0.012	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 11:18	MFF
2-Butanone (MEK)	ND	0.048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
tert-Butyl Alcohol (TBA)	ND	0.048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
n-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
sec-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
tert-Butylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Carbon Disulfide	ND	0.0072	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Carbon Tetrachloride	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Chlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Chlorodibromomethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Chloroethane	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Chloroform	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Chloromethane	ND	0.012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
2-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
4-Chlorotoluene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2-Dibromoethane (EDB)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Dibromomethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,3-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,4-Dichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
trans-1,4-Dichloro-2-butene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2-Dichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1-Dichloroethylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
cis-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
trans-1,2-Dichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,3-Dichloropropane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
2,2-Dichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1-Dichloropropene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
cis-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
trans-1,3-Dichloropropene	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Diethyl Ether	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,4-Dioxane	ND	0.12	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Ethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Hexachlorobutadiene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
2-Hexanone (MBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Isopropylbenzene (Cumene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Methyl Acetate	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Methyl Cyclohexane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Methylene Chloride	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Naphthalene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
n-Propylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Styrene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1,1,2-Tetrachloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.0012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Tetrachloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Tetrahydrofuran	ND	0.012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Toluene	0.0068	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2,3-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2,4-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,3,5-Trichlorobenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1,1-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1,2-Trichloroethane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Trichloroethylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Trichlorofluoromethane (Freon 11)	ND	0.012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2,3-Trichloropropane	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,2,4-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
1,3,5-Trimethylbenzene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
Vinyl Chloride	ND	0.012	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
m+p Xylene	ND	0.0048	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF
o-Xylene	ND	0.0024	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.5	70-130		4/2/19 11:18
Toluene-d8	97.1	70-130		4/2/19 11:18
4-Bromofluorobenzene	96.3	70-130		4/2/19 11:18

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:02	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	62.8	30-130		4/9/19 16:02
2-Fluorobiphenyl	68.6	30-130		4/9/19 16:02
p-Terphenyl-d14	97.8	30-130		4/9/19 16:02

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Aldrin [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
alpha-BHC [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
beta-BHC [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
delta-BHC [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
gamma-BHC (Lindane) [1]	ND	0.0024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Chlordane [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
4,4'-DDD [1]	ND	0.0048	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
4,4'-DDE [1]	ND	0.0048	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
4,4'-DDT [1]	ND	0.0048	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Dieldrin [1]	ND	0.0048	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endosulfan I [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endosulfan II [1]	ND	0.0097	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endosulfan sulfate [1]	ND	0.0097	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endrin [1]	ND	0.0097	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endrin aldehyde [1]	ND	0.0097	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Endrin ketone [1]	ND	0.0097	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Heptachlor [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Heptachlor epoxide [1]	ND	0.0061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Hexachlorobenzene [1]	ND	0.0073	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Methoxychlor [1]	ND	0.061	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG
Toxaphene [1]	ND	0.12	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 20:49	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	63.2	30-150		4/5/19 20:49
Decachlorobiphenyl [2]	71.2	30-150		4/5/19 20:49
Tetrachloro-m-xylene [1]	60.9	30-150		4/5/19 20:49
Tetrachloro-m-xylene [2]	56.4	30-150		4/5/19 20:49

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Herbicides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [1]	ND	31	µg/kg dry	1		SW-846 8151A	4/1/19	4/3/19 5:08	JMB
2,4,5-TP (Silvex) [1]	ND	3.1	µg/kg dry	1		SW-846 8151A	4/1/19	4/3/19 5:08	JMB
2,4,5-T [1]	ND	3.1	µg/kg dry	1		SW-846 8151A	4/1/19	4/3/19 5:08	JMB
Dalalpon [1]	ND	78	µg/kg dry	1		SW-846 8151A	4/1/19	4/3/19 5:08	JMB
Dicamba [1]	ND	3.1	µg/kg dry	1		SW-846 8151A	4/1/19	4/3/19 5:08	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,4-Dichlorophenylacetic acid [1]	79.3	30-150		4/3/19 5:08
2,4-Dichlorophenylacetic acid [2]	110	30-150		4/3/19 5:08

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.8	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Barium	54	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Cadmium	0.34	0.21	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Chromium	13	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Lead	10	0.62	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Mercury	0.052	0.032	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 10:53	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:22	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-14 (0-2) | Sampled: 3/29/2019 09:33

Sample ID: 19C1653-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.2		% Wt	1		SM 2540G	4/8/19	4/9/19 13:55	VLH

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Acrylonitrile	ND	0.0049	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Benzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Bromobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Bromochloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Bromodichloromethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Bromoform	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Bromomethane	ND	0.0082	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 11:43	MFF
2-Butanone (MEK)	ND	0.033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
tert-Butyl Alcohol (TBA)	ND	0.033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
n-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
sec-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
tert-Butylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Carbon Disulfide	ND	0.0049	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Carbon Tetrachloride	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Chlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Chlorodibromomethane	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Chloroethane	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Chloroform	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Chloromethane	ND	0.0082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
2-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
4-Chlorotoluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2-Dibromoethane (EDB)	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Dibromomethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,3-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,4-Dichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
trans-1,4-Dichloro-2-butene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2-Dichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1-Dichloroethylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
cis-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
trans-1,2-Dichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,3-Dichloropropane	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
2,2-Dichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1-Dichloropropene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
cis-1,3-Dichloropropene	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
trans-1,3-Dichloropropene	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Diethyl Ether	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,4-Dioxane	ND	0.082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Ethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Hexachlorobutadiene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
2-Hexanone (MBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Isopropylbenzene (Cumene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Methyl Acetate	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Methyl Cyclohexane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Methylene Chloride	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Naphthalene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
n-Propylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Styrene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1,1,2-Tetrachloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1,2,2-Tetrachloroethane	ND	0.00082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Tetrachloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Tetrahydrofuran	ND	0.0082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Toluene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2,3-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2,4-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,3,5-Trichlorobenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1,1-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1,2-Trichloroethane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Trichloroethylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2,3-Trichloropropane	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,2,4-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
1,3,5-Trimethylbenzene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
Vinyl Chloride	ND	0.0082	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
m+p Xylene	ND	0.0033	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF
o-Xylene	ND	0.0016	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 11:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.9	70-130		4/2/19 11:43
Toluene-d8	96.0	70-130		4/2/19 11:43
4-Bromofluorobenzene	97.7	70-130		4/2/19 11:43

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Acenaphthylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Benzo(a)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Benzo(a)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Benzo(b)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Benzo(g,h,i)perylene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Benzo(k)fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Chrysene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Dibenz(a,h)anthracene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Fluoranthene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Fluorene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Indeno(1,2,3-cd)pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
2-Methylnaphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Naphthalene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Phenanthrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR
Pyrene	ND	0.21	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:25	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	63.3	30-130		4/9/19 16:25
2-Fluorobiphenyl	68.0	30-130		4/9/19 16:25
p-Terphenyl-d14	96.2	30-130		4/9/19 16:25

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Aldrin [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
alpha-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
beta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
delta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
gamma-BHC (Lindane) [1]	ND	0.0024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Chlordane [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
4,4'-DDD [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
4,4'-DDE [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
4,4'-DDT [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Dieldrin [1]	ND	0.0047	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endosulfan I [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endosulfan II [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endosulfan sulfate [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endrin [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endrin aldehyde [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Endrin ketone [1]	ND	0.0095	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Heptachlor [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Heptachlor epoxide [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Hexachlorobenzene [1]	ND	0.0071	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Methoxychlor [1]	ND	0.059	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG
Toxaphene [1]	ND	0.12	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:16	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	77.0	30-150		4/5/19 21:16
Decachlorobiphenyl [2]	93.2	30-150		4/5/19 21:16
Tetrachloro-m-xylene [1]	76.8	30-150		4/5/19 21:16
Tetrachloro-m-xylene [2]	69.6	30-150		4/5/19 21:16

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.5	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Barium	70	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Cadmium	0.28	0.21	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Chromium	15	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Lead	8.7	0.62	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Mercury	0.034	0.030	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 10:55	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:08	EJB

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-15 (2-4) | Sampled: 3/29/2019 10:00

Sample ID: 19C1653-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	4/8/19	4/9/19 13:55	VLH

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Acrylonitrile	ND	0.0052	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Benzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Bromobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Bromochloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Bromodichloromethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Bromoform	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Bromomethane	ND	0.0087	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 12:08	MFF
2-Butanone (MEK)	ND	0.035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
tert-Butyl Alcohol (TBA)	ND	0.035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
n-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
sec-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
tert-Butylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Carbon Disulfide	ND	0.0052	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Carbon Tetrachloride	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Chlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Chlorodibromomethane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Chloroethane	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Chloroform	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Chloromethane	ND	0.0087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
2-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
4-Chlorotoluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2-Dibromoethane (EDB)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Dibromomethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,3-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,4-Dichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
trans-1,4-Dichloro-2-butene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2-Dichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1-Dichloroethylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
cis-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
trans-1,2-Dichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,3-Dichloropropane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
2,2-Dichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1-Dichloropropene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
cis-1,3-Dichloropropene	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
trans-1,3-Dichloropropene	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Diethyl Ether	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,4-Dioxane	ND	0.087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Ethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Hexachlorobutadiene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
2-Hexanone (MBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Isopropylbenzene (Cumene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Methyl Acetate	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Methyl Cyclohexane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Methylene Chloride	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Naphthalene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
n-Propylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Styrene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1,1,2-Tetrachloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1,2,2-Tetrachloroethane	ND	0.00087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Tetrachloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Tetrahydrofuran	ND	0.0087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Toluene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2,3-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2,4-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,3,5-Trichlorobenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1,1-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1,2-Trichloroethane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Trichloroethylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2,3-Trichloropropane	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,2,4-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
1,3,5-Trimethylbenzene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
Vinyl Chloride	ND	0.0087	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
m+p Xylene	ND	0.0035	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF
o-Xylene	ND	0.0017	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:08	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	97.3	70-130		4/2/19 12:08
Toluene-d8	95.7	70-130		4/2/19 12:08
4-Bromofluorobenzene	96.5	70-130		4/2/19 12:08

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 16:48	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	73.2	30-130		4/9/19 16:48
2-Fluorobiphenyl	70.4	30-130		4/9/19 16:48
p-Terphenyl-d14	89.4	30-130		4/9/19 16:48

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Aldrin [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
alpha-BHC [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
beta-BHC [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
delta-BHC [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
gamma-BHC (Lindane) [1]	ND	0.0025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Chlordane [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
4,4'-DDD [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
4,4'-DDE [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
4,4'-DDT [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Dieldrin [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endosulfan I [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endosulfan II [1]	ND	0.0099	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endosulfan sulfate [1]	ND	0.0099	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endrin [1]	ND	0.0099	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endrin aldehyde [1]	ND	0.0099	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Endrin ketone [1]	ND	0.0099	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Heptachlor [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Heptachlor epoxide [1]	ND	0.0062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Hexachlorobenzene [1]	ND	0.0075	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Methoxychlor [1]	ND	0.062	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG
Toxaphene [1]	ND	0.12	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 21:42	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	59.7	30-150		4/5/19 21:42
Decachlorobiphenyl [2]	71.4	30-150		4/5/19 21:42
Tetrachloro-m-xylene [1]	62.1	30-150		4/5/19 21:42
Tetrachloro-m-xylene [2]	57.8	30-150		4/5/19 21:42

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	2.4	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Barium	100	2.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Cadmium	0.22	0.21	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Chromium	18	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Lead	9.7	0.62	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Mercury	0.042	0.030	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 10:56	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:33	EJB

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-16 (0-2) | Sampled: 3/29/2019 10:22

Sample ID: 19C1653-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	78.1		% Wt	1		SM 2540G	4/8/19	4/9/19 13:55	VLH

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Acrylonitrile	ND	0.0063	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Benzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Bromobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Bromochloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Bromodichloromethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Bromoform	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Bromomethane	ND	0.011	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 12:32	MFF
2-Butanone (MEK)	ND	0.042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
tert-Butyl Alcohol (TBA)	ND	0.042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
n-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
sec-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
tert-Butylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Carbon Disulfide	ND	0.0063	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Carbon Tetrachloride	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Chlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Chlorodibromomethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Chloroethane	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Chloroform	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Chloromethane	ND	0.011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
2-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
4-Chlorotoluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2-Dibromoethane (EDB)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Dibromomethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,3-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,4-Dichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
trans-1,4-Dichloro-2-butene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2-Dichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1-Dichloroethylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
cis-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
trans-1,2-Dichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,3-Dichloropropane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
2,2-Dichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1-Dichloropropene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
cis-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
trans-1,3-Dichloropropene	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Diethyl Ether	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,4-Dioxane	ND	0.11	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Ethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Hexachlorobutadiene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
2-Hexanone (MBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Isopropylbenzene (Cumene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Methyl Acetate	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Methyl Cyclohexane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Methylene Chloride	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Naphthalene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
n-Propylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Styrene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1,1,2-Tetrachloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1,2,2-Tetrachloroethane	ND	0.0011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Tetrachloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Tetrahydrofuran	ND	0.011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Toluene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2,3-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2,4-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,3,5-Trichlorobenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1,1-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1,2-Trichloroethane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Trichloroethylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Trichlorofluoromethane (Freon 11)	ND	0.011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2,3-Trichloropropane	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,2,4-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
1,3,5-Trimethylbenzene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
Vinyl Chloride	ND	0.011	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
m+p Xylene	ND	0.0042	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF
o-Xylene	ND	0.0021	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:32	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	91.7	70-130		4/2/19 12:32
Toluene-d8	96.6	70-130		4/2/19 12:32
4-Bromofluorobenzene	96.3	70-130		4/2/19 12:32

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Acenaphthylene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Anthracene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Benzo(a)anthracene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Benzo(a)pyrene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Benzo(b)fluoranthene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Benzo(g,h,i)perylene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Benzo(k)fluoranthene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Chrysene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Dibenz(a,h)anthracene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Fluoranthene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Fluorene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
2-Methylnaphthalene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Naphthalene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Phenanthrene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR
Pyrene	ND	0.24	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:11	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	73.7	30-130		4/9/19 17:11
2-Fluorobiphenyl	63.9	30-130		4/9/19 17:11
p-Terphenyl-d14	85.4	30-130		4/9/19 17:11

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.027	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Aldrin [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
alpha-BHC [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
beta-BHC [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
delta-BHC [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
gamma-BHC (Lindane) [1]	ND	0.0027	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Chlordane [1]	ND	0.027	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
4,4'-DDD [1]	ND	0.0054	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
4,4'-DDE [1]	ND	0.0054	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
4,4'-DDT [1]	ND	0.0054	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Dieldrin [1]	ND	0.0054	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endosulfan I [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endosulfan II [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endosulfan sulfate [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endrin [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endrin aldehyde [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Endrin ketone [1]	ND	0.011	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Heptachlor [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Heptachlor epoxide [1]	ND	0.0068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Hexachlorobenzene [1]	ND	0.0081	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Methoxychlor [1]	ND	0.068	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG
Toxaphene [1]	ND	0.14	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:09	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	74.3	30-150		4/5/19 22:09
Decachlorobiphenyl [2]	86.0	30-150		4/5/19 22:09
Tetrachloro-m-xylene [1]	84.3	30-150		4/5/19 22:09
Tetrachloro-m-xylene [2]	78.7	30-150		4/5/19 22:09

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.4	2.3	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Barium	48	2.3	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Cadmium	0.50	0.23	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Chromium	15	0.46	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Lead	11	0.68	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Mercury	0.13	0.036	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 10:58	TBC
Selenium	ND	4.6	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB
Silver	ND	0.46	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:38	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-17 (2-4) | Sampled: 3/29/2019 10:50

Sample ID: 19C1653-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	70.9		% Wt	1		SM 2540G	4/8/19	4/9/19 13:56	VLH

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Acrylonitrile	ND	0.0055	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Benzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Bromobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Bromochloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Bromodichloromethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Bromoform	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Bromomethane	ND	0.0092	mg/Kg dry	1	V-34	SW-846 8260C	4/2/19	4/2/19 12:57	MFF
2-Butanone (MEK)	ND	0.037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
tert-Butyl Alcohol (TBA)	ND	0.037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
n-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
sec-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
tert-Butylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Carbon Disulfide	ND	0.0055	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Carbon Tetrachloride	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Chlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Chlorodibromomethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Chloroethane	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Chloroform	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Chloromethane	ND	0.0092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
2-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
4-Chlorotoluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2-Dibromoethane (EDB)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Dibromomethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,3-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,4-Dichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
trans-1,4-Dichloro-2-butene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2-Dichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1-Dichloroethylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
cis-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
trans-1,2-Dichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,3-Dichloropropane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
2,2-Dichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1-Dichloropropene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
cis-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
trans-1,3-Dichloropropene	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Diethyl Ether	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,4-Dioxane	ND	0.092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Ethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Hexachlorobutadiene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
2-Hexanone (MBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Isopropylbenzene (Cumene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
p-Isopropyltoluene (p-Cymene)	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Methyl Acetate	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Methyl Cyclohexane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Methylene Chloride	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Naphthalene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
n-Propylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Styrene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1,1,2-Tetrachloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1,2,2-Tetrachloroethane	ND	0.00092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Tetrachloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Tetrahydrofuran	ND	0.0092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Toluene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2,3-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2,4-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,3,5-Trichlorobenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1,1-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1,2-Trichloroethane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Trichloroethylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2,3-Trichloropropane	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,2,4-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
1,3,5-Trimethylbenzene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
Vinyl Chloride	ND	0.0092	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
m+p Xylene	ND	0.0037	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF
o-Xylene	ND	0.0018	mg/Kg dry	1		SW-846 8260C	4/2/19	4/2/19 12:57	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	92.5	70-130		4/2/19 12:57
Toluene-d8	93.9	70-130		4/2/19 12:57
4-Bromofluorobenzene	94.7	70-130		4/2/19 12:57

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Acenaphthylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Benzo(a)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Benzo(a)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Benzo(b)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Benzo(g,h,i)perylene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Benzo(k)fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Chrysene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Dibenz(a,h)anthracene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Fluoranthene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Fluorene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Indeno(1,2,3-cd)pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
2-Methylnaphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Naphthalene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Phenanthrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR
Pyrene	ND	0.22	mg/Kg dry	1		SW-846 8270D	4/8/19	4/9/19 17:34	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Nitrobenzene-d5	67.8	30-130		4/9/19 17:34
2-Fluorobiphenyl	71.2	30-130		4/9/19 17:34
p-Terphenyl-d14	100	30-130		4/9/19 17:34

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Aldrin [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
alpha-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
beta-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
delta-BHC [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
gamma-BHC (Lindane) [1]	ND	0.0025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Chlordane [1]	ND	0.025	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
4,4'-DDD [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
4,4'-DDE [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
4,4'-DDT [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Dieldrin [1]	ND	0.0050	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endosulfan I [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endosulfan II [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endosulfan sulfate [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endrin [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endrin aldehyde [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Endrin ketone [1]	ND	0.010	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Heptachlor [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Heptachlor epoxide [1]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Hexachlorobenzene [1]	ND	0.0075	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Methoxychlor [1]	ND	0.063	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG
Toxaphene [1]	ND	0.13	mg/Kg dry	1		SW-846 8081B	4/4/19	4/5/19 22:36	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	71.0	30-150		4/5/19 22:36
Decachlorobiphenyl [2]	77.7	30-150		4/5/19 22:36
Tetrachloro-m-xylene [1]	77.6	30-150		4/5/19 22:36
Tetrachloro-m-xylene [2]	72.0	30-150		4/5/19 22:36

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.9	2.0	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Barium	89	2.0	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Cadmium	0.45	0.20	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Chromium	15	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Lead	14	0.61	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Mercury	0.057	0.032	mg/Kg dry	1		SW-846 7471B	4/3/19	4/9/19 11:04	TBC
Selenium	ND	4.1	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB
Silver	ND	0.41	mg/Kg dry	1		SW-846 6010D	4/5/19	4/8/19 18:54	EJB

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Project Location: Florida, NY | Sample Description: | Work Order: 19C1653

Date Received: 3/30/2019

Field Sample #: TT-SB-18 (0-2) | Sampled: 3/29/2019 11:50

Sample ID: 19C1653-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.9		% Wt	1		SM 2540G	4/8/19	4/9/19 13:56	VLH

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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
19C1653-03 [TT-SB-13 (0-2)]	B227645	04/08/19
19C1653-04 [TT-SB-14 (0-2)]	B227645	04/08/19
19C1653-05 [TT-SB-15 (2-4)]	B227645	04/08/19
19C1653-06 [TT-SB-16 (0-2)]	B227645	04/08/19
19C1653-07 [TT-SB-17 (2-4)]	B227645	04/08/19
19C1653-08 [TT-SB-18 (0-2)]	B227645	04/08/19

Prep Method: SW-846 3050B-SW-846 6010D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-03 [TT-SB-13 (0-2)]	B227581	1.54	50.0	04/05/19
19C1653-04 [TT-SB-14 (0-2)]	B227581	1.52	50.0	04/05/19
19C1653-05 [TT-SB-15 (2-4)]	B227581	1.48	50.0	04/05/19
19C1653-06 [TT-SB-16 (0-2)]	B227581	1.54	50.0	04/05/19
19C1653-07 [TT-SB-17 (2-4)]	B227581	1.55	50.0	04/05/19
19C1653-08 [TT-SB-18 (0-2)]	B227581	1.58	50.0	04/05/19

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-03 [TT-SB-13 (0-2)]	B227097	0.612	50.0	04/03/19
19C1653-04 [TT-SB-14 (0-2)]	B227097	0.578	50.0	04/03/19
19C1653-05 [TT-SB-15 (2-4)]	B227097	0.602	50.0	04/03/19
19C1653-06 [TT-SB-16 (0-2)]	B227097	0.633	50.0	04/03/19
19C1653-07 [TT-SB-17 (2-4)]	B227097	0.594	50.0	04/03/19
19C1653-08 [TT-SB-18 (0-2)]	B227097	0.595	50.0	04/03/19

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-03 [TT-SB-13 (0-2)]	B227439	10.6	10.0	04/04/19
19C1653-04 [TT-SB-14 (0-2)]	B227439	10.3	10.0	04/04/19
19C1653-05 [TT-SB-15 (2-4)]	B227439	10.3	10.0	04/04/19
19C1653-06 [TT-SB-16 (0-2)]	B227439	10.3	10.0	04/04/19
19C1653-07 [TT-SB-17 (2-4)]	B227439	10.4	10.0	04/04/19
19C1653-08 [TT-SB-18 (0-2)]	B227439	10.2	10.0	04/04/19

Prep Method: SW-846 8151-SW-846 8151A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-04 [TT-SB-14 (0-2)]	B227075	20.0	5.00	04/01/19

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-01 [TB-1]	B227219	5.00	10.0	04/02/19
19C1653-02 [DUP-1]	B227219	7.05	10.0	04/02/19
19C1653-03 [TT-SB-13 (0-2)]	B227219	6.17	10.0	04/02/19
19C1653-04 [TT-SB-14 (0-2)]	B227219	5.23	10.0	04/02/19

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Sample Extraction Data

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-05 [TT-SB-15 (2-4)]	B227219	7.47	10.0	04/02/19
19C1653-06 [TT-SB-16 (0-2)]	B227219	7.39	10.0	04/02/19
19C1653-07 [TT-SB-17 (2-4)]	B227219	6.68	10.0	04/02/19
19C1653-08 [TT-SB-18 (0-2)]	B227219	6.98	10.0	04/02/19

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
19C1653-03 [TT-SB-13 (0-2)]	B227680	30.0	1.00	04/08/19
19C1653-04 [TT-SB-14 (0-2)]	B227680	30.1	1.00	04/08/19
19C1653-05 [TT-SB-15 (2-4)]	B227680	30.0	1.00	04/08/19
19C1653-06 [TT-SB-16 (0-2)]	B227680	30.3	1.00	04/08/19
19C1653-07 [TT-SB-17 (2-4)]	B227680	30.0	1.00	04/08/19
19C1653-08 [TT-SB-18 (0-2)]	B227680	30.1	1.00	04/08/19

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227219 - SW-846 5035										
Blank (B227219-BLK1)				Prepared & Analyzed: 04/02/19						
Acetone	ND	0.10	mg/Kg wet							
Acrylonitrile	ND	0.0060	mg/Kg wet							
tert-Amyl Methyl Ether (TAME)	ND	0.0010	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromobenzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							V-34
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
tert-Butyl Alcohol (TBA)	ND	0.040	mg/Kg wet							
n-Butylbenzene	ND	0.0020	mg/Kg wet							
sec-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butylbenzene	ND	0.0020	mg/Kg wet							
tert-Butyl Ethyl Ether (TBEE)	ND	0.0010	mg/Kg wet							
Carbon Disulfide	ND	0.0060	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							
2-Chlorotoluene	ND	0.0020	mg/Kg wet							
4-Chlorotoluene	ND	0.0020	mg/Kg wet							
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
Dibromomethane	ND	0.0020	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
trans-1,4-Dichloro-2-butene	ND	0.0040	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,3-Dichloropropane	ND	0.0010	mg/Kg wet							
2,2-Dichloropropane	ND	0.0020	mg/Kg wet							
1,1-Dichloropropene	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Diethyl Ether	ND	0.020	mg/Kg wet							
Diisopropyl Ether (DIPE)	ND	0.0010	mg/Kg wet							
1,4-Dioxane	ND	0.10	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
Hexachlorobutadiene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B227219 - SW-846 5035											
Blank (B227219-BLK1)				Prepared & Analyzed: 04/02/19							
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet								
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet								
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,1,2-Tetrachloroethane	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Tetrahydrofuran	ND	0.010	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,2,3-Trichloropropane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0473*		mg/Kg wet	0.0500		94.6	70-130				
Surrogate: Toluene-d8	*0.0481*		mg/Kg wet	0.0500		96.3	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0472*		mg/Kg wet	0.0500		94.3	70-130				
LCS (B227219-BS1)				Prepared & Analyzed: 04/02/19							
Acetone	0.340	0.10	mg/Kg wet	0.200		**170**	* 70-160			L-07	†
Acrylonitrile	0.0185	0.0060	mg/Kg wet	0.0200		92.5	70-130				
tert-Amyl Methyl Ether (TAME)	0.0200	0.0010	mg/Kg wet	0.0200		100	70-130				
Benzene	0.0178	0.0020	mg/Kg wet	0.0200		89.1	70-130				
Bromobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130				
Bromochloromethane	0.0187	0.0020	mg/Kg wet	0.0200		93.4	70-130				
Bromodichloromethane	0.0194	0.0020	mg/Kg wet	0.0200		97.2	70-130				
Bromoform	0.0235	0.0020	mg/Kg wet	0.0200		117	70-130			V-20	
Bromomethane	0.0124	0.010	mg/Kg wet	0.0200		62.0	40-130			V-34	†
2-Butanone (MEK)	0.245	0.040	mg/Kg wet	0.200		123	70-160				†
tert-Butyl Alcohol (TBA)	0.176	0.040	mg/Kg wet	0.200		88.1	40-130				†
n-Butylbenzene	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130				
sec-Butylbenzene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130				
tert-Butylbenzene	0.0225	0.0020	mg/Kg wet	0.0200		112	70-160				†
tert-Butyl Ethyl Ether (TBEE)	0.0196	0.0010	mg/Kg wet	0.0200		97.8	70-130				
Carbon Disulfide	0.0221	0.0060	mg/Kg wet	0.0200		110	70-130				
Carbon Tetrachloride	0.0193	0.0020	mg/Kg wet	0.0200		96.4	70-130				
Chlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130				
Chlorodibromomethane	0.0217	0.0010	mg/Kg wet	0.0200		108	70-130				
Chloroethane	0.0219	0.020	mg/Kg wet	0.0200		109	70-130				
Chloroform	0.0179	0.0040	mg/Kg wet	0.0200		89.5	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227219 - SW-846 5035										
LCS (B227219-BS1)				Prepared & Analyzed: 04/02/19						
Chloromethane	0.0164	0.010	mg/Kg wet	0.0200		81.9	70-130			
2-Chlorotoluene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130			
4-Chlorotoluene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130			V-20
1,2-Dibromoethane (EDB)	0.0198	0.0010	mg/Kg wet	0.0200		99.0	70-130			
Dibromomethane	0.0180	0.0020	mg/Kg wet	0.0200		89.9	70-130			
1,2-Dichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130			
1,3-Dichlorobenzene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130			
1,4-Dichlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130			
trans-1,4-Dichloro-2-butene	0.0226	0.0040	mg/Kg wet	0.0200		113	70-130			
Dichlorodifluoromethane (Freon 12)	0.0199	0.020	mg/Kg wet	0.0200		99.6	40-160			†
1,1-Dichloroethane	0.0184	0.0020	mg/Kg wet	0.0200		92.0	70-130			
1,2-Dichloroethane	0.0190	0.0020	mg/Kg wet	0.0200		94.9	70-130			
1,1-Dichloroethylene	0.0193	0.0040	mg/Kg wet	0.0200		96.5	70-130			
cis-1,2-Dichloroethylene	0.0181	0.0020	mg/Kg wet	0.0200		90.3	70-130			
trans-1,2-Dichloroethylene	0.0185	0.0020	mg/Kg wet	0.0200		92.7	70-130			
1,2-Dichloropropane	0.0195	0.0020	mg/Kg wet	0.0200		97.7	70-130			
1,3-Dichloropropane	0.0187	0.0010	mg/Kg wet	0.0200		93.4	70-130			
2,2-Dichloropropane	0.0188	0.0020	mg/Kg wet	0.0200		93.8	70-130			
1,1-Dichloropropene	0.0180	0.0020	mg/Kg wet	0.0200		90.1	70-130			
cis-1,3-Dichloropropene	0.0196	0.0010	mg/Kg wet	0.0200		98.1	70-130			
trans-1,3-Dichloropropene	0.0202	0.0010	mg/Kg wet	0.0200		101	70-130			
Diethyl Ether	0.0183	0.020	mg/Kg wet	0.0200		91.6	70-130			
Diisopropyl Ether (DIPE)	0.0184	0.0010	mg/Kg wet	0.0200		91.8	70-130			
1,4-Dioxane	0.185	0.10	mg/Kg wet	0.200		92.6	40-160			†
Ethylbenzene	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130			
Hexachlorobutadiene	0.0243	0.0020	mg/Kg wet	0.0200		122	70-160			
2-Hexanone (MBK)	0.227	0.020	mg/Kg wet	0.200		113	70-160			†
Isopropylbenzene (Cumene)	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130			
p-Isopropyltoluene (p-Cymene)	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130			
Methyl Acetate	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130			
Methyl tert-Butyl Ether (MTBE)	0.0246	0.0040	mg/Kg wet	0.0200		123	70-130			
Methyl Cyclohexane	0.0212	0.0020	mg/Kg wet	0.0200		106	70-130			
Methylene Chloride	0.0202	0.020	mg/Kg wet	0.0200		101	40-160			†
4-Methyl-2-pentanone (MIBK)	0.196	0.020	mg/Kg wet	0.200		98.0	70-160			†
Naphthalene	0.0203	0.0040	mg/Kg wet	0.0200		102	40-130			†
n-Propylbenzene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130			
Styrene	0.0210	0.0020	mg/Kg wet	0.0200		105	70-130			
1,1,1,2-Tetrachloroethane	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130			
1,1,2,2-Tetrachloroethane	0.0217	0.0010	mg/Kg wet	0.0200		109	70-130			
Tetrachloroethylene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130			
Tetrahydrofuran	0.0178	0.010	mg/Kg wet	0.0200		89.1	70-130			
Toluene	0.0194	0.0020	mg/Kg wet	0.0200		97.0	70-130			
1,2,3-Trichlorobenzene	0.0219	0.0020	mg/Kg wet	0.0200		109	70-130			
1,2,4-Trichlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130			
1,3,5-Trichlorobenzene	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130			
1,1,1-Trichloroethane	0.0183	0.0020	mg/Kg wet	0.0200		91.6	70-130			
1,1,2-Trichloroethane	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130			
Trichloroethylene	0.0189	0.0020	mg/Kg wet	0.0200		94.6	70-130			
Trichlorofluoromethane (Freon 11)	0.0162	0.010	mg/Kg wet	0.0200		80.9	70-130			
1,2,3-Trichloropropane	0.0199	0.0020	mg/Kg wet	0.0200		99.5	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B227219 - SW-846 5035											
LCS (B227219-BS1)				Prepared & Analyzed: 04/02/19							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0185	0.010	mg/Kg wet	0.0200		92.5	70-130				
1,2,4-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		103	70-130				
1,3,5-Trimethylbenzene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130				
Vinyl Chloride	0.0178	0.010	mg/Kg wet	0.0200		89.2	40-130				†
m+p Xylene	0.0423	0.0040	mg/Kg wet	0.0400		106	70-130				
o-Xylene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0474*		mg/Kg wet	0.0500		94.8	70-130				
Surrogate: Toluene-d8	*0.0486*		mg/Kg wet	0.0500		97.3	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0484*		mg/Kg wet	0.0500		96.9	70-130				
LCS Dup (B227219-BSD1)				Prepared & Analyzed: 04/02/19							
Acetone	0.283	0.10	mg/Kg wet	0.200		141	70-160	18.4	25		†
Acrylonitrile	0.0185	0.0060	mg/Kg wet	0.0200		92.6	70-130	0.151	25		
tert-Amyl Methyl Ether (TAME)	0.0196	0.0010	mg/Kg wet	0.0200		97.9	70-130	2.26	25		
Benzene	0.0173	0.0020	mg/Kg wet	0.0200		86.3	70-130	3.18	25		
Bromobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	0.381	25		
Bromochloromethane	0.0187	0.0020	mg/Kg wet	0.0200		93.7	70-130	0.310	25		
Bromodichloromethane	0.0189	0.0020	mg/Kg wet	0.0200		94.7	70-130	2.66	25		
Bromoform	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130	1.54	25	V-20	
Bromomethane	0.0131	0.010	mg/Kg wet	0.0200		65.5	40-130	5.36	25	V-34	†
2-Butanone (MEK)	0.229	0.040	mg/Kg wet	0.200		114	70-160	6.99	25		†
tert-Butyl Alcohol (TBA)	0.183	0.040	mg/Kg wet	0.200		91.7	40-130	4.04	25		†
n-Butylbenzene	0.0214	0.0020	mg/Kg wet	0.0200		107	70-130	2.49	25		
sec-Butylbenzene	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	3.15	25		
tert-Butylbenzene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-160	3.16	25		†
tert-Butyl Ethyl Ether (TBEE)	0.0189	0.0010	mg/Kg wet	0.0200		94.3	70-130	3.69	25		
Carbon Disulfide	0.0214	0.0060	mg/Kg wet	0.0200		107	70-130	3.20	25		
Carbon Tetrachloride	0.0186	0.0020	mg/Kg wet	0.0200		92.9	70-130	3.72	25		
Chlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		104	70-130	3.65	25		
Chlorodibromomethane	0.0207	0.0010	mg/Kg wet	0.0200		104	70-130	4.46	25		
Chloroethane	0.0209	0.020	mg/Kg wet	0.0200		105	70-130	4.43	25		
Chloroform	0.0170	0.0040	mg/Kg wet	0.0200		85.1	70-130	5.05	25		
Chloromethane	0.0154	0.010	mg/Kg wet	0.0200		77.2	70-130	5.91	25		
2-Chlorotoluene	0.0211	0.0020	mg/Kg wet	0.0200		106	70-130	1.78	25		
4-Chlorotoluene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	2.69	25		
1,2-Dibromo-3-chloropropane (DBCP)	0.0213	0.0020	mg/Kg wet	0.0200		106	70-130	5.90	25	V-20	
1,2-Dibromoethane (EDB)	0.0196	0.0010	mg/Kg wet	0.0200		97.8	70-130	1.24	25		
Dibromomethane	0.0198	0.0020	mg/Kg wet	0.0200		99.0	70-130	9.69	25		
1,2-Dichlorobenzene	0.0216	0.0020	mg/Kg wet	0.0200		108	70-130	1.11	25		
1,3-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		108	70-130	3.74	25		
1,4-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	2.10	25		
trans-1,4-Dichloro-2-butene	0.0222	0.0040	mg/Kg wet	0.0200		111	70-130	1.87	25		
Dichlorodifluoromethane (Freon 12)	0.0187	0.020	mg/Kg wet	0.0200		93.4	40-160	6.34	25		†
1,1-Dichloroethane	0.0180	0.0020	mg/Kg wet	0.0200		90.1	70-130	2.07	25		
1,2-Dichloroethane	0.0180	0.0020	mg/Kg wet	0.0200		89.8	70-130	5.53	25		
1,1-Dichloroethylene	0.0189	0.0040	mg/Kg wet	0.0200		94.5	70-130	2.09	25		
cis-1,2-Dichloroethylene	0.0181	0.0020	mg/Kg wet	0.0200		90.6	70-130	0.232	25		
trans-1,2-Dichloroethylene	0.0182	0.0020	mg/Kg wet	0.0200		90.8	70-130	1.98	25		
1,2-Dichloropropane	0.0185	0.0020	mg/Kg wet	0.0200		92.5	70-130	5.51	25		
1,3-Dichloropropane	0.0178	0.0010	mg/Kg wet	0.0200		89.2	70-130	4.54	25		
2,2-Dichloropropane	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130	0.545	25		
1,1-Dichloropropene	0.0174	0.0020	mg/Kg wet	0.0200		86.8	70-130	3.72	25		

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227219 - SW-846 5035										
LCS Dup (B227219-BSD1)				Prepared & Analyzed: 04/02/19						
cis-1,3-Dichloropropene	0.0187	0.0010	mg/Kg wet	0.0200		93.5	70-130	4.85	25	
trans-1,3-Dichloropropene	0.0197	0.0010	mg/Kg wet	0.0200		98.5	70-130	2.59	25	
Diethyl Ether	0.0184	0.020	mg/Kg wet	0.0200		92.2	70-130	0.751	25	
Diisopropyl Ether (DIPE)	0.0178	0.0010	mg/Kg wet	0.0200		88.9	70-130	3.26	25	
1,4-Dioxane	0.184	0.10	mg/Kg wet	0.200		92.0	40-160	0.630	50	† ‡
Ethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		102	70-130	2.56	25	
Hexachlorobutadiene	0.0234	0.0020	mg/Kg wet	0.0200		117	70-160	3.64	25	
2-Hexanone (MBK)	0.212	0.020	mg/Kg wet	0.200		106	70-160	6.48	25	†
Isopropylbenzene (Cumene)	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	2.22	25	
p-Isopropyltoluene (p-Cymene)	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	3.19	25	
Methyl Acetate	0.0191	0.0020	mg/Kg wet	0.0200		95.3	70-130	7.17	25	
Methyl tert-Butyl Ether (MTBE)	0.0239	0.0040	mg/Kg wet	0.0200		120	70-130	2.66	25	
Methyl Cyclohexane	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	3.78	25	
Methylene Chloride	0.0196	0.020	mg/Kg wet	0.0200		97.9	40-160	3.18	25	†
4-Methyl-2-pentanone (MIBK)	0.192	0.020	mg/Kg wet	0.200		96.2	70-160	1.84	25	†
Naphthalene	0.0206	0.0040	mg/Kg wet	0.0200		103	40-130	1.25	25	†
n-Propylbenzene	0.0209	0.0020	mg/Kg wet	0.0200		105	70-130	2.96	25	
Styrene	0.0206	0.0020	mg/Kg wet	0.0200		103	70-130	1.79	25	
1,1,1,2-Tetrachloroethane	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	4.64	25	
1,1,2,2-Tetrachloroethane	0.0221	0.0010	mg/Kg wet	0.0200		111	70-130	1.65	25	
Tetrachloroethylene	0.0196	0.0020	mg/Kg wet	0.0200		97.8	70-130	4.76	25	
Tetrahydrofuran	0.0166	0.010	mg/Kg wet	0.0200		82.8	70-130	7.31	25	
Toluene	0.0185	0.0020	mg/Kg wet	0.0200		92.3	70-130	4.97	25	
1,2,3-Trichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	0.633	25	
1,2,4-Trichlorobenzene	0.0218	0.0020	mg/Kg wet	0.0200		109	70-130	0.801	25	
1,3,5-Trichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130	2.91	25	
1,1,1-Trichloroethane	0.0185	0.0020	mg/Kg wet	0.0200		92.5	70-130	0.988	25	
1,1,2-Trichloroethane	0.0191	0.0020	mg/Kg wet	0.0200		95.4	70-130	3.69	25	
Trichloroethylene	0.0187	0.0020	mg/Kg wet	0.0200		93.3	70-130	1.44	25	
Trichlorofluoromethane (Freon 11)	0.0165	0.010	mg/Kg wet	0.0200		82.3	70-130	1.74	25	
1,2,3-Trichloropropane	0.0196	0.0020	mg/Kg wet	0.0200		97.9	70-130	1.69	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0180	0.010	mg/Kg wet	0.0200		90.0	70-130	2.78	25	
1,2,4-Trimethylbenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.3	70-130	3.33	25	
1,3,5-Trimethylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104	70-130	3.48	25	
Vinyl Chloride	0.0171	0.010	mg/Kg wet	0.0200		85.7	40-130	3.98	25	†
m+p Xylene	0.0413	0.0040	mg/Kg wet	0.0400		103	70-130	2.45	25	
o-Xylene	0.0204	0.0020	mg/Kg wet	0.0200		102	70-130	1.83	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0463*		mg/Kg wet	0.0500		92.6	70-130			
Surrogate: Toluene-d8	*0.0485*		mg/Kg wet	0.0500		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0487*		mg/Kg wet	0.0500		97.4	70-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227680 - SW-846 3546										
Blank (B227680-BLK1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Surrogate: Nitrobenzene-d5	*2.87*		mg/Kg wet	3.33		86.1	30-130			
Surrogate: 2-Fluorobiphenyl	*2.87*		mg/Kg wet	3.33		86.1	30-130			
Surrogate: p-Terphenyl-d14	*3.59*		mg/Kg wet	3.33		108	30-130			
LCS (B227680-BS1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Acenaphthene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140			
Acenaphthylene	1.29	0.17	mg/Kg wet	1.67		77.5	40-140			
Anthracene	1.38	0.17	mg/Kg wet	1.67		82.8	40-140			
Benzo(a)anthracene	1.40	0.17	mg/Kg wet	1.67		84.2	40-140			
Benzo(a)pyrene	1.47	0.17	mg/Kg wet	1.67		88.0	40-140			
Benzo(b)fluoranthene	1.39	0.17	mg/Kg wet	1.67		83.2	40-140			
Benzo(g,h,i)perylene	1.53	0.17	mg/Kg wet	1.67		92.0	40-140			
Benzo(k)fluoranthene	1.40	0.17	mg/Kg wet	1.67		83.9	40-140			
Chrysene	1.45	0.17	mg/Kg wet	1.67		86.9	40-140			
Dibenz(a,h)anthracene	1.44	0.17	mg/Kg wet	1.67		86.5	40-140			
Fluoranthene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140			
Fluorene	1.36	0.17	mg/Kg wet	1.67		81.4	40-140			
Indeno(1,2,3-cd)pyrene	1.48	0.17	mg/Kg wet	1.67		88.8	40-140			
2-Methylnaphthalene	1.32	0.17	mg/Kg wet	1.67		79.2	40-140			
Naphthalene	1.24	0.17	mg/Kg wet	1.67		74.7	40-140			
Phenanthrene	1.39	0.17	mg/Kg wet	1.67		83.2	40-140			
Pyrene	1.52	0.17	mg/Kg wet	1.67		91.0	40-140			
Surrogate: Nitrobenzene-d5	*2.73*		mg/Kg wet	3.33		82.0	30-130			
Surrogate: 2-Fluorobiphenyl	*2.90*		mg/Kg wet	3.33		87.1	30-130			
Surrogate: p-Terphenyl-d14	*3.37*		mg/Kg wet	3.33		101	30-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227680 - SW-846 3546										
LCS Dup (B227680-BSD1)				Prepared: 04/08/19 Analyzed: 04/09/19						
Acenaphthene	1.31	0.17	mg/Kg wet	1.67		78.6	40-140	2.37	30	
Acenaphthylene	1.31	0.17	mg/Kg wet	1.67		78.8	40-140	1.71	30	
Anthracene	1.42	0.17	mg/Kg wet	1.67		85.1	40-140	2.72	30	
Benzo(a)anthracene	1.42	0.17	mg/Kg wet	1.67		85.2	40-140	1.16	30	
Benzo(a)pyrene	1.49	0.17	mg/Kg wet	1.67		89.7	40-140	1.91	30	
Benzo(b)fluoranthene	1.41	0.17	mg/Kg wet	1.67		84.7	40-140	1.76	30	
Benzo(g,h,i)perylene	1.57	0.17	mg/Kg wet	1.67		94.3	40-140	2.49	30	
Benzo(k)fluoranthene	1.41	0.17	mg/Kg wet	1.67		84.5	40-140	0.665	30	
Chrysene	1.45	0.17	mg/Kg wet	1.67		87.1	40-140	0.184	30	
Dibenz(a,h)anthracene	1.47	0.17	mg/Kg wet	1.67		88.2	40-140	1.95	30	
Fluoranthene	1.37	0.17	mg/Kg wet	1.67		82.3	40-140	0.830	30	
Fluorene	1.36	0.17	mg/Kg wet	1.67		81.6	40-140	0.196	30	
Indeno(1,2,3-cd)pyrene	1.50	0.17	mg/Kg wet	1.67		90.2	40-140	1.52	30	
2-Methylnaphthalene	1.30	0.17	mg/Kg wet	1.67		77.9	40-140	1.76	30	
Naphthalene	1.20	0.17	mg/Kg wet	1.67		72.2	40-140	3.38	30	
Phenanthrene	1.40	0.17	mg/Kg wet	1.67		83.7	40-140	0.623	30	
Pyrene	1.51	0.17	mg/Kg wet	1.67		90.8	40-140	0.264	30	
Surrogate: Nitrobenzene-d5	*2.64*		mg/Kg wet	3.33		79.2	30-130			
Surrogate: 2-Fluorobiphenyl	*2.91*		mg/Kg wet	3.33		87.3	30-130			
Surrogate: p-Terphenyl-d14	*3.33*		mg/Kg wet	3.33		100	30-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227439 - SW-846 3546										
Blank (B227439-BLK1)			Prepared: 04/04/19 Analyzed: 04/05/19							
alpha-Chlordane	ND	0.0050	mg/Kg wet							
alpha-Chlordane [2C]	ND	0.0050	mg/Kg wet							
gamma-Chlordane	ND	0.0050	mg/Kg wet							
gamma-Chlordane [2C]	ND	0.0050	mg/Kg wet							
Alachlor	ND	0.020	mg/Kg wet							
Alachlor [2C]	ND	0.020	mg/Kg wet							
Aldrin	ND	0.0050	mg/Kg wet							
Aldrin [2C]	ND	0.0050	mg/Kg wet							
alpha-BHC	ND	0.0050	mg/Kg wet							
alpha-BHC [2C]	ND	0.0050	mg/Kg wet							
beta-BHC	ND	0.0050	mg/Kg wet							
beta-BHC [2C]	ND	0.0050	mg/Kg wet							
delta-BHC	ND	0.0050	mg/Kg wet							
delta-BHC [2C]	ND	0.0050	mg/Kg wet							
gamma-BHC (Lindane)	ND	0.0020	mg/Kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0020	mg/Kg wet							
Chlordane	ND	0.020	mg/Kg wet							
Chlordane [2C]	ND	0.020	mg/Kg wet							
4,4'-DDD	ND	0.0040	mg/Kg wet							
4,4'-DDD [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDE	ND	0.0040	mg/Kg wet							
4,4'-DDE [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDT	ND	0.0040	mg/Kg wet							
4,4'-DDT [2C]	ND	0.0040	mg/Kg wet							
Dieldrin	ND	0.0040	mg/Kg wet							
Dieldrin [2C]	ND	0.0040	mg/Kg wet							
Endosulfan I	ND	0.0050	mg/Kg wet							
Endosulfan I [2C]	ND	0.0050	mg/Kg wet							
Endosulfan II	ND	0.0080	mg/Kg wet							
Endosulfan II [2C]	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate [2C]	ND	0.0080	mg/Kg wet							
Endrin	ND	0.0080	mg/Kg wet							
Endrin [2C]	ND	0.0080	mg/Kg wet							
Endrin Aldehyde	ND	0.0080	mg/Kg wet							
Endrin Aldehyde [2C]	ND	0.0080	mg/Kg wet							
Endrin Ketone	ND	0.0080	mg/Kg wet							
Endrin Ketone [2C]	ND	0.0080	mg/Kg wet							
Heptachlor	ND	0.0050	mg/Kg wet							
Heptachlor [2C]	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide [2C]	ND	0.0050	mg/Kg wet							
Hexachlorobenzene	ND	0.0060	mg/Kg wet							
Hexachlorobenzene [2C]	ND	0.0060	mg/Kg wet							
Methoxychlor	ND	0.050	mg/Kg wet							
Methoxychlor [2C]	ND	0.050	mg/Kg wet							
Toxaphene	ND	0.10	mg/Kg wet							
Toxaphene [2C]	ND	0.10	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.146*		mg/Kg wet	0.200		73.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.150*		mg/Kg wet	0.200		75.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.139*		mg/Kg wet	0.200		69.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.130*		mg/Kg wet	0.200		65.2	30-150			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227439 - SW-846 3546										
LCS (B227439-BS1)				Prepared: 04/04/19 Analyzed: 04/05/19						
alpha-Chlordane	0.088	0.0050	mg/Kg wet	0.100		88.0	40-140			
alpha-Chlordane [2C]	0.083	0.0050	mg/Kg wet	0.100		82.8	40-140			
gamma-Chlordane	0.085	0.0050	mg/Kg wet	0.100		84.6	40-140			
gamma-Chlordane [2C]	0.082	0.0050	mg/Kg wet	0.100		82.2	40-140			
Alachlor	0.068	0.020	mg/Kg wet	0.100		67.6	40-140			
Alachlor [2C]	0.065	0.020	mg/Kg wet	0.100		65.0	40-140			
Aldrin	0.082	0.0050	mg/Kg wet	0.100		82.0	40-140			
Aldrin [2C]	0.075	0.0050	mg/Kg wet	0.100		75.0	40-140			
alpha-BHC	0.061	0.0050	mg/Kg wet	0.100		61.2	40-140			
alpha-BHC [2C]	0.061	0.0050	mg/Kg wet	0.100		61.2	40-140			
beta-BHC	0.070	0.0050	mg/Kg wet	0.100		70.3	40-140			
beta-BHC [2C]	0.066	0.0050	mg/Kg wet	0.100		65.6	40-140			
delta-BHC	0.067	0.0050	mg/Kg wet	0.100		66.7	40-140			
delta-BHC [2C]	0.066	0.0050	mg/Kg wet	0.100		65.8	40-140			
gamma-BHC (Lindane)	0.069	0.0020	mg/Kg wet	0.100		68.8	40-140			
gamma-BHC (Lindane) [2C]	0.063	0.0020	mg/Kg wet	0.100		63.0	40-140			
4,4'-DDD	0.10	0.0040	mg/Kg wet	0.100		100	40-140			
4,4'-DDD [2C]	0.089	0.0040	mg/Kg wet	0.100		89.1	40-140			
4,4'-DDE	0.098	0.0040	mg/Kg wet	0.100		97.8	40-140			
4,4'-DDE [2C]	0.087	0.0040	mg/Kg wet	0.100		87.2	40-140			
4,4'-DDT	0.10	0.0040	mg/Kg wet	0.100		104	40-140			
4,4'-DDT [2C]	0.092	0.0040	mg/Kg wet	0.100		92.3	40-140			
Dieldrin	0.088	0.0040	mg/Kg wet	0.100		88.2	40-140			
Dieldrin [2C]	0.078	0.0040	mg/Kg wet	0.100		77.9	40-140			
Endosulfan I	0.088	0.0050	mg/Kg wet	0.100		87.8	40-140			
Endosulfan I [2C]	0.081	0.0050	mg/Kg wet	0.100		81.4	40-140			
Endosulfan II	0.091	0.0080	mg/Kg wet	0.100		91.4	40-140			
Endosulfan II [2C]	0.084	0.0080	mg/Kg wet	0.100		84.1	40-140			
Endosulfan Sulfate	0.090	0.0080	mg/Kg wet	0.100		89.8	40-140			
Endosulfan Sulfate [2C]	0.083	0.0080	mg/Kg wet	0.100		82.5	40-140			
Endrin	0.096	0.0080	mg/Kg wet	0.100		95.5	40-140			
Endrin [2C]	0.087	0.0080	mg/Kg wet	0.100		86.6	40-140			
Endrin Aldehyde	0.099	0.0080	mg/Kg wet	0.100		99.1	40-140			
Endrin Aldehyde [2C]	0.093	0.0080	mg/Kg wet	0.100		92.7	40-140			
Endrin Ketone	0.094	0.0080	mg/Kg wet	0.100		93.9	40-140			
Endrin Ketone [2C]	0.086	0.0080	mg/Kg wet	0.100		85.6	40-140			
Heptachlor	0.068	0.0050	mg/Kg wet	0.100		67.9	40-140			
Heptachlor [2C]	0.070	0.0050	mg/Kg wet	0.100		70.3	40-140			
Heptachlor Epoxide	0.084	0.0050	mg/Kg wet	0.100		84.0	40-140			
Heptachlor Epoxide [2C]	0.076	0.0050	mg/Kg wet	0.100		75.8	40-140			
Hexachlorobenzene	0.075	0.0060	mg/Kg wet	0.100		74.6	40-140			
Hexachlorobenzene [2C]	0.065	0.0060	mg/Kg wet	0.100		65.1	40-140			
Methoxychlor	0.11	0.050	mg/Kg wet	0.100		110	40-140			
Methoxychlor [2C]	0.10	0.050	mg/Kg wet	0.100		101	40-140			
Surrogate: Decachlorobiphenyl	*0.173*		mg/Kg wet	0.200		86.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.176*		mg/Kg wet	0.200		87.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.151*		mg/Kg wet	0.200		75.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.142*		mg/Kg wet	0.200		71.1	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227439 - SW-846 3546										
LCS Dup (B227439-BSD1)				Prepared: 04/04/19 Analyzed: 04/05/19						
alpha-Chlordane	0.096	0.0050	mg/Kg wet	0.100		95.7	40-140	8.35	30	
alpha-Chlordane [2C]	0.090	0.0050	mg/Kg wet	0.100		90.1	40-140	8.39	30	
gamma-Chlordane	0.093	0.0050	mg/Kg wet	0.100		93.0	40-140	9.46	30	
gamma-Chlordane [2C]	0.090	0.0050	mg/Kg wet	0.100		90.0	40-140	8.98	30	
Alachlor	0.076	0.020	mg/Kg wet	0.100		76.2	40-140	12.0	30	
Alachlor [2C]	0.074	0.020	mg/Kg wet	0.100		74.4	40-140	13.4	30	
Aldrin	0.090	0.0050	mg/Kg wet	0.100		90.3	40-140	9.65	30	
Aldrin [2C]	0.083	0.0050	mg/Kg wet	0.100		82.6	40-140	9.62	30	
alpha-BHC	0.075	0.0050	mg/Kg wet	0.100		74.6	40-140	19.8	30	
alpha-BHC [2C]	0.075	0.0050	mg/Kg wet	0.100		75.1	40-140	20.5	30	
beta-BHC	0.086	0.0050	mg/Kg wet	0.100		85.7	40-140	19.8	30	
beta-BHC [2C]	0.081	0.0050	mg/Kg wet	0.100		80.7	40-140	20.7	30	
delta-BHC	0.083	0.0050	mg/Kg wet	0.100		83.5	40-140	22.4	30	
delta-BHC [2C]	0.083	0.0050	mg/Kg wet	0.100		83.0	40-140	23.2	30	
gamma-BHC (Lindane)	0.084	0.0020	mg/Kg wet	0.100		84.5	40-140	20.4	30	
gamma-BHC (Lindane) [2C]	0.077	0.0020	mg/Kg wet	0.100		77.1	40-140	20.2	30	
4,4'-DDD	0.11	0.0040	mg/Kg wet	0.100		105	40-140	4.93	30	
4,4'-DDD [2C]	0.094	0.0040	mg/Kg wet	0.100		93.9	40-140	5.32	30	
4,4'-DDE	0.10	0.0040	mg/Kg wet	0.100		104	40-140	5.74	30	
4,4'-DDE [2C]	0.092	0.0040	mg/Kg wet	0.100		92.4	40-140	5.81	30	
4,4'-DDT	0.11	0.0040	mg/Kg wet	0.100		108	40-140	3.70	30	
4,4'-DDT [2C]	0.096	0.0040	mg/Kg wet	0.100		96.1	40-140	4.03	30	
Dieldrin	0.095	0.0040	mg/Kg wet	0.100		95.0	40-140	7.43	30	
Dieldrin [2C]	0.084	0.0040	mg/Kg wet	0.100		83.9	40-140	7.50	30	
Endosulfan I	0.097	0.0050	mg/Kg wet	0.100		97.2	40-140	10.1	30	
Endosulfan I [2C]	0.090	0.0050	mg/Kg wet	0.100		89.7	40-140	9.76	30	
Endosulfan II	0.098	0.0080	mg/Kg wet	0.100		98.4	40-140	7.46	30	
Endosulfan II [2C]	0.090	0.0080	mg/Kg wet	0.100		90.5	40-140	7.29	30	
Endosulfan Sulfate	0.096	0.0080	mg/Kg wet	0.100		96.1	40-140	6.79	30	
Endosulfan Sulfate [2C]	0.087	0.0080	mg/Kg wet	0.100		87.5	40-140	5.78	30	
Endrin	0.10	0.0080	mg/Kg wet	0.100		102	40-140	6.29	30	
Endrin [2C]	0.093	0.0080	mg/Kg wet	0.100		93.1	40-140	7.28	30	
Endrin Aldehyde	0.10	0.0080	mg/Kg wet	0.100		99.5	40-140	0.425	30	
Endrin Aldehyde [2C]	0.093	0.0080	mg/Kg wet	0.100		93.1	40-140	0.446	30	
Endrin Ketone	0.098	0.0080	mg/Kg wet	0.100		98.2	40-140	4.48	30	
Endrin Ketone [2C]	0.091	0.0080	mg/Kg wet	0.100		90.6	40-140	5.71	30	
Heptachlor	0.078	0.0050	mg/Kg wet	0.100		78.1	40-140	14.0	30	
Heptachlor [2C]	0.082	0.0050	mg/Kg wet	0.100		81.5	40-140	14.7	30	
Heptachlor Epoxide	0.093	0.0050	mg/Kg wet	0.100		93.2	40-140	10.3	30	
Heptachlor Epoxide [2C]	0.084	0.0050	mg/Kg wet	0.100		83.6	40-140	9.78	30	
Hexachlorobenzene	0.085	0.0060	mg/Kg wet	0.100		85.1	40-140	13.1	30	
Hexachlorobenzene [2C]	0.074	0.0060	mg/Kg wet	0.100		74.4	40-140	13.2	30	
Methoxychlor	0.11	0.050	mg/Kg wet	0.100		113	40-140	2.67	30	
Methoxychlor [2C]	0.10	0.050	mg/Kg wet	0.100		104	40-140	2.84	30	
Surrogate: Decachlorobiphenyl	*0.175*		mg/Kg wet	0.200		87.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.176*		mg/Kg wet	0.200		87.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.166*		mg/Kg wet	0.200		82.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.156*		mg/Kg wet	0.200		78.2	30-150			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227439 - SW-846 3546										
Matrix Spike (B227439-MS1)	**Source: 19C1653-03**		Prepared: 04/04/19 Analyzed: 04/06/19							
Alachlor	0.085	0.024	mg/Kg dry	0.120	ND	71.0	30-150			
Alachlor [2C]	0.085	0.024	mg/Kg dry	0.120	ND	70.6	30-150			
Aldrin	0.086	0.0060	mg/Kg dry	0.120	ND	71.8	30-150			
Aldrin [2C]	0.081	0.0060	mg/Kg dry	0.120	ND	67.4	30-150			
alpha-BHC	0.059	0.0060	mg/Kg dry	0.120	ND	49.7	30-150			R-06
alpha-BHC [2C]	0.056	0.0060	mg/Kg dry	0.120	ND	46.7	30-150			R-06
beta-BHC	0.072	0.0060	mg/Kg dry	0.120	ND	60.5	30-150			
beta-BHC [2C]	0.071	0.0060	mg/Kg dry	0.120	ND	59.6	30-150			
delta-BHC	0.077	0.0060	mg/Kg dry	0.120	ND	64.7	30-150			
delta-BHC [2C]	0.066	0.0060	mg/Kg dry	0.120	ND	55.5	30-150			
gamma-BHC (Lindane)	0.064	0.0024	mg/Kg dry	0.120	ND	53.4	30-150			R-06
gamma-BHC (Lindane) [2C]	0.056	0.0024	mg/Kg dry	0.120	ND	46.6	30-150			
4,4'-DDD	0.10	0.0048	mg/Kg dry	0.120	ND	87.6	30-150			
4,4'-DDD [2C]	0.095	0.0048	mg/Kg dry	0.120	ND	79.4	30-150			
4,4'-DDE	0.10	0.0048	mg/Kg dry	0.120	ND	87.4	30-150			
4,4'-DDE [2C]	0.096	0.0048	mg/Kg dry	0.120	ND	80.0	30-150			
4,4'-DDT	0.11	0.0048	mg/Kg dry	0.120	ND	92.0	30-150			
4,4'-DDT [2C]	0.10	0.0048	mg/Kg dry	0.120	ND	86.0	30-150			
Dieldrin	0.093	0.0048	mg/Kg dry	0.120	ND	78.1	30-150			
Dieldrin [2C]	0.084	0.0048	mg/Kg dry	0.120	ND	70.4	30-150			
Endosulfan I	0.092	0.0060	mg/Kg dry	0.120	ND	76.6	30-150			
Endosulfan I [2C]	0.090	0.0060	mg/Kg dry	0.120	ND	75.2	30-150			
Endosulfan II	0.098	0.0096	mg/Kg dry	0.120	ND	81.7	30-150			
Endosulfan II [2C]	0.092	0.0096	mg/Kg dry	0.120	ND	76.7	30-150			
Endosulfan Sulfate	0.093	0.0096	mg/Kg dry	0.120	ND	77.5	30-150			
Endosulfan Sulfate [2C]	0.086	0.0096	mg/Kg dry	0.120	ND	72.2	30-150			
Endrin	0.10	0.0096	mg/Kg dry	0.120	ND	85.1	30-150			
Endrin [2C]	0.094	0.0096	mg/Kg dry	0.120	ND	78.9	30-150			
Endrin Aldehyde	0.077	0.0096	mg/Kg dry	0.120	ND	64.7	30-150			
Endrin Aldehyde [2C]	0.070	0.0096	mg/Kg dry	0.120	ND	58.4	30-150			
Endrin Ketone	0.10	0.0096	mg/Kg dry	0.120	ND	83.9	30-150			
Endrin Ketone [2C]	0.092	0.0096	mg/Kg dry	0.120	ND	76.5	30-150			
Heptachlor	0.076	0.0060	mg/Kg dry	0.120	ND	63.8	30-150			
Heptachlor [2C]	0.073	0.0060	mg/Kg dry	0.120	ND	61.3	30-150			
Heptachlor Epoxide	0.085	0.0060	mg/Kg dry	0.120	ND	70.7	30-150			
Heptachlor Epoxide [2C]	0.079	0.0060	mg/Kg dry	0.120	ND	65.7	30-150			
Hexachlorobenzene	0.086	0.0072	mg/Kg dry	0.120	ND	71.6	30-150			
Hexachlorobenzene [2C]	0.076	0.0072	mg/Kg dry	0.120	ND	63.3	30-150			
Methoxychlor	0.11	0.060	mg/Kg dry	0.120	ND	92.6	30-150			
Methoxychlor [2C]	0.10	0.060	mg/Kg dry	0.120	ND	86.9	30-150			
Surrogate: Decachlorobiphenyl	*0.155*		mg/Kg dry	0.239		64.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.180*		mg/Kg dry	0.239		75.0	30-150			
Surrogate: Tetrachloro-m-xylene	*0.159*		mg/Kg dry	0.239		66.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.148*		mg/Kg dry	0.239		61.8	30-150			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B227439 - SW-846 3546											
Matrix Spike Dup (B227439-MSD1)	**Source: 19C1653-03**			Prepared: 04/04/19 Analyzed: 04/06/19							
Alachlor	0.092	0.025	mg/Kg dry	0.124	ND	73.9	30-150	7.93		30	
Alachlor [2C]	0.084	0.025	mg/Kg dry	0.124	ND	67.5	30-150	0.607		30	
Aldrin	0.092	0.0062	mg/Kg dry	0.124	ND	74.0	30-150	6.91		30	
Aldrin [2C]	0.086	0.0062	mg/Kg dry	0.124	ND	68.8	30-150	5.90		30	
alpha-BHC	0.088	0.0062	mg/Kg dry	0.124	ND	70.4	30-150	**38.4**	*	30	R-06
alpha-BHC [2C]	0.083	0.0062	mg/Kg dry	0.124	ND	66.8	30-150	**39.2**	*	30	R-06
beta-BHC	0.089	0.0062	mg/Kg dry	0.124	ND	71.5	30-150	20.5		30	
beta-BHC [2C]	0.089	0.0062	mg/Kg dry	0.124	ND	71.4	30-150	21.9		30	
delta-BHC	0.093	0.0062	mg/Kg dry	0.124	ND	74.9	30-150	18.5		30	
delta-BHC [2C]	0.079	0.0062	mg/Kg dry	0.124	ND	63.3	30-150	17.0		30	
gamma-BHC (Lindane)	0.087	0.0025	mg/Kg dry	0.124	ND	69.7	30-150	**30.4**	*	30	R-06
gamma-BHC (Lindane) [2C]	0.075	0.0025	mg/Kg dry	0.124	ND	60.6	30-150	30.0		30	
4,4'-DDD	0.099	0.0050	mg/Kg dry	0.124	ND	79.9	30-150	5.35		30	
4,4'-DDD [2C]	0.089	0.0050	mg/Kg dry	0.124	ND	71.4	30-150	6.72		30	
4,4'-DDE	0.098	0.0050	mg/Kg dry	0.124	ND	78.7	30-150	6.67		30	
4,4'-DDE [2C]	0.089	0.0050	mg/Kg dry	0.124	ND	71.7	30-150	7.02		30	
4,4'-DDT	0.10	0.0050	mg/Kg dry	0.124	ND	82.8	30-150	6.65		30	
4,4'-DDT [2C]	0.096	0.0050	mg/Kg dry	0.124	ND	76.8	30-150	7.40		30	
Dieldrin	0.092	0.0050	mg/Kg dry	0.124	ND	73.6	30-150	1.97		30	
Dieldrin [2C]	0.081	0.0050	mg/Kg dry	0.124	ND	65.4	30-150	3.46		30	
Endosulfan I	0.092	0.0062	mg/Kg dry	0.124	ND	74.3	30-150	0.803		30	
Endosulfan I [2C]	0.089	0.0062	mg/Kg dry	0.124	ND	71.1	30-150	1.62		30	
Endosulfan II	0.094	0.010	mg/Kg dry	0.124	ND	75.8	30-150	3.68		30	
Endosulfan II [2C]	0.087	0.010	mg/Kg dry	0.124	ND	70.1	30-150	5.09		30	
Endosulfan Sulfate	0.089	0.010	mg/Kg dry	0.124	ND	71.7	30-150	3.83		30	
Endosulfan Sulfate [2C]	0.083	0.010	mg/Kg dry	0.124	ND	66.4	30-150	4.53		30	
Endrin	0.099	0.010	mg/Kg dry	0.124	ND	79.5	30-150	2.90		30	
Endrin [2C]	0.091	0.010	mg/Kg dry	0.124	ND	72.7	30-150	4.22		30	
Endrin Aldehyde	0.075	0.010	mg/Kg dry	0.124	ND	60.1	30-150	3.59		30	
Endrin Aldehyde [2C]	0.066	0.010	mg/Kg dry	0.124	ND	52.7	30-150	6.47		30	
Endrin Ketone	0.096	0.010	mg/Kg dry	0.124	ND	76.8	30-150	5.02		30	
Endrin Ketone [2C]	0.087	0.010	mg/Kg dry	0.124	ND	70.1	30-150	4.87		30	
Heptachlor	0.089	0.0062	mg/Kg dry	0.124	ND	71.2	30-150	14.9		30	
Heptachlor [2C]	0.084	0.0062	mg/Kg dry	0.124	ND	67.8	30-150	14.0		30	
Heptachlor Epoxide	0.088	0.0062	mg/Kg dry	0.124	ND	70.4	30-150	3.41		30	
Heptachlor Epoxide [2C]	0.080	0.0062	mg/Kg dry	0.124	ND	64.2	30-150	1.64		30	
Hexachlorobenzene	0.092	0.0075	mg/Kg dry	0.124	ND	74.3	30-150	7.69		30	
Hexachlorobenzene [2C]	0.083	0.0075	mg/Kg dry	0.124	ND	66.6	30-150	9.07		30	
Methoxychlor	0.10	0.062	mg/Kg dry	0.124	ND	83.8	30-150	6.05		30	
Methoxychlor [2C]	0.098	0.062	mg/Kg dry	0.124	ND	78.6	30-150	6.20		30	
Surrogate: Decachlorobiphenyl	*0.142*		mg/Kg dry	0.249		57.0	30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.165*		mg/Kg dry	0.249		66.4	30-150				
Surrogate: Tetrachloro-m-xylene	*0.170*		mg/Kg dry	0.249		68.2	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.158*		mg/Kg dry	0.249		63.5	30-150				

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QUALITY CONTROL

Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227075 - SW-846 8151										
Blank (B227075-BLK1)				Prepared: 04/01/19 Analyzed: 04/02/19						
2,4-D	ND	24	µg/kg wet							
2,4-D [2C]	ND	24	µg/kg wet							
2,4,5-TP (Silvex)	ND	2.4	µg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	2.4	µg/kg wet							
2,4,5-T	ND	2.4	µg/kg wet							
2,4,5-T [2C]	ND	2.4	µg/kg wet							
Dalapon	ND	60	µg/kg wet							
Dalapon [2C]	ND	60	µg/kg wet							
Dicamba	ND	2.4	µg/kg wet							
Dicamba [2C]	ND	2.4	µg/kg wet							
Surrogate: 2,4-Dichlorophenylacetic acid	*83.3*		µg/kg wet	95.2		87.4	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*77.8*		µg/kg wet	95.2		81.7	30-150			
LCS (B227075-BS1)				Prepared: 04/01/19 Analyzed: 04/02/19						
2,4-D	94.2	25	µg/kg wet	125		75.3	40-140			
2,4-D [2C]	90.5	25	µg/kg wet	125		72.4	40-140			
2,4,5-TP (Silvex)	10.0	2.5	µg/kg wet	12.5		80.3	40-140			
2,4,5-TP (Silvex) [2C]	9.49	2.5	µg/kg wet	12.5		75.9	40-140			
2,4,5-T	11.8	2.5	µg/kg wet	12.5		94.7	40-140			
2,4,5-T [2C]	8.49	2.5	µg/kg wet	12.5		67.9	40-140			
Dalapon	190	62	µg/kg wet	312		60.8	40-140			
Dalapon [2C]	182	62	µg/kg wet	312		58.1	40-140			
Dicamba	9.72	2.5	µg/kg wet	12.5		77.8	40-140			
Dicamba [2C]	9.40	2.5	µg/kg wet	12.5		75.2	40-140			
Surrogate: 2,4-Dichlorophenylacetic acid	*76.9*		µg/kg wet	100		76.9	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*75.0*		µg/kg wet	100		75.0	30-150			
LCS Dup (B227075-BSD1)				Prepared: 04/01/19 Analyzed: 04/02/19						
2,4-D	104	25	µg/kg wet	125		83.3	40-140	10.0	30	
2,4-D [2C]	101	25	µg/kg wet	125		81.0	40-140	11.2	30	
2,4,5-TP (Silvex)	11.1	2.5	µg/kg wet	12.5		89.1	40-140	10.4	30	
2,4,5-TP (Silvex) [2C]	10.2	2.5	µg/kg wet	12.5		81.9	40-140	7.62	30	
2,4,5-T	13.5	2.5	µg/kg wet	12.5		108	40-140	13.2	30	
2,4,5-T [2C]	9.77	2.5	µg/kg wet	12.5		78.2	40-140	14.1	30	
Dalapon	203	62	µg/kg wet	312		65.1	40-140	6.76	30	
Dalapon [2C]	196	62	µg/kg wet	312		62.6	40-140	7.50	30	
Dicamba	11.0	2.5	µg/kg wet	12.5		87.9	40-140	12.2	30	
Dicamba [2C]	10.3	2.5	µg/kg wet	12.5		82.6	40-140	9.32	30	
Surrogate: 2,4-Dichlorophenylacetic acid	*83.5*		µg/kg wet	100		83.5	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*82.3*		µg/kg wet	100		82.3	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227097 - SW-846 7471										
Blank (B227097-BLK1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Mercury	ND	0.025	mg/Kg wet							
LCS (B227097-BS1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Mercury	3.18	0.36	mg/Kg wet	3.71		85.7	65-135			
LCS Dup (B227097-BSD1)				Prepared: 04/03/19 Analyzed: 04/04/19						
Mercury	3.50	0.37	mg/Kg wet	3.71		94.4	65-135	9.69	30	
Batch B227581 - SW-846 3050B										
Blank (B227581-BLK1)				Prepared: 04/05/19 Analyzed: 04/08/19						
Arsenic	ND	1.7	mg/Kg wet							
Barium	ND	1.7	mg/Kg wet							
Cadmium	ND	0.17	mg/Kg wet							
Chromium	ND	0.33	mg/Kg wet							
Lead	ND	0.50	mg/Kg wet							
Selenium	ND	3.3	mg/Kg wet							
Silver	ND	0.33	mg/Kg wet							
LCS (B227581-BS1)				Prepared: 04/05/19 Analyzed: 04/08/19						
Arsenic	199	5.0	mg/Kg wet	202		98.4	82.7-117.3			
Barium	276	5.0	mg/Kg wet	270		102	82.6-117.8			
Cadmium	138	0.50	mg/Kg wet	141		97.8	83-117			
Chromium	168	1.0	mg/Kg wet	167		101	81.4-118			
Lead	75.7	1.5	mg/Kg wet	73.8		103	82.9-117.1			
Selenium	44.5	10	mg/Kg wet	49.9		89.2	79.2-120.6			
Silver	77.5	1.0	mg/Kg wet	71.1		109	79.7-120.1			
LCS Dup (B227581-BSD1)				Prepared: 04/05/19 Analyzed: 04/08/19						
Arsenic	207	5.0	mg/Kg wet	202		102	82.7-117.3	3.92	30	
Barium	292	5.0	mg/Kg wet	270		108	82.6-117.8	5.50	30	
Cadmium	145	0.50	mg/Kg wet	141		103	83-117	4.78	30	
Chromium	176	0.99	mg/Kg wet	167		106	81.4-118	4.66	30	
Lead	79.8	1.5	mg/Kg wet	73.8		108	82.9-117.1	5.34	30	
Selenium	46.3	9.9	mg/Kg wet	49.9		92.7	79.2-120.6	3.82	30	
Silver	80.2	0.99	mg/Kg wet	71.1		113	79.7-120.1	3.32	30	
MRL Check (B227581-MRL1)				Prepared: 04/05/19 Analyzed: 04/08/19						
Lead	0.532	0.51	mg/Kg wet	0.514		104	80-120			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B227645 - % Solids										
Duplicate (B227645-DUP1)	**Source: 19C1653-03**		Prepared: 04/08/19 Analyzed: 04/09/19							
% Solids	80.2		% Wt		79.6			0.833	20	

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BREAKDOWN REPORT

Lab Sample ID:	S034398-PEM1	Analyzed:	04/05/2019

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	0.59
Endrin [1]	2.89

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	0.85
Endrin [2]	3.26

BREAKDOWN REPORT

Lab Sample ID:	S034398-PEM2	Analyzed:	04/05/2019

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	0.98
Endrin [1]	3.74

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.39
Endrin [2]	4.65

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS

Lab Sample ID: B227075-BS1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-T	1	16.251	0.000	0.000	11.8	
	2	16.198	0.000	0.000	8.49	34.3
2,4,5-TP (Silvex)	1	15.623	0.000	0.000	10.0	
	2	15.340	0.000	0.000	9.49	5.2
2,4-D	1	13.766	0.000	0.000	94.2	
	2	13.582	0.000	0.000	90.5	3.8
Dalapon	1	4.608	0.000	0.000	190	
	2	4.218	0.000	0.000	182	4.3
Dicamba	1	11.633	0.000	0.000	9.72	
	2	11.356	0.000	0.000	9.40	3.1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS Dup

Lab Sample ID: B227075-BSD1 Date(s) Analyzed: 04/02/2019 04/02/2019

Instrument ID (1): ECD 8 Instrument ID (2): ECD 8

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4,5-T	1	16.249	0.000	0.000	13.5	
	2	16.196	0.000	0.000	9.77	35.6
2,4,5-TP (Silvex)	1	15.622	0.000	0.000	11.1	
	2	15.339	0.000	0.000	10.2	7.6
2,4-D	1	13.765	0.000	0.000	104	
	2	13.581	0.000	0.000	101	1.0
Dalapon	1	4.609	0.000	0.000	203	
	2	4.219	0.000	0.000	196	2.0
Dicamba	1	11.633	0.000	0.000	11.0	
	2	11.356	0.000	0.000	10.3	6.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B227439-BS1 Date(s) Analyzed: 04/05/2019 04/05/2019

Instrument ID (1): ECD2A Instrument ID (2): ECD2B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.931	6.902	6.962	0.10	
	2	6.854	6.824	6.884	0.089	11.6
4,4'-DDE	1	6.507	6.477	6.537	0.098	
	2	6.446	6.417	6.477	0.087	11.9
4,4'-DDT	1	7.137	7.109	7.169	0.10	
	2	7.082	7.052	7.112	0.092	8.3
Alachlor	1	5.971	5.941	6.001	0.068	
	2	5.693	5.664	5.724	0.065	4.5
Aldrin	1	5.869	5.840	5.900	0.082	
	2	5.736	5.707	5.767	0.075	8.9
alpha-BHC	1	5.211	5.181	5.241	0.061	
	2	5.113	5.083	5.143	0.061	0.0
alpha-Chlordane	1	6.444	6.413	6.473	0.088	
	2	6.315	6.286	6.346	0.083	5.9
beta-BHC	1	5.448	5.418	5.478	0.070	
	2	5.356	5.324	5.384	0.066	5.9
delta-BHC	1	5.553	5.524	5.584	0.067	
	2	5.517	5.486	5.546	0.066	1.5
Dieldrin	1	6.704	6.675	6.735	0.088	
	2	6.533	6.503	6.563	0.078	12.0
Endosulfan I	1	6.535	6.505	6.565	0.088	
	2	6.346	6.317	6.377	0.081	8.3
Endosulfan II	1	7.031	7.001	7.061	0.091	
	2	6.895	6.865	6.925	0.084	8.0
Endosulfan Sulfate	1	7.674	7.645	7.705	0.090	
	2	7.355	7.325	7.385	0.083	8.1
Endrin	1	6.867	6.838	6.898	0.096	
	2	6.740	6.710	6.770	0.087	9.8
Endrin Aldehyde	1	7.343	7.313	7.373	0.099	
	2	7.144	7.115	7.175	0.093	6.3
Endrin Ketone	1	7.885	7.855	7.915	0.094	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B227439-BS1 Date(s) Analyzed: 04/05/2019 04/05/2019

Instrument ID (1): ECD2A Instrument ID (2): ECD2B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	7.746	7.717	7.777	0.086	8.9
gamma-BHC (Lindane)	1	5.394	5.365	5.425	0.069	
	2	5.303	5.273	5.333	0.063	9.1
gamma-Chlordane	1	6.353	6.324	6.384	0.085	
	2	6.219	6.190	6.250	0.082	3.6
Heptachlor	1	5.681	5.651	5.711	0.068	
	2	5.549	5.519	5.579	0.070	2.9
Heptachlor Epoxide	1	6.267	6.238	6.298	0.084	
	2	6.094	6.064	6.124	0.076	10.0
Hexachlorobenzene	1	5.113	5.083	5.143	0.075	
	2	5.037	5.007	5.067	0.065	14.3
Methoxychlor	1	7.521	7.491	7.551	0.11	
	2	7.620	7.591	7.651	0.10	9.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B227439-BSD1 Date(s) Analyzed: 04/05/2019 04/05/2019

Instrument ID (1): ECD2A Instrument ID (2): ECD2B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.932	6.902	6.962	0.11	
	2	6.854	6.824	6.884	0.094	15.7
4,4'-DDE	1	6.507	6.477	6.537	0.10	
	2	6.447	6.417	6.477	0.092	8.3
4,4'-DDT	1	7.137	7.109	7.169	0.11	
	2	7.083	7.052	7.112	0.096	13.6
Alachlor	1	5.970	5.941	6.001	0.076	
	2	5.694	5.664	5.724	0.074	2.7
Aldrin	1	5.869	5.840	5.900	0.090	
	2	5.737	5.707	5.767	0.083	8.1
alpha-BHC	1	5.211	5.181	5.241	0.075	
	2	5.113	5.083	5.143	0.075	0.0
alpha-Chlordane	1	6.443	6.413	6.473	0.096	
	2	6.316	6.286	6.346	0.090	6.5
beta-BHC	1	5.448	5.418	5.478	0.086	
	2	5.356	5.324	5.384	0.081	6.0
delta-BHC	1	5.554	5.524	5.584	0.083	
	2	5.517	5.486	5.546	0.083	1.2
Dieldrin	1	6.704	6.675	6.735	0.095	
	2	6.533	6.503	6.563	0.084	12.3
Endosulfan I	1	6.535	6.505	6.565	0.097	
	2	6.347	6.317	6.377	0.090	7.5
Endosulfan II	1	7.031	7.001	7.061	0.098	
	2	6.895	6.865	6.925	0.090	8.5
Endosulfan Sulfate	1	7.675	7.645	7.705	0.096	
	2	7.355	7.325	7.385	0.087	9.8
Endrin	1	6.867	6.838	6.898	0.10	
	2	6.741	6.710	6.770	0.093	7.3
Endrin Aldehyde	1	7.342	7.313	7.373	0.10	
	2	7.144	7.115	7.175	0.093	7.3
Endrin Ketone	1	7.884	7.855	7.915	0.098	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B227439-BSD1 Date(s) Analyzed: 04/05/2019 04/05/2019

Instrument ID (1): ECD2A Instrument ID (2): ECD2B

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	7.747	7.717	7.777	0.091	7.4
gamma-BHC (Lindane)	1	5.395	5.365	5.425	0.084	
	2	5.303	5.273	5.333	0.077	9.9
gamma-Chlordane	1	6.353	6.324	6.384	0.093	
	2	6.219	6.190	6.250	0.090	3.3
Heptachlor	1	5.681	5.651	5.711	0.078	
	2	5.549	5.519	5.579	0.082	5.0
Heptachlor Epoxide	1	6.267	6.238	6.298	0.093	
	2	6.094	6.064	6.124	0.084	10.2
Hexachlorobenzene	1	5.112	5.083	5.143	0.085	
	2	5.037	5.007	5.067	0.074	13.8
Methoxychlor	1	7.521	7.491	7.551	0.11	
	2	7.622	7.591	7.651	0.10	9.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike

Lab Sample ID: B227439-MS1 Date(s) Analyzed: 04/06/2019 04/06/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.931	6.902	6.962	0.10	
	2	6.853	6.823	6.883	0.095	14.6
4,4'-DDE	1	6.506	6.476	6.536	0.10	
	2	6.446	6.417	6.477	0.096	13.6
4,4'-DDT	1	7.137	7.107	7.167	0.11	
	2	7.081	7.052	7.112	0.10	9.5
Alachlor	1	5.970	5.941	6.001	0.085	
	2	5.693	5.664	5.724	0.085	0.0
Aldrin	1	5.869	5.839	5.899	0.086	
	2	5.736	5.706	5.766	0.081	6.0
alpha-BHC	1	5.211	5.181	5.241	0.059	
	2	5.112	5.083	5.143	0.056	5.2
beta-BHC	1	5.448	5.418	5.478	0.072	
	2	5.353	5.324	5.384	0.071	1.4
delta-BHC	1	5.553	5.523	5.583	0.077	
	2	5.516	5.486	5.546	0.066	15.4
Dieldrin	1	6.703	6.674	6.734	0.093	
	2	6.532	6.503	6.563	0.084	10.2
Endosulfan I	1	6.535	6.505	6.565	0.092	
	2	6.346	6.317	6.377	0.090	2.2
Endosulfan II	1	7.030	7.001	7.061	0.098	
	2	6.894	6.865	6.925	0.092	6.3
Endosulfan Sulfate	1	7.674	7.645	7.705	0.093	
	2	7.354	7.325	7.385	0.086	7.8
Endrin	1	6.867	6.836	6.896	0.10	
	2	6.740	6.710	6.770	0.094	6.2
Endrin Aldehyde	1	7.342	7.313	7.373	0.077	
	2	7.143	7.114	7.174	0.070	10.8
Endrin Ketone	1	7.884	7.854	7.914	0.10	
	2	7.746	7.717	7.777	0.092	8.3
gamma-BHC (Lindane)	1	5.394	5.364	5.424	0.064	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike

Lab Sample ID: B227439-MS1 Date(s) Analyzed: 04/06/2019 04/06/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	5.302	5.273	5.333	0.056	13.3
Heptachlor	1	5.681	5.651	5.711	0.076	
	2	5.549	5.519	5.579	0.073	4.0
Heptachlor Epoxide	1	6.267	6.238	6.298	0.085	
	2	6.093	6.063	6.123	0.079	7.3
Hexachlorobenzene	1	5.113	5.083	5.143	0.086	
	2	5.037	5.007	5.067	0.076	12.3
Methoxychlor	1	7.520	7.491	7.551	0.11	
	2	7.621	7.591	7.651	0.10	9.5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike Dup

Lab Sample ID: B227439-MSD1 Date(s) Analyzed: 04/06/2019 04/06/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.932	6.902	6.962	0.099	
	2	6.854	6.823	6.883	0.089	10.6
4,4'-DDE	1	6.507	6.476	6.536	0.098	
	2	6.446	6.417	6.477	0.089	9.6
4,4'-DDT	1	7.138	7.107	7.167	0.10	
	2	7.082	7.052	7.112	0.096	4.1
Alachlor	1	5.971	5.941	6.001	0.092	
	2	5.694	5.664	5.724	0.084	9.1
Aldrin	1	5.869	5.839	5.899	0.092	
	2	5.736	5.706	5.766	0.086	6.7
alpha-BHC	1	5.211	5.181	5.241	0.088	
	2	5.112	5.083	5.143	0.083	5.9
beta-BHC	1	5.448	5.418	5.478	0.089	
	2	5.354	5.324	5.384	0.089	0.0
delta-BHC	1	5.553	5.523	5.583	0.093	
	2	5.516	5.486	5.546	0.079	16.3
Dieldrin	1	6.704	6.674	6.734	0.092	
	2	6.533	6.503	6.563	0.081	12.7
Endosulfan I	1	6.534	6.505	6.565	0.092	
	2	6.347	6.317	6.377	0.089	3.3
Endosulfan II	1	7.031	7.001	7.061	0.094	
	2	6.895	6.865	6.925	0.087	7.7
Endosulfan Sulfate	1	7.674	7.645	7.705	0.089	
	2	7.354	7.325	7.385	0.083	7.0
Endrin	1	6.867	6.836	6.896	0.099	
	2	6.740	6.710	6.770	0.091	8.4
Endrin Aldehyde	1	7.343	7.313	7.373	0.075	
	2	7.144	7.114	7.174	0.066	12.8
Endrin Ketone	1	7.885	7.854	7.914	0.096	
	2	7.747	7.717	7.777	0.087	9.8
gamma-BHC (Lindane)	1	5.394	5.364	5.424	0.087	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike Dup

Lab Sample ID: B227439-MSD1 Date(s) Analyzed: 04/06/2019 04/06/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	5.303	5.273	5.333	0.075	14.8
Heptachlor	1	5.682	5.651	5.711	0.089	
	2	5.549	5.519	5.579	0.084	5.8
Heptachlor Epoxide	1	6.267	6.238	6.298	0.088	
	2	6.093	6.063	6.123	0.080	9.5
Hexachlorobenzene	1	5.112	5.083	5.143	0.092	
	2	5.037	5.007	5.067	0.083	11.4
Methoxychlor	1	7.521	7.491	7.551	0.10	
	2	7.621	7.591	7.651	0.098	2.0

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8081B in Soil	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Soil	
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8081B in Water	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA

con-test® ANALYTICAL LABORATORY
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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Water	
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME,VA
Acrylonitrile	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
Bromobenzene	NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
tert-Butyl Alcohol (TBA)	NY
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
2-Chlorotoluene	CT,NH,NY,ME,VA
4-Chlorotoluene	CT,NH,NY,ME,VA
1,2-Dibromo-3-chloropropane (DBCP)	NY
Dibromomethane	NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
trans-1,4-Dichloro-2-butene	NY
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
1,3-Dichloropropane	NH,NY,ME,VA
2,2-Dichloropropane	NH,NY,ME,VA
1,1-Dichloropropene	NH,NY,ME,VA

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CERTIFICATIONS

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Analyte	Certifications
SW-846 8260C in Soil	
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
1,4-Dioxane	NY
Ethylbenzene	CT,NH,NY,ME,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl Acetate	NY
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methyl Cyclohexane	NY
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	NY,ME
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,3-Trichloropropane	NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	CT,NY,NH,ME,NC,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Soil	
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019

1901653

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD (New York)

39 Spruce Street
East Longmeadow, MA 01028

Company Name: TetraTech
Address: 912 Silas Deane Highway
Phone: 860-578-5230
Project Name: Alden Parcels Rt 55 + Mead Rd
Project Location: Florida, NY
Project Number: 143-25457-19003
Project Manager: John Insall
Con-Test Quote Name/Number:
Invoice Recipient: John Insall
Sampled By: Ian Cannan

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To: John.Insall@tetratech.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	VOCs (8260)	PAHs (8270)	RCRA 8 metals	Pesticides	Herbicides
1	TB-1	3/25/19	0800		x	O		X				
2	DUP-1	3/29/19	0000		X	S		X				
3	TT-SB-13 (0-2)	3/29/19	0902					X	X	X	X	
4	TT-SB-14 (0-2)		0933									X
5	TT-SB-15 (2-4)		1000									
6	TT-SB-16 (0-2)		1022									
7	TT-SB-17 (2-4)		1050									
8	TT-SB-18 (0-2)		1150									

# of Containers	3	1		1						
[2] Preservation Code	8/m	1		1						
[3] Container Code	V	A		A						

ANALYSIS REQUESTED

Dissolved Metals Samples
[ ] Field Filtered
[ ] Lab to Filter

Petroleum Impacted Samples
[ ] Field Filtered
[ ] Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

	Date/Time:
Relinquished by: (signature)	3/29/19 1430
Received by: (signature)	3/30/19 1128
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Program & Regulatory Information
[ ] AWQ STDS [ ] NY TOGS
[ ] NYC Sewer Discharge [ ] NY CP-51
[ ] Part 360 GW (Landfill)
[ ] NY Restricted Use
[X] NY Unrestricted Use
[ ] NY Part 375

Deliverables
[ ] Enhanced Data Package
[ ] NYSDEC EQuIS EDD
[ ] EQuIS (Standard) EDD
[ ] NY Regulatory EDD
[ ] NY Regs Hits-Only EDD

Other

NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] *AIHA-LAP, LLC*

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

Table of Contents

786335565443

Delivered
Saturday 3/30/2019 at 11:28 am

DELIVERED

Signed for by: V.PETRATUS

GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

FROM	TO
MARLBOROUGH, MA US	EAST LONGMEADOW, MA US

Shipment Facts

TRACKING NUMBER
786335565443

SERVICE
FedEx First Overnight

WEIGHT
43 lbs / 19.5 kgs

DIMENSIONS
27x13x14 in.

DELIVERED TO
Shipping/Receiving

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
43 lbs / 19.5 kgs

TERMS
Third Party

PACKAGING
Your Packaging

SPECIAL HANDLING SECTION
Saturday Delivery, Additional Handling Surcharge, No Signature Required

STANDARD TRANSIT
3/30/2019 by 10:00 am

SHIP DATE
Fri 3/29/2019

ACTUAL DELIVERY
Sat 3/30/2019 11:28 am

Travel History

Local Scan Time

Saturday , 3/30/2019

11:28 am	EAST LONGMEADOW, MA	Delivered
8:30 am	WINDSOR LOCKS, CT	Delivery exception Customer not available or business closed
8:02 am	WINDSOR LOCKS, CT	On FedEx vehicle for delivery

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Tetra Tech

Received By MP Date 3/30/19 Time 1128

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 4.3

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	5
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	1
Meoh-	8	250 mL Amb.		250 mL Plastic		4oz Amb/Clear	2
Bisulfate-	16	Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

APPENDIX B
FIELD NOTES

Weather - Clear 28-33°F wind weakly
Entered By - ISC Ian S. Cannon
Equip - soil sample supplies ; PID - Mini RAE 3000 ;

Contractor - Cascade Technical Services, Inc
- Joe Hutchins
- Rich Reagan

0805 - ISC aos
- Cascade Support truck on site
0810 - Cascade Drill rig - truck aos
Geoprobe 7822 DT

Work Plan - soil boring to 6' bgs
field screen for VOC
1 sample for VOC - highest PID
if no PID response 1/3 0-2' ; 1/3 2-4 ; 1/3 [illegible]

4 samples for Herbicides
1 TB ; 1 Duplicate
Backfill Boring w/ excavated soil

0810 - 0840 - Drillers set up + equip rig for drilling along Rt 55

TETRA TECH

100 Nickerson Rd.
Marlborough, MA 01752

JOB Albany Parcels
SHEET NO. 1 OF
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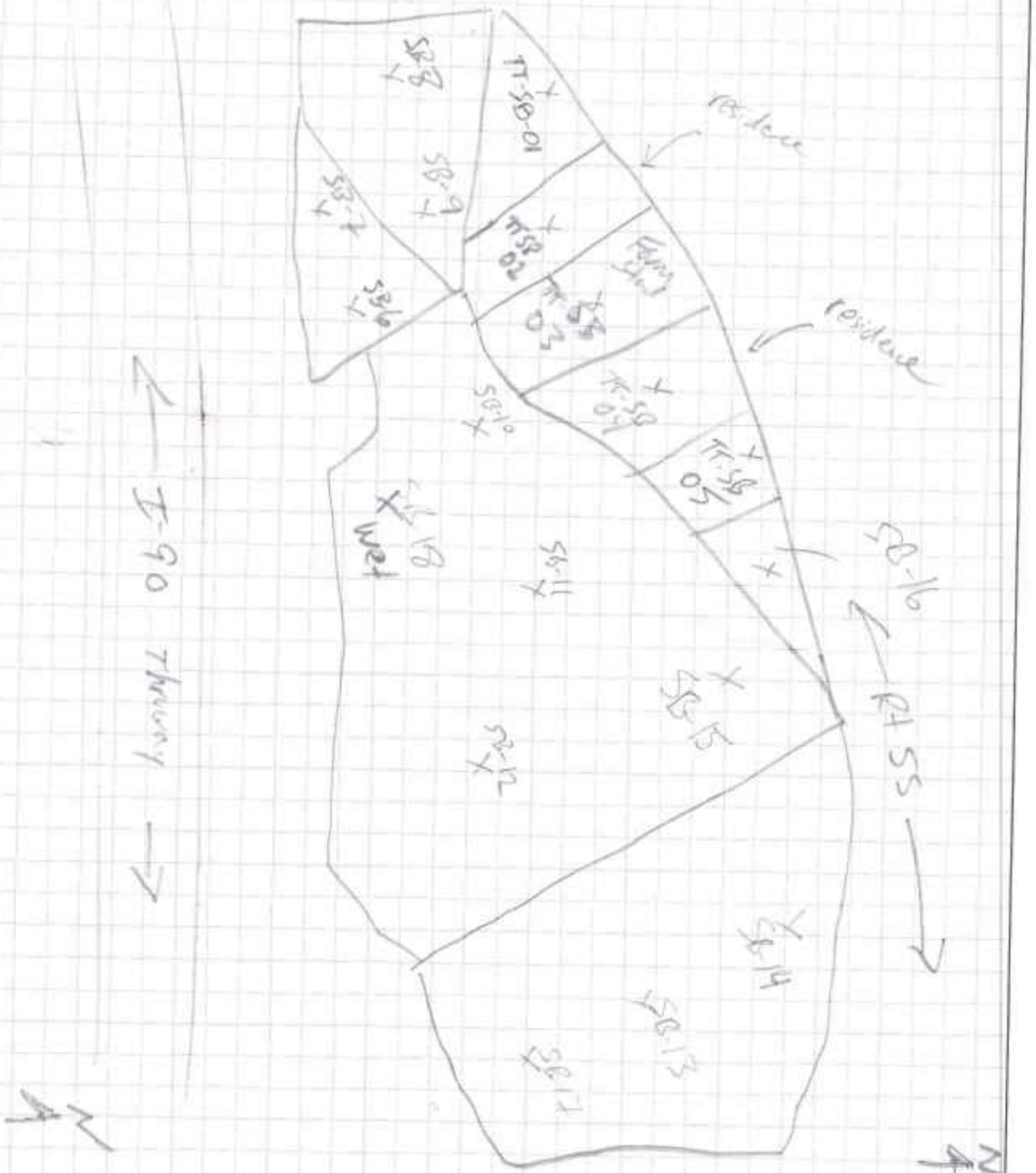

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Soil Boring Log:

TT-SB-01 0900 - 0925

SS-1 - 0-5' · rec = 4.3/5'
SS-2 - 5-6' · rec = 0.3/5'
0-0.3 - Top soil, grades to brown silt/clay w/ organics
0.3-6' - Brown to gray Clay, some Silt, w/ organics

PID: 0-2 = 2.4 ppm
2-4 = 8.7 "
4-6 = 6.4 "
- lab sample: TT-SB-01(2-4) @ 0925

TT-SB-02 0930 - 1010
SS-1 - 0-5' - rec = 5'/5'
SS-2 - 5-6' - rec = 0.2/1'

0-2.3 - dark brown sand, silt, some shale gravel
2.3-6 - brown-tan Clay, little sand/silt, organics

PID - 0-2 = 12.2
2-4 = 12.4
4-6 = 11.4
} No odor, lithology, organic matter or moisture
sample 2-4': TT-SB-02(2-4)@1012
Standard + Herbicides

TT-SB-03 - 1015-1020
SS-1 - 0-5' - rec = 5'/5'
SS-2 - 5-6' - rec = 1'/1'
0-0.3 - Top Soil, grades to Clay, frost
0.3-6' - brown-tan Clay, some sand, little gravel, wet @ 5'

PID - 0-2 = 12.7 - Herbicide Sample
2-4 = 13.1 -
4-6 = 13.4 - lab sample TT-SB-03(4-6)@1020
Standard

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TT-SB-04 1020 - 1050

SS-01 - 0-5' rec 5"/5'
SS-02 - 5-6' rec 1"/1'

0-0.3' - top soil grades to clay
0.3-4' - brownish clay, some sand + silt, little gravel
4-6' - same w/ some rounded gravel + shale frag

PID - 0-2' = 6.3
2-4' = 10.7
4-6' = 12.1 - Sampled TT-SB-04(4-6) @ 1050
Standard

TT-SB-05 1100 - 1130
SS-01 0-5 - 4.6'/5'
SS-02 5-6 - 1'/1'

0-1.3' - Top Soil, Some Sand Gravel
1.3-6' - tan-brown clay with some sand + rounded gravel

PID - 0-1.3 - 8.9
1.3-4 - 10.3 - Sample - TT-SB-05(1.3-4) @ 1130
4-6 - 9.0

1215-1230 - Site walk @ Corno residential lot
Oil Fill + Vent pipe @ Western side of house
Septic tank in rear of house
well + possible 2nd septic on east side of house
Sewer manhole in front to the east of house
overhead electric

1230 - 1310 - mobilize drill rig to the lot fronting Forest to the west of the subject properties to access drilling locations

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100 Nickerson Rd.
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JOB
SHEET NO. OF
CALCULATED BY DATE 3/25/19
CHECKED BY DATE
SCALE

TT-SB-06 1310 - 1320
SS-01 - 0-5' rec 5'/5'
SS-02 5-6' - rec 1'/1'

0-1.8' Top Soil, grades to clay, some organics
1.8-6' - tan-brown Clay some silt, little sand + gravel

PID - 0-1.8' - 10.2 - Sample TT-SB-06 (0-1.8') @ 1325
2-4 - 9.7
4-6 - 9.4

TT-SB-07 1325 - 1335
SS-01 - 0-5' rec 4.6/5
SS-02 5-6' 1'/1'

0-3.2 - Tan-brown Clay, silt + sand little gravel
3.2-6 dark brown/gray shale fragments + sand

PID 0-2 - 12.3
2-4 - 12.7 - sample TT-SB-07 (2-4) @ 1340
4-6 - 9.0

TT-SB-08 1355 - 1425
SS-01 0-5 rec 3.8/5
SS-02 5-6 rec 1/1

0-4.6 - Fill concrete, sand, gravel, clay, silt
4.6-0 - Brown sand, clay w/ rock fragments

PID 0-2 - 16.2
PID 2-4 - 10.6
P 4-6 - 11.1 - Sample TT-SB-08 (4-6) @ 1440

TT-SB-09 1440 - 1455
SS-01 0-5 rec 4/5
SS-02 5-6 rec 1/1

0-3' - Top Soil grades to brown silty clay + sand w/ gravel
3-6' - Brown silty clay w/ gravel (shale)

PID. 0-2 - 12.3
2-4 - 7.3
4-6 - 13.2

Sample
TT-SB-09 (4-6)
@ 1458

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100 Nickerson Rd.
Marlborough, MA 01752

JOB
SHEET NO. OF
CALCULATED BY DATE 3/25/19
CHECKED BY DATE
SCALE

TT-SB-10 - 1500-1530 (approx.)

SS01 0-5' rec = 3.0'/5
SS-02 - 5-6 rec - 1/1

0-1.1 - Top Soil grades to brown silty clay, trace gravel
1.1-6' - brown silty clay, trace gravel, [illegible] @ 5'

PID - 0-2 - 9.7 - Sample TT-SB-10(0-2) @ 1540
2-4 - 9.8 Standard + Hebicides
4-6 10.0

TT-SB-11 - 1535-1555
SS-01 - 0-5' - rec = 3.5/5
SS-02 - 5-6' - rec = 1/1

0-0.4' - Top soil, grades to brown silty clay
0.4-4' - brown/tan silty clay, some sand
4-6 - dark gray [illegible] gravel ([illegible])

PID 0-2 - 10.5
2-4 - 10.4
4-6 - 11.0 - Sample TT-SB-11(4-6) @ 1610
Standard

TT-SB-12 - 1600-1620
SS-01 - 0-5' rec = 3/5
SS-02 5-6' rec 1/1

0-1.1' - Top Soil, grades to sandy clay
1.1-2 - sandy clay, trace gravel
2-4 - brown/tan clay w/ silt, some sand, [illegible]
4-6 - dark gray sand + gravel (shale)

PID 0-2 - 11.7 - Sample TT-SB-12(0-2) @ 1635
2-4 - 11.4
4-6 - 12.1

1645-1650 - looked at pipe @ ____ [illegible] photo
may be gas [illegible] pipe or maybe gas service, [illegible]
[illegible] going into ground

TETRA TECH 100 Nickerson Rd. Marlborough, MA 01752	JOB SHEET NO. ____ OF ____ CALCULATED BY ____ DATE 3/25/19 CHECKED BY ____ DATE ____ SCALE ____

Weather - overcast, light/sporadic rain
Entered By - Ian Cannan (ISC)
Equip: soil sample supplies, PID RKI-6000 (w/ moisture trap)

0800- ISC + Cascade arr
Same crew + rig as 3/25/19 drilling
- Work Plan complete soil borings to 6' bgs - collect soil samples from highest PID and to get representative distribution
Sample Count from 3/25
0-2 - IIII
2-4 - IIII
4-6 - IIII

Note: PID background 0.0 - 3.1 ppm

Soil Boring Logs:

TT-SB-12 - 0840-0900
SS-01 0-5' rec 5'/5'
SS-02 5-6' - refusal @ 5.5' rec 0.5/1
0-0.4 - Top Soil, grades to Sandy Clay w/ gravel
0.4-3 - dark brown Sandy/Silty Clay, little gravel
3-5.5 - dark gray Sand + angular gravel (Shale frag.)

PID - 0-2 : 1.0 - sample TT-SB-13 (0-2') @ 0902
2-4 - 0.0 - var duplicate collected
4-6 - 0.0

TT-SB-14 0905-0930
SS-01 0-5' rec 5'/5
SS-02 5-6 rec 1/1

0-0.5' - Top Soil
0.3-2 - brown sandy clay/silt w/ organics
2-6' - dark gray Sand + fracture/weathered Shale

PID - 0-2 - 0.0 - Sample TT-SB-13 (0-2) @ 0933 Herbicides
2-4 - 0.0
4-6 - 0.0

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JOB
SHEET NO. OF
CALCULATED BY DATE 3/29/19
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3/29/19 cont.

TT-SB-15 0940 - 1000
SS-1 0-5' rec 3.1/5'
SS-2 5-6' rec 1/1

0-1' Top Soil
1-6' Tan-brown Silty/Sandy Clay some gravel

PID- 0-2 - 0.0
2-4 - 0.0 - Sample TT-SB-15(2-4) @ 1000
4-6 - 0.0 Standard

TT-SB-16 Hand Auger 1010-1020
SS-1 - 0-6" full rec - Top Soil
SS-2 - 6"-12" " - Top Soil
SS-3 - 12"-18" " - Tan-brown sandy Clay w/ organics
SS-4 - 18-24" " " "
SS-5 - 24-30" " - wet " "
SS-6 - 30-36" " - Saturated - water in hole

PID- 02- 0.1 - Sample TT-SB-16(0-2) @ 1022
2-3 - 0.0

TT-SB-17 1030 - 1050
SS-01 - 0-5' rec - 4.4/5
SS-02 - 5-6' rec - 1/1

0-3' Top Soil - dark gray
3-4' Sand w/ fractured Gravel (Shale)
4-6 Fractured gravel (shale) Some sand

PID
0-2 - 0.0
2-4 - 0.0 - Sample TT-SB-17(2-4) @ 1050
4-6 - 0.0

TT-SB-18 - 1120 - 1145
SS-01 - 0-6" full rec
SS-02 - 6-12" " Sample 0-2' TT-SB-18(0-2) 1130
SS-03 - 12-18" " Standard
SS-04 - 18-24" " PID-
SS-05 - 24-30" "
SS-06 - 30-36" - water saturated

TETRA TECH
100 Nickerson Rd.
Marlborough, MA 01752

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SCALE

Hazardous Materials Survey Report

Five Residential-Type Structures
1711 and 1733 5S Highway
Amsterdam/Florida, New York 12010

January 28, 2019

Terracon Project No. J1187144



Prepared for:
WE Acquisitions, LLC
New Haven, Connecticut

Prepared by:
Terracon Consultants, Inc.
Manchester, New Hampshire

Offices Nationwide Established in 1965
Employee-Owned terracon.com

Terracon

Geotechnical Environmental Construction Materials Facilities

January 28, 2019

WE Acquisitions, LLC
Mr. Ronald Chan
300 George Street
New Haven, CT 06511

Telephone: (203) 889-4466
E-mail: rchan@winent.com

Re: Hazardous Material Survey Report
Five Residential-Type Structures
1711 and 1733 5S Highway
Amsterdam/Florida, New York 12010
Terracon Project No. J1187144

Dear Mr. Chan:

Terracon Consultants, Inc. (Terracon) is pleased to submit the attached report for the above-referenced project to WE Acqusitions, LLC. The purpose of this report is to present the results of the hazardous materials survey performed at the Five Residential-Type Structures on November 20, 2018 and January 14, 2019 at 1711 and 1733 5S Highway Amsterdam/Florida, New York . The survey was conducted in general accordance with Terracon proposal PJ1187144, dated October 12, 2018.

Terracon appreciates the opportunity to provide this service to WE Acqusitions, LLC. If you have any questions regarding this report please contact the undersigned at 603-647-9700.

Sincerely,
Terracon Consultants, Inc.

Jim Lovell
Senior Staff Industrial Hygienist

Joseph Tussey, CHMM
Authorized Project Reviewer

TABLE OF CONTENTS

		Page
1.0	**INTRODUCTION**	**1**
1.1	Project Objective	1
2.0	**ASBESTOS SURVEY**	**2**
2.1	Field Activities	2
2.2	Sample Collection	2
2.3	Sample Analysis	3
2.4	Regulatory Overview	3
2.5	Findings and Recommendations	4
3.0	**LEAD-CONTAINING PAINT**	**5**
3.1	Field Activities	5
3.2	Sample Analysis	5
3.3	Regulatory Overview	5
3.4	Findings and Recommendations	6
4.0	**VISUAL REGULATED MATERIALS SURVEY**	7
4.1	Regulatory Overview	7
4.2	Findings and Recommendations	7
5.0	**GENERAL COMMENTS**	**8**

APPENDIX A DRAWINGS

APPENDIX B TABLES 1 THROUGH 4

APPENDIX C ASBESTOS ANALYTICAL LABORATORY DATA

APPENDIX D LEAD ANALYTICAL LABORATORY DATA

APPENDIX E ASBESTOS SAMPLE LOCATION PHOTOGRAPH LOG

APPENDIX F CERTIFICATIONS AND LICENSES

HAZARDOUS MATERIALS SURVEY REPORT
Five Residential-Type Structures
1711 and 1733 5S Highway
Amsterdam/Florida, New York 12010

Terracon Project No. J1187144
January 28, 2019

1.0 INTRODUCTION

Terracon conducted a hazardous materials survey of Five Residential-Type Structures at 1711 and 1733 5S Highway (Site) located at Florida/Amsterdam, New York. The hazardous materials survey included and asbestos survey, limited sampling for lead-containing paint (LCP), and observations for other potentially hazardous materials such as mercury-containing equipment and polychlorinated biphenyls (PCBs)-containing equipment. The survey was conducted on November 20, 2018 and January 14, 2019 in accordance with Terracon proposal PJ1187144, dated October 12, 2018.

Interior building components and the site's roofing system were surveyed for homogeneous areas of suspect asbestos-containing materials (ACM) and lead-containing paint (LCP). Although reasonable effort was made to survey accessible suspect materials, additional suspect but un-sampled materials could be located in walls, in voids, below the ground or in other concealed areas. Suspect ACM samples were collected in general accordance with the sampling protocols outlined in United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 763 Subpart E 763.86, known as the Asbestos Hazard Emergency Response Act (AHERA). Samples were delivered to an accredited laboratory for analysis by Polarized Light Microscopy (PLM); PLM-NOB, (NOB non-friable organically bound) and TEM-NOB (TEM: transmission electron microscopy), as required by New York State regulations. Limited paint chip samples were obtained from representative surfaces potentially containing lead and analyzed by Flame Atomic Absorption (FAA) method for confirmation of lead content.

During execution of the asbestos survey and limited LCP sampling, Terracon made observations for mercury-containing equipment and PCBs-containing equipment which may need to be properly handled/disposed/recycled as part of the renovation project.

1.1 Project Objective

We understand the survey was requested to identify hazardous material items that need to be properly addressed as part of the renovation project pertaining to the Site.

2.0 ASBESTOS SURVEY

2.1 Field Activities

The survey was conducted by Mr. John Ellis, a New York state licensed asbestos inspector. A copy of Mr. Ellis's asbestos inspector credential is attached as Appendix F. A summary of survey activities is provided below.

2.1.1 Visual Assessment

Survey activities were initiated with visual observations of the building interior and building roofing system to identify homogeneous areas of suspect ACM. A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color and texture with consideration given to the date of application. The assessment was conducted in visually accessible areas of the building proposed for renovation. The Site was occupied during our assessment.

Building materials identified as glass, wood, masonry, metal or rubber were not considered suspect ACM.

2.1.2 Physical Assessment

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

2.2 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with USEPA AHERA sampling protocols. Samples of suspect materials were collected from randomly selected locations in each homogeneous area. Bulk samples were collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogeneous in content.

Terracon collected a total of 121 bulk samples from 26 homogeneous areas of suspect ACM from the Site. Drawings of suspect ACM bulk sample locations are located in Appendix A. A summary of suspect ACM samples collected during the survey is included in the Table 1 attached to this report in Appendix B.

2.3 Sample Analysis

Bulk samples were submitted under chain of custody to International Asbestos Testing Labaratories (iATL) of Mt. Laurel, New Jersey, a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) accredited laboratory. EMSL is also accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), accreditation number 101165-0.

As per NYSDOH-ELAP, all samples were analyzed using PLM. Friable materials were analyzed by PLM Method 198.1, and non-friable organically bound (NOB) materials (e.g., asphalt shingles and caulking) were analyzed using PLM-NOB Method 198.6. Per NYSDOH-ELAP, NOBs were additionally analyzed using TEM for a conclusive result.

2.4 Regulatory Overview

The asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. The NESHAP regulation also requires the identification and classification of existing ACM according to friability prior to demolition or renovation activity. Friable ACM is a material containing more than 1% asbestos that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. All friable ACM is considered regulated asbestos-containing material (RACM).

The NESHAP regulation classifies ACM as either RACM, Category I non-friable ACM or Category II non-friable ACM. RACM includes all friable ACM, along with Category I and Category II non-friable ACM that has become friable or will be or has been subjected to sanding, grinding, cutting or abrading, or ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder in the course of renovation or demolition activity. Category I non-friable ACM are exclusively asbestos-containing packings, gaskets, resilient floor coverings, resilient floor covering mastics and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACM are all other non-friable materials other than Category I non-friable ACM that contain more than 1% asbestos.

In the State of New York, asbestos abatement activities are regulated by the New York State Department of Labor (NYSDOL) under the Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (12 NYCRR Part 56). New York regulations require that any asbestos-related activity conducted in the state be performed by personnel licensed by NYSDOL. NYSDOL 12 NYCRR has instituted nine different certifications for asbestos related activities that include: Handler; Allied Trades; Air Sampling Technician; Inspector; Operations and Maintenance; Supervisor; Project Designer; Project Monitor; and Management Planner. The owner or operator must provide the NYSDOL with written notification of planned pre-demolition activities and for ACM removal activities at least 10 working days prior to the commencement of a large project (greater than or equal to 160 square feet). Removal of ACM must be conducted by a State of New York certified asbestos abatement contractor.

The United States Occupational Safety and Health Administration (USOSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The USOSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 fibers per cubic centimeter of air (0.1 f/cc) as an eight-hour time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1.0 f/cc) over a 30-minute time period known as an excursion limit (EL). The TWA and EL are known as USOSHA's permissible exposure limits (PELs). The USOSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

2.5 Findings and Recommendations

Based on laboratory analysis pertaining to the samples collected during this survey, **no** materials sampled at the Site were identified to contain asbestos.

Laboratory analytical results are included in Appendix C.

3.0 LEAD-CONTAINING PAINT

3.1 Field Activities

The LCP sampling was conducted by Mr. John Ellis. A summary of LCP sampling activities is provided below.

3.1.1 Visual Observation

The LCP sampling was limited to readily observable and accessible interior surfaces and did not include building exterior other than the roof. Terracon cannot guarantee a building or property to be LCP free as the possibility exists that LCP coated surfaces may be hidden from sight or in inaccessible locations, or the homogeneous construction areas identified may not be truly homogeneous. This LCP sampling was not performed to comply with the HUD *Guidelines for the Evaluation and Control of Lead Containing Paint Hazards in Housing* standards. It should be understood that this LCP sampling is not considered to be comprehensive in nature, and the results are not intended to be used to determine lead hazards, develop abatement plans, or prepare detailed cost estimates for abatement. The sampling was meant rather to provide general information as to the likely presence of LCP at the Site so that contractors can take the appropriate precautions to protect their workers.

3.1.2 Visual Assessment

Our sampling activities began with visual observation of areas associated with the building's interior and building roofing system to identify apparent unique combinations of suspect LCP. A unique combination of paint is based on paint color, building component and substrate. Assessment was limited to visually accessible interior and exterior areas in the specified areas of the buildings.

3.2 Sample Analysis

Terracon conducted paint chip sampling that consisted of collecting 10 paint chip samples from the Site. Paint chip samples were submitted under chain of custody to EMSL for analysis by flame atomic absorption spectrometry per EPA SW-846/3050B/7000B. EMSL is accredited under the Environmental Lead Laboratory Accreditation Program (ELLAP) (ELLAP Accreditation No. 100194).

3.3 Regulatory Overview

Lead is regulated by the EPA, HUD, and OSHA. The EPA regulate lead use, removal, and disposal, and OSHA regulates lead exposure to workers. HUD regulates lead present in public housing. The EPA defines lead-based paint (LBP) as paint, varnish, stain, or other applied coating that contains lead equal to or greater than 1.0 mg/cm^2, 5,000 mg/kg, or 0.5% by dry weight as

determined by laboratory analysis. For the purpose of the OSHA lead standard, lead includes any detectable concentrations of metallic lead, all inorganic lead compounds, and organic lead soaps. A synopsis of the OSHA regulations (29 CFR 1926.62) and the applicability are as follows:

The OSHA *Lead Standard for Construction* (29 CFR 1926.62) applies to all construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair (including painting and decorating) is included. **The lead-in-construction standard applies to any detectable concentration of lead in paint, as even small concentrations of lead can result in unacceptable employee exposures depending upon on the method of removal and other workplace conditions.**

Under the OSHA standard, construction includes, but is not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present
- Removal or encapsulation of materials containing lead
- New construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead
- Installation of products containing lead
- Lead contamination/emergency clean-up
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed
- Maintenance operations associated with construction activities described above

3.4 Findings and Recommendations

None of the paint chip samples were identified by the laboratory to contain detectable levels of lead, all below 0.5% by dry weight. A complete summary of the paint chip sampling is listed in Table 2 of Appendix B. Paint chip sampling analytical results are located in Appendix D.

Disturbance of any of the materials and/or components found to contain detectable levels of lead would require such activities be conducted in compliance with the requirements of the OSHA standard. Please note that this shall include any paints that may not have been tested as part of this limited sampling event; all paints at the Site should be assumed and treated as lead-containing. The OSHA regulations require that exposures to construction workers and general industry personnel be controlled by proper work procedures, proper worker training, respiratory protection, etc. Any renovation/demolition actions should utilize the proper exposure assessments, training, engineering controls, etc., and comply with the OSHA Construction Standards for Lead (29 CFR 1926.62). As such, personnel disturbing materials/components would need to have the OSHA level required training, comply with the work practices, levels of potential exposure documented and compared to the Action and Permissible Levels of 30 ug/m^3 and 50 ug/$m^{3,}$ respectively.

Torch cutting metals coated with lead concentrations should be avoided. Areas that must be torch cut to facilitate component removal should have the torch cut area coatings removed by lead removal contractor personnel prior to the torch cutting in accordance with the requirements of the OSHA Lead Construction Standards.

During demolition activities, the removal of LCP components may need to be removed and segregated from the waste stream by a contractor with lead experience and training in accordance with the OSHA lead requirements.

Regarding LCP disposal, removed coatings and components should be segregated from the renovation/demolition waste stream and coatings tested for leachate lead in accordance with Toxicity Characteristics Leachate Procedure (TCLP).

Metal building components removed intact can be exempt from TCLP testing, if removed and sent for recycling. Recycled scrap metal would be exempt from EPA Resource Conservation and Recovery Act (RCRA), 40 CFR Part 261.

Any chips, dusts, contaminated soils and sludge containing lead based paint debris generated by the demolition or renovation would have to be characterized and managed in accordance with the RCRA hazardous waste rules.

4.0 VISUAL REGULATED MATERIALS SURVEY

4.1 Field Activities

During the asbestos survey and LCP sampling activities, Terracon made observations for suspect PCB and mercury-containing equipment.

4.1 Regulatory Overview

The United States Environmental Protection Agency (USEPA) regulates PCB waste under 40 Code of Federal Regulations (CFR) 761.62 of the Toxic Substances Control Act (TSCA). Equipment such as transformers and light ballasts may contain mineral oil with minor amounts of PCBs and could be considered “PCB contaminated” (PCB content 50-500 ppm).

Certain mercury-containing equipment is covered under the Universal Waste regulation (40 CFR 273.9); other mercury wastes are regulated under the Resource Conservation and Recovery Act (RCRA) and are considered hazardous if the waste exceeds the toxicity characteristic leacheate procedure (TCLP) level of 0.2 milligrams per liter (mg/L) for mercury.

The generator is responsible for compliance with applicable regulations regarding hazardous waste disposal.

4.2 Findings and Recommendations

Findings

No suspect hazardous and regulated materials were observed by Terracon.

5.0 GENERAL COMMENTS

This asbestos survey and lead-containing paint sampling were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the buildings. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by WE Acquisitions, LLC. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A

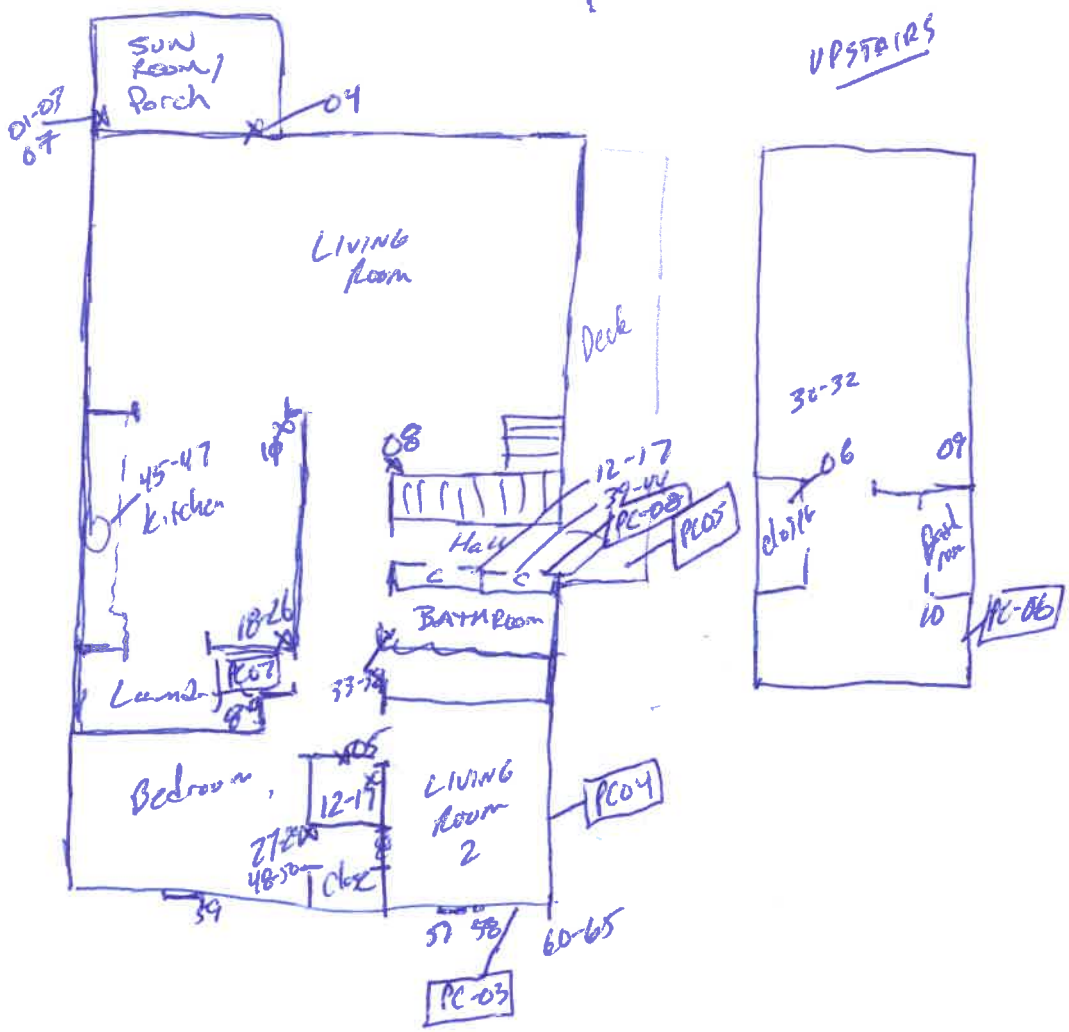
DRAWINGS

1st Floor

1733 State Hwy 5S - Amsterdam, NY

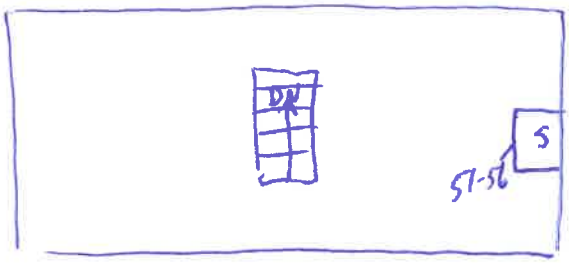
S
E W
N

Samples 72-74 at lean-to roof



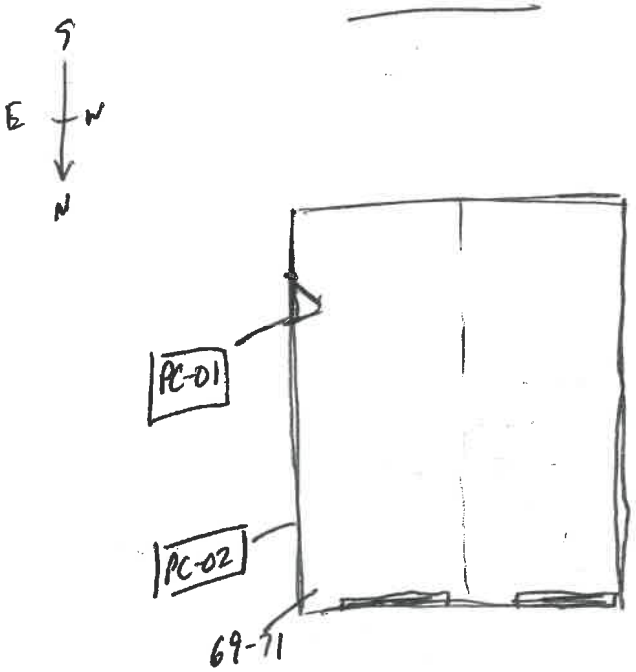
- Did not lift all floor covered areas except where accessible & home is occupied

Basement

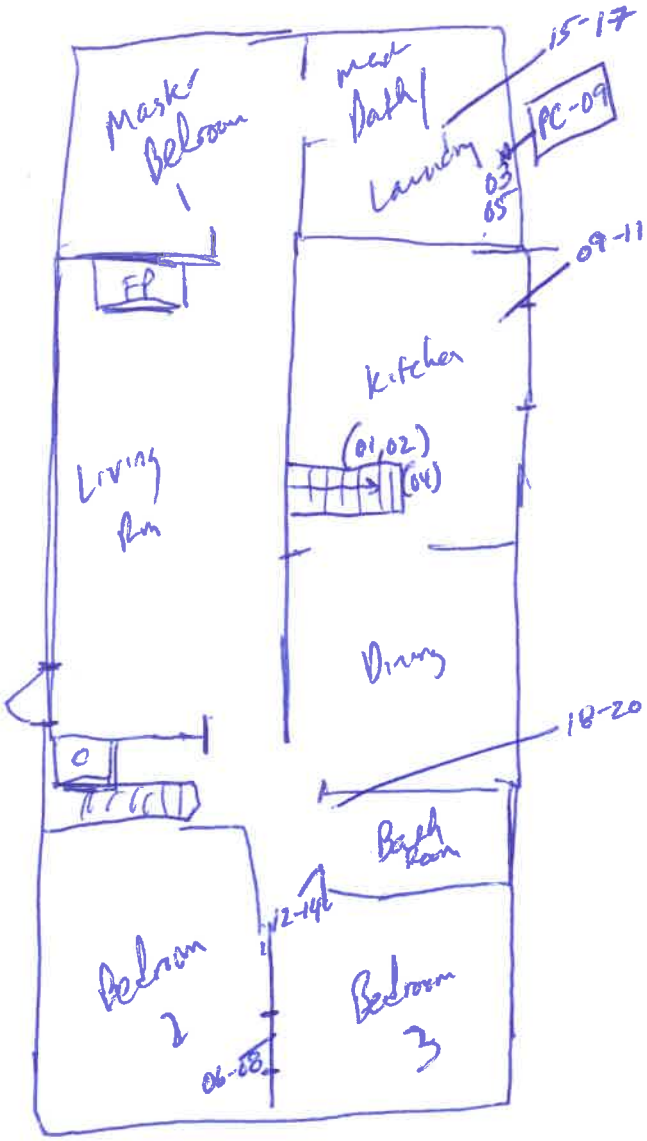


1733 State Hwy 5S - Amsterdam, NY

GARAGE



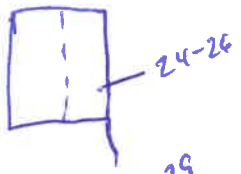
1711 State Hwy 55
Amsterdam, NY



N
E
W
S

DNS
Ceramic kitchen backsplash

Shed



27-29

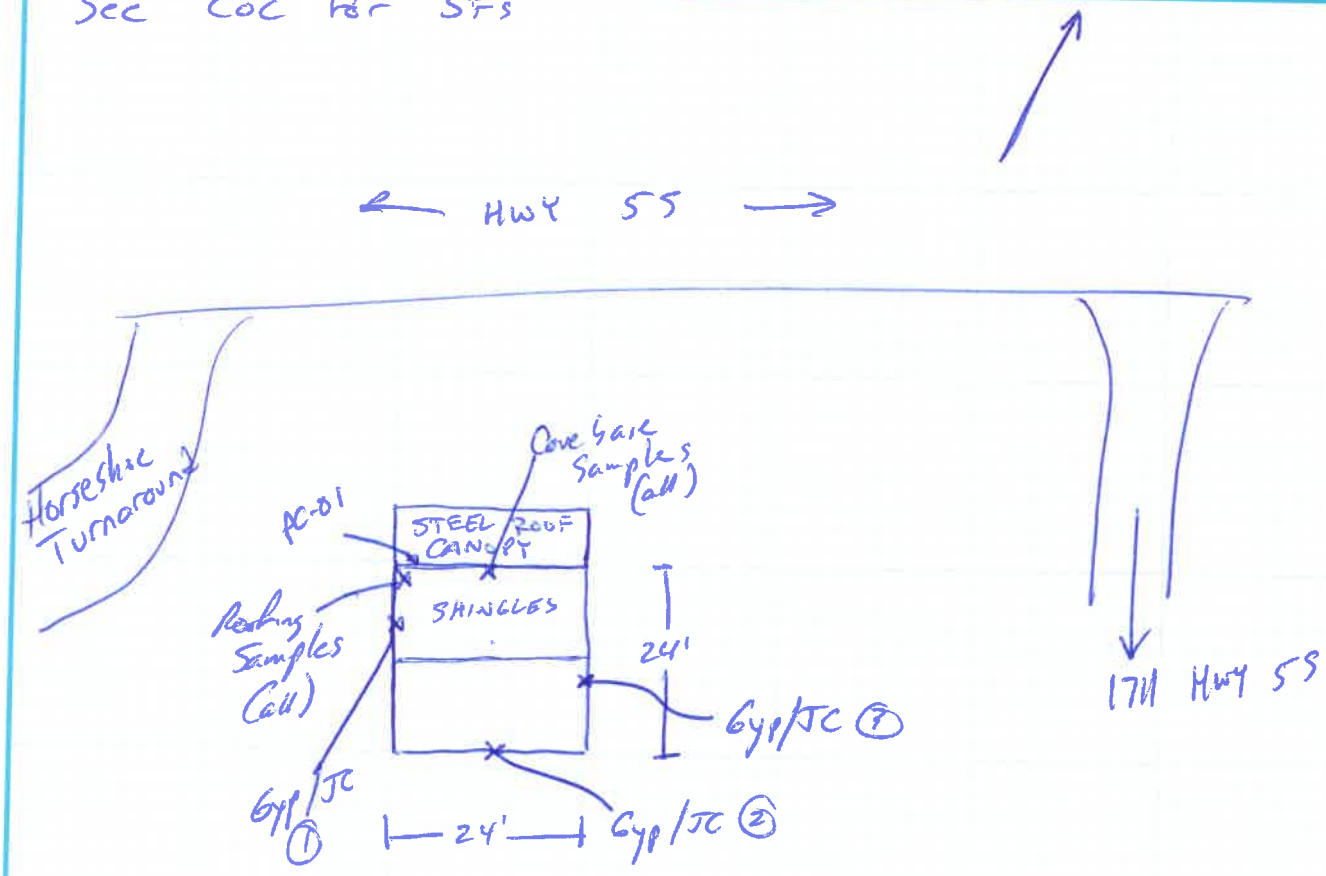
21-27
Sampled
in garage
Shingle stockpile
(owner said was
the same product
used roof sampled)

Terracon

PROJECT: Hwy 55 - Amsterdam, NY - Fruit stand Page 1 of 1

JOB NO. J1187144 Date 1-14-19 Comp. By J. Ellis CHECKED BY:

See CoC for SFs



APPENDIX B

ASBESTOS AND LEAD PAINT SAMPLES &
ANALYTICAL RESULTS SUMMARIES: TABLES 1 AND 2

Table 1

Asbestos Sample and Analytical Results Summary

1711 5S Highway

Sample Number	Location	Description	Method	Asbestos %
01D-WB2-01	Basement Stairway	White Drywall	PLM	None Detected
01D-WB2-02	Basement Stairway	White Drywall	PLM	None Detected
01D-WB2-03	Laundry Room	White Drywall	PLM	None Detected
01D-WB3-04	Basement Stairway	White Joint Compound	PLM	None Detected
01D-WB3-05	Master Bath	White Joint Compound	PLM	None Detected
01D-WB3-06	Bedroom 2 Closet	White Joint Compound	PLM	None Detected
01D-WB3-07	Bedroom 2 Closet	White Joint Compound	PLM	None Detected
01D-WB3-08	Bedroom 2 Closet	White Joint Compound	PLM	None Detected
02D-MA7-09	Kitchen	Grey Grout	PLM	None Detected
02D-MA7-10	Kitchen	Grey Grout	PLM	None Detected
02D-MA7-11	Kitchen	Grey Grout	PLM	None Detected
03D-SG5-12	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM	None Detected
03D-SG5-12	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM NOB	None Detected
03D-SG5-12	Under Bathroom Tiles	White Vinyl Sheet Flooring	TEM NOB	None Detected
03D-SG5-12	Under Bathroom Tiles	Yellow Mastic	PLM	None Detected
03D-SG5-12	Under Bathroom Tiles	Yellow Mastic	PLM NOB	Sample Not Analyzed
03D-SG5-13	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM	None Detected
03D-SG5-13	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM NOB	None Detected
03D-SG5-13	Under Bathroom Tiles	White Vinyl Sheet Flooring	TEM NOB	None Detected
03D-SG5-14	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM	None Detected
03D-SG5-14	Under Bathroom Tiles	White Vinyl Sheet Flooring	PLM NOB	None Detected
03D-SG5-14	Under Bathroom Tiles	White Vinyl Sheet Flooring	TEM NOB	None Detected
04D-MA7-15	Master Bathroom	Grey Grout	PLM	None Detected
04D-MA7-16	Master Bathroom	Grey Grout	PLM	None Detected

Sample Number	Location	Description	Method	Asbestos %
04D-MA7-17	Master Bathroom	Grey Grout	PLM	None Detected
05D-MA7-18	Bathroom	Grey Grout	PLM	None Detected
05D-MA7-19	Bathroom	Grey Grout	PLM	None Detected
05D-MA7-20	Bathroom	Grey Grout	PLM	None Detected
06D-RF5-21	House	Black Shingle	PLM	None Detected
06D-RF5-21	House	Black Shingle	PLM NOB	None Detected
06D-RF5-21	House	Black Shingle	TEM NOB	None Detected
06D-RF5-21	House	Black Tar	PLM	None Detected
06D-RF5-21	House	Black Tar	PLM NOB	None Detected
06D-RF5-21	House	Black Tar	TEM NOB	None Detected
06D-RF5-22	House	Black Shingle	PLM	None Detected
06D-RF5-22	House	Black Shingle	PLM NOB	None Detected
06D-RF5-22	House	Black Shingle	TEM NOB	None Detected
06D-RF5-23	House	Black Shingle	PLM	None Detected
06D-RF5-23	House	Black Shingle	PLM NOB	None Detected
06D-RF5-23	House	Black Shingle	TEM NOB	None Detected
06D-RF5-23	House	Black Tar	PLM	None Detected
06D-RF5-23	House	Black Tar	PLM NOB	Sample Not Analyzed
01E-RF5-24	Shed	Black Shingle	PLM	None Detected
01E-RF5-24	Shed	Black Shingle	PLM NOB	None Detected
01E-RF5-24	Shed	Black Shingle	TEM NOB	None Detected
01E-RF5-25	Shed	Black Shingle	PLM	None Detected
01E-RF5-25	Shed	Black Shingle	PLM NOB	None Detected
01E-RF5-25	Shed	Black Shingle	TEM NOB	<1
01E-RF5-26	Shed	Black Shingle	PLM	None Detected
01E-RF5-26	Shed	Black Shingle	PLM NOB	None Detected
01E-RF5-26	Shed	Black Shingle	TEM NOB	None Detected
02E-CA5-27	Shed	White Caulk	PLM	None Detected
02E-CA5-27	Shed	White Caulk	PLM NOB	None Detected
02E-CA5-27	Shed	White Caulk	TEM NOB	None Detected
02E-CA5-28	Shed	White Caulk	PLM	None Detected
02E-CA5-28	Shed	White Caulk	PLM NOB	None Detected
02E-CA5-28	Shed	White Caulk	TEM NOB	None Detected
02E-CA5-29	Shed	White Caulk	PLM	None Detected
02E-CA5-29	Shed	White Caulk	PLM NOB	None Detected
02E-CA5-29	Shed	White Caulk	TEM NOB	None Detected

1733 5S Highway

Sample Number	Location	Description	Method	Asbestos %
01A-MG7-01	Sun Room/Porch	Yellow Mastic	PLM	None Detected
01A-MG7-02	Sun Room/Porch	Yellow Mastic	PLM	None Detected
01A-MG7-03	Sun Room/Porch	Yellow Mastic	PLM	None Detected
02A-WB2-04	Sun Room/Porch	White Drywall	PLM	None Detected
02A-WB2-05	Hall Closet	White Drywall	PLM	None Detected
02A-WB2-06	Upstairs Closet	White Drywall	PLM	None Detected
02A-WB3-07	Sun Room/Porch	White Joint Compound	PLM	None Detected
02A-WB3-08	Laundry Room	White Joint Compound	PLM	None Detected
02A-WB3-09	Bedroom Closet	White Joint Compound	PLM	None Detected
02A-WB3-10	Upstairs Hall	White Joint Compound	PLM	None Detected
02A-WB3-11	Kitchen Hall	White Joint Compound	PLM	None Detected
03A-FC5-12	Hall Closet	Tan Flooring	PLM	None Detected
03A-FC5-13	Hall Closet	Tan Flooring	PLM	None Detected
03A-FC5-14	Hall Closet	Tan Flooring	PLM	None Detected
03A-FC5-15	Hall Closet	Grey Floor Material	PLM	None Detected
03A-FC5-16	Hall Closet	Grey Floor Material	PLM	None Detected
03A-FC5-17	Hall Closet	Grey Floor Material	PLM	None Detected
04A-SG5-18	Kitchen	Brown Vinyl Sheet Flooring	PLM	None Detected
04A-SG5-19	Kitchen	Brown Vinyl Sheet Flooring	PLM	None Detected
04A-SG5-20	Kitchen	Brown Vinyl Sheet Flooring	PLM	None Detected
05A-FT2-21	Kitchen	White Floor Tile	PLM	None Detected

Sample Number	Location	Description	Method	Asbestos %
05A-FT2-22	Kitchen	White Floor Tile	PLM	None Detected
05A-FT2-23	Kitchen	White Floor Tile	PLM	None Detected
05A-MG2-24	Kitchen	Clear Mastic	PLM	None Detected
05A-MG2-25	Kitchen	Clear Mastic	PLM	None Detected
05A-MG2-26	Kitchen	Clear Mastic	PLM	None Detected
06A-FC5-27	Bedroom	Dk Brown Flooring	PLM	None Detected
06A-FC5-28	Bedroom	Dk Brown Flooring	PLM	None Detected
06A-FC5-29	Bedroom	Dk Brown Flooring	PLM	None Detected
07A-HP5-30	Upstairs Bedroom	White Texture	PLM	None Detected
07A-HP5-31	Upstairs Bedroom	White Texture	PLM	None Detected
07A-HP5-32	Upstairs Bedroom	White Texture	PLM	None Detected
08A-MA7-33	Bathroom Floor	Grey Grout	PLM	None Detected
08A-MA7-34	Bathroom Floor	Grey Grout	PLM	None Detected
08A-MA7-35	Bathroom Floor	Grey Grout	PLM	None Detected
08A-MA8-36	Bathroom Floor	White Mortar	PLM	None Detected
08A-MA8-36	Bathroom Floor	Tan Fibrous	PLM	None Detected
08A-MA8-37	Bathroom Floor	White Mortar	PLM	None Detected
08A-MA8-37	Bathroom Floor	Tan Fibrous	PLM	None Detected
08A-MA8-38	Bathroom Floor	White Mortar	PLM	None Detected
08A-MA8-38	Bathroom Floor	Tan Fibrous	PLM	None Detected
09A-FT2-39	Hallway	Brown Floor Tile	PLM	None Detected
09A-FT2-40	Hallway	Brown Floor Tile	PLM	None Detected

Sample Number	Location	Description	Method	Asbestos %
09A-FT2-41	Hallway	Brown Floor Tile	PLM	None Detected
09A-MG2-42	Hallway	Clear Mastic	PLM	None Detected
09A-MG2-43	Hallway	Clear Mastic	PLM	None Detected
09A-MG2-44	Hallway	Clear Mastic	PLM	None Detected
10A-SL5-45	Kitchen	Black/White Pad	PLM	None Detected
10A-SL5-46	Kitchen	Black/White Pad	PLM	None Detected
10A-SL5-47	Kitchen	Black/White Pad	PLM	None Detected
11A-HP5-48	Downstairs Bedroom	White Texture	PLM	None Detected
11A-HP5-49	Downstairs Bedroom	White Texture	PLM	None Detected
11A-HP5-50	Downstairs Bedroom	White Texture	PLM	None Detected
12A-WB5-51	Basement Shower	White Non-Fibrous	PLM	None Detected
12A-WB5-52	Basement Shower	White Non-Fibrous	PLM	None Detected
12A-WB5-53	Basement Shower	White Non-Fibrous	PLM	None Detected
12A-MG5-54	Basement Shower	Tan Mastic	PLM	None Detected
12A-MG5-55	Basement Shower	Tan Mastic	PLM	None Detected
12A-MG5-56	Basement Shower	Tan Mastic	PLM	None Detected
13A-CA1-57	Basement Exterior Windows	Brown Caulk	PLM	None Detected
13A-CA1-58	Basement Exterior Windows	Brown Caulk	PLM	None Detected
13A-CA1-59	Basement Exterior Windows	White Caulk	PLM	None Detected
14A-RF5-60	Roof	Black Shingle	PLM	None Detected
14A-RF5-61	Roof	Black/Brown Shingle	PLM	None Detected
14A-RF5-62	Roof	Black/Brown Shingle	PLM	None Detected

Sample Number	Location	Description	Method	Asbestos %
14A-RF5-63	Roof	Black Underlayment	PLM	None Detected
14A-RF5-64	Roof	Black Underlayment	PLM	None Detected
14A-RF5-65	Roof	Black Underlayment	PLM	None Detected
1B-RF5-66	Garage Roof	Black/Brown Shingle	PLM	None Detected
1B-RF5-67	Garage Roof	Black/Brown Shingle	PLM	None Detected
1B-RF5-68	Garage Roof	Black/Brown Shingle	PLM	None Detected
1B-RF5-69	Garage Roof	Black Underlayment	PLM	None Detected
1B-RF5-70	Garage Roof	Black Underlayment	PLM	None Detected
1B-RF5-71	Garage Roof	Black Underlayment	PLM	None Detected
1C-RF5-72	Lean-To Shed	Black Shingle	PLM	None Detected
1C-RF5-73	Lean-To Shed	Black/Brown Shingle	PLM	None Detected
1C-RF5-74	Lean-To Shed	Black/Brown Shingle	PLM	None Detected
08	Additional Sample Received	White Joint Compound	PLM	None Detected

Site Visit January 14, 2019

Sample Number	Location	Description	Method	Asbestos %
01-RF3-01	Fruit Stand	Asphalt Shingle	PLM NOB/TEM NOB	None Detected
01-RF3-02	Fruit Stand	Asphalt Shingle	PLM NOB/TEM NOB	None Detected
01-RF3-03	Fruit Stand	Asphalt Shingle	PLM NOB/TEM NOB	None Detected
02-RF2-04	Fruit Stand	Roofing Paper	PLM NOB/TEM NOB	None Detected
02-RF2-05	Fruit Stand	Roofing Paper	PLM NOB/TEM NOB	None Detected
02-RF2-06	Fruit Stand	Roofing Paper	PLM NOB/TEM NOB	None Detected
03-FC3-07	Fruit Stand	Gray 4" Cove Base	PLM NOB/TEM NOB	None Detected
03-FC3-08	Fruit Stand	Gray 4" Cove Base	PLM NOB/TEM NOB	None Detected
03-FC3-09	Fruit Stand	Gray 4" Cove Base	PLM NOB/TEM NOB	None Detected
03-MG3-10	Fruit Stand	Yellow Adhesive	PLM NOB/TEM NOB	None Detected
03-MG3-11	Fruit Stand	Yellow Adhesive	PLM NOB/TEM NOB	None Detected
03-MG3-12	Fruit Stand	Yellow Adhesive	PLM NOB/TEM NOB	None Detected
04-WB2-13	Fruit Stand	Gypsum Wallboard	PLM	None Detected
04-WB2-14	Fruit Stand	Gypsum Wallboard	PLM	None Detected
04-WB2-15	Fruit Stand	Gypsum Wallboard	PLM	None Detected
04-WB3-16	Fruit Stand	Joint Compound Skim Coat	PLM	None Detected
04-WB3-17	Fruit Stand	Joint Compound Skim Coat	PLM	None Detected
04-WB3-18	Fruit Stand	Joint Compound Skim Coat	PLM	None Detected

Asbestos Analytical Results

1711 and 1733 5S Highway

Table 2: Summary of Paint Chip Analytical Results					
1711 and 1733 5S Highway, Amsterdam/Florida, New York					
Sample Number	Component	Substrate	Color	Results (% by weight)	Pos/Neg
PC-01	1733 - Garage Trim	Wood	Brown	<0.0045	Negative
PC-02	1733 - Garage Siding	Wood	Tan	<0.0080	Negative
PC-03	1733 – Exterior Wall	CMU	Brown	<0.0052	Negative
PC-04	1733 – House Siding	Wood	Tan	<0.0067	Negative
PC-05	1733 – Deck	Wood	Brown	<0.0052	Negative
PC-06	1733 – Loft Wall	Gypsum	Green	<0.0061	Negative
PC-07	1733 – Laundry Wall	Gypsum	Orange	<0.0065	Negative
PC-08	1733 – Hallway Wall	Gypsum	Green	<0.0055	Negative
PC-09	1711 – Master Bathroom Wall	Gypsum	Yellow	<0.0049	Negative
PC-01	Fruit Stand – Exterior Wall	Wood	Off-White	<0.0080	Negative

APPENDIX C

ASBESTOS ANALYTICAL LABORATORY DATA

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660443 **Analyst Observation:** White Drywall **Location:** Basement Stairway
Client No.: 01D-WB2-01 **Client Description:** Gypsum Wallboard **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 1 Cellulose, 1 Fibrous Glass
Percent Non-Fibrous Material: 98

Lab No.: 6660444 **Analyst Observation:** White Drywall **Location:** Basement Stairway
Client No.: 01D-WB2-02 **Client Description:** Gypsum Wallboard **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 1 Cellulose, 1 Fibrous Glass
Percent Non-Fibrous Material: 98

Lab No.: 6660445 **Analyst Observation:** White Drywall **Location:** Laundry Room
Client No.: 01D-WB2-03 **Client Description:** Gypsum Wallboard **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 1 Cellulose, 1 Fibrous Glass
Percent Non-Fibrous Material: 98

Lab No.: 6660446 **Analyst Observation:** White Joint Compound **Location:** Basement Stairway
Client No.: 01D-WB3-04 **Client Description:** Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6660447 **Analyst Observation:** White Joint Compound **Location:** Master Bath
Client No.: 01D-WB3-05 **Client Description:** Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6660448 **Analyst Observation:** White Joint Compound **Location:** Bedroom 2 Closet
Client No.: 01D-WB3-06 **Client Description:** Joint Compound **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660449
Client No.: 01D-WB3-07

Analyst Observation: White Joint Compound
Client Description: Joint Compound

Location: Bedroom 2 Closet
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660450
Client No.: 01D-WB3-08

Analyst Observation: White Joint Compound
Client Description: Joint Compound

Location: Bedroom 2 Closet
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660451
Client No.: 02D-MA7-09

Analyst Observation: Grey Grout
Client Description: Ceramic Tile Grout

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660452
Client No.: 02D-MA7-10

Analyst Observation: Grey Grout
Client Description: Ceramic Tile Grout

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1 Cellulose

Percent Non-Fibrous Material:
99

Lab No.: 6660453
Client No.: 02D-MA7-11

Analyst Observation: Grey Grout
Client Description: Ceramic Tile Grout

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1 Cellulose

Percent Non-Fibrous Material:
99

Lab No.: 6660454
Client No.: 03D-SG5-12

Analyst Observation: White Vinyl Sheet Flooring
Client Description: White Linoleum Flooring

Location: Under Bathroom Tiles
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Cellulose

Percent Non-Fibrous Material:
95

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660454(L2) **Analyst Observation:** Yellow Mastic **Location:** Under Bathroom Tiles
Client No.: 03D-SG5-12 **Client Description:** White Linoleum Flooring **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	100

Lab No.: 6660455 **Analyst Observation:** White Vinyl Sheet Flooring **Location:** Under Bathroom Tiles
Client No.: 03D-SG5-13 **Client Description:** White Linoleum Flooring **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	5 Cellulose	95

Lab No.: 6660456 **Analyst Observation:** White Vinyl Sheet Flooring **Location:** Under Bathroom Tiles
Client No.: 03D-SG5-14 **Client Description:** White Linoleum Flooring **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	5 Cellulose	95

Lab No.: 6660457 **Analyst Observation:** Grey Grout **Location:** Master Bathroom
Client No.: 04D-MA7-15 **Client Description:** Ceramic Floor Tile Grout **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	100

Lab No.: 6660458 **Analyst Observation:** Grey Grout **Location:** Master Bathroom
Client No.: 04D-MA7-16 **Client Description:** Ceramic Floor Tile Grout **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	100

Lab No.: 6660459 **Analyst Observation:** Grey Grout **Location:** Master Bathroom
Client No.: 04D-MA7-17 **Client Description:** Ceramic Floor Tile Grout **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660460
Client No.: 05D-MA7-18

Analyst Observation: Grey Grout
Client Description: Ceramic Floor Tile Grout

Location: Bathroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660461
Client No.: 05D-MA7-19

Analyst Observation: Grey Grout
Client Description: Ceramic Floor Tile Grout

Location: Bathroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660462
Client No.: 05D-MA7-20

Analyst Observation: Grey Grout
Client Description: Ceramic Floor Tile Grout

Location: Bathroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660463
Client No.: 06D-RF5-21

Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle

Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Fibrous Glass

Percent Non-Fibrous Material:
98

Lab No.: 6660463(L2)
Client No.: 06D-RF5-21

Analyst Observation: Black Tar
Client Description: Asphalt Roof Shingle

Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660464
Client No.: 06D-RF5-22

Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle

Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
2 Fibrous Glass

Percent Non-Fibrous Material:
98

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660465
Client No.: 06D-RF5-23
Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 2 Fibrous Glass
Percent Non-Fibrous Material: 98

Lab No.: 6660465(L2)
Client No.: 06D-RF5-23
Analyst Observation: Black Tar
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6660466
Client No.: 01E-RF5-24
Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle
Location: Shed
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 3 Fibrous Glass
Percent Non-Fibrous Material: 97

Lab No.: 6660467
Client No.: 01E-RF5-25
Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle
Location: Shed
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 3 Fibrous Glass
Percent Non-Fibrous Material: 97

Lab No.: 6660468
Client No.: 01E-RF5-26
Analyst Observation: Black Shingle
Client Description: Asphalt Roof Shingle
Location: Shed
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 3 Fibrous Glass
Percent Non-Fibrous Material: 97

Lab No.: 6660469
Client No.: 02E-CA5-27
Analyst Observation: White Caulk
Client Description: Wall Caulking
Location: Shed
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660470
Client No.: 02E-CA5-28

Analyst Observation: White Caulk
Client Description: Wall Caulking

Location: Shed
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6660471
Client No.: 02E-CA5-29

Analyst Observation: White Caulk
Client Description: Wall Caulking

Location: Shed
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/01/2018
Signature:
Analyst: Tyler Matthews

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM
Project: Florida, NY
Project No.: J1187144

Appendix to Analytical Report

Customer Contact: John Ellis
Method: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM
Project: Florida, NY
Project No.: J1187144

Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM
Project: Florida, NY
Project No.: J1187144

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - TEM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660454
Client No.: 03D-SG5-12
Description: White Vinyl Sheet Flooring
Facility:
Location: Under Bathroom Tiles
Organic Fraction: 95.9 %
Gravimetrically Reduced Subsample: 4.1%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	4.1 Other

Lab No.: 6660455
Client No.: 03D-SG5-13
Description: White Vinyl Sheet Flooring
Facility:
Location: Under Bathroom Tiles
Organic Fraction: 96.0 %
Gravimetrically Reduced Subsample: 4.0%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	4 Other

Lab No.: 6660456
Client No.: 03D-SG5-14
Description: White Vinyl Sheet Flooring
Facility:
Location: Under Bathroom Tiles
Organic Fraction: 96.1 %
Gravimetrically Reduced Subsample: 3.9%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	3.9 Other

Please refer to the Preface of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - TEM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660463
Client No.: 06D-RF5-21
Description: Black Shingle
Facility:
Location: House
Organic Fraction: 67.2 %
Gravimetrically Reduced Subsample: 32.8%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	32.8 Other

Lab No.: 6660463(L2)
Client No.: 06D-RF5-21
Description: Black Tar
Facility:
Location: House
Organic Fraction: 93.1 %
Gravimetrically Reduced Subsample: 6.9%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	6.9 Other

Lab No.: 6660464
Client No.: 06D-RF5-22
Description: Black Shingle
Facility:
Location: House
Organic Fraction: 61.9 %
Gravimetrically Reduced Subsample: 38.1%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	38.1 Other

Lab No.: 6660465
Client No.: 06D-RF5-23
Description: Black Shingle
Facility:
Location: House
Organic Fraction: 69.2 %
Gravimetrically Reduced Subsample: 30.8%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	30.8 Other

Lab No.: 6660466
Client No.: 01E-RF5-24
Description: Black Shingle
Facility:
Location: Shed
Organic Fraction: 47.0 %
Gravimetrically Reduced Subsample: 53.0%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	53 Other

Please refer to the Preface of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - TEM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660467
Client No.: 01E-RF5-25
Description: Black Shingle
Facility:
Location: Shed
Organic Fraction: 44.4 %
Gravimetrically Reduced Subsample: 55.6%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
Trace *Tremolite, Detected at <0.25%*	None Detected	55.6 Other

---

Lab No.: 6660468
Client No.: 01E-RF5-26
Description: Black Shingle
Facility:
Location: Shed
Organic Fraction: 51.6 %
Gravimetrically Reduced Subsample: 48.4%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	48.4 Other

Lab No.: 6660469
Client No.: 02E-CA5-27
Description: White Caulk
Facility:
Location: Shed
Organic Fraction: 59.7 %
Gravimetrically Reduced Subsample: 40.3%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	40.3 Other

Lab No.: 6660470
Client No.: 02E-CA5-28
Description: White Caulk
Facility:
Location: Shed
Organic Fraction: 48.6 %
Gravimetrically Reduced Subsample: 51.4%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	51.4 Other

Lab No.: 6660471
Client No.: 02E-CA5-29
Description: White Caulk
Facility:
Location: Shed
Organic Fraction: 42.8 %
Gravimetrically Reduced Subsample: 57.2%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	57.2 Other

Please refer to the Preface of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578251 - TEM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Appendix to Analytical Report:

Customer Contact: John Ellis
Analysis: ELAP Section 198.4

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk material, Non-Friable Organically Bound material such as VSF, FT, M, RM, Tar, CB, Shingle, Tar Paper, Caulk, Glazing
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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Information Pertinent to this Report:

Analysis by ELAP Section 198.4

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

The "Gravimetrically Reduced Subsample" is the portion of the submitted sample remaining following the ashing and acid treatment processes. TEM analysis occurs on this portion of the sample.

Final results are calculated to represent the sample as submitted. Results are verifiable for only those operations and analyses performed in the laboratory.

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - TEM NOB
Project: Florida, NY
Project No.: J1187144

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

(1)Note: Sample not analyzed.
(2)Note: Sample not analyzed at request of client.
(3)Note: Sample analysis terminated. Clearance criteria exceeded (average >70.0 s/mm²). Set fails by AHERA 40 CFR 763.
(4)Note: Heavy loading (>0.1 s/cc) of non-asbestos particulate that might prohibit the required morphological, diffraction and elemental identification of asbestos. The absence of asbestos on the sample can not be concluded. Analysis for informational purposes only.
(5)Note: Heavy loading (>10% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>10%). Sample voided by AHERA 40 CFR 763.
(5A)Note: Heavy loading (>25% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>25%). Sample voided by NIOSH 7402.
(6)Note: Sample turbidity >1.0 NTU. Therefore MDL >> 0.1 MFL. Does not meet National Primary Drinking Water Standards.
(7)Note: Sample integrity compromised. Received sample cassette with top open (40 CFR 763 c-e).
(8)Note: Received sample cassettes with portion of filter missing. "PCM re-prep"
(9)Note: Void - overloaded, unable to prep.
(10)Note: Void - filter damaged.
(11)Note: No volume supplied.
(12)Note: Heavy loading (>0.1 s/cc) of non-asbestos / non-fibrous particulate.
(13)Note: Method analytical sensitivity of <0.003 s/cc not attained due to volume of air sampled. NIOSH requires a minimum of 400L.
(13A)Note: Volume does not meet AHERA requirements.(<1188 L)
(14)Note: Geometric Mean = 0.xxxx Structures/cc
(15)Note: Samples received on 0.8 micron PCM filters. Samples must be submitted on 0.45 micron filter cassettes per AHERA guidelines
(18)Note: *Results are for informational purposes only. Samples received on 0.8um PCM cassettes. Per AHERA 40 CFR 763 guidelines samples must be obtained on a 0.45um cassette.
(TEM NOB 1) Note: The above result represents only the analysis of NOB-residue submitted from the client.
(TEM NOB 2) Note: Insufficient material (<100mg) to verify results.

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660454
Client No.: 03D-SG5-12
Description: White Vinyl Sheet Flooring
Client Description: White Linoleum Flooring
Location: Under Bathroom Tiles
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
4.1

Lab No.: 6660454(L2)
Client No.: 03D-SG5-12
Description: Yellow Mastic
Client Description: White Linoleum Flooring
Location: Under Bathroom Tiles
Facility:

Percent Asbestos:
Sample Not Analyzed

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Not Analyzed, Insufficient Sample

Lab No.: 6660455
Client No.: 03D-SG5-13
Description: White Vinyl Sheet Flooring
Client Description: White Linoleum Flooring
Location: Under Bathroom Tiles
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
4

Lab No.: 6660456
Client No.: 03D-SG5-14
Description: White Vinyl Sheet Flooring
Client Description: White Linoleum Flooring
Location: Under Bathroom Tiles
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
3.9

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/03/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660463
Client No.: 06D-RF5-21
Description: Black Shingle
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
13 Fibrous Glass

Percent Non-Fibrous Material:
20

Lab No.: 6660463(L2)
Client No.: 06D-RF5-21
Description: Black Tar
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
0.69 Fibrous Glass

Percent Non-Fibrous Material:
6.2

Lab No.: 6660464
Client No.: 06D-RF5-22
Description: Black Shingle
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
15 Fibrous Glass

Percent Non-Fibrous Material:
23

Lab No.: 6660465
Client No.: 06D-RF5-23
Description: Black Shingle
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
12 Fibrous Glass

Percent Non-Fibrous Material:
18

Lab No.: 6660465(L2)
Client No.: 06D-RF5-23
Description: Black Tar
Client Description: Asphalt Roof Shingle
Location: House
Facility:

Percent Asbestos:
Sample Not Analyzed
Not Analyzed, Insufficient Sample

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 6660466
Client No.: 01E-RF5-24
Description: Black Shingle
Client Description: Asphalt Roof Shingle
Location: Shed
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
21 Fibrous Glass

Percent Non-Fibrous Material:
32

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/03/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578251 - PLM NOB Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660467 **Client No.:** 01E-RF5-25	**Description:** Black Shingle **Client Description:** Asphalt Roof Shingle	**Location:** Shed **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 22 Fibrous Glass	Percent Non-Fibrous Material: 33
Lab No.: 6660468 **Client No.:** 01E-RF5-26	**Description:** Black Shingle **Client Description:** Asphalt Roof Shingle	**Location:** Shed **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 19 Fibrous Glass	Percent Non-Fibrous Material: 29
Lab No.: 6660469 **Client No.:** 02E-CA5-27	**Description:** White Caulk **Client Description:** Wall Caulking	**Location:** Shed **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 40
Lab No.: 6660470 **Client No.:** 02E-CA5-28	**Description:** White Caulk **Client Description:** Wall Caulking	**Location:** Shed **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 51
Lab No.: 6660471 **Client No.:** 02E-CA5-29	**Description:** White Caulk **Client Description:** Wall Caulking	**Location:** Shed **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 57

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/03/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578251 - PLM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Appendix to Analytical Report:

Customer Contact: John Ellis
Method: ELAP Section 198.6

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk materials described as Non Fibrous Organically Bound such as FT, SVF, M, RM, Tar, Tar Paper, Shingle, CB etc.
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by ELAP Section 198.6

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Quantification at <0.25% by volume is possible with this method.

(PC) Indicates Stratified Point Count Method performed.

(PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen.

Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions).

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CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578251 - PLM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

–Bulk Asbestos –

Contact Information

Client Company:	Terracon	**Project Number:**	J1187144
Office Address:	201 Hammer Mill Rd	**Project Name:**	Florida, NY
City, State, Zip:	Rocky Hill, CT 06067	**Primary Contact:**	John Ellis
Fax Number:		**Office Phone:**	860.929.7862
Email Address:	John.ellis@terracon.com	**Cell Phone:**	

PLM Instructions:

- ☐ PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- ☐ PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- ☐ PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- ☒ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- ☒ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- ☒ TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009

- ☐ PLM: Point Counting
  - ☐ PC: via ELAP 198.1
  - ☐ PC: 400 Points
  - ☐ PC: 800 Points *
  - ☐ PC: 1600 Points *
- ☐ PLM: Instructions for Multi-Layered Samples
  - ☐ Analyze and Report All Separable Layers per EPA 600
  - ☐ Report Composite for Drywall Systems per NESHAP
  - ☐ Report All Layers and Composite Where Applicable
  - ☐ Only Analyze and Report Specifically Noted Layer
- ☐ PLM: Analyze Until Positive (Positive Stop)
  - ☐ AUP: by Homogenous Area as Noted
  - ☐ AUP: by Material Type as Noted
- ☐ PLM: NOB via 198.6
  - ☐ PLM: Friable via EPA 600 2.3
  - ☐ If <1% by PLM, to TEM via 198.4 *
  - ☐ If <1% by PLM, Hold for Instructions
- ☐ PLM: Non-Building Material*,** (Dust, Wipe, Tape)
  - ☐ Soil or Vermiculite Analysis*
  - ☐ CARB 435

Special Instructions: _____

** Additional charge and turnaround may be required* *** Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory*

Turnaround Time

Preliminary Results Requested Date: _____ (Specific date / time) ☐ Verbal ☒ Email ☐ Fax

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

PLM NOB(A) - Homer 12.3.18

Chain of Custody

Relinquished (Name/Organization):	JE	Date:	11/21/18	Time:	16:30
Received (Name / iATL):		Date:	/ /	Time:	
Sample Login (Name / iATL):		Date:		Time:	
Analysis(Name(s) / iATL):		Date:	12/1/18	Time:	NOV 27
QA/QC Review (Name / iATL):		Date:		Time:	
Archived / Released: _____	QA/QC InterLAB Use: _____	Date:		Time:	

TEM: JJ 12/4/18

Terracon PN: J1187144 **Asbestos Sample Location Log** Page 2 of _____

Client Name: _____
Building Name: 1711 55 Highway - Florida, NY
Inspector: 12-10380

Sample No: (HA, BS Code, Sample No.)	Bulk Sample Description and Location(s)	Collection Date
OID - WB2 - 01	Gypsum wall board Basement Stairway	11-20-18
- - 02		
- - 03	Laundry Room	
- WB3 - 04	Joint Compound Basement Stairway	
- - 05	Master Bath	
- - 06	Bedroom 2 closet	
- - 07		
- - 08		
02D - MA7 - 09	Kitchen ceramic tile grout	
- - 10		
- - 11		
03D - SG5 - 12	White linoleum flooring (under bathroom tiles)	
- - 13		
- - 14		
04D - MA7 - 15	Ceramic floor tile grout Master bathroom	
- - 16		
- - 17		
05D - MA7 - 18	Ceramic floor tile grout Bathroom	
- - 19		
- - 20		
- -		

Terracon PN: J1187144 **Asbestos Sample Location Log** Page 3 of 3

Client Name:
Building Name: 1711 S5 Highway - Florida, NY
Inspector: 12-10380

Sample No: (HA, BS Code, Sample No.)	Bulk Sample Description and Location(s)	Collection Date
060 - RFS - 21	Asphalt roof shingle House	11-20-18
↓ - ↓ - 22	↓ ↓	↓
↓ - ↓ - 23	↓ ↓	↓
01E - RFS - 24	Shed ↓	↓
↓ - ↓ - 25	↓ ↓	↓
↓ - ↓ - 26	↓ ↓	↓
02E - CAS - 27	~~Wall~~ Shed wall caulking ↓	↓
↓ - ↓ - 28	↓	↓
↓ - ↓ - 29	↓	↓
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- -		

9000 Commerce Parkway Suite B
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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660472
Client No.: 01A-MG7-01
Percent Asbestos:
None Detected

Analyst Observation: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Percent Non-Asbestos Fibrous Material:
1 Synthetic

Location: Sun Room/Porch
Facility:
Percent Non-Fibrous Material
99

Lab No.: 6660473
Client No.: 01A-MG7-02
Percent Asbestos:
None Detected

Analyst Observation: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Percent Non-Asbestos Fibrous Material:
1 Synthetic

Location: Sun Room/Porch
Facility:
Percent Non-Fibrous Material
99

Lab No.: 6660474
Client No.: 01A-MG7-03
Percent Asbestos:
None Detected

Analyst Observation: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Percent Non-Asbestos Fibrous Material:
1 Synthetic

Location: Sun Room/Porch
Facility:
Percent Non-Fibrous Material
99

Lab No.: 6660475
Client No.: 02A-WB2-04
Percent Asbestos:
None Detected

Analyst Observation: White Drywall
Client Description: Gypsum Wallboard
Percent Non-Asbestos Fibrous Material:
5 Cellulose
5 Fibrous Glass

Location: Sun Room/Porch
Facility:
Percent Non-Fibrous Material
90

Lab No.: 6660476
Client No.: 02A-WB2-05
Percent Asbestos:
None Detected

Analyst Observation: White Drywall
Client Description: Gypsum Wallboard
Percent Non-Asbestos Fibrous Material:
5 Cellulose

Location: Hall Closet
Facility:
Percent Non-Fibrous Material
95

Please refer to the Appendix of this report for further information regarding your analysis, test method and accreditation.

Date Received: 11/27/2018
Date Analyzed: 11/30/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660477
Client No.: 02A-WB2-06
Percent Asbestos:
None Detected

Analyst Observation: White Drywall
Client Description: Gypsum Wallboard
Percent Non-Asbestos Fibrous Material:
5 Cellulose

Location: Upstairs Closet
Facility:
Percent Non-Fibrous Material
95

Lab No.: 6660478
Client No.: 02A-WB3-07
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description: Joint Compound & Tape
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Sun Room/Porch
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660479
Client No.: 02A-WB3-08
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description: Joint Compound & Tape
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Laundry Room
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660480
Client No.: 02A-WB3-09
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description: Joint Compound & Tape
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Bedroom Closet
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660481
Client No.: 02A-WB3-10
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description: Joint Compound & Tape
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Upstairs Hall
Facility:
Percent Non-Fibrous Material
100

Please refer to the Appendix of this report for further information regarding your analysis, test method and accreditation.

Date Received: 11/27/2018
Date Analyzed: 11/30/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660482
Client No.: 02A-WB3-11
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description: Joint Compound & Tape
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Kitchen Hall
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660483
Client No.: 03A-FC5-12
Percent Asbestos:
None Detected

Analyst Observation: Tan Flooring
Client Description: Light Tan Pergo Floor
Percent Non-Asbestos Fibrous Material:
95 Cellulose

Location: Hall Closet
Facility:
Percent Non-Fibrous Material
5

Lab No.: 6660484
Client No.: 03A-FC5-13
Percent Asbestos:
None Detected

Analyst Observation: Tan Flooring
Client Description: Light Tan Pergo Floor
Percent Non-Asbestos Fibrous Material:
95 Cellulose

Location: Hall Closet
Facility:
Percent Non-Fibrous Material
5

Lab No.: 6660485
Client No.: 03A-FC5-14
Percent Asbestos:
None Detected

Analyst Observation: Tan Flooring
Client Description: Light Tan Pergo Floor
Percent Non-Asbestos Fibrous Material:
95 Cellulose

Location: Hall Closet
Facility:
Percent Non-Fibrous Material
5

Lab No.: 6660486
Client No.: 03A-FC5-15
Percent Asbestos:
None Detected

Analyst Observation: Grey Floor Material
Client Description: Grey Sub-Paper Assoc. W/Pergo
Percent Non-Asbestos Fibrous Material:
90 Synthetic

Location: Hall Closet
Facility:
Percent Non-Fibrous Material
10

Please refer to the Appendix of this report for further information regarding your analysis, test method and accreditation.

Date Received: 11/27/2018
Date Analyzed: 11/30/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
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Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660487	**Analyst Observation:** Grey Floor Material	**Location:** Hall Closet
Client No.: 03A-FC5-16	**Client Description:** Grey Sub-Paper Assoc. W/Pergo	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	90 Synthetic	10

Lab No.: 6660488	**Analyst Observation:** Grey Floor Material	**Location:** Hall Closet
Client No.: 03A-FC5-17	**Client Description:** Grey Sub-Paper Assoc. W/Pergo	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	90 Synthetic	10

Lab No.: 6660489	**Analyst Observation:** Brown Vinyl Sheet Flooring	**Location:** Kitchen
Client No.: 04A-SG5-18	**Client Description:** Brown Linoleum Flooring (Top Layer) No Adhesive	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	5 Fibrous Glass	95

Lab No.: 6660490	**Analyst Observation:** Brown Vinyl Sheet Flooring	**Location:** Kitchen
Client No.: 04A-SG5-19	**Client Description:** Brown Linoleum Flooring (Top Layer) No Adhesive	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	5 Fibrous Glass	95

Lab No.: 6660491	**Analyst Observation:** Brown Vinyl Sheet Flooring	**Location:** Kitchen
Client No.: 04A-SG5-20	**Client Description:** Brown Linoleum Flooring (Top Layer) No Adhesive	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	5 Fibrous Glass	95

Please refer to the Appendix of this report for further information regarding your analysis, test method and accreditation.

Date Received: 11/27/2018
Date Analyzed: 11/30/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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Rocky Hill CT 06067

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Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660492	**Analyst Observation:** White Floor Tile	**Location:** Kitchen
Client No.: 05A-FT2-21	**Client Description:** White 12x12 Vinyl Floor Tile (Bottom Layer)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660493	**Analyst Observation:** White Floor Tile	**Location:** Kitchen
Client No.: 05A-FT2-22	**Client Description:** White 12x12 Vinyl Floor Tile (Bottom Layer)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660494	**Analyst Observation:** White Floor Tile	**Location:** Kitchen
Client No.: 05A-FT2-23	**Client Description:** White 12x12 Vinyl Floor Tile (Bottom Layer)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660495	**Analyst Observation:** Clear Mastic	**Location:** Kitchen
Client No.: 05A-MG2-24	**Client Description:** Clear Adhesive A/W Tile	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660496	**Analyst Observation:** Clear Mastic	**Location:** Kitchen
Client No.: 05A-MG2-25	**Client Description:** Clear Adhesive A/W Tile	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Please refer to the Appendix of this report for further information regarding your analysis, test method and accreditation.

Date Received: 11/27/2018
Date Analyzed: 11/30/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660497	**Analyst Observation:** Clear Mastic	**Location:** Kitchen
Client No.: 05A-MG2-26	**Client Description:** Clear Adhesive A/W Tile	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660498	**Analyst Observation:** Dk Brown Flooring	**Location:** Bedroom
Client No.: 06A-FC5-27	**Client Description:** Dark Brown Pergo Floor	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	95 Cellulose	5

Lab No.: 6660499	**Analyst Observation:** Dk Brown Flooring	**Location:** Bedroom
Client No.: 06A-FC5-28	**Client Description:** Dark Brown Pergo Floor	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	95 Cellulose	5

Lab No.: 6660500	**Analyst Observation:** Dk Brown Flooring	**Location:** Bedroom
Client No.: 06A-FC5-29	**Client Description:** Dark Brown Pergo Floor	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	95 Cellulose	5

Lab No.: 6660501	**Analyst Observation:** White Texture	**Location:** Upstairs Bedroom
Client No.: 07A-HP5-30	**Client Description:** Popcorn Ceiling	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

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Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660502	**Analyst Observation:** White Texture	**Location:** Upstairs Bedroom
Client No.: 07A-HP5-31	**Client Description:** Popcorn Ceiling	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660503	**Analyst Observation:** White Texture	**Location:** Upstairs Bedroom
Client No.: 07A-HP5-32	**Client Description:** Popcorn Ceiling	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660504	**Analyst Observation:** Grey Grout	**Location:** Bathroom Floor
Client No.: 08A-MA7-33	**Client Description:** Grey Ceramic Floor Tile Grout	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660505	**Analyst Observation:** Grey Grout	**Location:** Bathroom Floor
Client No.: 08A-MA7-34	**Client Description:** Grey Ceramic Floor Tile Grout	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660506	**Analyst Observation:** Grey Grout	**Location:** Bathroom Floor
Client No.: 08A-MA7-35	**Client Description:** Grey Ceramic Floor Tile Grout	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660507
Client No.: 08A-MA8-36
Percent Asbestos:
None Detected

Analyst Observation: White Mortar
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660507(L2)
Client No.: 08A-MA8-36
Percent Asbestos:
None Detected

Analyst Observation: Tan Fibrous
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660508
Client No.: 08A-MA8-37
Percent Asbestos:
None Detected

Analyst Observation: White Mortar
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660508(L2)
Client No.: 08A-MA8-37
Percent Asbestos:
None Detected

Analyst Observation: Tan Fibrous
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660509
Client No.: 08A-MA8-38
Percent Asbestos:
None Detected

Analyst Observation: White Mortar
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660509(L2)
Client No.: 08A-MA8-38
Percent Asbestos:
None Detected

Analyst Observation: Tan Fibrous
Client Description: White Thinset & Fiber Subfloor
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Bathroom Floor
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660510
Client No.: 09A-FT2-39
Percent Asbestos:
None Detected

Analyst Observation: Brown Floor Tile
Client Description: 12x12 Linoleum Floor Tile
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Hallway
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660511
Client No.: 09A-FT2-40
Percent Asbestos:
None Detected

Analyst Observation: Brown Floor Tile
Client Description: 12x12 Linoleum Floor Tile
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Hallway
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660512
Client No.: 09A-FT2-41
Percent Asbestos:
None Detected

Analyst Observation: Brown Floor Tile
Client Description: 12x12 Linoleum Floor Tile
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Hallway
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660513
Client No.: 09A-MG2-42
Percent Asbestos:
None Detected

Analyst Observation: Clear Mastic
Client Description: Tile Clear Adhesive
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Hallway
Facility:
Percent Non-Fibrous Material
100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660514	**Analyst Observation:** Clear Mastic	**Location:** Hallway
Client No.: 09A-MG2-43	**Client Description:** Tile Clear Adhesive	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660515	**Analyst Observation:** Clear Mastic	**Location:** Hallway
Client No.: 09A-MG2-44	**Client Description:** Tile Clear Adhesive	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660516	**Analyst Observation:** Black/White Pad	**Location:** Kitchen
Client No.: 10A-SL5-45	**Client Description:** Sink Liner Pad (Black/White Cloth)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660517	**Analyst Observation:** Black/White Pad	**Location:** Kitchen
Client No.: 10A-SL5-46	**Client Description:** Sink Liner Pad (Black/White Cloth)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 6660518	**Analyst Observation:** Black/White Pad	**Location:** Kitchen
Client No.: 10A-SL5-47	**Client Description:** Sink Liner Pad (Black/White Cloth)	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	None Detected	100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660519
Client No.: 11A-HP5-48
Percent Asbestos:
None Detected

Analyst Observation: White Texture
Client Description: White Textured Ceiling
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Downstairs Bedroom
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660520
Client No.: 11A-HP5-49
Percent Asbestos:
None Detected

Analyst Observation: White Texture
Client Description: White Textured Ceiling
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Downstairs Bedroom
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660521
Client No.: 11A-HP5-50
Percent Asbestos:
None Detected

Analyst Observation: White Texture
Client Description: White Textured Ceiling
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Downstairs Bedroom
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660522
Client No.: 12A-WB5-51
Percent Asbestos:
None Detected

Analyst Observation: White Non-Fibrous
Client Description: White FRP Board
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660523
Client No.: 12A-WB5-52
Percent Asbestos:
None Detected

Analyst Observation: White Non-Fibrous
Client Description: White FRP Board
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660524
Client No.: 12A-WB5-53
Percent Asbestos:
None Detected

Analyst Observation: White Non-Fibrous
Client Description: White FRP Board
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660525
Client No.: 12A-MG5-54
Percent Asbestos:
None Detected

Analyst Observation: Tan Mastic
Client Description: Mastic A/W FRP
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660526
Client No.: 12A-MG5-55
Percent Asbestos:
None Detected

Analyst Observation: Tan Mastic
Client Description: Mastic A/W FRP
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660527
Client No.: 12A-MG5-56
Percent Asbestos:
None Detected

Analyst Observation: Tan Mastic
Client Description: Mastic A/W FRP
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Shower
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660528
Client No.: 13A-CA1-57
Percent Asbestos:
None Detected

Analyst Observation: Brown Caulk
Client Description: Window Caulking
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Exterior Windows
Facility:
Percent Non-Fibrous Material
100

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660529
Client No.: 13A-CA1-58
Percent Asbestos:
None Detected

Analyst Observation: Brown Caulk
Client Description: Window Caulking
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Exterior Windows
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660530
Client No.: 13A-CA1-59
Percent Asbestos:
None Detected

Analyst Observation: White Caulk
Client Description: Window Caulking
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Basement Exterior Windows
Facility:
Percent Non-Fibrous Material
100

Lab No.: 6660531
Client No.: 14A-RF5-60
Percent Asbestos:
None Detected

Analyst Observation: Black Shingle
Client Description: Asphalt Shingle Roofing
Percent Non-Asbestos Fibrous Material:
20 Fibrous Glass

Location:
Facility:
Percent Non-Fibrous Material
80

Lab No.: 6660532
Client No.: 14A-RF5-61
Percent Asbestos:
None Detected

Analyst Observation: Black/Brown Shingle
Client Description: Asphalt Shingle Roofing
Percent Non-Asbestos Fibrous Material:
20 Fibrous Glass

Location:
Facility:
Percent Non-Fibrous Material
80

Lab No.: 6660533
Client No.: 14A-RF5-62
Percent Asbestos:
None Detected

Analyst Observation: Black/Brown Shingle
Client Description: Asphalt Shingle Roofing
Percent Non-Asbestos Fibrous Material:
20 Fibrous Glass

Location:
Facility:
Percent Non-Fibrous Material
80

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660534	**Analyst Observation:** Black Underlayment	**Location:**
Client No.: 14A-RF5-63	**Client Description:** Asphalt Shingle Paper Underlayment	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	80 Cellulose	20

Lab No.: 6660535	**Analyst Observation:** Black Underlayment	**Location:**
Client No.: 14A-RF5-64	**Client Description:** Asphalt Shingle Paper Underlayment	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	80 Cellulose	20

Lab No.: 6660536	**Analyst Observation:** Black Underlayment	**Location:**
Client No.: 14A-RF5-65	**Client Description:** Asphalt Shingle Paper Underlayment	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	80 Cellulose	20

Lab No.: 6660537	**Analyst Observation:** Black/Brown Shingle	**Location:** Garage Roof
Client No.: 1B-RF5-66	**Client Description:** Asphalt Shingle Roof	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	20 Fibrous Glass	80

Lab No.: 6660538	**Analyst Observation:** Black/Brown Shingle	**Location:** Garage Roof
Client No.: 1B-RF5-67	**Client Description:** Asphalt Shingle Roof	**Facility:**
Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material
None Detected	20 Fibrous Glass	80

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660539
Client No.: 1B-RF5-68
Percent Asbestos:
None Detected

Analyst Observation: Black/Brown Shingle
Client Description: Asphalt Shingle Roof
Percent Non-Asbestos Fibrous Material:
20 Fibrous Glass

Location: Garage Roof
Facility:
Percent Non-Fibrous Material
80

Lab No.: 6660540
Client No.: 1B-RF5-69
Percent Asbestos:
None Detected

Analyst Observation: Black Underlayment
Client Description: Paper Unerlayment
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Garage Roof
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660541
Client No.: 1B-RF5-70
Percent Asbestos:
None Detected

Analyst Observation: Black Underlayment
Client Description: Paper Unerlayment
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Garage Roof
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660542
Client No.: 1B-RF5-71
Percent Asbestos:
None Detected

Analyst Observation: Black Underlayment
Client Description: Paper Unerlayment
Percent Non-Asbestos Fibrous Material:
80 Cellulose

Location: Garage Roof
Facility:
Percent Non-Fibrous Material
20

Lab No.: 6660543
Client No.: 1C-RF5-72
Percent Asbestos:
None Detected

Analyst Observation: Black Shingle
Client Description: Asphalt Shingle
Percent Non-Asbestos Fibrous Material:
40 Cellulose

Location: Lean-To Shed
Facility:
Percent Non-Fibrous Material
60

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PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660544
Client No.: 1C-RF5-73
Percent Asbestos:
None Detected

Analyst Observation: Black/Brown Shingle
Client Description: Asphalt Shingle
Percent Non-Asbestos Fibrous Material:
40 Cellulose

Location: Lean-To Shed
Facility:
Percent Non-Fibrous Material
60

Lab No.: 6660545
Client No.: 1C-RF5-74
Percent Asbestos:
None Detected

Analyst Observation: Black/Brown Shingle
Client Description: Asphalt Shingle
Percent Non-Asbestos Fibrous Material:
40 Cellulose

Location: Lean-To Shed
Facility:
Percent Non-Fibrous Material
60

Lab No.: 6660546
Client No.: 08
Percent Asbestos:
None Detected

Analyst Observation: White Joint Compound
Client Description:
Percent Non-Asbestos Fibrous Material:
None Detected

Location: Additional Sample Received
Facility:
Percent Non-Fibrous Material
100

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Project No.: J1187144

Appendix to Analytical Report

Customer Contact: John Ellis
Method: NYSDOH - ELAP Method 198.1

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

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Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM), or NYSDOH ELAP Method 198.1, Polarized Light Microscope for Identifying and Quantitating Asbestos in Bulk Samples

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578252 - PLM
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

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CERTIFICATE OF ANALYSIS

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Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM
Project: Florida, NY
Project No.: J1187144

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - TEM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660472
Client No.: 01A-MG7-01
Description: Yellow Mastic
% Asbestos Detected:
None Detected

Client Description: Yellow Carpet Adhesive
Facility:
Location: Sun Room/Porch
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 65.8 %
Gravimetrically Reduced Subsample: 34.2%
% Non-Fibrous Material:
34.2 Other

Insufficient sample provided to verify results <100mg.

Lab No.: 6660473
Client No.: 01A-MG7-02
Description: Yellow Mastic
% Asbestos Detected:
None Detected

Client Description: Yellow Carpet Adhesive
Facility:
Location: Sun Room/Porch
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 61.1 %
Gravimetrically Reduced Subsample: 38.9%
% Non-Fibrous Material:
38.9 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - TEM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660483
Client No.: 03A-FC5-12
Description: Tan Flooring
% Asbestos Detected:
None Detected

Client Description: Light Tan Pergo Floor
Facility:
Location: Hall Closet
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 99.5 %
Gravimetrically Reduced Subsample: 0.5%
% Non-Fibrous Material:
0.5 Other

Lab No.: 6660484
Client No.: 03A-FC5-13
Description: Tan Flooring
% Asbestos Detected:
None Detected

Client Description: Light Tan Pergo Floor
Facility:
Location: Hall Closet
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 99.1 %
Gravimetrically Reduced Subsample: 0.9%
% Non-Fibrous Material:
0.9 Other

Lab No.: 6660485
Client No.: 03A-FC5-14
Description: Tan Flooring
% Asbestos Detected:
None Detected

Client Description: Light Tan Pergo Floor
Facility:
Location: Hall Closet
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 98.9 %
Gravimetrically Reduced Subsample: 1.1%
% Non-Fibrous Material:
1.1 Other

Lab No.: 6660486
Client No.: 03A-FC5-15
Description: Grey Floor Material
% Asbestos Detected:
None Detected

Client Description: Grey Sub-Paper Assoc. W/Pergo
Facility:
Location: Hall Closet
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 95.6 %
Gravimetrically Reduced Subsample: 4.4%
% Non-Fibrous Material:
4.4 Other

Insufficient sample provided to verify results <100mg.

Lab No.: 6660487
Client No.: 03A-FC5-16
Description: Grey Floor Material
% Asbestos Detected:
None Detected

Client Description: Grey Sub-Paper Assoc. W/Pergo
Facility:
Location: Hall Closet
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 99.6 %
Gravimetrically Reduced Subsample: 0.4%
% Non-Fibrous Material:
0.4 Other

Insufficient sample provided to verify results <100mg.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660488
Client No.: 03A-FC5-17
Description: Grey Floor Material
Client Description: Grey Sub-Paper Assoc. W/Pergo
Facility:
Location: Hall Closet
Organic Fraction: 99.5 %
Gravimetrically Reduced Subsample: 0.5%

% Asbestos Detected:
Trace *Chrysotile, Detected at <0.25%*

% Non-Asbestos Fibrous Material:
None Detected

% Non-Fibrous Material:
0.5 Other

Insufficient sample provided to verify results <100mg.

Lab No.: 6660489
Client No.: 04A-SG5-18
Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive
Facility:
Location: Kitchen
Organic Fraction: 97.4 %
Gravimetrically Reduced Subsample: 2.6%

% Asbestos Detected:
None Detected

% Non-Asbestos Fibrous Material:
None Detected

% Non-Fibrous Material:
2.6 Other

Lab No.: 6660490
Client No.: 04A-SG5-19
Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive
Facility:
Location: Kitchen
Organic Fraction: 96.9 %
Gravimetrically Reduced Subsample: 3.1%

% Asbestos Detected:
None Detected

% Non-Asbestos Fibrous Material:
None Detected

% Non-Fibrous Material:
3.1 Other

Lab No.: 6660491
Client No.: 04A-SG5-20
Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive
Facility:
Location: Kitchen
Organic Fraction: 96.6 %
Gravimetrically Reduced Subsample: 3.4%

% Asbestos Detected:
None Detected

% Non-Asbestos Fibrous Material:
None Detected

% Non-Fibrous Material:
3.4 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
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CERTIFICATE OF ANALYSIS

Client: Terracon
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Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660492
Client No.: 05A-FT2-21
Description: White Floor Tile

Client Description: White 12x12 Vinyl Floor Tile (Bottom Layer)
Facility:
Location: Kitchen

Organic Fraction: 85.2 %
Gravimetrically Reduced Subsample: 14.8%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	14.8 Other

Lab No.: 6660493
Client No.: 05A-FT2-22
Description: White Floor Tile

Client Description: White 12x12 Vinyl Floor Tile (Bottom Layer)
Facility:
Location: Kitchen

Organic Fraction: 82.6 %
Gravimetrically Reduced Subsample: 17.4%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	17.4 Other

Lab No.: 6660494
Client No.: 05A-FT2-23
Description: White Floor Tile

Client Description: White 12x12 Vinyl Floor Tile (Bottom Layer)
Facility:
Location: Kitchen

Organic Fraction: 81.5 %
Gravimetrically Reduced Subsample: 18.5%

% Asbestos Detected:	% Non-Asbestos Fibrous Material:	% Non-Fibrous Material:
None Detected	None Detected	18.5 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
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Client: Terracon
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Client: TER272

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Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660498
Client No.: 06A-FC5-27
Description: Dk Brown Flooring
% Asbestos Detected:
None Detected

Client Description: Dark Brown Pergo Floor
Facility:
Location: Bedroom
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 94.8 %
Gravimetrically Reduced Subsample: 5.2%
% Non-Fibrous Material:
5.2 Other

Lab No.: 6660499
Client No.: 06A-FC5-28
Description: Dk Brown Flooring
% Asbestos Detected:
None Detected

Client Description: Dark Brown Pergo Floor
Facility:
Location: Bedroom
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 96.9 %
Gravimetrically Reduced Subsample: 3.1%
% Non-Fibrous Material:
3.1 Other

Lab No.: 6660500
Client No.: 06A-FC5-29
Description: Dk Brown Flooring
% Asbestos Detected:
None Detected

Client Description: Dark Brown Pergo Floor
Facility:
Location: Bedroom
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 99.8 %
Gravimetrically Reduced Subsample: 0.2%
% Non-Fibrous Material:
0.2 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Client: TER272

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Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660510
Client No.: 09A-FT2-39
Description: Brown Floor Tile
% Asbestos Detected:
None Detected

Client Description: 12x12 Linoleum Floor Tile
Facility:
Location: Hallway
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 75.8 %
Gravimetrically Reduced Subsample: 24.2%
% Non-Fibrous Material:
24.2 Other

Lab No.: 6660511
Client No.: 09A-FT2-40
Description: Brown Floor Tile
% Asbestos Detected:
None Detected

Client Description: 12x12 Linoleum Floor Tile
Facility:
Location: Hallway
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 74.6 %
Gravimetrically Reduced Subsample: 25.4%
% Non-Fibrous Material:
25.4 Other

Lab No.: 6660512
Client No.: 09A-FT2-41
Description: Brown Floor Tile
% Asbestos Detected:
None Detected

Client Description: 12x12 Linoleum Floor Tile
Facility:
Location: Hallway
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 68.8 %
Gravimetrically Reduced Subsample: 31.2%
% Non-Fibrous Material:
31.2 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660526
Client No.: 12A-MG5-55
Description: Tan Mastic
% Asbestos Detected:
None Detected

Client Description: Mastic A/W FRP
Facility:
Location: Basement Shower
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 87.3 %
Gravimetrically Reduced Subsample: 12.7%

% Non-Fibrous Material:
12.7 Other

Insufficient sample provided to verify results <100mg.

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - TEM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660528
Client No.: 13A-CA1-57
Description: Brown Caulk
% Asbestos Detected:
None Detected

Client Description: Window Caulking
Facility:
Location: Basement Exterior Windows
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 98.0 %
Gravimetrically Reduced Subsample: 2.0%
% Non-Fibrous Material:
2.0 Other

Lab No.: 6660529
Client No.: 13A-CA1-58
Description: Brown Caulk
% Asbestos Detected:
None Detected

Client Description: Window Caulking
Facility:
Location: Basement Exterior Windows
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 98.6 %
Gravimetrically Reduced Subsample: 1.4%
% Non-Fibrous Material:
1.4 Other

Lab No.: 6660530
Client No.: 13A-CA1-59
Description: White Caulk
% Asbestos Detected:
None Detected

Client Description: Window Caulking
Facility:
Location: Basement Exterior Windows
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 98.0 %
Gravimetrically Reduced Subsample: 2.0%
% Non-Fibrous Material:
2 Other

Lab No.: 6660531
Client No.: 14A-RF5-60
Description: Black Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roofing
Facility:
Location:
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 73.1 %
Gravimetrically Reduced Subsample: 26.9%
% Non-Fibrous Material:
26.9 Other

Lab No.: 6660532
Client No.: 14A-RF5-61
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roofing
Facility:
Location:
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 79.0 %
Gravimetrically Reduced Subsample: 21.0%
% Non-Fibrous Material:
21 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Client: TER272

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Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660533
Client No.: 14A-RF5-62
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roofing
Facility:
Location:
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 59.9 %
Gravimetrically Reduced Subsample: 40.1%
% Non-Fibrous Material:
40.1 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660537
Client No.: 1B-RF5-66
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roof
Facility:
Location: Garage Roof
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 80.3 %
Gravimetrically Reduced Subsample: 19.7%
% Non-Fibrous Material:
19.7 Other

Lab No.: 6660538
Client No.: 1B-RF5-67
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roof
Facility:
Location: Garage Roof
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 68.6 %
Gravimetrically Reduced Subsample: 31.4%
% Non-Fibrous Material:
31.4 Other

Lab No.: 6660539
Client No.: 1B-RF5-68
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle Roof
Facility:
Location: Garage Roof
% Non-Asbestos Fibrous Material:
Trace SiAl, Other Fiber

Organic Fraction: 74.6 %
Gravimetrically Reduced Subsample: 25.4%
% Non-Fibrous Material:
25.4 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Project No.: J1187144

TEM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6660543
Client No.: 1C-RF5-72
Description: Black Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle
Facility:
Location: Lean-To Shed
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 98.9 %
Gravimetrically Reduced Subsample: 1.1%
% Non-Fibrous Material:
1.1 Other

Lab No.: 6660544
Client No.: 1C-RF5-73
Description: Black/Brown Shingle
% Asbestos Detected:
Trace *Chrysotile, Detected at <0.25%*

Client Description: Asphalt Shingle
Facility:
Location: Lean-To Shed
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 89.3 %
Gravimetrically Reduced Subsample: 10.7%
% Non-Fibrous Material:
10.7 Other

Lab No.: 6660545
Client No.: 1C-RF5-74
Description: Black/Brown Shingle
% Asbestos Detected:
None Detected

Client Description: Asphalt Shingle
Facility:
Location: Lean-To Shed
% Non-Asbestos Fibrous Material:
None Detected

Organic Fraction: 90.9 %
Gravimetrically Reduced Subsample: 9.1%
% Non-Fibrous Material:
9.1 Other

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Jhoon Jeon

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578252 - TEM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Appendix to Analytical Report:

Customer Contact: John Ellis
Analysis: NYSDOH ELAP Section 198.4
This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.
iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Project Summary:
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk material, Non-Friable Organically Bound material such as VSF, FT, M, RM, Tar, CB, Shingle, Tar Paper, Caulk, Glazing

Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:
Analysis by: NYSDOH ELAP Section 198.4

Certification: NIST-NVLAP No. 101165-0
NYSDOH-ELAP No. 11021
AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

The "Gravimetrically Reduced Subsample" is the portion of the submitted sample remaining following the ashing and acid treatment processes. TEM analysis occurs on this portion of the sample.

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	201 Hammer Mill Rd	Report No.:	578252 - TEM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Final results are calculated to represent the sample as submitted. Results are verifiable for only those operations and analyses performed in the laboratory.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

(1)Note: Sample not analyzed.
(2)Note: Sample not analyzed at request of client.
(3)Note: Sample analysis terminated. Clearance criteria exceeded (average >70.0 s/mm²). Set fails by AHERA 40 CFR 763.
(4)Note: Heavy loading (>0.1 s/cc) of non-asbestos particulate that might prohibit the required morphological, diffraction and elemental identification of asbestos. The absence of asbestos on the sample can not be concluded. Analysis for informational purposes only.
(5)Note: Heavy loading (>10% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>10%). Sample voided by AHERA 40 CFR 763.
(5A)Note: Heavy loading (>25% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>25%). Sample voided by NIOSH 7402.
(6)Note: Sample turbidity >1.0 NTU. Therefore MDL >> 0.1 MFL. Does not meet National Primary Drinking Water Standards.
(7)Note: Sample integrity compromised. Received sample cassette with top open (40 CFR 763 c-e).
(8)Note: Received sample cassettes with portion of filter missing. "PCM re-prep"
(9)Note: Void - overloaded, unable to prep.
(10)Note: Void - filter damaged.
(11)Note: No volume supplied.
(12)Note: Heavy loading (>0.1 s/cc) of non-asbestos / non-fibrous particulate.
(13)Note: Method analytical sensitivity of <0.003 s/cc not attained due to volume of air sampled. NIOSH requires a minimum of 400L.
(13A)Note: Volume does not meet AHERA requirements.(<1188 L)
(14)Note: Geometric Mean = 0.xxxx Structures/cc
(15)Note: Samples received on 0.8 micron PCM filters. Samples must be submitted on 0.45 micron filter cassettes per AHERA guidelines
(18)Note: *Results are for informational purposes only. Samples received on 0.8um PCM cassettes. Per AHERA 40 CFR 763 guidelines samples must be obtained on a 0.45um cassette.
(TEM NOB 1) Note: The above result represents only the analysis of NOB-residue submitted from the client.
(TEM NOB 2) Note: Insufficient material (<100mg) to verify results.

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660472
Client No.: 01A-MG7-01
Description: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Location: Sun Room/Porch
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
34

Lab No.: 6660473
Client No.: 01A-MG7-02
Description: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Location: Sun Room/Porch
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
39

Lab No.: 6660474
Client No.: 01A-MG7-03
Description: Yellow Mastic
Client Description: Yellow Carpet Adhesive
Location: Sun Room/Porch
Facility:

Percent Asbestos:
Sample Not Analyzed

Percent Non-Asbestos Fibrous Material:
Sample Not Analyzed

Percent Non-Fibrous Material:

Not Analyzed, Insufficient Sample

Please refer to the Appendix of this report for further information regarding your analysis, test method, and accreditation.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660483
Client No.: 03A-FC5-12
Description: Tan Flooring
Client Description: Light Tan Pergo Floor
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 0.51

Lab No.: 6660484
Client No.: 03A-FC5-13
Description: Tan Flooring
Client Description: Light Tan Pergo Floor
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 0.9

Lab No.: 6660485
Client No.: 03A-FC5-14
Description: Tan Flooring
Client Description: Light Tan Pergo Floor
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 1.1

Lab No.: 6660486
Client No.: 03A-FC5-15
Description: Grey Floor Material
Client Description: Grey Sub-Paper Assoc. W/Pergo
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 4.4

Lab No.: 6660487
Client No.: 03A-FC5-16
Description: Grey Floor Material
Client Description: Grey Sub-Paper Assoc. W/Pergo
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 0.44

Lab No.: 6660488
Client No.: 03A-FC5-17
Description: Grey Floor Material
Client Description: Grey Sub-Paper Assoc. W/Pergo
Location: Hall Closet
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 0.5

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Signature: Tiffany Lowe
Analyst: Tiffany Lowe

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CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
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Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660489
Client No.: 04A-SG5-18

Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1.3 Fibrous Glass

Percent Non-Fibrous Material:
1.3

Lab No.: 6660490
Client No.: 04A-SG5-19

Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1.6 Fibrous Glass

Percent Non-Fibrous Material:
1.6

Lab No.: 6660491
Client No.: 04A-SG5-20

Description: Brown Vinyl Sheet Flooring
Client Description: Brown Linoleum Flooring (Top Layer) No Adhesive

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
1.7 Fibrous Glass

Percent Non-Fibrous Material:
1.7

Lab No.: 6660492
Client No.: 05A-FT2-21

Description: White Floor Tile
Client Description: White 12x12 Vinyl Floor Tile (Bottom Layer)

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
15

Lab No.: 6660493
Client No.: 05A-FT2-22

Description: White Floor Tile
Client Description: White 12x12 Vinyl Floor Tile (Bottom Layer)

Location: Kitchen
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
17

Please refer to the Appendix of this report for further information regarding your analysis, test method, and accreditation.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660494 **Client No.:** 05A-FT2-23	**Description:** White Floor Tile **Client Description:** White 12x12 Vinyl Floor Tile (Bottom Layer)	**Location:** Kitchen **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 19
Lab No.: 6660495 **Client No.:** 05A-MG2-24	**Description:** Clear Mastic **Client Description:** Clear Adhesive A/W Tile	**Location:** Kitchen **Facility:**
Percent Asbestos: *Sample Not Analyzed* Not Analyzed, Insufficient Sample	Percent Non-Asbestos Fibrous Material: Sample Not Analyzed	Percent Non-Fibrous Material:
Lab No.: 6660496 **Client No.:** 05A-MG2-25	**Description:** Clear Mastic **Client Description:** Clear Adhesive A/W Tile	**Location:** Kitchen **Facility:**
Percent Asbestos: *Sample Not Analyzed* Not Analyzed, Insufficient Sample	Percent Non-Asbestos Fibrous Material: Sample Not Analyzed	Percent Non-Fibrous Material:
Lab No.: 6660497 **Client No.:** 05A-MG2-26	**Description:** Clear Mastic **Client Description:** Clear Adhesive A/W Tile	**Location:** Kitchen **Facility:**
Percent Asbestos: *Sample Not Analyzed* Not Analyzed, Insufficient Sample	Percent Non-Asbestos Fibrous Material: Sample Not Analyzed	Percent Non-Fibrous Material:
Lab No.: 6660498 **Client No.:** 06A-FC5-27	**Description:** Dk Brown Flooring **Client Description:** Dark Brown Pergo Floor	**Location:** Bedroom **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 5.2
Lab No.: 6660499 **Client No.:** 06A-FC5-28	**Description:** Dk Brown Flooring **Client Description:** Dark Brown Pergo Floor	**Location:** Bedroom **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 3.1

Please refer to the Appendix of this report for further information regarding your analysis, test method, and accreditation.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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CERTIFICATE OF ANALYSIS

Client: Terracon
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Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660500
Client No.: 06A-FC5-29

Description: Dk Brown Flooring
Client Description: Dark Brown Pergo Floor

Location: Bedroom
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
0.19

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Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
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Client: Terracon
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Client: TER272

Report Date: 12/4/2018
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Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660510 **Description:** Brown Floor Tile **Location:** Hallway
Client No.: 09A-FT2-39 **Client Description:** 12x12 Linoleum Floor Tile **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	24

Lab No.: 6660511 **Description:** Brown Floor Tile **Location:** Hallway
Client No.: 09A-FT2-40 **Client Description:** 12x12 Linoleum Floor Tile **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	25

Lab No.: 6660512 **Description:** Brown Floor Tile **Location:** Hallway
Client No.: 09A-FT2-41 **Client Description:** 12x12 Linoleum Floor Tile **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	31

Lab No.: 6660513 **Description:** Clear Mastic **Location:** Hallway
Client No.: 09A-MG2-42 **Client Description:** Tile Clear Adhesive **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
Sample Not Analyzed	Sample Not Analyzed	

Not Analyzed, Insufficient Sample

Lab No.: 6660514 **Description:** Clear Mastic **Location:** Hallway
Client No.: 09A-MG2-43 **Client Description:** Tile Clear Adhesive **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
Sample Not Analyzed	Sample Not Analyzed	

Not Analyzed, Insufficient Sample

Lab No.: 6660515 **Description:** Clear Mastic **Location:** Hallway
Client No.: 09A-MG2-44 **Client Description:** Tile Clear Adhesive **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
Sample Not Analyzed	Sample Not Analyzed	

Not Analyzed, Insufficient Sample

Please refer to the Appendix of this report for further information regarding your analysis, test method, and accreditation.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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Client: Terracon
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Client: TER272

Report Date: 12/4/2018
Report No.: 578252 - PLM NOB Rev #3, 12/28/2018
Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660525 **Description:** Tan Mastic **Location:** Basement Shower
Client No.: 12A-MG5-54 **Client Description:** Mastic A/W FRP **Facility:**

Percent Asbestos: *Sample Not Analyzed*
Not Analyzed, Insufficient Sample

Percent Non-Asbestos Fibrous Material: Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 6660526 **Description:** Tan Mastic **Location:** Basement Shower
Client No.: 12A-MG5-55 **Client Description:** Mastic A/W FRP **Facility:**

Percent Asbestos: *None Detected*

Percent Non-Asbestos Fibrous Material: None Detected

Percent Non-Fibrous Material: 13

Lab No.: 6660527 **Description:** Tan Mastic **Location:** Basement Shower
Client No.: 12A-MG5-56 **Client Description:** Mastic A/W FRP **Facility:**

Percent Asbestos: *Sample Not Analyzed*
Not Analyzed, Insufficient Sample

Percent Non-Asbestos Fibrous Material: Sample Not Analyzed

Percent Non-Fibrous Material:

Lab No.: 6660528 **Description:** Brown Caulk **Location:** Basement Exterior Windows
Client No.: 13A-CA1-57 **Client Description:** Window Caulking **Facility:**

Percent Asbestos: *None Detected*

Percent Non-Asbestos Fibrous Material: None Detected

Percent Non-Fibrous Material: 2

Lab No.: 6660529 **Description:** Brown Caulk **Location:** Basement Exterior Windows
Client No.: 13A-CA1-58 **Client Description:** Window Caulking **Facility:**

Percent Asbestos: *None Detected*

Percent Non-Asbestos Fibrous Material: None Detected

Percent Non-Fibrous Material: 1.4

Lab No.: 6660530 **Description:** White Caulk **Location:** Basement Exterior Windows
Client No.: 13A-CA1-59 **Client Description:** Window Caulking **Facility:**

Percent Asbestos: *None Detected*

Percent Non-Asbestos Fibrous Material: None Detected

Percent Non-Fibrous Material: 2

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Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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Project: Florida, NY
Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660531 **Client No.:** 14A-RF5-60	**Description:** Black Shingle **Client Description:** Asphalt Shingle Roofing	**Location:** **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 11 Fibrous Glass	Percent Non-Fibrous Material: 16
Lab No.: 6660532 **Client No.:** 14A-RF5-61	**Description:** Black/Brown Shingle **Client Description:** Asphalt Shingle Roofing	**Location:** **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 8.4 Fibrous Glass	Percent Non-Fibrous Material: 13
Lab No.: 6660533 **Client No.:** 14A-RF5-62	**Description:** Black/Brown Shingle **Client Description:** Asphalt Shingle Roofing	**Location:** **Facility:**
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 16 Fibrous Glass	Percent Non-Fibrous Material: 24

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Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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Client: TER272

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Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660537
Client No.: 1B-RF5-66
Description: Black/Brown Shingle
Client Description: Asphalt Shingle Roof
Location: Garage Roof
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
9.9 Fibrous Glass

Percent Non-Fibrous Material:
9.9

Lab No.: 6660538
Client No.: 1B-RF5-67
Description: Black/Brown Shingle
Client Description: Asphalt Shingle Roof
Location: Garage Roof
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
13 Fibrous Glass

Percent Non-Fibrous Material:
19

Lab No.: 6660539
Client No.: 1B-RF5-68
Description: Black/Brown Shingle
Client Description: Asphalt Shingle Roof
Location: Garage Roof
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Fibrous Glass

Percent Non-Fibrous Material:
15

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Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By: Frank E. Ehrenfeld, III
Laboratory Director

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Project No.: J1187144

PLM NOB SAMPLE ANALYSIS SUMMARY

Lab No.: 6660543 **Description:** Black Shingle **Location:** Lean-To Shed
Client No.: 1C-RF5-72 **Client Description:** Asphalt Shingle **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	1.1

Lab No.: 6660544 **Description:** Black/Brown Shingle **Location:** Lean-To Shed
Client No.: 1C-RF5-73 **Client Description:** Asphalt Shingle **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	11

Lab No.: 6660545 **Description:** Black/Brown Shingle **Location:** Lean-To Shed
Client No.: 1C-RF5-74 **Client Description:** Asphalt Shingle **Facility:**

Percent Asbestos:	Percent Non-Asbestos Fibrous Material:	Percent Non-Fibrous Material:
None Detected	None Detected	9.1

Please refer to the Appendix of this report for further information regarding your analysis, test method, and accreditation.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature: Tiffany Lowe
Analyst: Tiffany Lowe

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578252 - PLM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Appendix to Analytical Report:

Customer Contact: John Ellis
Method:NYSDOH ELAP Section 198.6
This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.
iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Project Summary:
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk materials described as Non Fibrous Organically Bound such as FT, SVF, M, RM, Tar, Tar Paper, Shingle, CB etc.
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:
Analysis by NYSDOH ELAP Section 198.6

Certification: NIST-NVLAP No. 101165-0
NYSDOH-ELAP No. 11021
AIHA-LAP, LLC No. 100188
All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Quantification at <0.25% by volume is possible with this method.

(PC) Indicates Stratified Point Count Method performed.

(PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen.

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Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Terracon	Report Date:	12/4/2018
	201 Hammer Mill Rd	Report No.:	578252 - PLM NOB
	Rocky Hill CT 06067	Project:	Florida, NY
		Project No.:	J1187144
Client:	TER272		

Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions).

Disclaimer from Item 198.6,Sec. 6.3.2.2. "Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing."

Disclaimers / Qualifiers:

There may be some samples in this project that have a “NOTE:” associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

–Bulk Asbestos –

Contact Information

Client Company:	Terracon	**Project Number:**	J1187144
Office Address:	201 Hammer Mill Rd	**Project Name:**	Florida, NY
City, State, Zip:	Rocky Hill, CT 06067	**Primary Contact:**	John Ellis
Fax Number:		**Office Phone:**	860.929.7862
Email Address:	john.ellis@terracon.com	**Cell Phone:**	

PLM Instructions:

- ☐ PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- ☐ PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- ☐ PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- ☒ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- ☒ PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- ☒ TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009

- ☐ PLM: Point Counting
  - ☐ PC: via ELAP I98.1
  - ☐ PC: 400 Points
  - ☐ PC: 800 Points *
  - ☐ PC: 1600 Points *
- ☐ PLM: Instructions for Multi-Layered Samples
  - ☐ Analyze and Report All Separable Layers per EPA 600
  - ☐ Report Composite for Drywall Systems per NESHAP
  - ☐ Report All Layers and Composite Where Applicable
  - ☐ Only Analyze and Report Specifically Noted Layer
- ☐ PLM: Analyze Until Positive (Positive Stop)
  - ☐ AUP: by Homogenous Area as Noted
  - ☐ AUP: by Material Type as Noted
- ☐ PLM: NOB via 198.6
  - ☐ PLM: Friable via EPA 600 2.3
  - ☐ If <1% by PLM, to TEM via 198.4 *
  - ☐ If <1% by PLM, Hold for Instructions
- ☐ PLM: Non-Building Material*,** (Dust, Wipe, Tape)
  - ☐ Soil or Vermiculite Analysis*
  - ☐ CARB 435

Special Instructions: _____

** Additional charge and turnaround may be required* *** Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory*

Turnaround Time

Preliminary Results Requested Date: _____ (Specific date / time) ☐ Verbal ☐ Email ☐ Fax

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization):	Jen: Terracon	Date:	11/21/13	Time:	16:30
Received (Name / iATL):		Date:		Time:	
Sample Login (Name / iATL):		Date:		Time:	
Analysis(Name(s) / iATL):		Date:	11-30-13	Time:	
QA/QC Review (Name / iATL):		Date:	12/3/13	Time:	
Archived / Released: _____	QA/QC InterLAB Use:	Date:		Time:	

NOV 27

Asbestos Sample Location Log

Project #: J1187144
Store #: 1733 State Highway 55 - Florida
Inspector: J Ellis #12-10380

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
01A - MG7 - 01	Yellow carpet adhesive Sunroom / porch 6660472 88 SF	11-20-18
↓ - ↓ - 02		6660473
↓ - ↓ - 03		6660474
02A - WB2 - 04	Gypsum wallboard Sun room / porch	6660475
↓ - ↓ - 05	Hall Closet	6660476
↓ - ↓ - 06	Upstairs closet	6660477
↓ - WB3 - 07	Joint Compound & Tape Sunroom / porch	6660478
* ↓ - ↓ - 08	Laundry room	6660479
↓ - ↓ - 09	Bedroom closet	6660480
↓ - ↓ - 10	upstairs hall	6660481
↓ - ↓ - 11	Kitchen	6660482
03A - FC5 - 12	Light tan Pergo floor Hall Closet (575 SF Liv. rm + hall)	6660483
↓ - ↓ - 13		6660484
↓ - ↓ - 14		6660485
↓ - ↓ - 15	GRAY sub-paper assoc. w/ Pergo Hall closet	6660486
↓ - ↓ - 16		6660487
↓ - ↓ - 17		6660488
04A - SG5 - 18	Brown linoleum Flooring (top layer) Kitchen (no adhesive)	6660489
↓ - ↓ - 19	(200 SF Laundry rm + Kitchen)	6660490
↓ - ↓ - 20		6660491
- -		

* see last pg

Asbestos Sample Location Log

Project #: J1187144
Store #: 1733 State Hwy 55 – Florida
Inspector: J. Ellis # 12-10380

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
05A - FT2 - 21	white 12x12 vinyl floor tile (bottom layer) kitchen	11-20-18 6660492
- - 22		6660493
- - 23		6660494
- MG2 - 24	Clear adhesive assoc. w/ tile kitchen	6660495
- - 25		6660496
- - 26		6660497
06A - FC5 - 27	Dark brown Pergo floor (Bedroom + Living rm 2) Bedroom 300 SF	6660498
- - 28		
- - 29		6660499 6660500
07A - HP5 - 30	Popcorn ceiling upstairs bedroom 420 SF	6660501
- - 31		6660502
- - 32		6660503
08A - MA7 - 33		6660504
- - 34	Gray ceramic floor tile grout bathroom floor 60 SF	6660505
- - 35		6660506
- MA8 - 36		6660507
- - 37	white thinset + fiber subfloor bathroom floor	6660508
- - 38		6660509
09A - FT2 - 39	12x12" Linoleum floor tile Hallway 100 SF	6660510
- - 40		6660511
- - 41		6660512

Asbestos Sample Location Log

Project #: J1187144
Store #: 1733 State Hwy 55 - Florida NC
Inspector: J. Ellis #JI2-10580

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
09A - MG2 - 42	Tile clear adhesive Hallway	11-20-18 S660513
" - " - 43	"	S660514
" - " - 44	"	S660515
10A - SLS - 45	Sink liner pad (black/white coat) Kitchen 1st	S660516
" - " - 46	"	S660517
" - " - 47	"	S660518
11A - HPS - 48	White textural ceiling Downstairs bedroom 150 sf	S660519
" - " - 49	"	S660520
" - " - 50	"	S660521
12A - WBS - 51	White FRP board Basement Shower	S660522
" - " - 52	"	S660523
" - " - 53	"	S660524
" - MG5 - 54	Mastic assoc. w/ FRP Basement Shower	S660525
" - " - 55	"	S660526
" - " - 56	"	S660527
13A - CA1 - 57	Window caulking Basement exterior windows	S660528
" - " - 58	"	S660529
" - " - 59	"	S660530
14A - RFS - 60	Asphalt shingle roofing	S660534
" - " - 61	"	S660532
" - " - 62	"	S660533

Asbestos Sample Location Log

Project #: J1187144
Store #: 1733 State Hwy 55 - Florida, NC
Inspector: J. Ellis 12-10380

Sample No: (HA, BS Code, Sample No.)	Written location where bulk sample is collected.	Collection Date
14A - RF5 - 63	Asphalt shingle paper underlayment 6660534	11-20-18
↓ - ↓ - 64	↓	6660535
↓ - ↓ - 65	↓	6660536
1B - RF5 - 66	Asphalt shingle roof Garage roof	6660537
↓ - ↓ - 67	↓	6660538
↓ - ↓ - 68	↓	6660539
↓ - ↓ - 69	Paper underlayment Garage roof	6660540
↓ - ↓ - 70	↓	6660541
↓ - ↓ - 71	↓	6660542
1C - RF5 - 72	Asphalt shingle Lean-to shed	6660543
↓ - ↓ - 73	↓	6660544
↓ - ↓ - 74	↓	6660545
- -		
Add. Sample rec'd		
08 - 6660546	*Could not differentiate from 1st #8	
- -		
- -		
- -		
- -		
- -		
- -		

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com cinnasblab@EMSL.com

EMSL Order:	041901321
CustomerID:	JAWO78
CustomerPO:	J1187144
ProjectID:	

Attn: **Jim Lovell**
Terracon Consultants, Inc.
201 Hammer Mill Road
Rocky Hill, CT 06067

Phone:	(860) 721-1900
Fax:	(860) 721-1939
Received:	01/17/19 9:30 AM
Analysis Date:	1/21/2019
Collected:	1/14/2019

Project: **Florida / J1187144**

Test Report:Asbestos Analysis of Bulk Material

Test	Analyzed Date	Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID 01-RF3-01 *041901321-0001*		**Description** Fruit Stand - Asphalt Shingle **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Red/Black	5.1% Glass		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Red/Black			**None Detected**
Sample ID 01-RF3-02 *041901321-0002*		**Description** Fruit Stand - Asphalt Shingle **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Red/Black	4.9% Glass		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Red/Black			**None Detected**
Sample ID 01-RF3-03 *041901321-0003*		**Description** Fruit Stand - Asphalt Shingle **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Red/Black	6.0% Glass		**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Red/Black			**None Detected**
Sample ID 02-RF2-04 *041901321-0004*		**Description** Fruit Stand - Roofing Paper **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Black			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Black			**None Detected**
Sample ID 02-RF2-05 *041901321-0005*		**Description** Fruit Stand - Roofing Paper **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Black			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Black			**None Detected**

Initial Report From 01/21/2019 22:13:41

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com cinnasblab@EMSL.com

EMSL Order:	041901321
CustomerID:	JAWO78
CustomerPO:	J1187144
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non-Fibrous	Asbestos
Sample ID 02-RF2-06 *041901321-0006*		**Description** Fruit Stand - Roofing Paper **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Black			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Black			**None Detected**
Sample ID 03-FC3-07 *041901321-0007*		**Description** Fruit Stand - Gray 4" Cove Base **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Gray			**None Detected**
Sample ID 03-FC3-08 *041901321-0008*		**Description** Fruit Stand - Gray 4" Cove Base **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Gray			**None Detected**
Sample ID 03-FC3-09 *041901321-0009*		**Description** Fruit Stand - Gray 4" Cove Base **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Gray			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Gray			**None Detected**
Sample ID 03-MG3-10 *041901321-0010*		**Description** Fruit Stand - Yellow Adhesive **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Yellow			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Yellow			**None Detected**
Sample ID 03-MG3-11 *041901321-0011*		**Description** Fruit Stand - Yellow Adhesive **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Yellow			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Yellow			**None Detected**

Initial Report From 01/21/2019 22:13:41

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com cinnasblab@EMSL.com

EMSL Order:	041901321
CustomerID:	JAWO78
CustomerPO:	J1187144
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non-Fibrous	Asbestos
Sample ID 03-MG3-12 *041901321-0012*		**Description** Fruit Stand - Yellow Adhesive **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/21/2019	Yellow			**Inconclusive: None Detected**
TEM NYS 198.4 NOB	1/21/2019	Yellow			**None Detected**
Sample ID 04-WB2-13 *041901321-0013*		**Description** - Gypsum Wallboard **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/21/2019	Gray	10.00% Cellulose 5.00% Glass	85.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 04-WB2-14 *041901321-0014*		**Description** - Gypsum Wallboard **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/21/2019	Gray	10.00% Cellulose 5.00% Glass	85.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 04-WB2-15 *041901321-0015*		**Description** - Gypsum Wallboard **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/21/2019	Gray	15.00% Cellulose 5.00% Glass	80.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 04-WB3-16 *041901321-0016*		**Description** - Joint Compound Skim Coat **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/21/2019	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**
Sample ID 04-WB3-17 *041901321-0017*		**Description** - Joint Compound Skim Coat **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/21/2019	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Initial Report From 01/21/2019 22:13:41

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200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com cinnasblab@EMSL.com

EMSL Order:	041901321
CustomerID:	JAWO78
CustomerPO:	J1187144
ProjectID:	

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non-Fibrous	Asbestos
Sample ID	04-WB3-18 *041901321-0018*	**Description** **Homogeneity**	- Joint Compound Skim Coat Homogeneous		
PLM NYS 198.1 Friable	1/21/2019	White		100.00% Non-fibrous (other)	**None Detected**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB					**Not Analyzed**
TEM NYS 198.4 NOB					**Not Analyzed**

Analyst(s)
Ebony Miller
Edward Zambrano
Matthew Hermann

Benjamin Ellis, Laboratory Manager
or other approved signatory

NOB = Non Friable Organically Bound N/A = Not Applicable VCM = Vermiculite Containing Material

-In New York State, TEM is currently the only method that can be used to determine if NOB materials can be considered or treated as non-asbestos containing.
All samples examined for the presence of vermiculite when analyzed via NYS 198.1.
-NYS Guidelines for Vermiculite containing samples are available at http://www.wadsworth.org/labcert/elapcert/forms/VermiculiteInterimGuidance_Rev070913.pdf
EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples were received in good condition unless otherwise noted.
This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. This report may contain data that is not covered by the NVLAP accreditation.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NYS ELAP 10872, PA ID# 68-00367

Initial Report From 01/21/2019 22:13:41

OrderID: 041901321

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 041901321

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
29 NORTH PLAINS HWY UNIT #4
WALLINGFORD, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5878

RECEIVED EMSL PENNSAUKEN, NJ 2019 JAN 17 AM 9:51

Company Name: Terracon Consultants Inc		**EMSL Customer ID:**	
Street: 201 Hanover Mill Rd		**City:** Rocky Hill	**State/Province:** CT
Zip/Postal Code: 06067	**Country:**	**Telephone #:**	**Fax #:**
Report To (Name): Jim Covell		**Please Provide Results:** ☐ Fax ☒ Email	
Email Address: jim.lovell@terracon.com		**Purchase Order:**	
Project Name/Number: Florida / J1187144		**EMSL Project ID** *(Internal Use Only)*:	
U.S. State Samples Taken: NJ		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

EMSL-Bill to: ☒ Same ☐ Different - If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour | ☐ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☒ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☒ NYS 198.1 (friable in NY)
- ☒ NYS 198.6 NOB (non-friable-NY)
- ☐ NYS 198.8 SOF-V
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☒ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM EPA 600/R-93/116 with milling prep (<1%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep
- ☐ Cincinnati Method EPA 600/R-04/004 – PLM/TEM (BC only)

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: John Ellis #12-10386 | **Samplers Signature:** JEllis

Sample #	Sample Description	~~Volume/Area (Air)~~ HA # (Bulk)	Date/Time Sampled
01 – RF3 01	Asphalt Shingle – Front Slope	600 SF	1-14-19
02	↓	↓	↓
03	↓	↓	↓
04 – RF2 – 04	Roofing paper – Front Slope	600 SF	↓
05	↓	↓	↓

Client Sample # (s): 01 → 18 | **Total # of Samples:** 18

Relinquished (Client): [signature] | **Date:** 1-15-19 | **Time:** Fed Ex next day

Received (Lab): [signature] | **Date:** 1-17-19 | **Time:** 10:00 am

Comments/Special Instructions:

OrderID: 041901321

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*):

041901321

RECEIVED
EMSL
CINNAMINSON, NJ
PHONE:
2019 JAN 17 A 9:51

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) ~~HA # (Bulk)~~	Date/Time Sampled
02-RF2-06	Roofing Paper - Fruit Stand		1-14-19
03-FC3-07	Gray 4" Cove base - Fruit Stand	70 LF	
08			
09			
MG3 10	Yellow adhesive		
11			
12			
04-WB2 13	Gypsum wallboard	850 SF	
14			
15			
WB3 16	Joint compound Skim Coat	850 SF	
17			
18			

***Comments/Special Instructions:**

Controlled Document – Asbestos COC – R10 – 05/09/2016

APPENDIX D

LEAD ANALYTICAL LABORATORY DATA

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578231 - Lead Paint Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 6660174 **Description:** Brown Paint **Result (% by Weight):** <0.0045
Client No.: PC-01 **Location:** Garage Wood Trim-1733 **Result (ppm):** <45
Comments:

Lab No.: 6660175 **Description:** Tan Paint **Result (% by Weight):** <0.0080
Client No.: PC-02 **Location:** Exterior Siding-1733 Garage **Result (ppm):** <80
Comments: ***

Lab No.: 6660176 **Description:** Brown Paint **Result (% by Weight):** <0.0052
Client No.: PC-03 **Location:** Exterior CMV-1733 **Result (ppm):** <52
Comments: ***

Lab No.: 6660177 **Description:** Tan Paint **Result (% by Weight):** <0.0067
Client No.: PC-04 **Location:** Exterior Siding-1733 **Result (ppm):** <67
Comments: ***

Lab No.: 6660178 **Description:** Brown Paint **Result (% by Weight):** <0.0042
Client No.: PC-05 **Location:** Exterior Deck-1733 **Result (ppm):** <42
Comments: ***

Lab No.: 6660179 **Description:** Green Paint **Result (% by Weight):** <0.0061
Client No.: PC-06 **Location:** Interior Loft Drywall-1733 **Result (ppm):** <61
Comments:

Lab No.: 6660180 **Description:** Orange Paint **Result (% by Weight):** <0.0065
Client No.: PC-07 **Location:** Laundry Drywall-1733 **Result (ppm):** <65
Comments:

Lab No.: 6660181 **Description:** Green Paint **Result (% by Weight):** <0.0055
Client No.: PC-08 **Location:** Hallway Drywall-1733 **Result (ppm):** <55
Comments:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Chad Shaffer

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578231 - Lead Paint Rev #2, 12/28/2018
Project: Florida, NY
Project No.: J1187144

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 6660182
Client No.: PC-09

Description: Yellow Paint
Location: Master Bath Drywall-1711

Result (% by Weight): <0.0049
Result (ppm): <49
Comments:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 11/27/2018
Date Analyzed: 12/04/2018
Signature:
Analyst: Chad Shaffer

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Terracon
201 Hammer Mill Rd
Rocky Hill CT 06067

Client: TER272

Report Date: 12/4/2018
Report No.: 578231 - Lead Paint
Project: Florida, NY
Project No.: J1187144

Appendix to Analytical Report:

Customer Contact: John Ellis
Method: ASTM D3335-85a, US EPA SW846 3050B:7000B

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Cassie Doherty
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Paint
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by ASTM D3335-85a by AAS

Certification:
- National Lead Laboratory Program (NLLAP): AIHA-LAP, LLC No. 100188
- NYSDOH-ELAP No. 11021

Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation.
All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.
Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Apendix B.
Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies.
LSD=0.2 ppm MDL=0.005% by weight. RL= 0.010% by weight (based upon 100 mg sampled).

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

* Insufficient sample provided to perform QC reanalysis (<200 mg)
** Not enough sample provided to analyze (<50 mg)
*** Matrix / substrate interference possible.

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

– Environmental Lead –

Contact Information

Client Company:	Terracon	**Project Number:**	J1187144
Office Address:	201 Hammer Mill Rd	**Project Name:**	Florida, NY
City, State, Zip:	Rocky Hill, CT 06067	**Primary Contact:**	John Ellis
Fax Number:		**Office Phone:**	860.929.7862
Email Address:	john.ellis@terracon.com	**Cell Phone:**	

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

Matrix/Method:

- [x] Paint by AAS: ASTM D3335-85a, 2009
- [ ] Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010
- [ ] Air by AAS: NIOSH 7082, 1994
- [ ] Soil by AAS: EPA SW 846 (Soil)
- [ ] Water by AAS-GF: ASTM D3559-03D, US EPA 200.9
- [ ] Other Metals (Cd, Zn, Cr) by AAS
- [ ] Toxicity Characteristic Leaching Procedure (TCLP) by AAS: US EPA 1311
- [ ] Other _____

Special Instructions:

_____

_____

Turnaround Time

Preliminary Results Requested Date: _____ (Specific date / time) ☐ Verbal ☐ Email ☐ Fax

☐ 10 Day ☒ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization):	J Ellis / Terracon	Date:	11-21-18	Time:	2630
Received (Name / iATL):		Date:		Time:	
Sample Login (Name / iATL):		Date:		Time:	
Analysis(Name(s) / iATL):	[illegible]	Date:		Time:	
QA/QC Review (Name / iATL):	[illegible]	Date:		Time:	
Archived / Released: _____	QA/QC InterLAB Use: _____	Date:		Time:	

RECEIVED NOV 27 2018

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Sample Log

–Environmental Lead –

Client: Terracon Project: J1187144

Sampling Date/Time: 11/20/18

Client Sample #	iATL #	Location/ Description	Flow Rate	Start / End	Sampling time (min)	Area (ft2) Volume (L)	Results ( )
PC-01	6660174	Brown Garage Wood Trim -1733					
PC-02	6660175	Tan ext. Siding 1733 Garage					
PC-03	6660176	Brown ext. CMU -1733					
PC-04	6660177	Tan ext. Siding -1733					
PC-05	6660178	Brown ext. deck -1733					
PC-06	6660179	Green int. loft drywall -1733					
PC-07	6660180	Orange laundry drywall -1733					
PC-08	6660181	Green hallway drywall -1733					
PC-09	6660182	Yellow master bath wall -1711					

* = *Insufficient Sample Provided to Perform QC Reanalysis (<200mg)*
** = *Insufficient Sample Provided to Analyze (<50mg)* ***= *Matrix / Substrate Interference Possible*
FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.
These **preliminary results** are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 786-5974
http://www.EMSL.com cinnaminsonleadlab@emsl.com

EMSL Order:	201900487
CustomerID:	JAWO78
CustomerPO:	J1187144
ProjectID:	

Attn: **Jim Lovell**
Terracon Consultants, Inc.
201 Hammer Mill Road
Rocky Hill, CT 06067

Phone:	(860) 721-1900
Fax:	(860) 721-1939
Received:	01/17/19 10:10 AM
Collected:	1/14/2019

Project: **J1187144**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
PC-01	*201900487-0001*	1/14/2019	1/18/2019	0.2573 g	<0.0080 % wt
	Site: Fruit Stand Exterior - Off White				

Phillip Worby, Lead Laboratory Manager
or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 01/21/2019 09:00:19

OrderID: 201900487

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Lead (Pb) Chain of Custody

EMSL Order ID *(Lab Use Only)*: 201900487

PHONE: ( )
FAX: ( )

Company: Terracon Consultants Inc		**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*	
Street: 201 Hammer Mill Rd			
City: Rocky Hill	**State/Province:** CT	**Zip/Postal Code:**	**Country:**
Report To (Name): Jim Lovell		**Telephone #:**	
Email Address: jim.lovell@terracon.com		**Fax #:**	**Purchase Order:**
Project Name/Number: J1187144		**Please Provide Results:** ☐ Fax ☐ Email	
U.S. State Samples Taken: NY		**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour | ☐ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☒ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide*

Matrix	Method	Instrument	Reporting Limit	Check
Chips ☒ % by wt. ☐ mg/cm² ☐ ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	☑
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	☐
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	☐
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	☐
Wipe* ASTM ☐ non ASTM ☐ *if no box checked, non-ASTM Wipe assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	☐
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	☐
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	☐
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	☐
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	☐
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	☐
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	☐
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	☐
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	☐
Wastewater Unpreserved ☐ Preserved with HNO_3 pH < 2 ☐	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	☐
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	☐
Drinking Water Unpreserved ☐ Preserved with HNO_3 pH < 2 ☐	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	☐
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	☐
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	☐
Other:				☐

Name of Sampler: **Signature of Sampler:**

Sample #	Location	Volume/Area	Date/Time Sampled
1 PC-01	Fruit Stand Exterior off-white		1-14-19 / 1530

Client Sample #s PC-01 - **Total # of Samples:** 1

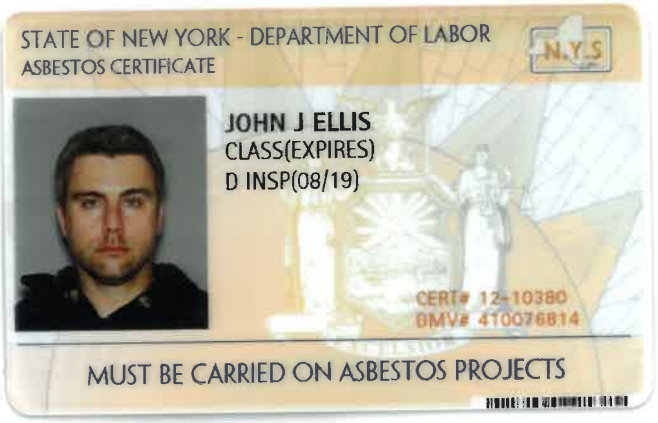
Relinquished (Client): **Date:** 1/15/19 **Time:** 1700 for next day Fedex

Received (Lab): **Date:** 1/17/19 **Time:** 1010 EMSL

Comments:

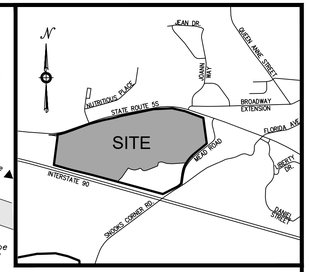
APPENDIX E

LICENSES AND CERTIFICATIONS


STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE
N.Y.S
JOHN J ELLIS
CLASS(EXPIRES)
D INSP(08/19)
CERT# 12-10380
DMV# 410076814
MUST BE CARRIED ON ASBESTOS PROJECTS

Vicinity Map

Scale: 1"=2,000'



Map Notes

See Sheet AL-2.

Certification

To: WE Acquisitions LLC
WE 5S LLC
Fidelity National Title Insurance Company
Legacy Title Services, LLC

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 6(a) 7(a), 7b(1), 8, 9, 11, 13, 14, 16, 17, 18, 19 & 20 of Table A thereof. The field work was completed on May 19, 2021.

I hereby declare this map to be prepared in accordance with the Code of Practice of the New York State Association of Land Surveyors, adopted October, 1996 and revised through July 18, 1997.

Date of Plat or Map: 07/15/2021

JOHN F. WAGENBLATT L.S. No. 050,547

Legend

Property Line	Concrete Monument Found	Yard Drain	
Easement Line	Iron Pipe / Rebar Found	Catch Basin	
Index Contour	New York State DOT Monument	Curbless Catch Basin	
Intermediate Contour	Calculated Point	Deciduous Tree	
Treeline	N/F Now or Formerly (in Title of)	Coniferous Tree	
Hedge/Shrub Line	Sign	Shrub	
Stone Wall	234x0 Existing Spot Grade		
Edge of Gravel	Guy Wire	Easement Area	
Retaining Wall	Mailbox		
Wire Fence	Fence Post	Bituminous Concrete Surface	
Chain Link Fence	Utility Pole		
Guide Rail	OWG Water Gate	Open Water Area	
Stream/Edge of Water	Hydrant		
Limit of Wetlands	OGG Gas Gate	Wetlands Area	
Sanitary Sewer	Drainage Manhole		
Water Main	Sanitary Manhole		
Gas Main	Electric Manhole		
Electric Line	Telephone Manhole		
Telephone Line	Well		
Overhead Wire	Lamp Post		
	Span Pole		
	Light Pole		

N	North
S	South
E	East
W	West
°	Degrees
'	Feet or Minutes
"	Inches or Seconds
S.F.	Square Feet
Bk.	Deed Book
Vol.	Deed Volume
Pg.	Deed Page
P.O.B.	Point of Beginning of Legal Description
(14)	Items Corresponding to Schedule B Section 2

Zoning Information

The surveyor was not provided with zoning information by the insurer.

Total Parcel Area

5,982,968 S.F.
137.35 Acres

GRAPHIC SCALE

150 0 75 150 300 600

(FEET)
1 inch = 150 ft.

#	Date	Revisions
2	04/01/22	Correct Well Location & Add Information
1	11/18/21	Correction to Wetlands

LRC GROUP
• Land Planning
• Civil Engineering
• Environmental Services
• Land Surveying
• Landscape Architecture

160 West Street, Suite E
Cromwell, CT 06416
Tel:860.635.2877

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel:845.243.2880

90 Beaver Ave, Suite 5
Clinton, NJ 08809
Tel:908.603.5730

www.lrcconsult.com

LRC Engineering and Surveying, D.P.C.
LRC Engineering and Surveying, LLC
LRC Environmental Services, Inc.
Land Resource Consultants, Inc.

ALTA/NSPS LAND TITLE SURVEY

PREPARED FOR
WE Acquisitions LLC
STATE ROUTE 5S, MEAD ROAD &
SNOOKS CORNERS ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK

Design/Calcs		CAD File AL182368A01.dwg	Sheet No.
Drawn	BLS/RK/FJM	Project No. 18-2368	AL-1
Checked	JFW	Date 07/15/2021	Sheet 1 of 2
Approved	JFW	Scale 1"=150'	

Z:\JOBS\2018 Jobs\18-2368A Whitestarkey Florida, NY-UPDATE\DWG\AL182368A01.dwg 4/7/2022 10:53 AM Rkemon

WHITESTONE
ASSOCIATES, INC.
Environmental & Geotechnical Engineers & Consultants
Celebrating 25 Years 1994 – 2019

16 OLD FORGE ROAD
SUITE A
ROCKY HILL, CT 06067
860.726.7889
whitestoneassoc.com

REPORT OF GEOTECHNICAL INVESTIGATION

PROPOSED WAREHOUSE
NEW YORK STATE ROUTE 5S
SECTION 55, BLOCK 1, LOTS 1.1, 35.12, 135.131, 35.141, 35.151, 35.161, 36 & 37 AND BLOCK 2, LOT 4.1
FLORIDA, MONTGOMERY COUNTY, NEW YORK



Prepared for:

WE ACQUISITIONS, LLC
300 George Street, G01
New Haven, Connecticut 06511

Prepared by:

WHITESTONE ASSOCIATES, INC.
16 Old Forge Road, Suite A
Rocky Hill, Connecticut 06067

Richard W.M. McLaren, P.E.
Senior Consultant

Ryan R. Roy, P.E.
Principal, New England Region

Whitestone Project No.: GM1916427.000
August 26, 2019

WHITESTONE
ASSOCIATES, INC.
Environmental & Geotechnical Engineers & Consultants
Celebrating 25 Years 1994 – 2019

16 OLD FORGE ROAD
SUITE A
ROCKY HILL, CT 06067
860.726.7889
whitestoneassoc.com

August 26, 2019

via email

WE ACQUISITIONS, LLC
300 George Street, G01
New Haven, Connecticut 06511

Attention: Mr. Michael B. Manes
Director of Pre-Construction

Regarding: REPORT OF GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE
NEW YORK STATE ROUTE 5S
SECTION 55, BLOCK 1, LOTS 1.1, 35.12, 135.131, 35.141, 35.151, 35.161, 36 & 37 AND BLOCK 2, LOT 4.1
FLORIDA, MONTGOMERY COUNTY, NEW YORK
WHITESTONE PROJECT NO.: GM1916427.000

Dear Mr. Manes:

Whitestone Associates, Inc. (Whitestone) is pleased to submit the attached *Report of Geotechnical Investigation* for the above-referenced project. The report presents the results of Whitestone's subsurface exploration and includes design recommendations for the foundations, slab, pavements, and related earthwork associated with the proposed warehouse development.

Whitestone appreciates the opportunity to be of continued service to WE Acquisitions, LLC. Should you have questions regarding the enclosed report, please contact us at (860) 726-7889.

Sincerely,

WHITESTONE ASSOCIATES, INC.

Richard W.M. McLaren, P.E.
Senior Consultant

Ryan R. Roy, P.E.
Principal, New England Region

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Enclosures
Copy: Laurence W. Keller, P.E., Whitestone Associates, Inc.

REPORT OF
GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE
New York State Route 5S
Section 55, Block 1, Lots 1.1, 35.12, 135.131, 35.141, 35.151, 35.161, 36 & 37 and Block 2, Lot 4.1
Florida, Montgomery County, New York

TABLE OF CONTENTS

SECTION 1.0 SUMMARY OF FINDINGS 1

SECTION 2.0 INTRODUCTION 2

2.1 AUTHORIZATION 2
2.2 PURPOSE 2
2.3 SCOPE 2
2.3.1 Field Exploration 2
2.3.2 Laboratory Testing Program 3

SECTION 3.0 SITE DESCRIPTION 5

3.1 LOCATION AND DESCRIPTION 5
3.2 EXISTING CONDITIONS 5
3.3 SITE GEOLOGY 5
3.4 PROPOSED CONSTRUCTION 6

SECTION 4.0 SUBSURFACE CONDITIONS 7

4.1 SUBSURFACE SOIL CONDITIONS 7
4.2 GROUNDWATER 7

SECTION 5.0 CONCLUSIONS AND RECOMMENDATIONS 8

5.1 GENERAL 8
5.2 SITE PREPARATION AND EARTHWORK 8
5.3 STRUCTURAL FILL AND BACKFILL 10
5.4 GROUNDWATER CONTROL/STORMWATER MANAGEMENT 11
5.5 FOUNDATIONS 11
5.6 FLOOR SLAB 12
5.7 PAVEMENT DESIGN CRITERIA 13
5.8 RETAINING WALLS/LATERAL EARTH PRESSURES 15
5.9 SLOPE STABILITY 16
5.10 SEISMIC AND LIQUEFACTION CONSIDERATIONS 16
5.11 EXCAVATIONS 16
5.12 SUPPLEMENTAL POST INVESTIGATION SERVICES 16

SECTION 6.0 GENERAL COMMENTS 18

REPORT OF
GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE
New York State Route 5S
Section 55, Block 1, Lots 1.1, 35.12, 135.131, 35.141, 35.151, 35.161, 36 & 37 and Block 2, Lot 4.1
Florida, Montgomery County, New York

TABLE OF CONTENTS
(Continued)

FIGURES

FIGURE 1a Exploration Plan
FIGURE 1b Test Pit Location Plan

APPENDICES

APPENDIX A Records of Subsurface Exploration
APPENDIX B Laboratory Test Results
APPENDIX C Supplemental Information (USCS, Terms & Symbols)

SECTION 1.0
Summary of Findings

Whitestone has completed an evaluation of the subsurface conditions at the site of the proposed warehouse development located on the south side of New York State Route 5S in the Town of Florida, Montgomery County, New York. Based on the April 25, 2019 *Overall Site Plan* (part of the set of *Site Development Plans*) prepared by Bohler Engineering MA, LLC (Bohler) of Albany, New York, the project consists of the construction of a one-story building with a footprint of approximately 1,000,000 square feet and associated paving, utilities, and landscaped areas. Significant cuts and fill will be required to develop the site, which has a grade change of about 100 feet across the site. Fill slopes up to about 65 feet in height are planned on the southern and eastern sides of the site. The fill slopes incorporate short sections of the retaining wall. Stormwater management areas are planned to the southeast, east, and southwest of the proposed building.

The fieldwork for the geotechnical investigations consisted of borings advanced by Dente Group (Dente) of Watervliet, New York and test pits monitored by Whitestone. Site subsurface conditions consisted of topsoil overlying natural glacial till, which is underlain by shallow shale bedrock. Groundwater was encountered at depths ranging from about one foot below the existing ground surface (fbgs) to 13.7 fbgs.

While the shale bedrock has a high propensity to swell, the amount of swelling that can occur, by converting pyrites into gypsum, is low. Chemical testing indicates the amount of pyrites available to cause swelling is only around one tenth of one percent.

The results of the investigation indicate that the proposed structure may be supported on conventional shallow foundations bearing on the natural glacial till or on glacial till placed over the shale bedrock. The results also indicate that the site is suitable for a ground-supported floor slab deriving support from the glacial till placed over the shale bedrock, or structural fill placed over these materials. Additionally, the site conditions support the use of typical pavement sections using standard New York State Department of Transportation (NYSDOT) specified materials.

The above summary is intended to provide an overview of the geotechnical findings and recommendations and is not fully developed. Greater detail is presented in the following sections. The entire report must be read for comprehensive understanding of the information contained herein.

SECTION 2.0
Introduction

2.1 AUTHORIZATION

Mr. Michael B. Manes, Director of Pre-Construction, of WE Acquisitions, LLC issued authorization to Whitestone to prepare a comprehensive geotechnical report for this site relevant to the construction of a proposed warehouse located on the south side of New York State Route 5S in the Town of Florida, Montgomery County, New York. The geotechnical report was prepared in general accordance with Whitestone's July 30, 2019 proposal.

2.2 PURPOSE

The comprehensive geotechnical report is intended to:

- ascertain the various soil profile components at test locations;
- review the results of laboratory testing;
- estimate the engineering characteristics of the proposed foundation bearing and subgrade materials;
- provide geotechnical criteria for use by the design engineers in preparing the foundation, floor slab, and pavement design;
- provide recommendations for required earthwork and subgrade preparation;
- record groundwater and/or bedrock levels (if encountered) at the time of the investigation and discuss the potential impact on the proposed construction; and
- recommend additional investigation and/or analysis, if warranted.

2.3 SCOPE

The scope of the exploration and analysis included the subsurface exploration, field testing and sampling, laboratory analysis, and a geotechnical engineering analysis and evaluation of the subsurface materials. This *Report of Geotechnical Investigation* is limited to addressing the site conditions as they relate to the physical support of the proposed construction. An environmental assessment was not part of the assignment.

2.3.1 Field Exploration

Field exploration at the project site consisted of 48 soil borings by Dente and eight test pits by Whitestone. The explorations subsequently were backfilled to the surface with excavated soils from the investigations. The locations of the soil borings and test pits are shown on the accompanying exploration location plans included as Figures 1a and 1b. *Records of Subsurface Exploration* are provided in Appendix A.

Test locations were based on project information provided at the time of the investigations. The subsurface tests were conducted in the presence of field engineers, who performed field tests, recorded visual classifications, and collected samples of the various strata encountered. Test locations were established in the field using normal taping procedures and estimated right angles. These locations are presumed to be accurate to the degree implied by the method used.

Soil borings and Standard Penetration Tests (SPTs) were conducted in general accordance with ASTM International (ASTM) designation D1586. The Standard Penetration Resistance value (N) can be used as an indicator of the consistency of fine-grained soils and the relative density of coarse-grained soils. The N-value for various soil types can be correlated with the engineering behavior of earthworks and foundations.

Groundwater level observations, where encountered, were recorded during and immediately following the completion of the testing operations within the soil borings. Seasonal variations, temperature effects, and recent rainfall conditions may influence the levels of the groundwater, and the observed levels will depend on the permeability of the soils. Groundwater elevations derived from sources other than seasonally observed groundwater monitoring wells may not be representative of true groundwater levels.

2.3.2 Laboratory Testing Program

In addition to the field investigation, a laboratory testing program was conducted to determine additional, pertinent engineering characteristics of representative samples of on-site soils. The laboratory testing program was performed in general accordance with applicable ASTM standard test methods and included physical testing of the proposed building foundation bearing stratum.

Physical/Textural Analysis: Representative samples of the site soils were subjected to a laboratory testing program that included moisture content determination (ASTM D2216) and washed gradation analysis (ASTM D422) in order to perform supplementary engineering soil classifications in general accordance with ASTM D2487. The soils tested were classified by the Unified Soil Classification System (USCS). The results of the laboratory testing program are summarized in the following table:

LABORATORY TESTING SUMMARY					
Boring	**Sample Number**	**Depth (fbgs)**	**Moisture Content (%)**	**Passing No. 200 Sieve (%)**	**USCS Classification**
B-1	S-3	4.0 - 6.0	13.0	49.6	SM
B-3	S-4	10.0 - 12.0	9.0	43.8	SM
B-10	S-3	5.0 - 7.0	12.0	47.4	SM

Whitestone sent bulk samples of the relatively unweathered shale bedrock recovered from the test pits to the MultiTest laboratory in Longueuil, Quebec, Canada, to perform the testing that included Swell Potential Petrographic Index (SPPI) testing. In developed portions of Quebec, there is a widespread problem with

damage to concrete structures from swelling of soils due to pyrite content. The SPPI standard rating system was developed to classify the swell potential of a geomaterial by using laboratory procedures to relate the presence of framboidal pyrite to swell potential. The samples of the shale bedrock from the Florida site had a high SPPI, ranging from 64 to 70. Accordingly, to investigate the amount of likely swell, a second phase of testing, which included chemical analysis for pyrites content, was performed. The results indicated that the pyrite equivalent was very low, ranging from 0.11 to 0.15 percent.

The engineering classifications are useful when considered in conjunction with the additional site data to estimate properties of the soil types encountered and to predict soil behavior under construction and service loads. Laboratory test results from the physical testing and the Quebec pyrites testing are provided in Appendix B.

SECTION 3.0
Site Description

3.1 LOCATION AND DESCRIPTION

The subject site is located on the southern side of NYS Route 5S, close to the intersection with Target Drive, in the Town of Florida, Montgomery County, New York, Latitude 42.9341 North, Longitude 74.2275 West. The 137.2-acre site, which is identified further as Section 55, Block 1, Lots 1.1, 35.12, 135.131, 35.141, 35.151, 35.161, 36 & 37 and Block 2, Lot 4.1, currently is primarily agricultural land.

The irregularly shaped site is bounded to the north by NYS Route 5S, to the east by Mead Road, to the south by Interstate 90, and to the west by a commercial building. Access to the site is from NYS Route 5S. The site of the proposed construction is shown on the *Exploration Plan* included as Figure 1a.

3.2 EXISTING CONDITIONS

Existing Development: The subject site is primarily agricultural land, with wooded portions and a couple of residences.

Topography: Based on a review of the USGS 7.5 Minute Series Amsterdam Quadrangle, New York (2016), the *Overall Grading & Drainage Plan* by Bohler, and Whitestone's visual observations, the site generally slopes down to the south from approximately 550 feet above National American Vertical Datum of 1988 (NAVD) to 450 feet above NAVD.

Utilities: The site is not currently serviced by underground utilities. The utility information contained in this report is presented for general discussion only and is not intended for construction purposes.

Site Drainage: Surface run-off will tend to flow to the south.

3.3 SITE GEOLOGY

According to the University of the State of New York, The State Education Department *Surficial Geologic Map of New York, Hudson-Mohawk Sheet* (1987), the site is underlain by glacial till. The University of the State of New York, The State Education Department *Geologic Map of New York, Hudson-Mohawk Sheet* (1970) indicates that the site is underlain, at shallow depth, by the Middle Ordovician-aged Canajoharie Shale, part of the Lorraine, Trenton, and Black River Groups. The Canajoharie Shale consists of black shale.

3.4 PROPOSED CONSTRUCTION

The aforementioned *Overall Site Plan* indicates that the project consists of the construction of a one-story building with a footprint of approximately 1,000,000 square feet and associated paving, utilities, and landscaped areas. Significant cuts and fill will be required to develop the site, which has a grade change of about 100 feet across the site. Fill slopes up to about 65 feet in height are planned on the southern and eastern sides of the site. The fill slopes incorporate short sections of the retaining wall. Stormwater management areas are planned to the southeast, east, and southwest of the proposed building.

Whitestone anticipates the proposed building will be a single-story, masonry and metal-framed structure constructed with a ground-supported concrete floor slab. Maximum column and wall loads are expected to be on the order of:

- column loads - 350.0 kips;
- load bearing walls - 5.0 kips per lineal foot; and
- floor slab loads - 150 pounds per square foot.

The scope of Whitestone's investigation and the professional advice contained in this report were generated based on the project details and loading noted herein. Revisions or additions to the design details enumerated in this report should be brought to the attention of Whitestone for additional evaluation as warranted.

SECTION 4.0
Subsurface Conditions

Details of the subsurface materials encountered during the site investigations are presented on the *Records of Subsurface Exploration* presented in Appendix A of this report. The subsurface soil and bedrock conditions encountered in the test locations consisted of the following generalized strata in order of increasing depth. The following section provides only a brief summary of subsurface soil conditions; the exploration logs have more detail.

4.1 SUBSURFACE SOIL CONDITIONS

Surface Cover Materials: The explorations typically encountered up to 17 inches of topsoil at the ground surface.

Glacial Till: Beneath the surface cover materials, the explorations encountered glacial till, typically consisting of brown, medium dense to dense (occasionally loose or very dense), silty sand with gravel (USCS: SM) to clayey sand with gravel (USCS: SC), cobbles and boulders. SPT N-values recorded within the glacial till were variable, ranging up to about 70 blows per foot.

Weathered Bedrock and Bedrock: Below the glacial till or surface cover materials, the explorations encountered black shale bedrock, the upper few feet of which were typically weathered. The explorations generally terminated in the shale bedrock.

4.2 GROUNDWATER

Groundwater was encountered during Whitestone's subsurface exploration activities at depths ranging from one fbgs to 13.7 fbgs. Additionally, static and perched/trapped water conditions generally will fluctuate seasonally and following periods of precipitation.

SECTION 5.0
Conclusions and Recommendations

5.1 GENERAL

Laboratory testing indicates that, while the shale bedrock has a high propensity to swell (SPPI in the high range), the amount of swelling that can occur, as determined by the percentage of framboidal pyrites available to be converted into the higher volume gypsum, is low. The results of the chemical testing indicate that the amount of pyrites available to cause the swelling is very limited, around one tenth of one percent. However, because of the high propensity of the shale to swell, Whitestone considers that certain basic precautions should be taken during construction, as discussed below.

The results of the investigation indicate that the structure may be supported on conventional shallow foundations bearing on properly inspected and approved glacial till or at least 12 inches of glacial till or other relatively impermeable fill placed over the undisturbed shale bedrock, and/or properly placed structural fill. The results of the investigation also indicate a ground-supported floor slab may derive support from properly inspected and approved glacial till or at least 12 inches of glacial till or other relatively impermeable fill placed over the undisturbed shale bedrock, and/or compacted structural fill. Additionally, the site conditions support the use of typical pavement sections using standard NYSDOT specified materials, however, at least 12 inches of glacial till or other relatively impermeable fill should be placed over exposed or crushed shale bedrock before placing the granular subbase for the pavement. Excavated shale bedrock should not be used as fill under and within 10 feet of the proposed building footprint.

5.2 SITE PREPARATION AND EARTHWORK

Surface Cover Stripping and Demolition: Prior to stripping operations, any underground utilities should be identified and secured. Any remaining existing buildings to be demolished should be removed from within and at least five feet beyond the limits of the proposed building and pavement areas. Existing structural elements, such as foundation walls, and concrete foundations, walls or slabs should be removed entirely. Pavements, vegetation, topsoil, and organic matter should also be removed from within and at least five feet beyond the limits of the proposed building footprint, as well as any other area that will require controlled structural fill placement. Tree/shrub removal should include the removal of stumps and root material, which may require excavation of more than the few inches of topsoil encountered in the explorations. The demolition contractor should be required to perform earthwork in accordance with the recommendations in this report, including backfilling any excavation, etc. with structural fill. Fill or backfill placed within the proposed structural areas during demolition operations should be placed as structural fill in accordance with Section 5.2 and 5.3 of this report.

Bedrock Excavation Quantities: Whitestone understands that Bohler will update their bedrock excavation quantities following receipt of this report. Because of the change of recommendations compared

with the Dente report, the bedrock excavation quantities will be significantly reduced. Whitestone should review this information when available.

Surface Preparation/Proofrolling: Before placing fill or subbase materials to raise or restore grades to the desired subgrade elevations, the existing exposed soils should be compacted to a firm surface with several passes in two perpendicular directions of a minimum 10-ton vibratory roller. The surface should then be proofrolled with a loaded tandem axle truck in the presence of the geotechnical engineer to help identify soft or loose pockets that may require removal and replacement or further investigation. Proofrolling should be performed after a suitable period of dry and non-freezing weather to reduce the likelihood of degrading an otherwise stable subgrade. Should construction be attempted in the winter or when temperatures are below freezing, Whitestone should be contacted for alternative surface preparation recommendations. Fill and backfill should be placed and compacted in accordance with Section 5.3.

Weather Performance Criteria: Because the natural glacial till and shale bedrock are moisture sensitive and will soften when exposed to water, every effort should be made to maintain drainage of surface water runoff away from construction areas by grading and limiting the exposure of excavations and prepared subgrades to rainfall. Accordingly, excavation and fill placement procedures should be performed during favorable weather conditions. Overexcavation of saturated soils and replacement with controlled structural fill per Section 5.3 of this report may be required prior to resuming work on disturbed subgrade soils. Alternatively, lime or Portland cement stabilization may be selectively be used to address the moisture sensitive soil and bedrock.

Subgrade Protection and Inspection: Glacial till or relatively impermeable imported fill should be placed over the bedrock immediately after excavation. Excavations in bedrock should not be left open to the elements overnight or over a weekend. Because the natural glacial till and shale bedrock are moisture sensitive and will soften when exposed to water, every effort should be made to reduce disturbance of the on-site soils by construction traffic and surface runoff. The on-site materials will deteriorate when subjected to repeated construction traffic and/or inclement weather, which would require removal and replacement. These materials also may require discing, drying, and aeration during wet periods. The contractor should be responsible for protection of subgrades and minimization of exposure of the site materials to precipitation by covering stockpiles and subgrades with plastic and preventing ponding of water by sealing subgrades before precipitation events and grading the site to allow proper drainage of surface water. All rutting from construction equipment should be removed prior to any forecasted or actual precipitation. The services of the geotechnical engineer should be retained to observe soils conditions during construction and review the suitability of prepared foundation subgrades for support of design loads.

5.3 STRUCTURAL FILL AND BACKFILL

Imported Fill Material: Generally, imported material placed as structural fill or backfill to restore design grades should consist of clean, relatively well graded sand or gravel with a maximum particle size of three inches and up to 15 percent of material, by weight, finer than a #200 sieve. The material should be free of clay lumps, organics, and deleterious material. However, if there is insufficient on-site glacial till for the 12 inches of relatively impermeable fill to be placed over the shale bedrock, the imported fill should closely match the glacial till, which has around 40 percent of material finer than a #200 sieve. Any imported structural fill material should be approved by a qualified geotechnical engineer prior to delivery to the site.

On-Site Material/Reuse: Whitestone anticipates that the glacial till will be suitable for selective reuse as structural backfill materials during favorable weather conditions, provided that any deleterious material and objectionable debris encountered are removed, pieces larger than three inches in diameter are removed or crushed, and moisture contents are controlled within three percent of the optimum moisture content. However, the glacial till has a high fines content. Prior to reuse, drying may be necessary or mixing with more granular materials. In addition, on-site glacial till reuse should not be attempted during inclement or freezing weather, or in damp conditions. Reuse of the glacial till will be contingent on careful inspection by the owner's geotechnical engineer during construction. The site soils should be properly compacted and evaluated during the construction phase as described herein.

Whitestone recommends that the excavated shale not be used as structural fill within the proposed building footprint or within 10 feet of the footprint. The excavated shale may be crushed to a maximum particle size of three inches and used elsewhere on the site under paved and landscaped areas. A geotextile separation fabric should be placed between crushed bedrock and soils with an elevated fines content, as specified in Section 5.7. Reuse of the crushed shale should not be attempted during inclement or freezing weather, or in damp conditions.

The site contractor should be required to cover stockpiled soils, seal subgrades each day and provide proper surface drainage during forecasted wet weather. Alternatively, imported materials may be required to expedite earthwork operations, especially if the construction schedule or the site area restricts moisture control operations, such as spreading and air drying the soil.

Compaction and Placement Requirements: Fill and backfill should be placed in maximum eight-inch loose lifts and compacted using a vibratory drum roller during mass grading activities or a small hand-held vibratory compactor within excavations. Structural fill and backfill placed within the structure pads and non-structure areas should be compacted to at least 95 percent of the maximum dry density within three percent of the optimum moisture content, as determined by ASTM D1557 (Modified Proctor).

Structural Fill Testing: Samples of imported fill materials or on-site material proposed for re-use as structural fill or backfill should be submitted to the owner's geotechnical engineer for analysis and approval at least one week prior to its use. The placement of fill and backfill should be monitored by a qualified engineering technician, so that the specified material and lift thicknesses are properly installed. A sufficient

number of in-place density tests should be performed to check that the specified compaction is achieved throughout the height of the fill or backfill.

5.4 GROUNDWATER CONTROL/STORMWATER MANAGEMENT

Groundwater, probably perched, was encountered during the fieldwork only in a few explorations at depths varying from one fbgs to 13.7 fbgs. However, cuts are planned, which may extend below the groundwater table. Whitestone anticipates the need for construction dewatering and permanent groundwater control, such as edge drains, foundation perimeter drains, and intermittent under-pavement drains. Additionally, trapped/perched water may be encountered within the fine-grained glacial till and/or at the glacial till/shale bedrock interface, especially following precipitation events. As such, construction phase dewatering of static and trapped/perched water through the use of gravity fed sump pumps may be required during conventional spread foundation excavation activities for this site.

Since excessive amounts of perched groundwater may accumulate during periods of wet weather, Whitestone recommends that foundation construction occur during periods of relatively dry weather. Every effort must be made to maintain drainage of surface water runoff away from construction areas by grading and limiting the exposure of foundation areas to precipitation.

Whitestone has reviewed the locations of the stormwater management (SWM) basins on the Bohler *Overall Grading & Drainage Plan*. The locations are downgradient of the structure, thus reducing the risk of introducing moisture into the crushed shale fill. Whitestone understands that Bohler has not yet completed the design of the SWM basins. Whitestone recommends that, in the absence of glacial till to provide an adequate impervious layer in the basins, an impermeable membrane should be incorporated into the basin liner to prevent water contacting the crushed shale fill. The final design of the SWM basins and other drainage measures should be reviewed by Whitestone.

5.5 FOUNDATIONS

Shallow Foundation Design Criteria: Whitestone considers that the proposed structure may be supported on conventional shallow foundations bearing on properly inspected and approved glacial till or at least 12 inches of glacial till or other relatively impermeable fill placed over the undisturbed shale bedrock, and/or properly placed structural fill, provided these materials are properly evaluated, in accordance with Sections 5.2, 5.3, and 5.12 of this report. Foundations bearing within these materials may be designed using a maximum net allowable bearing pressure of 4,500 pounds per square foot.

Spread footings should not be placed directly on the shale bedrock. The bedrock should be covered with at least 12 inches of compacted glacial till or other suitable fine-grained, relatively impermeable material, prior to constructing formwork. The soil cover should be placed over the bedrock immediately after excavation. Excavations in bedrock should not be left open to the elements overnight or over a weekend. In addition to mitigating swell, the placement of soil over bedrock will reduce the differential settlement of footings placed across materials of varying stiffness, such as the glacial till and bedrock. The soil layer creates a transition zone to reduce the effect of the change in support characteristics.

Foundation subgrades should be reviewed by the geotechnical engineer. Regardless of loading conditions, new foundations should be sized no less than minimum dimensions of 24 inches for continuous wall footings and 36 inches for isolated column footings. A perimeter foundation drain should be installed at or below the underside of footing level.

Footings subject to lateral loads and/or overturning should be designed so that the maximum toe pressure due to the combined effect of vertical loads and overturning moment does not exceed the recommended maximum allowable net bearing pressure. In addition, positive contact pressure should be maintained throughout the base of the footings such that no uplift or tension exists between the base of the footings and the supporting soil. Uplift loads should be resisted by the weight of the concrete. Side friction should be neglected when proportioning the footings so that lateral resistance should be provided by friction resistance at the base of the footings. An allowable coefficient of friction against sliding of 0.35 is recommended for use in the design of the foundations bearing within the existing site soils or imported structural fill soils.

Foundation Inspection/Overexcavation Criteria: Whitestone recommends that the suitability of the bearing materials at the footing bottoms be reviewed by Whitestone immediately prior to placing concrete for the footings. In the event that areas of unsuitable materials are encountered, additional overexcavation and replacement of the materials may be necessary to provide a suitable footing subgrade. Any overexcavation to be restored with structural fill will need to extend at least one foot laterally beyond footing edges for each vertical foot of overexcavation. Lateral overexcavation may be eliminated if grades are restored with lean concrete.

Settlement: Whitestone estimates post-construction settlements of proposed foundations on the order of less than one inch, if the recommendations outlined in this summary are properly implemented. Differential settlement of spread foundations should be less than one half inch.

Frost Coverage: Footings subject to frost action should be placed at least 48 inches below adjacent exterior grades, or the depth required by local building codes, to provide protection from frost penetration. Interior footings not subject to frost action may be placed at a minimum depth of 18 inches below the floor slab subgrade.

5.6 FLOOR SLAB

Following surficial compaction and proofrolling to densify any upper loose zones, Whitestone anticipates that the properly inspected and approved glacial till and/or compacted structural fill will be suitable for

support of the proposed floor slab, provided these materials are properly evaluated, compacted, and proofrolled during favorable weather conditions in accordance with Sections 5.2, 5.3, and 5.12 of this report. In a similar manner to spread footings, as described above, the granular base for the floor slab should not be placed directly on the shale bedrock. The bedrock should be covered with at least 12 inches of compacted glacial till or other suitable fine-grained, relatively impermeable material, prior to placing the granular base layer. The soil should be placed over the bedrock immediately after excavation. Exposed bedrock under slab areas should not be left open to the elements overnight or over a weekend. Areas that are, or become, softened or disturbed as a result of wetting and/or repeated exposure to construction traffic should be removed and replaced with compacted structural fill. The properly prepared on-site soils are expected to yield a minimum subgrade modulus (k) of 200 psi/in.

A minimum six-inch thick layer of NYSDOT 733-04 Subbase Course, Type 2 (or approved equivalent) should be placed below the floor slab to provide a uniform subbase. A moisture vapor barrier should be installed beneath the floor slab in accordance with flooring manufacturer's recommendations. A moisture vapor barrier should also be installed if the floor supports moisture-sensitive equipment.

5.7 PAVEMENT DESIGN CRITERIA

General:

Whitestone anticipates that the properly inspected and approved natural site soils or compacted structural fill placed to raise grade are expected to be suitable for support of the proposed pavements, provided these materials are properly evaluated, compacted, and proofrolled during favorable weather conditions in accordance with Sections 5.2, 5.3, and 5.12 of this report. Where the pavement is placed over shale bedrock or crushed shale fill, the pavement granular subbase should be underlain by at least 12 inches of compacted glacial till or other suitable fine-grained, relatively impermeable material. A geotextile separation fabric (Mirafi 140N, or equivalent) should be placed over the crushed shale fill before placing the glacial till. Alternatively, in place of the geotextile separation fabric, a 12-inch layer of appropriately graded filter stone should be placed over the crushed shale fill to reduce the likelihood of the fines from the glacial till migrating into the crushed shale fill. To the extent practical, the crushed shale bedrock should be placed in relatively consistent thicknesses to reduce the possible differential movement from potential swelling. As a guide, the thickness of the placed crushed shale layer should not vary by more than about one foot over 50 lineal feet

Design Criteria: A California Bearing Ratio value of 8.0 has been assigned to the properly prepared subgrade soils for pavement design purposes. This value was correlated with pertinent soil support values and assumed traffic loads to prepare flexible and rigid pavement designs per the AASHTO *Guide for the Design of Pavement Structures*.

Design traffic loads were assumed based on typical volumes for similar facilities and correlated with 18-kip equivalent single axle loads (ESAL) for a 20-year life. Estimated maximum pavement loads of 10,000 ESALs and 4,000,000 ESALs were used for the standard-duty and heavy-duty pavement areas, respectively. These values assume the heavier truck traffic will be designated to the main drive/access lanes.

Pavement Sections: Pavement components should meet material specifications from NYSDOT *Standard Specifications* specified below. The recommended flexible pavement sections are tabulated below:

FLEXIBLE PAVEMENT SECTIONS			
Layer	**Material**	**Standard-Duty Thickness (Inches)**	**Heavy-Duty Thickness (Inches)**
Asphalt Top Course	NYSDOT 12.5 mm F3 Top Course HMA, 70 Series Compaction (Superpave); PG64S-22	1.5	1.5
Asphalt Binder Course	NYSDOT 25 mm F9 Binder Course HMA, 70 Series Compaction (Superpave); PG64S-22	1.5	4.5
Granular Subbase	NYSDOT Type 2 Subbase	12.0	18.0 [1]

[1] Mirafi 500X or equivalent should be placed below the granular subbase where the glacial till subgrade is unstable, as required and as directed by the site geotechnical engineer. Tensar TriAx TX130S geogrid or equivalent may also need to be incorporated within the granular subbase if the glacial till subgrade becomes unstable.

A rigid concrete pavement should be used to provide suitable support at areas of high traffic or severe turns. The recommended rigid pavement is presented below in tabular format:

RIGID PAVEMENT SECTION		
Layer	**Material**	**Thickness (Inches)**
Surface	4,000 psi Air-Entrained Concrete	10.0 [1]
Granular Subbase	NYSDOT Type 2 Subbase	18.0

[1] The outer edges of concrete pavement are susceptible to damage as trucks move from rigid pavement to adjacent flexible pavement. Therefore, the thickness at the outer two feet of the rigid concrete pavement should be 16 inches.

Additional Design Considerations: The pavement section thickness designs presented in this summary are based on the design parameters detailed herein and are contingent on proper construction, inspection, and maintenance. Additional pavement thickness may be required by local code. The designs are contingent on achieving the minimum soil support value in the field. To accomplish this requirement, subgrade soil and supporting fill or backfill must be placed, compacted, and evaluated by Whitestone. Proper drainage should be provided for the pavement structure, including appropriate grading and surface water control, edge (interceptor) drains on the higher side(s) of the site, underdrains at regular intervals, and finger drains at catch basins. Edge drains, underdrains, and finger drains at catch basins should be designed and installed to manage groundwater and reduce the likelihood of water reaching the underlying crushed shale fill.

The performance of the pavement also will depend on the quality of materials and workmanship. Whitestone recommends that NYSDOT standards for materials, workmanship, and maintenance be applied to this site. Project specifications should include verifying that the installed asphaltic concrete material composition is within tolerance for the specified materials and that the percentage of air voids of the installed pavement is within specified ranges for the respective materials. Rigid concrete pavements should

be suitably air-entrained, jointed, and reinforced in general accordance with ACI 330R-08 *Guide for the Design and Construction of Concrete Parking Lots*.

Regular pavement maintenance, including crack filling, will be mandatory, so that runoff does not enter the crushed shale fill through the pavement.

5.8 RETAINING WALLS/LATERAL EARTH PRESSURES

Short sections of retaining walls are indicated where the proposed slopes cannot be extended. The following parameters may be used for design of the proposed site retaining walls, any below-grade walls, and other structures reliant on granular materials to provide adequate drainage.

Lateral Earth Pressures: Retaining/below-grade walls should be capable of withstanding active and at-rest earth pressures. With an active earth pressure coefficient (K_a) of 0.33 and assuming a level backfill and an assumed maximum backfill soil unit weight of 140 pounds per cubic foot (pcf), an equivalent fluid pressure of 46 psf per foot of wall height should be used in design of retaining/below-grade walls which are free to rotate.

Retaining/below-grade walls and wall corners typically are restrained from lateral movement and should be designed using at-rest earth pressures. A coefficient of at-rest earth pressure (K_o) of 0.5, for a level backfill, is recommended for retaining/below-grade walls designed to resist at-rest earth pressures, which assume no lateral movement. With an assumed maximum total unit weight of backfill of approximately 140 pcf, an equivalent fluid pressure of 70 pounds per square foot per foot of wall height should be used in design of restrained retaining/below-grade wall and wall corners. A coefficient of friction of 0.4 against sliding can be used for concrete on the existing site soils. Additional lateral earth pressures from a sloped backfill or any temporary or long term surcharge loads also should be included in the design. Retaining wall design should include a global stability analysis.

Backfill Criteria: Whitestone recommends that granular soils be used to backfill behind retaining walls. The granular backfill materials should consist of clean, relatively well graded sand or gravel with a maximum particle size of three inches and five percent to 15 percent of material finer than a #200 U.S. Standard sieve.

Whitestone recommends that backfill directly behind any walls be compacted with light, hand-held compactors. Heavy compactors and grading equipment should not be allowed to operate within a zone of influence measured at a 45-degree angle from the base of the walls during backfilling to avoid developing excessive temporary or long-term lateral soil pressures.

Wall Drainage: Positive drainage should be provided at the base of the below-grade walls. Where wall drainage is not provided, the wall should be designed to withstand full hydrostatic pressure.

Whitestone should be notified if any other retaining structures or design considerations requiring lateral earth pressure estimations are proposed. Specific recommendations for temporary retaining structures are beyond Whitestone's scope of work.

5.9 SLOPE STABILITY

Grading will include fill slopes up to about 65 feet in height on the southern and eastern sides of the site. Whitestone's exploration did not include a detailed analysis of slope stability for any temporary or permanent condition. Based upon common local practice and our experience with stable soil slopes, we recommend permanent soil slopes no steeper than 3:1 (horizontal:vertical). Should steeper slopes be considered, riprap covering would likely be required for long term stability and erosion control. Horizontal berms should be incorporated into the slopes at regular vertical intervals of around 20 feet.

Temporary slopes should be regularly evaluated for signs of movement or unsafe conditions. The site soils and crushed bedrock are prone to erosion by precipitation and runoff. Slopes should be covered for protection from rain. Surface runoff should be diverted away from the slopes. For erosion protection, a protective cover of grass or other vegetation should be established on permanent soil slopes as soon as possible. Erosion control matting would provide protection until vegetation is fully established.

5.10 SEISMIC AND LIQUEFACTION CONSIDERATIONS

The subsurface conditions are most consistent with a Site Class C, as defined by the *State of New York Building Code*. The site soils are not susceptible to earthquake induced liquefaction.

5.11 EXCAVATIONS

The natural glacial till encountered during the investigations typically is, at a minimum, consistent with Type C Soil Conditions as defined by 29 CFR Part 1926 (OSHA), which require a maximum unbraced excavation angle of 1.5:1 (horizontal:vertical). Actual conditions encountered during construction should be evaluated by a competent person (as defined by OSHA), so that safe excavation methods and/or shoring and bracing requirements are implemented. Competent bedrock may be excavated at an angle of 1:6 (horizontal:vertical). A steeper excavation angle in the bedrock may be feasible, if the exposed bedrock is reviewed by a professional engineer or geologist.

5.12 SUPPLEMENTAL POST INVESTIGATION SERVICES

Demolition and Construction Inspection and Monitoring: The owner's geotechnical engineer with specific knowledge of the site subsurface conditions and design intent should perform inspection, testing, and consultation during construction, as described in previous sections of this report. Monitoring and testing should be performed to check that existing structures are properly demolished, any unsuitable material is over excavated below foundations and slab where necessary, and suitable materials are used for

controlled fill. Monitoring and testing should also be performed to check that the existing surface cover materials are properly removed, the foundation elements of the existing buildings are removed, the handling of excavated shale bedrock is consistent with the recommendations in this report, and suitable materials used for controlled fill are properly placed and compacted over suitable subgrade soils. Placement of fill should be witnessed and documented by the owner's geotechnical engineer.

SECTION 6.0
General Comments

Supplemental recommendations may be required upon finalization of construction plans or if significant changes are made in the characteristics or location of the proposed structure. Soil/rock bearing conditions should be checked at the appropriate time for consistency with those conditions encountered during Whitestone's geotechnical investigation.

The recommendations presented herein should be utilized by a qualified engineer in preparing the project plans and specifications. The engineer should consider these recommendations as minimum physical standards which may be superseded by local and regional building codes and structural considerations. These recommendations are prepared for the sole use of WE Acquisitions, LLC for the specific project detailed and should not be used by any third party. These recommendations are relevant to the design phase and should not be substituted for construction specifications.

The possibility exists that conditions between borings may differ from those at specific test locations, and conditions may not be as anticipated by the designers or contractors. In addition, the construction process may alter soil and rock conditions. Therefore, experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered.

Whitestone assumes that a qualified contractor will be employed to perform the construction work, and that the contractor will be required to exercise care to ensure all excavations are performed in accordance with applicable regulations and good practice. Particular attention should be paid to avoiding damaging or undermining adjacent properties and maintaining slope stability.

Whitestone recommends that the services of the geotechnical engineer be engaged to test and evaluate the soils in the footing excavations prior to concreting in order to determine that the soils will support the bearing pressures. Monitoring and testing also should be performed to verify that suitable materials are used for controlled fills and that they are properly placed and compacted over suitable subgrade soils.

The exploration and analysis of the foundation conditions reported herein are considered sufficient in detail and scope to form a reasonable basis for the foundation design. The recommendations submitted for the proposed construction are based on the available soil information and the design details furnished by WE Acquisitions, LLC and Bohler Engineering MA, LLC. Deviations from the noted subsurface conditions encountered during construction should be brought to the attention of the geotechnical engineer.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been promulgated after being prepared in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics, and engineering geology. No other warranties, express or implied, are made.

WHITESTONE ASSOCIATES, INC.

FIGURES 1A & 1B
Exploration Plan &
Test Pit Location Plan

EXPLORATION PLAN
Proposed Distribution Center ■ Amsterdam, New York
May 16, 2019 ■ Terracon Project No. JB185187

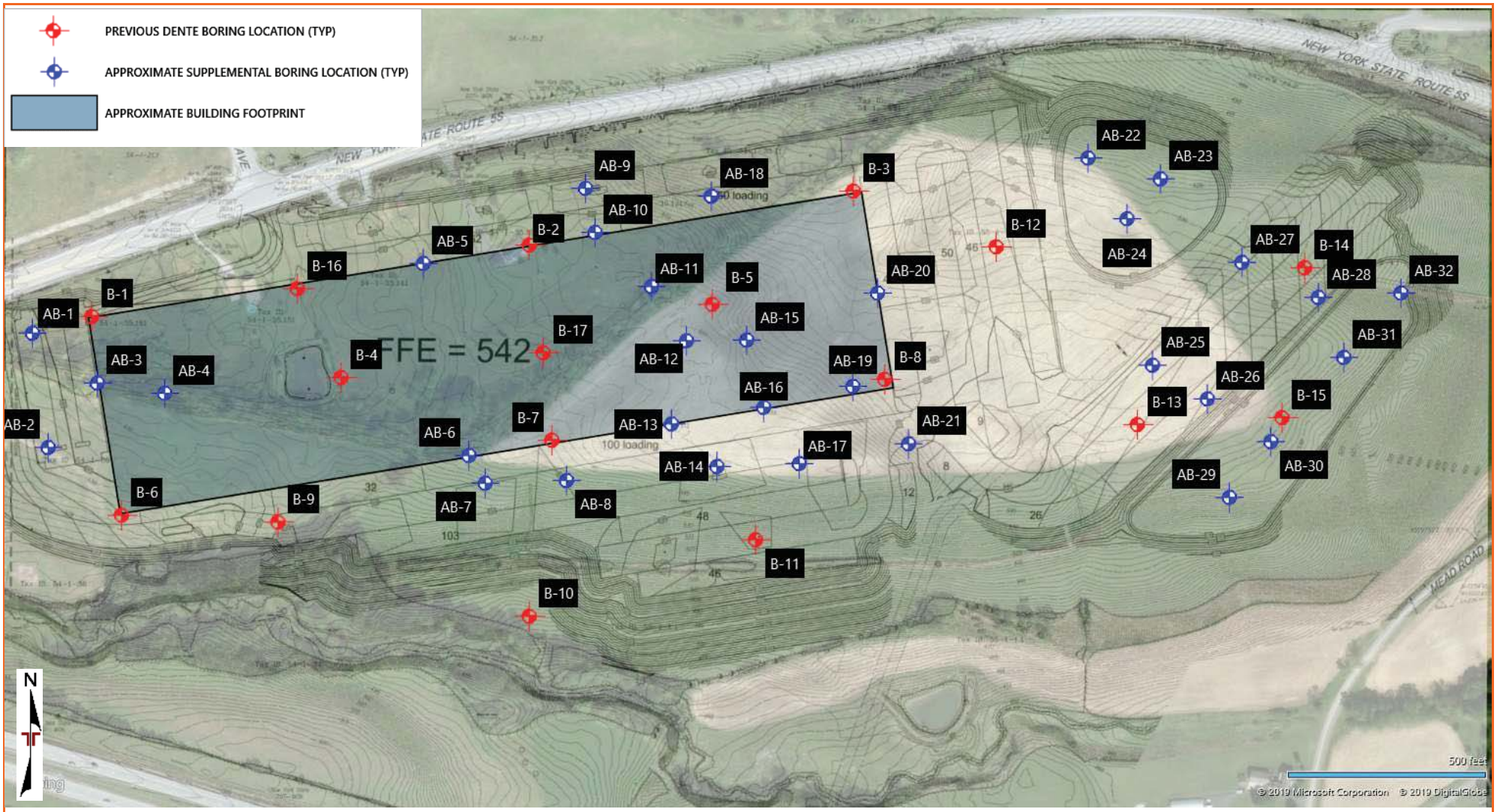


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

BASED ON AERIAL IMAGERY BY MICROSOFT BING MAPS AND 'PRELIMINARY GRADING PLAN' PROJECT No. B180283, SHEET No. 1, DATED MAY 15, 2019 BY BOHLER ENGINEERING OF ALBANY, NEW YORK.

LEGEND

TP-1 — TEST PIT LOCATION (APPROX.)

REFERENCE

THIS PLAN IS BASED ON AN UNDATED GOOGLE EARTH IMAGE.

WHITESTONE ASSOCIATES, INC.

Environmental & Geotechnical Engineers & Consultants

16 OLD FORGE ROAD, SUITE A, ROCKY HILL, CT 06067
860.726.7889 WHITESTONEASSOC.COM

DRAWING TITLE: **TEST LOCATION PLAN**

CLIENT: **WE ACQUISITIONS, LLC**

PROJECT: PROPOSED DISTRIBUTION CENTER
NEW YORK STATE ROUTE 5S
FLORIDA, MONTGOMERY COUNTY, NY

PROJECT #: GM1916427.000	
DESIGNED BY: GR	PROJ. MGR.: RM
DATE: 7/10/19	FIGURE: 1
SCALE: 1" = 250'	

N:\Job Folders\2019\1916427GM\Drawings and Plans\GM1916427.000 TLP.dwg

WHITESTONE
ASSOCIATES, INC.

APPENDIX A
Records of Subsurface Exploration

BORING LOG NO. B-1

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9343° Longitude: -74.2346°

Approximate Surface Elev.: 532 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.7	531.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), trace rootlets in upper 2 feet, grayish brown, moist, very loose to very dense
10.0	522+/-	
		SILTY SAND (SM), grayish brown to black, moist, very dense to dense
17.4	514.5+/-	
		Auger Refusal at 17.4 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		12	1-1-1-1 N=2	
		2	3-7-11-12 N=18	
5		22	7-10-14-17 N=24	13
		22	25-22-28-30 N=50	
10		17	16-25-50/5"	
15		18	19-23-22 N=45	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-04-2019 | Boring Completed: 02-04-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-2

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9348° Longitude: -74.2305°

Approximate Surface Elev.: 553 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
TOPSOIL					
1.0	552+/-				
CLAYEY SAND (SC), trace rootlets, brown, moist, loose to medium dense				17	6-9-3-3 N=12
				20	3-6-8-12 N=14
5.0	548+/-	5			
SILTY SAND (SM), brown, moist, medium dense				18	13-15-12-16 N=27
10.0	543+/-				
10.5 **WEATHERED SHALE**, brown, wet, very dense	542.5+/-	10		5	50/5"
Auger Refusal at 10.5 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-05-2019 | Boring Completed: 02-05-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-3

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.2274°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
		TOPSOIL
1.0	534+/-	**LEAN CLAY (CL)**, trace rootlets, gray to brown, moist, stiff to very stiff
5.0	530+/-	**CLAYEY SAND (SC)**, gray to brown, moist, medium dense
10.0	525+/-	**CLAYEY SAND WITH GRAVEL (SC)**, black, moist, dense to very dense
19.0	516+/-	***Spoon Refusal at 19 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		19	7-4-4-6 N=8	
		18	4-7-10-10 N=17	
5		24	4-7-10-12 N=17	
10		24	4-19-19-24 N=38	9
15		18	14-22-24 N=46	
		0	50/0"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-4

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2323°

Approximate Surface Elev.: 541 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	540.5+/-						
	CLAYEY SAND (SC), trace rootlets in upper 2 feet, brown, moist, very loose to medium dense					8	2-1-2-3 N=3	
						19	6-6-7-11 N=13	
	5.0	536+/-	5					
	5.9 **WEATHERED SHALE**, black, moist, very dense	535+/-				8	8-50/5"	
	Spoon Refusal at 5.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-01-2019 | Boring Completed: 02-01-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-5

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9344° Longitude: -74.2288°

Approximate Surface Elev.: 554 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0	554+/-	**CLAYEY SAND (SC)**, occasional cobbles, dark brown, moist, medium dense
2.0	552+/-	**CLAYEY SAND WITH GRAVEL (SC)**, dark brown, moist, very dense
3.5	550.5+/-	
3.8	550+/-	**WEATHERED SHALE**, black, moist, very dense
		SHALE, gray to black, slightly weathered, very weak to weak, extremely close to close fracture spacing, horizontally bedded
8.8	545+/-	***Boring Terminated at 8.8 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0			19	3-5-5-4 N=10	
			11	18-50/5"	
	▽		1	50/4"	
5			55	RQD = 0% REC = 91%	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA to 3.8 feet, NQ2-sized core barrel to 8.8 feet

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *No water before coring*
upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-6

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.933° Longitude: -74.2343°

Approximate Surface Elev.: 527 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
0					
TOPSOIL 1.0	526+/-				
LEAN CLAY (CL), trace rootlets, brown, wet, very stiff 2.0	525+/-			14	8-10-12-11 N=22
SILTY SAND (SM), brown, moist, medium dense				19	12-12-11-12 N=23
5.0	522+/-	5			
SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, brown, moist, very dense				18	26-36-28-24 N=64
10.1	517+/-	10		0	50/1"
Auger Refusal at 10.1 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-7

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2303°

Approximate Surface Elev.: 547 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.0	546+/-	**SILT WITH SAND (ML)**, trace rootlets, brown, moist, loose				20	4-2-2-4 N=4	
2.0	545+/-	**CLAYEY SAND (SC)**, brown, moist, medium dense				7	4-6-9-8 N=15	
5.0	542+/-	**SILTY SAND (SM)**, brown, moist, very dense	5			8	9-17-34-23 N=51	
9.5	537.5+/-							
9.9	537+/-	**WEATHERED SHALE**, black, very dense ***Spoon Refusal at 9.9 Feet***				5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Once augers were taken out

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-8

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2271°

Approximate Surface Elev.: 543 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.3	541.5+/-	**CLAYEY SAND (SC)**, trace rootlets, brown, moist, medium dense				20	9-8-4-7 N=12	
						17	6-8-10-12 N=18	
5.0	538+/-	**CLAYEY SAND WITH GRAVEL (SC)**, gray to brown, moist, medium dense to dense	5			24	6-8-10-13 N=18	
			10			18	10-14-17 N=31	9
15.0	528+/-		15					
16.1	527+/-	**WEATHERED SHALE**, black, dry, very dense				12	7-27-50/1"	
		Auger Refusal at 16.1 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-9

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9329° Longitude: -74.2329°

Approximate Surface Elev.: 532 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	TOPSOIL							
	1.3	530.5+/-				19	12-10-8-7 N=18	
	CLAYEY SAND WITH GRAVEL (SC), brown to black, moist, medium dense					20	7-7-6-7 N=13	
	5.0	527+/-	5					
	WEATHERED SHALE, black, dry, very dense					17	11-46-50/5"	
	6.4	525.5+/-						
	Spoon Refusal at 6.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-31-2019 | Boring Completed: 01-31-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-10

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9323° Longitude: -74.2305°

Approximate Surface Elev.: 487 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
1.0	486+/-	**TOPSOIL**
2.0	485+/-	**SILTY SAND (SM)**, trace rootlets, brown, moist, medium dense
10.0	477+/-	**CLAYEY SAND WITH GRAVEL (SC)**, brown, moist, medium dense
20.0	467+/-	**CLAYEY SAND WITH GRAVEL (SC)**, black to gray, moist, dense to very dense
21.4	465.5+/-	**WEATHERED SHALE**, black, moist, very dense
		Spoon Refusal at 21.4 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		20	6-6-5-6 N=11	
		19	7-7-6-10 N=13	
5		24	13-12-15-22 N=27	12
10		22	80-25-22-20 N=47	
15		2	44-50/4"	
20		17	44-64-50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-28-2019 | Boring Completed: 01-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9328° Longitude: -74.2284°

Approximate Surface Elev.: 523 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.4	521.5+/-					17	7-6-7-5 N=13	
2.0	521+/-	**SILT WITH SAND (ML)**, trace rootlets, brown, moist, medium dense						
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium dense				17	6-6-10-10 N=16	
5.0	518+/-		5					
		WEATHERED SHALE, black, dry, very dense				22	6-36-50-19 N=86	
			10	▽				
11.4	511.5+/-					16	6-20-50/5"	
		Spoon Refusal at 11.4 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *At completion of drilling*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-12

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9348° Longitude: -74.2261°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.0	535+/-	**TOPSOIL**
1.0	534+/-	**CLAYEY SAND (SC)**, brown, moist, medium dense
5.0	530+/-	**CLAYEY SAND WITH GRAVEL (SC)**, brown, moist, medium dense to very dense
15.0	520+/-	
15.2	520+/-	**WEATHERED SHALE**, black, moist, very dense
		Spoon Refusal at 15.2 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		20	7-6-4-4 N=10	
		12	4-5-6-5 N=11	
5		24	5-6-10-13 N=16	
10		5	50/5"	
15			50/2"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-13

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2248°

Approximate Surface Elev.: 541 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
		TOPSOIL						
1.0	540+/-							
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to gray, moist, medium dense				18	6-6-6-6 N=12	
2.3	538.5+/-							
		WEATHERED SHALE, black, dry, very dense				11	5-50/5"	
4.8	536+/-					8	28-50/4"	
		Spoon Refusal at 4.8 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-14

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2232°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
TOPSOIL							
1.2	524+/-				20	12-15-19-12 N=34	
SILTY SAND (SM), trace rootlets, brown, moist, dense							
2.0	523+/-						
CLAYEY SAND (SC), brown, moist, medium dense					12	8-7-6-9 N=13	
5.0	520+/-						
5.4 **WEATHERED SHALE**, black, moist, very dense	519.5+/-	5			5	50/5"	
Spoon Refusal at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-30-2019 | Boring Completed: 01-30-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-15

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2234°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
TOPSOIL					
1.2	534+/-				
CLAYEY SAND (SC), trace rootlets, dark brown, moist, medium dense				20	12-17-15-9 N=32
2.0	533+/-				
WEATHERED SHALE, black, moist, loose to medium dense				24	8-7-6-5 N=13
		5			
				24	2-2-2-2 N=4
10.0	525+/-				
10.4 **WEATHERED SHALE**, black, moist, very dense	524.5+/-	10		5	50/5"
Spoon Refusal at 10.4 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 01-29-2019 | Boring Completed: 01-29-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-16

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2327°

Approximate Surface Elev.: 538 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.5	**TOPSOIL**	537.5+/-
	CLAYEY SAND (SC), trace rootlets, brown, moist, loose	
2.0		536+/-
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, brown, moist, medium dense	
5.0		533+/-
	WEATHERED SHALE, black, moist, very dense	
6.1		532+/-
	Spoon Refusal at 6.1 Feet	

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		16	3-2-2-3 N=4
		22	5-6-12-17 N=18
5			
		8	3-8-50/1"

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-01-2019 | Boring Completed: 02-01-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. B-17

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9341° Longitude: -74.2304°

Approximate Surface Elev.: 549 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.7	548.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), trace rootlets, orange to brown, moist, loose to medium dense
5.3	543.5+/-	**CLAYEY SAND WITH GRAVEL (SC)**, gray, moist, dense to very dense
		NOTE: Dry at 10 feet
12.5	536.5+/-	***Auger Refusal at 12.5 Feet***

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		17	2-1-2-4 N=3
		17	2-5-7-5 N=12
5		24	4-36-13-15 N=49
10		11	15-50/5"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater

No measurable groundwater

Terracon
594 Broadway
Watervliet, NY

Boring Started: 02-04-2019 | Boring Completed: 02-04-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-1

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.2352°

Approximate Surface Elev.: 532 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0.3	532+/-	**TOPSOIL**
		LEAN CLAY (CL), mottled, trace rootlets, orange to brown, moist, medium-stiff
2.0	530+/-	
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium dense
6.3	525.5+/-	
7.0	525+/-	**COMPLETELY WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 7 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		18	1-1-3-5 N=4
5			
		24	7-12-15-50 N=27

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-2

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9334° Longitude: -74.235°

Approximate Surface Elev.: 531 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION
0.3	531+/-	**GRAVEL ROADWAY**
		FILL - CLAYEY SAND WITH GRAVEL, pieces of geotextile fabric, orange to brown, moist, medium dense
2.0	529+/-	**CLAYEY SAND WITH GRAVEL (SC)**, occasional cobbles and boulders, orange to brown, moist, dense
9.8	521+/-	
10.1	521+/-	**WEATHERED SHALE**, brown to black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 10.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		8	10-10-6-6 N=16
5		17	15-18-23-50 N=41
10		1	50/1"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-3

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9339° Longitude: -74.2346°

Approximate Surface Elev.: 536 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.3	535.5+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, medium-stiff to very stiff
6.3	529.5+/-	
		CLAYEY SAND WITH GRAVEL (SC), occasional cobbles and boulders, gray to black, moist, dense to very dense
14.1	522+/-	
		Auger and Sampler Refusal at 14.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		12	1-2-3-5 N=5
5		20	12-15-18-28 N=33
10		24	12-15-18-32 N=33
		0	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *13.7 feet after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-4

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2339°

Approximate Surface Elev.: 538 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.2 **TOPSOIL**	538+/-						
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, mottled, orange to brown, moist to wet, very loose to dense **Wet from approximately 0 to 1.5 feet**				X	12	1/12"-2-4 N=2	
			5					
					X	18	10-14-19-50/2" N=33	
	6.5	531.5+/-						
	6.7 **WEATHERED SHALE**, black, dry, very dense ***Sampler Refusal on Bedrock at 6.7 Feet***	531.5+/-						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-5

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2315°

Approximate Surface Elev.: 545 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.9	544+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, soft
5.0	540+/-	**CLAYEY SAND WITH GRAVEL (SC)**, occasional cobbles, orange to brown, moist, dense to very dense
12.0	533+/-	
12.1	533+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 12.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		19	3-1-2-4 N=3
5		20	12-18-15-15 N=33
10		20	12-18-48-50/2" N=66
		1	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-6

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9334° Longitude: -74.2311°

Approximate Surface Elev.: 543 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.7	542.5+/-	**TOPSOIL**
		LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist to wet, soft
5.0	538+/-	
		SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, gray to brown, moist to wet, medium dense to very dense
11.6	531.5+/-	
11.7	531.5+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal on Bedrock at 11.7 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
		18	WH-1-1-3 N=2
5		24	3-5-15-25 N=20
10		5	50/5"
		1	50/1"

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
Standing water observed at grade prior to drilling
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-7

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9332° Longitude: -74.2309°

Approximate Surface Elev.: 539 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.6	538.5+/-	**TOPSOIL**						
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist, very loose				18	WH-1-1-3 N=2	
5.0	534+/-		5					
5.9	533+/-	**WEATHERED SHALE**, black, dry, very dense				8	35-50/5"	
		Sampler Refusal on Bedrock at 5.9 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-8

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9332° Longitude: -74.2301°

Approximate Surface Elev.: 544 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.7	**TOPSOIL**	543.5+/-
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles and boulders, orange to brown, moist, loose	
4.0		540+/-
4.9	**WEATHERED SHALE**, black, dry, very dense	539+/-
	Auger and Sampler Refusal on Bedrock at 4.9 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			18	2-2-4-4 N=6	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-9

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.23°

Approximate Surface Elev.: 550 (Ft.) +/-

DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.6	**TOPSOIL**	549.5+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, very loose					12	WH-1-2-3 N=3	
3.0		547+/-						
	WEATHERED SHALE, black, dry, very dense							
4.4		545.5+/-				5	50/5"	
	Auger and Sampler Refusal on Bedrock at 4.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-10

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9349° Longitude: -74.2299°

Approximate Surface Elev.: 554 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.6	553.5+/-						
	TOPSOIL							
	CLAYEY SAND WITH GRAVEL (SC), trace rootlets, mottled, orange to brown, moist, loose				X	18	WH-2-3-5 N=5	
	5.5	548.5+/-	5					
	WEATHERED SHALE, black, dry, very dense				X	23	17-14-30-50/5" N=44	
	6.9	547+/-						
	Sampler Refusal on Bedrock at 6.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-11

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2293°

Approximate Surface Elev.: 555 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	554+/-						
TOPSOIL							
LEAN CLAY (CL), trace rootlets, mottled, orange to brown, moist, medium-stiff					16	1-2-4-5 N=6	
5.0	550+/-	5					
5.9	549+/-				11	30-50/5"	
WEATHERED SHALE, black, dry, very dense							
Sampler Refusal on Bedrock at 5.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-26-2019 | Boring Completed: 03-26-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-12

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.229°

Approximate Surface Elev.: 555 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	554.5+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist to wet, loose				X	19	1-2-2-4 N=4	
	3.5	551.5+/-						
	WEATHERED SHALE, black, dry, very dense							
	5.0	550+/-			X	12	34-50	
	Sampler Refusal on Bedrock at 5 Feet		5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-13

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9336° Longitude: -74.2292°

Approximate Surface Elev.: 555 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	LEAN CLAY WITH GRAVEL (CL), mottled, orange to brown, moist, medium-stiff							
	2.0	553+/-				14	WH-1-3-6 N=4	
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, medium dense							
	6.0	549+/-	5			20	12-13-28-50/5" N=41	
	6.9 **WEATHERED SHALE**, black, dry, very dense	548+/-						
	Sampler Refusal on Bedrock at 6.9 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-14

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9333° Longitude: -74.2287°

Approximate Surface Elev.: 554 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.7	553.5+/-						
	TOPSOIL							
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, very loose				X	20	WH-1-1-2 N=2	
	4.0	550+/-						
	WEATHERED SHALE, brown, dry, very dense		5					
	5.4	548.5+/-			X	5	50/5"	
	Sampler Refusal on Bedrock at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-15

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9342° Longitude: -74.2285°

Approximate Surface Elev.: 550 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
		TOPSOIL
1.0	549+/-	**LEAN CLAY (CL)**, mottled, orange to brown, moist, medium-stiff
4.0	546+/-	
4.4	545.5+/-	**WEATHERED SHALE**, black, dry, very dense
		Sampler Refusal on Bedrock at 4.4 Feet

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			14	WH-2-4-6 N=6	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-16

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9337° Longitude: -74.2283°

Approximate Surface Elev.: 555 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.6	**TOPSOIL**	554.5+/-
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, loose	
4.5		550.5+/-
5.4	**WEATHERED SHALE**, black, dry, very dense	549.5+/-
	Sampler Refusal on Bedrock at 5.4 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			14	WH-2-3-4 N=5	
5			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-17

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9333° Longitude: -74.228°

Approximate Surface Elev.: 556 (Ft.) +/-

DEPTH		ELEVATION (Ft.)
0.8	**TOPSOIL**	555.5+/-
	LEAN CLAY (CL), mottled, orange to brown, moist, medium-stiff	
3.0		553+/-
	WEATHERED SHALE, black, dry, very dense	
4.4		551.5+/-
	Auger and Sampler Refusal on Bedrock at 4.4 Feet	

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			19	WH-1-3-3 N=4	
			5	50/5"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-18

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9352° Longitude: -74.2288°

Approximate Surface Elev.: 539 (Ft.) +/-

GRAPHIC LOG	DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5	**TOPSOIL**	538.5+/-						
		WEATHERED SHALE, black, moist to wet, medium dense to very dense			▽		18	1-2-8-10 N=10	
	2.4		536.5+/-				4	50/5"	
		Sampler Refusal on Bedrock at 2.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *1.2 feet while drilling (perched)*

▽ *1 foot after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-19

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2275°

Approximate Surface Elev.: 545 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0							
	TOPSOIL							
	1.0	544+/-						
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, moist, loose				X	18	WH-1-3-3 N=4	
	4.0	541+/-						
	WEATHERED SHALE, black, dry, very dense							
	5.4	539.5+/-	5		X	10	35-50/5"	
	Sampler Refusal on Bedrock at 5.4 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer
Standing water observed at grade prior to drilling

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-20

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2272°

Approximate Surface Elev.: 539 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	538+/-						
	CLAYEY SAND WITH GRAVEL (SC), occasional cobbles, orange to brown, moist, loose to very dense **Trace rootlets observed from 0 to 2 feet**			X	17	1-2-4-3 N=6	
		5		X	24	7-7-10-14 N=17	
	Grades to gray	10		X	24	21-34-32-50 N=66	
		15		X	24	21-34-24-24 N=58	
		20		X	21	8-15-34-50/5" N=49	
21.9	517+/-						
	Sampler Refusal at 21.9 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019	Boring Completed: 03-27-2019
Drill Rig: CME 55	Driller: J. Lamm
Project No.: JB185187	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-21

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2269°

Approximate Surface Elev.: 545 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	544+/-						
TOPSOIL							
CLAYEY SAND WITH GRAVEL (SC), brown to black, moist, loose				X	14	WH-2-3-4 N=5	
5.0	540+/-	5					
WEATHERED SHALE, black, dry, very dense				X	20	25-43-38-30 N=81	
7.0	538+/-						
Boring Terminated at 7 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:
WH = Weight of Hammer

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-25-2019 | Boring Completed: 03-25-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-22

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9354° Longitude: -74.2252°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	
0.7	524.5+/-	**TOPSOIL**
		CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist, loose
5.0	520+/-	
		SILTY SAND (SM), brown, wet, very loose
10.0	515+/-	
		SILTY SAND WITH GRAVEL (SM), occasional cobbles and boulders, brown, dry, very dense
		Grades to wet
18.5	506.5+/-	
19.1	506+/-	**WEATHERED SHALE**, black, dry, very dense
		Auger and Sampler Refusal at 19.1 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
5		14	1-4-5-2 N=9
		24	2-1/12"-8 N=1
10		24	21-32-38-32 N=70
15		20	12-27-40-38 N=67
		1	50/1"

WATER LEVEL OBSERVATIONS

WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-23

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9353° Longitude: -74.2246°

Approximate Surface Elev.: 525 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
0.5	524.5+/-	**TOPSOIL**
		CLAYEY SAND (SC), orange to brown, moist, loose to medium dense
6.0	519+/-	**SILTY SAND WITH GRAVEL (SM)**, occasional cobbles and boulders, gray to brown, moist to wet, very dense
11.0	514+/-	***Auger and Sampler Refusal at 11 Feet***

DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
			19	1-2-5-4 N=7	
5			17	2-9-30-30 N=39	
10	▽		4	50/4"	
			0	50/0"	

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

▽ *10.5 feet after boring completion*

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-24

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.935° Longitude: -74.2249°

Approximate Surface Elev.: 531 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
0.0					
TOPSOIL					
1.0	530+/-				
CLAYEY SAND WITH GRAVEL (SC), trace rootlets, orange to brown, moist to wet, medium dense				19	1-6-5-4 N=11
		5			
6.0	525+/-			18	6-11-25-22 N=36
WEATHERED SHALE, black, dry, very dense					
				0	50/1"
9.1	522+/-			1	50/1"
Auger and Sampler Refusal on Bedrock at 9.1 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-25

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.934° Longitude: -74.2246°

Approximate Surface Elev.: 542 (Ft.) +/-

GRAPHIC LOG	DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.3	**TOPSOIL**	542+/-						
		CLAYEY SAND WITH GRAVEL (SC), brown, moist, medium-stiff					19	1-4-4-5 N=8	
	2.5		539.5+/-						
		WEATHERED SHALE, black, dry, very dense							
	3.8		538+/-				10	30-50/4"	
		Auger and Sampler Refusal on Bedrock at 3.8 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-26

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9338° Longitude: -74.2241°

Approximate Surface Elev.: 541 (Ft.) +/-

DEPTH		ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	**TOPSOIL**	540.5+/-						
1.0	**CLAYEY SAND (SC)**, mottled, trace rootlets, orange to brown, moist, loose	540+/-				19	1-4-3-5 N=7	
	LEAN CLAY WITH GRAVEL (CL), black, moist, stiff							
3.0		538+/-						
	WEATHERED SHALE, black, dry, very dense							
4.2		537+/-				1	50/2"	
	Auger and Sampler Refusal on Bedrock at 4.2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-27

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9347° Longitude: -74.2238°

Approximate Surface Elev.: 532 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.3 **TOPSOIL**	531.5+/-						
	1.0 **SILTY SAND WITH GRAVEL (SM)**, black, wet, loose	531+/-				22	1-7-29-32 N=36	
	2.0 **WEATHERED SHALE**, black, moist, very dense	530+/-						
	Sampler Refusal on Bedrock at 2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-28

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2231°

Approximate Surface Elev.: 530 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS
	TOPSOIL				
1.3	529+/-			23	2-5-8-9 N=13
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, medium dense				
3.5	526.5+/-				
	WEATHERED SHALE, black, dry, very dense	5			
5.9	524+/-			11	34-50/5"
	Sampler Refusal on Bedrock at 5.9 Feet				

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-29

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9331° Longitude: -74.2239°

Approximate Surface Elev.: 529 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.6	**TOPSOIL** 528.5+/-						
		LEAN CLAY WITH GRAVEL (CL), black, moist, medium-stiff				19	1-4-3-11 N=7	
	2.0	527+/-						
		WEATHERED SHALE, black, dry, dense				24	14-16-24-41 N=40	
	4.0	525+/-						
		Auger Refusal on Bedrock at 4 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-30

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9335° Longitude: -74.2235°

Approximate Surface Elev.: 535 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	RECOVERY (In.)	FIELD TEST RESULTS
	TOPSOIL			
1.0	534+/-		18	1-4-6-6 N=10
	CLAYEY SAND WITH GRAVEL (SC), orange to brown, wet, medium dense			
4.8	530+/-			
	WEATHERED SHALE, black, dry, very dense	5	11	28-50/5"
5.9	529+/-			
	Auger and Sampler Refusal on Bedrock at 5.9 Feet			

GRAPHIC LOG | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | WATER CONTENT (%)

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-31

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.934° Longitude: -74.2228°

Approximate Surface Elev.: 535 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
	0.5 **TOPSOIL**	534.5+/-						
	WEATHERED SHALE, black, moist, dense				X	20	5-17-25-50 N=42	
	2.0	533+/-						
	Auger Refusal on Bedrock at 2 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-27-2019 | Boring Completed: 03-27-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

BORING LOG NO. AB-32

PROJECT: Proposed Distribution Center

CLIENT: WE Acquistions, LLC
New Haven, Connecticut

SITE: 5S Highway
Amsterdam, New York

LOCATION

Latitude: 42.9345° Longitude: -74.2223°

Approximate Surface Elev.: 506 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.8	505+/-						
TOPSOIL							
LEAN CLAY WITH GRAVEL (CL), occasional cobbles, black, moist to wet, medium-stiff to very stiff					24	2-9-8-5 N=17	
					24	5-6-8-6 N=14	
		5					
6.0	500+/-				22	2-3-7-13 N=10	
WEATHERED SHALE, black, moist, medium dense to very dense							
8.3	497.5+/-				10	14-10-50/4"	
Sampler Refusal on Bedrock at 8.3 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
2 1/4" HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

No measurable groundwater upon completion of drilling

Terracon
594 Broadway
Watervliet, NY

Boring Started: 03-28-2019 | Boring Completed: 03-28-2019

Drill Rig: CME 55 | Driller: J. Lamm

Project No.: JB185187

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL JB185187 PROPOSED DISTRIBU.GPJ MODELLAYER.GPJ 5/16/19

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-1

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	9.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	7.0	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
4.0	S-1	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0			As Above, Occasional Cobbles (SM)	
			8.7				
9.0	RS-1	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			10.0			Test Pit Log TP-1 Terminated at a Depth of 9.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934868 N, 74.232835 W	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-2

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	13.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
						Brown to Gray, Silty Sand with Gravel (SM)	
			5.0	GLACIAL TILL		As Above (SM)	Difficult digging implies very dense
						As Above (SM)	
			10.0			As Above (SM)	Boulder @ 11 fbgs
			12.0				
12.5	RS-2	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-2 Terminated at a Depth of 13.0 Feet Below Ground Surface	
						Test Pit Location: (Lat,Lon) = 42.934685 N, 74.232423 W)	
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-3

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		12" Topsoil	
3.0	RS-3	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
			5.5			Test Pit Log TP-3 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.932880 N, 74.232457 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-4

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		14" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
5.5	RS-4	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-4 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933167 N, 74.232110 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-5

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	4.5	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		9" Topsoil	
2.0	S-2	Grab		GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-5	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
						Test Pit Log TP-5 Terminated at a Depth of 5.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933329 N, 74.228796 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-6

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	7.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		11" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			5.0				
			6.0				
6.5	RS-6	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
						Test Pit Log TP-6 Terminated at a Depth of 7.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.933459 N, 74.227922 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-7

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	6.0 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		10" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel, Cobbles (SM)	
			4.5				
			5.0	SHALE			
5.5	RS-4	Grab		BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			6.0				
						Test Pit Log TP-7 Terminated at a Depth of 6.0 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934019 N, 74.229186 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE ASSOCIATES, INC.

RECORD OF SUBSURFACE EXPLORATION

Test Pit No.: TP-8

Page 1 of 1

Project:	Proposed Distribution Center	**WAI Project No.:**	GM1916427.000
Location:	New York State Route 5S, Town of Florida, Montgomery County, New York	**Client:**	WE Acquisitions, LLC

Surface Elevation:	± NS feet NAVD	**Date Started:**	6/19/2019		**Water Depth (feet bgs)**	**Elevation (feet NAVD)**	**Cave-In Depth (feet bgs)** / **Elevation (feet msl)**
Termination Depth:	5.5 feet bgs	**Date Completed:**	6/19/2019				
Proposed Location:	Building	**Logged By:**	DC	**During:**	--	--	
Excavating Method:	Excavator	**Contractor:**	TW	**At Completion:**	--	--	**At Completion:** -- / --
Test Method:	Visual Observation	**Rig Type:**	Kobelco SK170	**24 Hours:**	--	--	

SAMPLE INFORMATION			DEPTH	STRATA		DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)				
			0.0				
				TS		8" Topsoil	
				GLACIAL TILL		Brown to Grey, Silty Sand with Gravel (SM)	
			4.0				
4.5	RS-8	Grab		SHALE BEDROCK		Black, Thinly Bedded (Horizontal), Medium Hard, Shale	
			5.0				
						Test Pit Log TP-8 Terminated at a Depth of 5.5 Feet Below Ground Surface Test Pit Location: (Lat,Lon) = 42.934131 N, 74.229427 W	
			10.0				
			10.1				
			15.0				

NOTES: bgs = below ground surface, msl = mean sea level, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

WHITESTONE
ASSOCIATES, INC.

APPENDIX B
Laboratory Test Results

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001
Service Date: 02/13/19
Report Date: 02/13/19
Task:

A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

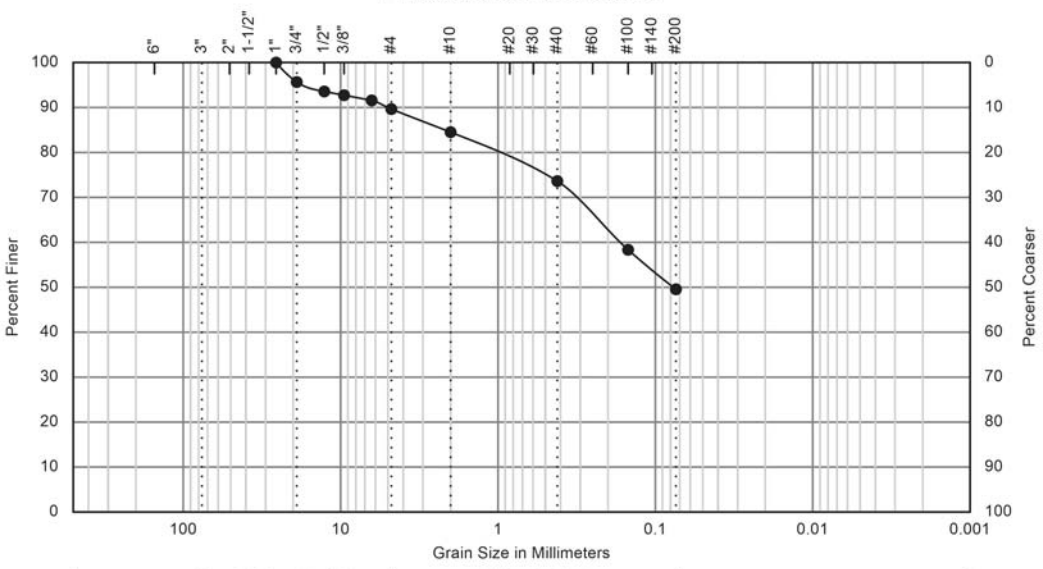
Sample Information

Sample Type:	SPT
Sample Location:	B-1/S-3 4'-6'
Sample Description:	SILT and F-M-C SAND, Little F-C Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"			
1-1/2"			
1"	100.0		
3/4"	95.7		
1/2"	93.6		
3/8"	92.7		
1/4"	91.6		
#4	89.6		
#10	84.5		
#40	73.6		
#100	58.3		
#200	49.6		



% Cobbles	% Gravel - 10.4		% Sand - 40.1			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	4.3	6.0	5.1	10.9	24.1	49.6

D_{60}	D_{30}	D_{10}	C_c	C_u	FM
=0.17	=	=	=	=	=

*

Comments:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/ 3193 1W
Report Date: 0/ 3193 1W
Task:

DENTE A Terracon COMPANY
5W A Broadway
E atervliet, A NY A 1/ 18W 970W
518-/ 66-0910

Client

E A2 quisitions A LLC
2 ttn: A Thomas A De2 ngelis
900 A George A Street, A G-01
New A Haven, A CT A 06511

Project

Proposed A Distribution A Center A 5SA Highway A2 msterdam, A NY
5SA Highway
Florida, A NY

Project A Number: A B185187

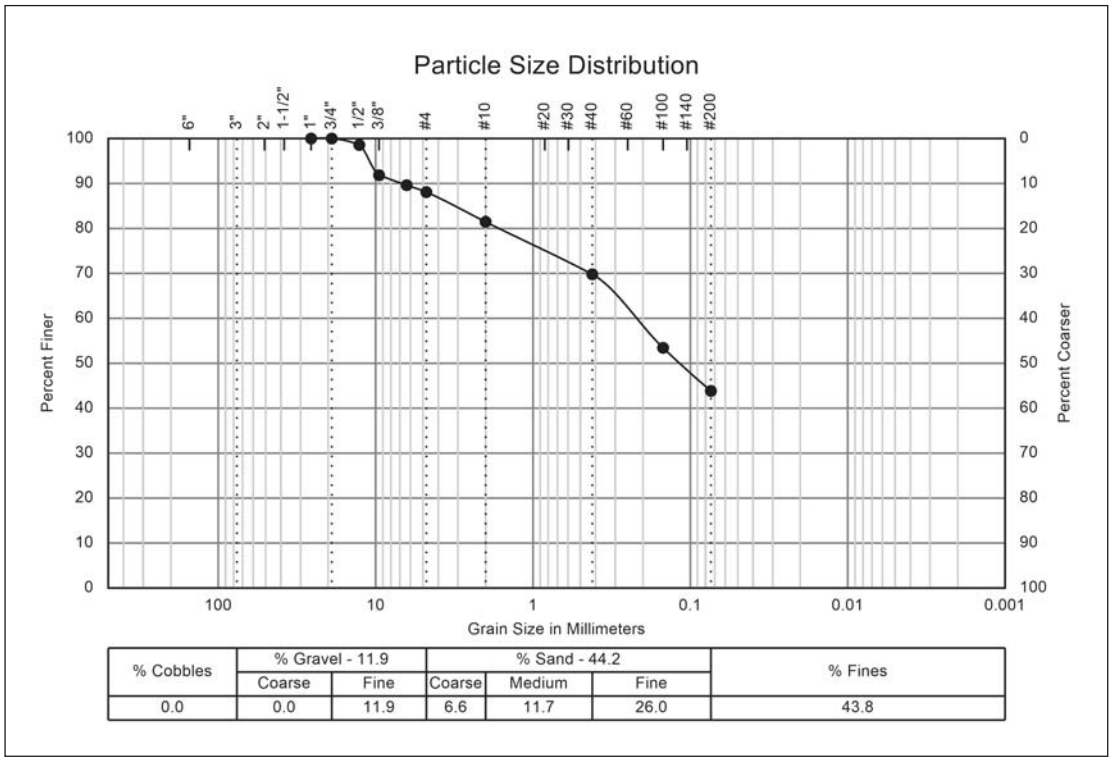
Sample Information

Sample Type:	SPT
Sample Location:	B-3/S-4 10'-12'
Sample Description:	F-M-C SAND and SILT, Little Fine Gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
1"	100.0		
3/4"	100.0		
1/2"	98.6		
3/8"	91.8		
1/4"	89.6		
#4	88.1		
#10	81.5		
#40	69.8		
#100	53.4		
#200	43.8		



% Cobbles	% Gravel - 11.9		% Sand - 44.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	11.9	6.6	11.7	26.0	43.8

D_{60} = 0.22	D_{30} =	D_{10} =	C_c =	C_u =	FM =

*

Comments:

Services: PerRormA gradation A nalysis A on A sample A RA material A eturned A o A he A RRice A n A general A ccordance A with A 2 STf AD6W9.
Dente Group - A Terracon Co. Rep.: A2 .A Barron
Reported To: N32
Contractor: N32
Report Distribution:
(1) Æ A2 quisitions A LLC, A Thomas A De2 ngelis

Reviewed By:

John A Odorisio
Senior A ngineer

Test Methods: 2 STf AD6W9

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.00012
Service Date: 0/31931W
Report Date: 0/31931W
Task:

DENTE A Terracon COMPANY
5W4A Brnadway
E acervlseo,ANYA1/18W-970W
518-/66-0910

Client

E Acquistosn Lt ACC2
c oL:A Thnmat A Dec Lgelst
900A Genrge A Screeo,AG-01
New A HaveL,A2 TA06511

Project

Prnpnted A Dstorsbi osnLA2 eLoerA5SA Hsghway A mt oerdam,ANY
5SA Hsghway
Flnrsda,ANY

Prnjeqo A Ni mber:A JB185187

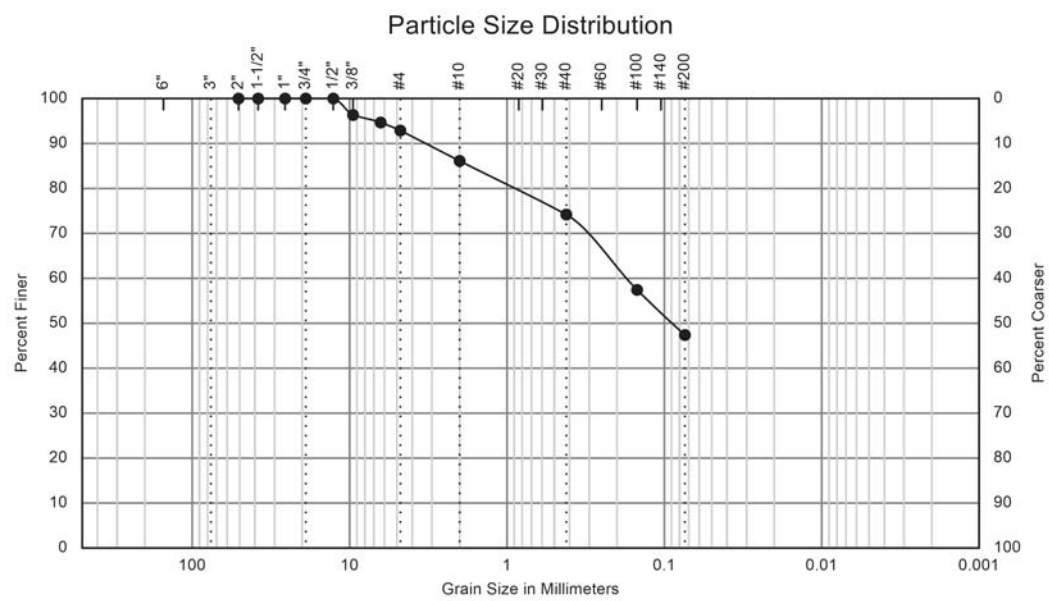
Sample Information

Sample Type:	SPT
Sample Location:	B-10/S-3 5'-7'
Sample Description:	SILT and F-M-C SAND, trace fine gravel
USCS:	Silty sand (SM)

Laboratory Test Data

Test Method:	ASTM D6913
Method:	NA
Atterberg Limits:	LL Air - 0, LL Oven - 0, PL - 0, PI - 0
Sample Preparation:	Oven Dried
Sieving Method:	Single Sieve-Set Sieving

Sieve Size	Percent Finer	Spec.*	Pass (X=Fail)
2"	100.0		
1-1/2"	100.0		
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	96.3		
1/4"	94.7		
#4	92.9		
#10	86.1		
#40	74.2		
#100	57.4		
#200	47.4		



% Cobbles	% Gravel - 7.1		% Sand - 45.5			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	7.1	6.8	11.9	26.8	47.4

*

D_{60}=0.17	D_{30}=	D_{10}=	C_c=	C_u=	FM =

Comments:

Services: PerRnrmAgradaosnLAaLalytstAnLAaampleAnRAmaoersalAteoirLedAnAheAnRsqeALAgeLeralAaqqnrdaLqeAvsohAe STfAD6W19.
Dente Group - A Terracon Co. Rep.: Ac .A BarrnL
Reported To: N3c
Contractor: N3c
Report Distribution:
(1)A E Acquistosn Lt ACC2 ,A Thnmat A Dec Lgelst

Reviewed By:

JnhLA Odnrstsn
SeLsnrA LgsLeer

Test Methods: c STfAD6W19

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PARTICLE SIZE DISTRIBUTION REPORT

Report Number: JB185187.0001B
Service Date: 02/13/19
Report Date: 02/13/19
Task:

DENTE A Terracon COMPANY
594 Broadway
Watervliet, NY 12189-3709
518-266-0310

Client

WE Acquistions LLC
Attn: Thomas DeAngelis
300 George Street, G-01
New Haven, CT 06511

Project

Proposed Distribution Center 5S Highway Amsterdam, NY
5S Highway
Florida, NY

Project Number: JB185187

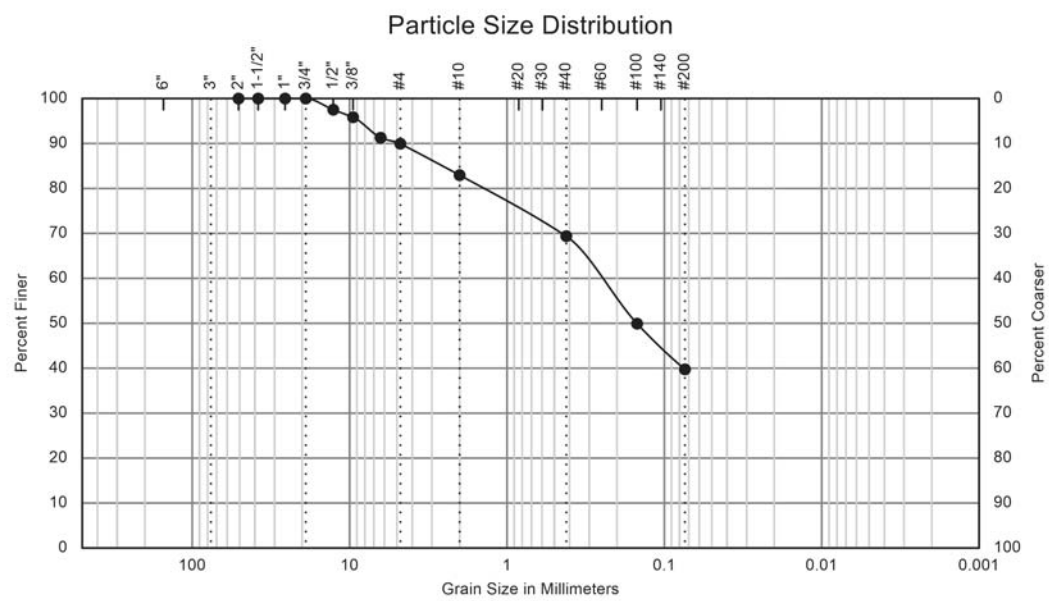
Sample Information

a-mple D(pe:	agD
a-mple Noc-tioM	BI1/aI3 4' 64y6
a-mple FescriptioM	SIL IT and F-MC aAND, Nittle SiMe Gr-vel
=aTa:	ailt(s-MC)aL 9

Laboratory Test Data

Dest LetPoC:	naDL Fh04O
LetPoC:	dn
ntterUerX Nimits:	NNnir I', NNbveMI', gNI', gAI'
a-mple grep-r-tioM	bveMFrieC
aieviMX LetPoC:	aiMXle aievelaet aieviMX

aieve ai*e	gerceMt SiMer	apec2"	g-ss)z. S-il9
y5	1'' 2		
4I4/y5	1'' 2		
45	1'' 2		
O/35	1'' 2		
4/y5	0728		
O/15	0821		
4/35	042O		
#3	1020		
#4'	1O2		
#3'	h023		
#4''	3020		
#y''	O027		



% Cobbles	% Gravel - 10.1		% Sand - 50.2			% Fines
	Coarse	Fine	Coarse	Medium	Fine	
0.0	0.0	10.1	7.0	13.6	29.6	39.7

"

$F_{h'}$. '2y3	F_{O} .	$F_{4'}$.	T_c .	T_u .	SL .

Comments:

Services: PerRorm gradation analysis on sample oRmaterial returned to the oRRce in general accordance with ASTf D6913.
Dente Group - A Terracon Co. Rep.: A. Barron
Reported To: N/A
Contractor: N/A
Report Distribution:
(1) WE Acquistions LLC, Thomas DeAngelis

Reviewed By:

John Odorisio
Senior Engineer

Test Methods: ASTf D6913

DPe tests were performeC iMXeMer-I-ccorC-Mce witP-pplic-Ule naDL, nnaHDb, or Fb D test metPoCs2 DPis report is exclusivel(for tPe use of tPe clieMt iMCic-teC-Uove-MCsP-Il Mot Ue reproCuceC except iMfull witPout tPe writteMcoMseMt of our comp-M(2 Dest results tr-MsmitteC PereiM-re oM(-pplic-Ule to tPe -ctu-I s-mples testeC-t tPe loc-tioM)s9refereMceC-MC-re Mot Mecess-ril(iMCic-tive of tPe properties of otPer-pp-reMtl(simil-r or iCeMtic-I m-teri-Is2

8487, 19e Avenue
Montréal (Québec) H1Z 4J2
Téléphone: 514-521-4290
Télécopieur: 514-521-4637
www.exp.com

TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #1		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48711	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

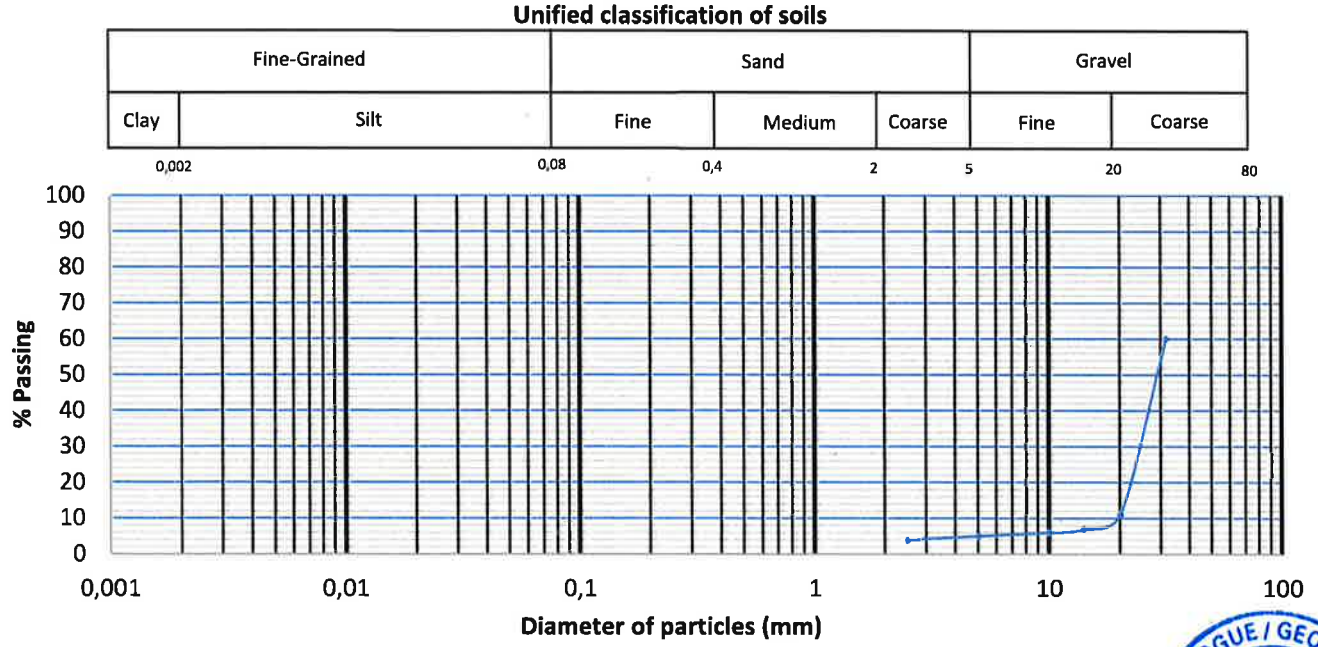
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	64	
Pyrite equivalent	NQ2560-500	0,15%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

GÉOLOGUE / GEOLOGIST ALAIN BLANCHETTE #254 QUÉBEC

48711.xls

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Phone : 514-521-4290
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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48711
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 1
Source :	Florida, New York
Sampled by :	Client
Location :	RS1 + RS2

Weight used

Passing	40	mm	Retained	31.5	mm	Weight	900	g
Passing	31.5	mm	Retained	20	mm	Weight	715	g
Passing	-	mm	Retained	-	mm	Weight	-	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	5	5						
Indurated Shale	0.5	43	21.5	47	23.5						
Slate Shale	0.75	57	43.1	48	35.8						
SPPI per fraction:			64.6		64.3						

Final SPPI: 64

Remark

Realized by:	Marie-Camille Labranche, Trainee, Geological Engineering	Date:	July 3rd, 2019 AAAA – MM – JJ
Approved by:	Alain Blanchette, géo., M.Sc.A. Principal Director	Date:	July 3rd, 2019 AAAA – MM – JJ

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

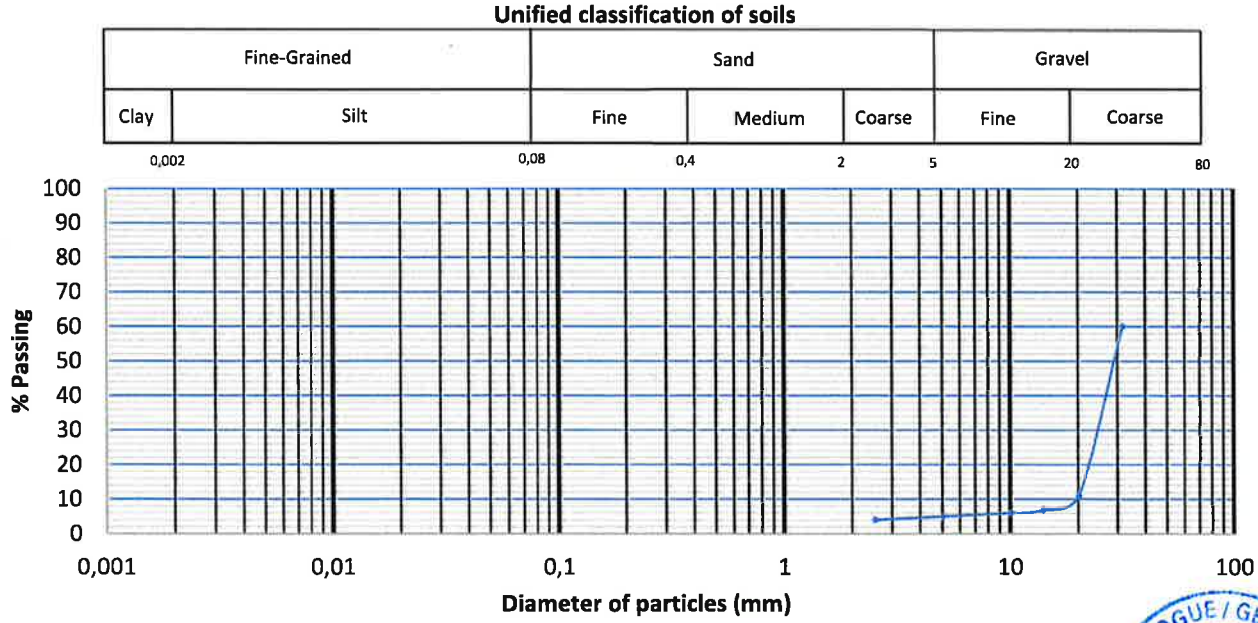
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #2		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48712	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80		
56	100	
40	96	
31,5	60	
20	11	
14	7	
10	6	
5	5	
2,5	4	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	67	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,007%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

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48712.xls

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Fax : 514-521-4637
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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48712
Client's ref. : 60678

Sample : Crushed Stone, sample nº 2
Source : Florida, New York
Sampled by : Client
Location : RS2 + RS3

Weight used								
Passing	40	mm	Retained	31.5	mm	Weight	1 389	g
Passing	31.5	mm	Retained	20	mm	Weight	962	g
Passing	20	mm	Retained	14	mm	Weight	771	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained 14 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	0.5	0	0	40	20	34	17				
Indurated Shale	0.75	100	75	60	44.8	66	49.4				
SPPI per fraction:			75		64.8		66.4				

Final SPPI: 67

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

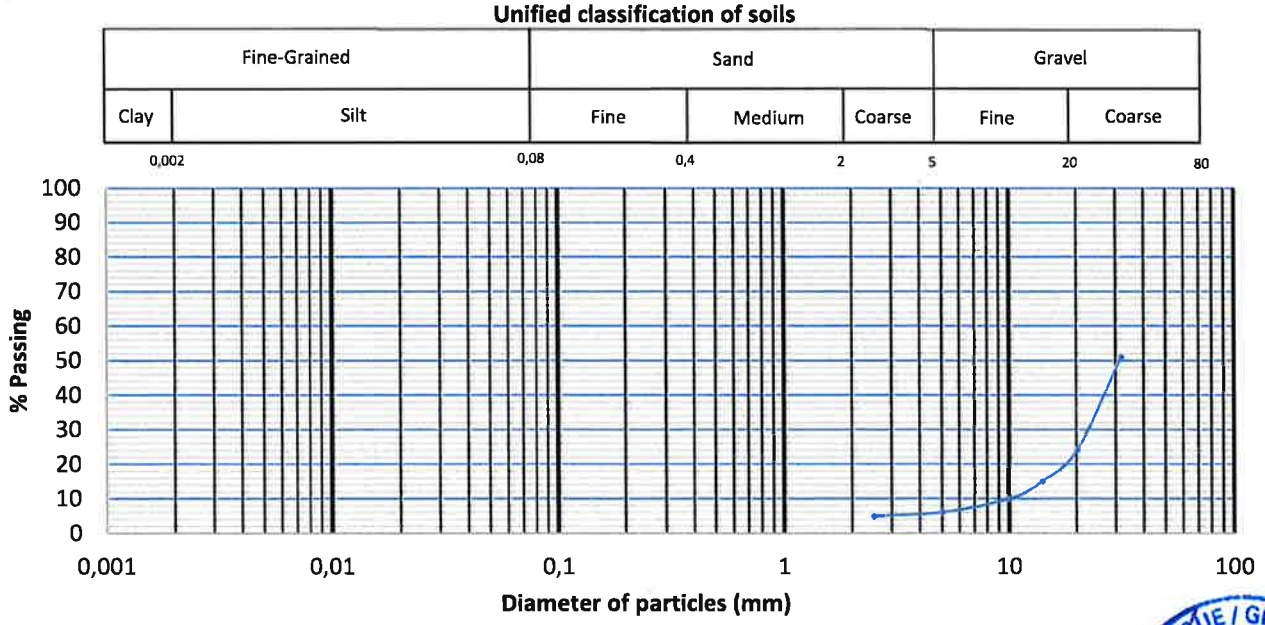
Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #3		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48713	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)		
Sieve (mm)	(% Passing)	
	Measured	Requirement
112		
80	100	
56	95	
40	73	
31,5	51	
20	24	
14	15	
10	10	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	70	
Pyrite equivalent	NQ2560-500	0,11%	
Gypsum equivalent	NQ2560-500	0,009%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)		
Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approuved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

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AGGREGATES AND SOILS

Swelling potential petrographic index determination
NQ 2560-500

Client :	Multitest	Date :	July 3rd, 2019
		File nº :	PYRZ-15335
Project :	Material Evaluation	Lab n° :	48713
		Client's ref. :	60678

Sample :	Crushed Stone, sample nº 3
Source :	Florida, New York
Sampled by :	Client
Location :	RS5 + RS6

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 478	g
Passing	40	mm	Retained	31.5	mm	Weight	723	g
Passing	31.5	mm	Retained	20	mm	Weight	584	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	12	12	25	25				
Indurated Shale	0.5	53	26.5	22	11	27	13.5				
Slate Shale	0.75	47	35.6	66	49.5	48	36.2				
SPPI per fraction:			62.1		72.5		74.7				

Final SPPI: 70

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering — Date: July 3rd, 2019 (AAAA – MM – JJ)

Approved by: Alain Blanchette, géo., M.Sc.A. Principal Director — Date: July 3rd, 2019 (AAAA – MM – JJ)

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TESTS ON SOILS, AGGREGATES AND OTHERS MATERIALS

Client :	Multitest	**Material :**	Crush Stone		
		Source :	Florida, New-York		
Project :	Material Evaluation		Sample #4		
File n° :	PYRZ-15335	**Collected the :**	N/A	**Received :**	2019-06-27
Sample n°:	48714	**Sampled by :**	Client	**Client ref. :**	60678

Sieve analysis (LC 21-040)

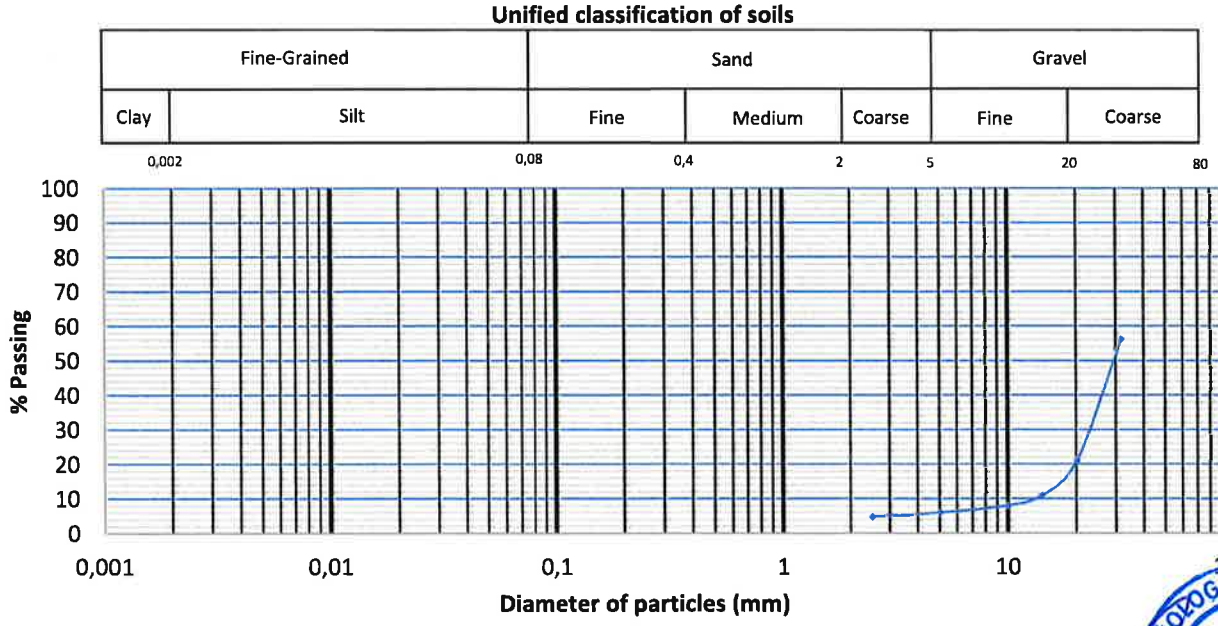
Sieve (mm)	(% Passing) Measured	(% Passing) Requirement
112		
80	100	
56	96	
40	78	
31,5	56	
20	21	
14	11	
10	8	
5	6	
2,5	5	
1,25		
0,630		
0,315		
0,160		
0,080		

Others tests		Measured	Requirement
SPPI	NQ2560-500	68	
Pyrite equivalent	NQ2560-500	0,13%	
Gypsum equivalent	NQ2560-500	0,005%	

Compaction characteristics of Soil Using Modified Effort (NQ 2501-255-05)

Method	Maximum dry unit weight	Optimum water content

Unified classification of soils



Remark :

Verified by : Isabelle Coulombe
Laboratory Manager

Approved by :
Alain Blanchette, geo., M.A.Sc.
Principal Director

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48714.xls

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Fax : 514-521-4637
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AGGREGATES AND SOILS

Swelling potential petrographic index determination NQ 2560-500

Client : Multitest
Project : Material Evaluation

Date : July 3rd, 2019
File nº : PYRZ-15335
Lab n° : 48714
Client's ref. : 60678

Sample : Crushed Stone, sample nº 4
Source : Florida, New York
Sampled by : Client
Location : RS7 + RS8

Weight used

Passing	56	mm	Retained	40	mm	Weight	1 438	g
Passing	40	mm	Retained	31.5	mm	Weight	572	g
Passing	31.5	mm	Retained	20	mm	Weight	872	g
Passing	-	mm	Retained	-	mm	Weight	-	g

Results

Petrographic facies	IP	retained 40 mm	IPPG	retained 31.5 mm	IPPG	retained 20 mm	IPPG	retained mm	IPPG	retained mm	IPPG
Shale	1	0	0	9	9	34	34				
Indurated Shale	0.5	60	30	61	30.5	34	17				
Slate Shale	0.75	40	29.8	30	22.6	32	24.1				
SPPI per fraction:			59.8		62.1		75.1				

Final SPPI: 68

Remark

Realized by: Marie-Camille Labranche, Trainee, Geological Engineering
Date: July 3rd, 2019
AAAA – MM – JJ

Approved by: Alain Blanchette, géo., M.Sc.A.
Principal Director
Date: July 3rd, 2019
AAAA – MM – JJ

GÉOLOGUE / GEOLOGIST
ALAIN BLANCHETTE #264
QUÉBEC

WHITESTONE
ASSOCIATES, INC.

APPENDIX C
Supplemental Information (USCS, Terms and Symbols)

WHITESTONE ASSOCIATES, INC.
Environmental & Geotechnical Engineers & Consultants
Celebrating 25 Years 1994 – 2019

16 Old Forge Road
Suite A
Rocky Hill, CT 06067
860.726.7889
whitestoneassoc.com

UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMITS LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMITS GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS FOR SAMPLES WITH 5% TO 12% FINES

GRADATION*

% FINER BY WEIGHT

TRACE..... 1% TO 10%
LITTLE..... 10% TO 20%
SOME..... 20% TO 35%
AND..... 35% TO 50%

COMPACTNESS*
Sand and/or Gravel

RELATIVE DENSITY

LOOSE. ..... 0% TO 40%
MEDIUM DENSE.... 40% TO 70%
DENSE..... 70% TO 90%
VERY DENSE..... 90% TO 100%

CONSISTENCY*
Clay and/or Silt

RANGE OF SHEARING STRENGTH IN POUNDS PER SQUARE FOOT

VERY SOFT..... LESS THAN 250
SOFT..... ..... 250 TO 500
MEDIUM..... 500 TO 1000
STIFF..... 1000 TO 2000
VERY STIFF..... 2000 TO 4000
HARD..... GREATER THAN 4000

** VALUES ARE FROM LABORATORY OR FIELD TEST DATA, WHERE APPLICABLE. WHEN NO TESTING WAS PERFORMED, VALUES ARE ESTIMATED.*

Other Office Locations:

Warren, NJ 908.668.7777
Chalfont, PA 215.712.2700
Southborough, MA 508.485.0755
Wall, NJ 732.592.2101
Sterling, VA 703.464.5858
Evergreen, CO 303.670.6905

WHITESTONE ASSOCIATES, INC.
Environmental & Geotechnical Engineers & Consultants
Celebrating 25 Years 1994 – 2019

16 OLD FORGE ROAD
SUITE A
ROCKY HILL, CT 06067
860.726.7889
whitestoneassoc.com

GEOTECHNICAL TERMS AND SYMBOLS

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

N:	Standard Penetration Value: Blows per ft. of a 140 lb. hammer falling 30" on a 2" O.D. split-spoon.
Qu:	Unconfined compressive strength, TSF.
Qp:	Penetrometer value, unconfined compressive strength, TSF.
Mc:	Moisture content, %.
LL:	Liquid limit, %.
PI:	Plasticity index, %.
δd:	Natural dry density, PCF.
▼:	Apparent groundwater level at time noted after completion of boring.

DRILLING AND SAMPLING SYMBOLS

NE:	Not Encountered (Groundwater was not encountered).
SS:	Split-Spoon - 1 ⅜" I.D., 2" O.D., except where noted.
ST:	Shelby Tube - 3" O.D., except where noted.
AU:	Auger Sample.
OB:	Diamond Bit.
CB:	Carbide Bit
WS:	Washed Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

Term (Non-Cohesive Soils)	Standard Penetration Resistance
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

Term (Cohesive Soils)	Qu (TSF)
Very Soft	0 - 0.25
Soft	0.25 - 0.50
Firm (Medium)	0.50 - 1.00
Stiff	1.00 - 2.00
Very Stiff	2.00 - 4.00
Hard	4.00+

PARTICLE SIZE

Boulders	8 in.+	Coarse Sand	5mm-0.6mm	Silt	0.074mm-0.005mm
Cobbles	8 in.-3 in.	Medium Sand	0.6mm-0.2mm	Clay	-0.005mm
Gravel	3 in.-5mm	Fine Sand	0.2mm-0.074mm		

Other Office Locations:

WARREN, NJ	CHALFONT, PA	SOUTHBOROUGH, MA	WALL, NJ	STERLING, VA	EVERGREEN, CO
908.668.7777	215.712.2700	508.485.0755	732.592.2101	703.464.5858	303.670.6905

Expanded Full Environmental Assessment Form

Interchange 27 Warehouse



Route 5S
Town of Florida,
Montgomery County, NY

August 30, 2019
Revised October 25, 2019

Prepared by:

BOHLER
ENGINEERING

17 Computer Drive West, Albany, NY 12205
Phone: (518) 438-9900
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www.bohlereng.com

No. B180283

Exit 27 Warehouse
Route 5S Town of Florida, NY
SEQR Full Environmental Assessment Form – Part 3

PART 3

EVALUATION OF THE IMPORTANCE OF IMPACTS

Responsibility of the Town of Florida Planning Board as Lead Agency

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions

Discuss the following for each impact identified in column 2 of Part 2:

1. Briefly describe the impact.

2. Describe how the impact could be mitigated or reduced to a small to moderate impact by project change(s).

3. Based on the information available, decide if it is reasonable to conclude that this impact is important.

To answer the question of importance, consider:

- The probability of the impact occurring
- The duration of the impact
- Its irreversibility, including permanently lost resources of value
- Whether the impact can or will be controlled
- The regional consequence of the impact
- Its potential divergence from local needs and goals
- Whether known objections to the project relate to this impact

List of Attachments
Attachment 1 – Parts 1 and 2 of FEAF
Attachment 2 – Preliminary Building/Site Perspectives
Attachment 3 – Site Development Plans
Attachment 4 – Existing Conditions Plan
Attachment 5 – Subdivision & Lot Consolidation Plans
Attachment 6 – Geotechnical Investigation
Attachment 7 – Wildlife Habitat Assessment
Attachment 8 – Cultural Resource Documentation
Attachment 9 – Traffic Impact Study

Part 3 - Expanded Environmental Assessment

1. Project Description

1.1 Proposed Development

WE Acquisitions, LLC is proposing to construct a 1,000,000 square foot warehouse storage facility on approximately 138 +/- acres along NYS Route 5S in the Town of Florida, Montgomery County, New York (hereinafter referred to as "project site").

The project includes associated on-site roadways, parking, utility infrastructure, landscaping, and stormwater management facilities. There will be two (2) driveway entrances from NYS Route 5S; one dedicated driveway for employees and one for trucks.

A security gate with a guard house will be provided at the truck entrance. Approximately 245 parking spaces will be provided for employees and approximately 850 parking spaces will be provided for truck trailers, off which 244 are loading docks.

There will be two employee shifts per day, with the facility operating Monday through Saturday. The day shift will be from 7:00 am to 5:30 pm and the night shift from 6:30 am to 5:00 pm. The project site is currently zoned C-2 Commercial, with "warehouse/storage" listed as requiring a special use permit.

The proposed facility will be constructed in its entirely in one phase, with an 18-month construction schedule.

Refer to Attachment 2 for Preliminary Building/Site Perspectives and Attachment 3 – Preliminary Site Development Plans for further information on the project.

1.2 Project Site

The project site is bounded by NY-5S to the north, Mead Road to the southeast, a working farm and the New York State Thruway (I-90) to the south, and the property of Lott Holding Corp., 1785 NY Route 5, to the west. Refer to Attachment 4 – Existing Conditions Plan for further information.

The site currently consists of eleven (11) separate parcels, which will be consolidated/subdivided into three parcels, of 138, 3.7 and 18.6 acres. The two smaller parcels will be retained by their current owner and continue to be used for agriculture. Refer to Attachment 5 for the Preliminary Subdivision and Lot Consolidation Plans for further information.

Presently, the project site consists of two residential properties including houses, garages, and outbuildings (both properties to the north along Route 5S), a wooden farm stand building and associated small metal shed (central-north, along Route 5S), and a metal barn/shed structure to the east, off of Mead Rd.

Several portions of the project site consist of brush and forested areas, and the remainder consists of active farmed fields. The westernmost boundary lies along the edge of a graveled parking lot, part of which appears to extend onto the project site.

An unnamed tributary of the Chuctanunda Creek runs along the southeastern boundary and through the southern portion of the project site. A natural gas transmission line crosses the project site in a north-south direction near its eastern limit. The line is reputed to be 10" and installed during the 1970's

1.3 Project Implementation

Implementation of the project involves several approvals including the following:

- Coordinated SEQRA review by the Town of Florida Planning Board (Lead Agency), as the action is considered to be a "Type I" action.
- Site Plan, Special Use Permit and Subdivision review and approval by the Town of Florida Planning Board.
- NYSDOT review and approval of the Traffic Impact Study.
- NYSDOT approval of two (2) new curb cuts onto NYS Route 5S.
- Town approval of water and sewer connection permits
- Montgomery County Planning Board Board 239M Review
- NYS Office of Parks Recreation and Historic Preservation Approval of Data Recovery Plan (DRP)
- Approval and acceptance of the Stormwater Pollution Prevention Plan (SWPPP), which is to be prepared in compliance with the NYSDEC General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002), as well as approval for disturbing more than five (5) acres of land at one time.
- Review and approval of Section 401 Water Quality Certificate by NYSDEC and Individual Permit from US Army Corps of Engineers for wetland disturbance.

2. Impact Analysis and Mitigation Measures

2.1 Impact on Land

In general, the project site surface elevations slope downward from north to south and west to east between elevations 550 to 450 feet. The change in grades across the site will result in substantial cuts and fill to develop the site.

Based on preliminary grading, fill slopes up to about 65 feet in height are planned on the southern and eastern sides of the site. The fill slopes incorporate short sections of the retaining wall. Furthermore, stormwater management areas are planned to the southeast, east, and southwest of the proposed building.

To better define subsurface conditions, the applicant undertook a geotechnical investigation over the course of the spring and summer 2019. The fieldwork consisted of a series of borings and test pits scattered across the area where the proposed developed portions of the site.

Site subsurface conditions consisted of topsoil overlying natural glacial till, which is underlain by shallow shale bedrock. Generally found at depths ranging from 2 to 20 feet. Groundwater was encountered at depths ranging from about 1 to 13'.

The results of the investigation indicate that the proposed structure may be supported on conventional shallow foundations bearing on the natural glacial till or on glacial till placed over the shale bedrock. The results also indicate that the site is suitable for a ground-supported floor slab deriving support from the glacial till placed over the shale bedrock, or structural fill placed over these materials. Additionally, the site conditions support the use of typical pavement sections using standard New York State Department of Transportation (NYSDOT) specified materials.

The shallow bedrock will be removed by a combination ripping via a large track mounted backhoe and controlled blasting. Where blasting is determined to be necessary, the following protocol would be used:

- Blasting operation will be monitored by a seismologist using a seismograph
- "Peak Particle Velocity" emanating from any blast will be restricted to 2.0 in/sec
- Each blast will be monitored to ensure that this criterion is not exceeded.

The U.S. Bureau of Mines [Nicholas et al (1971)] has established a vibrational threshold of 2.0 in/sec. This threshold has been used successfully in the industry. Each blast would be monitored independently to ensure that this threshold is not exceeded. The monitoring results would be provided to the blasting contractor as soon as possible so that the blasting program can be modified if necessary.

A minimum of four monitoring points would be established, to the north, east, south and west of the planned blast area. The seismograph sensors would be placed near the closest structure and at any structures identified during the pre-blast survey that are considered to be susceptible to vibration damage.

Prior to the start of any construction, a Blasting Management Plan would be prepared in accordance with the applicable State regulations and the Explosive Materials Code, NFPA No. 495, National Fire Prevention Association. Additionally, all blasting would adhere to the provisions of 29 CFR Ch. XVII Section 1910.109 for explosives and blasting agents.

Not more than 30 days or less than 72 hours prior to the intended blasting, a notice would be sent to the owner or owners of any parcel of property immediately within a 500 foot radius of the blast area and the building inspector.

A contact person will be established and named in this notice to respond to all concerns raised by nearby residents during the blasting phase of the project. The contact person is to respond to any inquiries within 24 hours.

Prior to any blasting work being done, a licensed professional engineer will to be retained to perform a detailed pre-blast survey of existing structures located within 500 feet of the planned blast area. A copy of all reports prepared by the licensed engineer will be submitted to the Building Inspector.

2.2 Impacts on Surface Water

Wetlands: There is no New York State Department of Environmental Conservation (NYSDEC) regulated wetland or watercourses with the project site. Chuctanunda Creek, located along the southern edge of the

project site is identified as Class "C" and, therefore, is not regulated by the NYSDEC under Article 15 Protection of Waters.

In May 2019, Ecological Solutions, LLC completed a wetland delineation of the project site in accordance with the Army Corps of Engineers (USACE) Wetlands Delineation Manual (January 1987), Routine Determination Method and Northcentral/Northeast supplement. Federally regulated wetlands were delineated based upon the identification of the three mandatory criteria for wetland determination as outlined in the 1987 Federal Manual and supplement: dominant hydrophytic vegetation, hydric soils, and evidence of wetland hydrology.

The Routine Methodology procedure for wetland determination was used. Several transects consisting of sample points were walked. Dominant vegetation around each sample point was identified and its percent cover quantified. The areas were checked in detail for the presence of wetland hydrologic indicators. Soil profiles were then observed and characterized at each point.

The detailed field investigation included:

- Identification of vegetation species to determine whether there was a dominance of hydrophytic plants and areas containing transitional but primarily wetland-oriented species.

- Determination of soil features for hydric (poorly and very poorly drained) natural soils.

- Observation of site features displaying evidence of wetland hydrology based on the presence of inundated areas, apparent high seasonal water tables, and evidence of saturation within 12 inches of the surface (considered the root zone) during sufficient periods during the growing season to provide for anaerobic/hydric soil conditions.

Based on observed field conditions the federal wetland/waters of the US located on the site are shown on Attachment 4 and confirmed by the US Army Corps of Engineer as part of a June 25, 2019 field visit. Based on the delineation, the project site includes several separate wetland systems totaling approximately 12.6 acres.

The project is expected to impact approximately 6.5 acres of wetlands that are located along northwest corner of the site along Route 5S. This wetland area is mainly abandoned agricultural field and lawn area that consists of wetland meadow and shrub dominated wetland.

Proposed impacts to the wetland areas will require an Individual Permit from the USACE and a Section 401 Water Quality Certification from the NYSDEC. The wetland impacts that cannot be avoided will be minimized to the maximum extent practicable. It is expected that unavoidable wetland impacts will be mitigated through a combination of onsite creation and purchase of wetland credits.

Wetland creation is expected to be required at a ratio of 1.5 acres of impact for each acre impacted, which would equate to the project creating approximately nine (9) acres of wetlands. Approximately 3 acres will be created on site with the balance of 6 acres mitigated through the purchase of credits from the Wetland Trust.

The Wetland Trust (TWT) is a 501C (3) not-for-profit New York Corporation that manages in-lieu fee program sells wetland mitigation credits for permitted wetland impacts throughout much of New York State. TWT presently owns 26 properties covering 1,600 wetland acres.

Stormwater Management: A Stormwater Pollution Prevention Plan (SWPPP), which includes a Stormwater Management Plan has been prepared. The stormwater management plan includes an analysis of the existing and proposed hydrology and hydraulics to ensure that the proposed development does not significantly affect the environment. The results of the report are consistent with a site that can support the proposed development.

Although the project will alter the existing site topography, the existing drainage pattern will be maintained on the north and south sides of the property. There are three (3) discharge points (DP) where peak stormwater runoff is evaluated for both existing and proposed conditions. DP-1 is located in southeast corner of the site; DP - 2 is located in the northwest corner of the site, and DP-3 is located in the northeast corner of the site.

If untreated, the construction of the building and paved areas would increase the rate and volume of stormwater run-off. Therefore, the increase in run-off will be mitigated by the construction of stormwater management facilities designed to temporarily detain stormwater run-off during storm events and slowly release stormwater after the storm event. These facilities are designed in accordance with the NYSDEC Stormwater Design Manual and consist of sedimentation basins and bioretention for treatment prior to discharging into detention basins that will provide stormwater detention and water quality treatment.

Stormwater run-off from the building and paved areas will be collected in a series of catch basins and directed through a piping network to the stormwater management facilities. The stormwater bioretention areas will be sized to mitigate the Water Quality Volume (WQv), and the Runoff Reduction Volume (RRv). Detention basins will mitigate the Channel Protection Volume (CPv), the Overbank Flood (Qp), and the Extreme Storm (Qf). Each of these is addressed below:

- Water Quality Volume: The required WQv is provided in multiple bioretention basins.
- Runoff Reduction Volume: The RRv is achieved by filtering a substantial portion of the run-off to meet the minimum RRv requirement.
- Channel Protection Volume: The CPv requires that a minimum of 24-hour detention be provided for the 1-year, 24-hour storm event. This requirement is met since the detention basins will control the peak discharge from the 10 year storm to the 10-year predevelopment rates.
- Overbank Flood: The Qp requires that the there be no net increase in peak runoff for the 10- year, 24 hour storm event. This requirement is met since the detention basins will control the peak discharge from the 100-year storm to rates less than the 100-year predevelopment rates.
- Extreme Storm: The Qf requires that the there be no net increase in peak runoff for the 100-year, 24 hour storm event. This requirement is met since the detention basins will control the peak discharge from the 100-year storm to rates less than the 100-year predevelopment rates.

This project will be required to comply with the State Pollutant Discharge Elimination System (SPDES) Phase II General Permit for Stormwater Discharges from Construction Activities (GP-0-15-002). To that

end, the project will incorporate Best Management Practices (BMPs) to ensure that water quality on site will be protected. BMPs to be employed will, at a minimum, include:

- Temporary Erosion and Sediment Control Measures:
  - Silt fencing placed around construction areas prior to grading activities;
  - Diversion Channels to prevent runoff from leaving the site
  - Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed;
  - Permanent seeding and planting of all unpaved areas using the hydro-mulching grass seeding technique;
  - Mulching exposed areas, where specified;
  - Temporary seeding of all unpaved areas using the hydro-mulching grass seeding technique within 14 days of disturbance;
  - Frequent watering to minimize wind erosion during construction; and
  - Rock check dams

- Permanent structural practices for this site shall include:
  - Outlet protection using stone riprap as specified;
  - Utilize storm sewer collection system that will be tested for water tightness;
  - Sedimentation basins will also serve as a temporary sediment basin;
  - Vegetated and/or riprap lined swales.
  - Retaining walls

All erosion and sediment control measures will be designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Controls. The site contractor will be required to adhere to all erosion and sediment control measures as defined in the SWPPP.

Since the building will be constructed in a single phase, a waiver to disturb more than five (5) acres at a time will be required. To obtain the five-acre waiver, at least two site inspections be required to be performed during construction by a qualified professional, every seven days, for as long as the disturbed area exceeds five acres. This increased frequency of inspection will ensure that the erosion and sediment control facilities are functioning as designed and that there are no impacts to the waters of the U.S.

Based on the above, there will not be a significant impact on stormwater runoff from the project site.

Water Usage: Water will be supplied through the Town of Florida Water District. There is an existing 10" water main located along the north side of Route5S. A new service lateral for both potable and fire service will be installed and connected to the existing water main.

Based on loading rates established by the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (March 2014), water usage for the facility is conservatively estimated as follows:

Use	Unit	Gallons Per Day (GPD)	Project	Estimated Daily Usage
"Factory/Distribution Warehouse"	Per Employee/shift	15	200 employees x 2 shifts	6,000
	Per Shower	10	4	40
			Total	6,040 gpd

The facility will require potable water solely for bathroom and shower facilities. Additional water usage for processing or other non-potable uses is not needed. Per NYS Building Code the building will be sprinkled. To ensure adequate fire flow capacity a new water tank will be installed. It will be located on the western edge of the site and sized according to NYS Building Code.

Based on the above, this project will not have a significant impact on the municipal water system.

Sanitary Sewer: The projected sanitary waster generation is expected to be comparable to water usage. A new sanitary sewer lateral will be installed from the building to the existing 10" sanitary sewer main located along the south side of Route 5S, which is part of the Town of Florida Sewer District.

Based on the above, this project will not have a significant impact on the municipal sanitary sewer system.

2.3 Impact on Plants and Animals

A Wildlife Habitat Assessment was completed by AECOM over the course of the spring and summer of 2019. The purpose of the assessment to identify existing wildlife habitat present and the potential for threatened or endangered species. A copy of the report is included as Attachment XX.

This wildlife habitat assessment identified existing habitat cover types and land uses on the site with the objective of identifying ecological resources in the context of the surrounding landscape. For classification purposes, the project site and surrounding areas are divided into ecological communities per the New York Natural Heritage Program (NYNHP) as indicated below. Approximate acreage of each habitat type is provided.

NYNHP Classes for Upland Areas:

- Successional Old Field — 3 +/- acres
- Successional Shrubland — 10 +/- acres
- Rich Mesophytic Forest — 12 +/- acres
- Successional Northern Hardwood Forest — 1 +/- acres
- Crop land (row and field) — 108 +/- acres
- Residential (includes buildings, lawn and impervious surfaces — 9+/- acres

NYNHP Classes for Wetland/Aquatic Areas:

- Shallow Emergent Marsh — < 1 acre
- Shrub Swamp — < 1 acre

- Mixed Emergent/Shrub Swamp 12 +/- acre
- Red Maple-Hardwood Swamp 3 +/- acres
- Rocky Headwater Stream 4,400 +/- linear feet)
- Farm Pond/Artificial Pond < 1 acre

The project is expected to impact a portion of all the upland habitats identified on the project site. The habitats are typical of those found in the region and are not particularly sensitive. The habits are minimally ranked in important by the NYS Natural Heritage Program are considered secure in New York State.

For discussion of impacts to wetland/aquatic habitats refer to Section B - Impact on Surface Water.

Review of the NYS Natural Heritage and US Fish and Wildlife Service databases identified a single federally listed endangered species that has the potential to be present on the site: Northern long-eared bat (*Myotis septentrionalis*). While the northern long ear bat has not been observed on the site, tree cutting restriction will be placed on the project to avoid impacting potential roost trees (> 4" in diameter). No tree clearing will occur between April 1, and October 31 to avoid impacting roosting bats.

Based on the above the project is not expected to have a significant impact on wildlife habitats or threatened or endangered species.

2.4 Impact on Historical and Archaeological Resources

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase I and 2 archeological investigation to comply with Section 14.09 of the State Historic Preservation Act. The Phase 1 and 2 have been reviewed by the NYS Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP.

The Phase 1, which generally consists of a literature search and limited field assessment, identified one area of potential significance. The J. Houck Historic Site was identified on the west-central portion of the project site, adjacent to the right-of way of old NY Route 5S. The site consists of the remains of a house foundation and well.

Shovel tests in the area identified artifacts suggesting an occupation from circa 1830 through 1910. Since avoidance of this area is not feasible, Hartgen recommended that a Phase II archeological site evaluation be completed to determine if the site is National Register eligible.

Artifacts collected during the Phase II investigation are consistent with an occupation lasting from the early to mid-19th century until the early 20th. There are two distinct midden[1] deposits on the site, one from the 1920's and the other from the 1930's that postdate the occupation phase. There is no indication of disturbance of the site, suggesting that the site retains its integrity and has the potential to provide useful data.

[1] A midden is an old dump for domestic waste which may consist of animal bone, botanical material, ceramics, and other artifacts associated with past human occupation

The artifact distribution is quite restricted with almost all recovered materials from both Phases I and II being restricted to a 110' radius around the structure foundations. The collection is a typical domestic assemblage including ceramics, glass and food remains.

The Phase II concluded that the J. Houck Historic Site contains significant archaeological data in undisturbed contexts. Since the site cannot be avoided, a Phase III Data Retrieval Plan (DRP) was prepared and submitted to the OPRHP.

In general, the DRP will complete additional testing near the structure to further understand the form and construction history of the building and acquire additional samples of contemporary artifacts. A temporary sump will be installed to lower the level of local ground water and allow excavation within the basement hole.

The existing well will be bisected with a backhoe trench to determine if useful data can be acquired from below the layer of field cobbles currently preventing sampling. An area of approximately 20 meters around the house and well will be mechanically stripped of soil in order to identify features such as middens or privies. If encountered, these features will be studied and sampled as needed.

The OPRHP has reviewed and approved the DRP. Correspondence from OPRHP along with copies of the Phase 1, 2 and DRP are included herein as Attachment 7.

Since all significant artifacts will be recovered as part of the DRP, which is expected to be completed in the Fall of 2019, the project will not have a significant impact on historical or archaeological resources.

2.5 Impacts on Transportation

Creighton Manning Engineering, LLP has completed a traffic impact study for the proposed development. Refer to Attachment 10.

Data collection for the traffic study included an automatic traffic recorder installed on NY Route 5S, east of Target Drive and traffic counts collected at:

- NY Route 5S/Route 920P/Clark Drive
- NY Route 5S/Target Drive

These counts were supplemented by traffic counts conducted by NYSDOT in 2018 at:

- NY Route 5S/PS Street/Route 30 SB Ramp
- NY Route 5S/Route 30 NB Ramp
- NY Route 30 SB/Route 5S Ramp
- NY Route 30/Thruway Exit 27

This traffic study focuses on the AM and PM peak periods since these time periods correspond to peak operations at the site and peak traffic conditions on the surrounding roadway network. The peak hours varied but generally occurred from 8:00 to 9:00 a.m. in the morning and 4:00 to 5:00 p.m. in the afternoon.

Based on the Institute of Transportation Engineers (ITE) *Trip Generation (*10th edition), the project is estimated to generate 120 trips during the AM peak hour of the generator (96 employee trips and 24 truck trips) and 162 trips during the PM peak hour of the generator (130 employee trips and 32 truck trips).

The level of service analysis indicates that the signalized study area intersections and the unsignalized NY Route 5S/NY Route 920P/Clark Drive intersection will continue to operate similar to No-Build conditions after build-out for the proposed development during the AM and PM peak hours. No mitigation is recommended at these signalized and unsignalized study area intersections.

Access to the Employee Driveway associated with the proposed *Exit 27 Warehouse* will be provided opposite Target Drive on NY Route 5S. It is recommended that a shared left- turn/through lane and a separate right turn lane be constructed on the southern leg of the intersection. In addition, the southbound left-turn lane currently provided on Target Drive should be modified to allow through movements to the Employee Driveway.

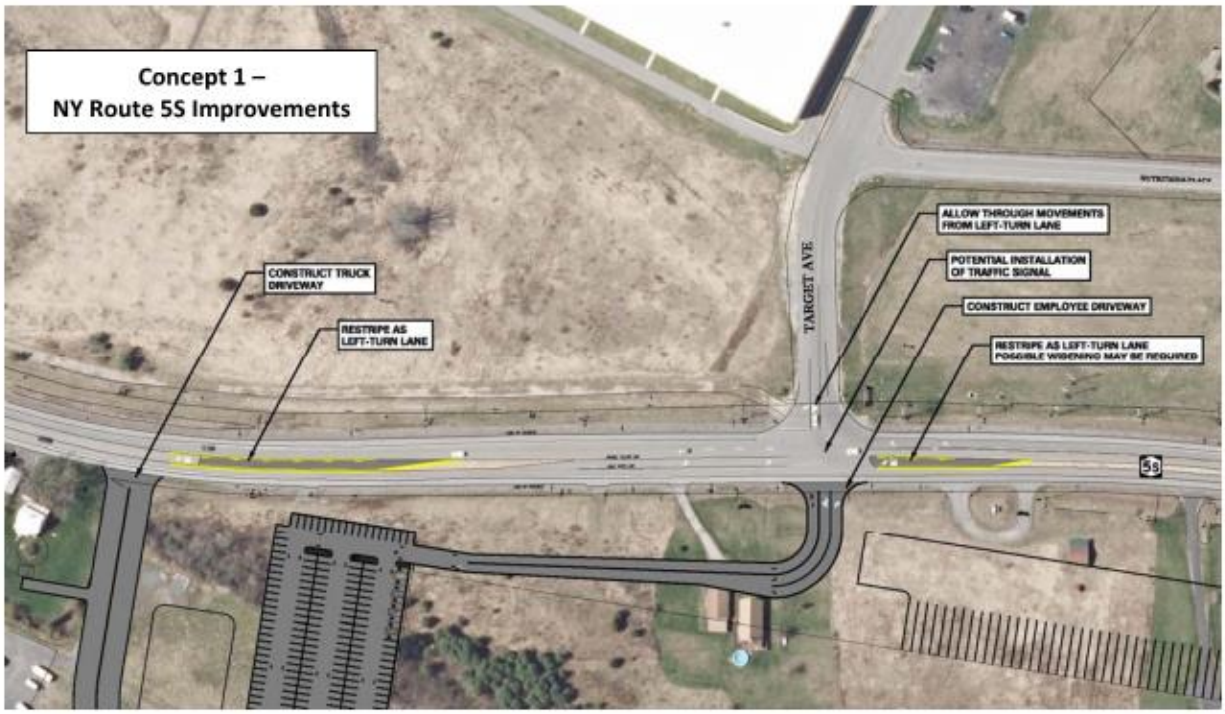
It is also recommended that the existing hatched median currently provided opposite the exclusive eastbound left-turn lane be restriped to provide an exclusive westbound left- turn lane in this area for employees associated with the site. NY Route 5S may need to be widened to accommodate the left-turn lane and that any proposed changes to NY Route 5S will be reviewed by NYSDOT as part of a Highway Work Permit.

The level of service analysis indicates that the southbound left-turn lane will operate at LOS F and that the northbound left-turn lane will operate at LOS E under unsignalized build conditions during the PM peak hour.

A signal warrant analysis indicates that 2020 Build traffic volumes over the course of a typical day will not be high enough to meet the minimum traffic signal criteria for the three signal warrants investigated; however, a review of the data indicates that all three signal warrants are close to being met.

It is recommended that an after study be completed at this intersection after the site is fully operational to determine if a traffic signal is truly warranted since the build volumes are based on future traffic projections. If an after study confirms that a traffic signal is indeed warranted, the Applicant will install the signal subject to review and approval by NYSDOT. The analysis indicates that this intersection will operate at good levels of service under traffic signal control.

It is recommended that the existing hatched median currently provided west of the exclusive eastbound left-turn lane for Target Drive be restriped to provide an exclusive westbound left-turn lane for trucks associated with the site. It is not anticipated that NY Route 5S will need to be widened to accommodate the left-turn lane in this area; however, any proposed changes to NY Route 5S will be reviewed by NYSDOT as part of a Highway Work Permit.



The analysis indicates that this intersection will operate at good levels of service under stop sign control. A stop sign is recommended on the northbound Truck Driveway approach.

The available intersection and stopping sight distances at the Employee and Truck Driveways on NY Route 5S meet AASHTO guidelines for the 65-mph operating speed for the applicable design vehicle.

It is recommended that any site signing be placed a minimum of fifteen feet back from the travel way and that the landscaping plan consider sight lines in order to maintain visibility at the proposed driveway locations.

A review of crash history on NY Route 5S indicated that most accidents were classified as “other” and involved running off the road or collisions with earth, ditch, rock, etc. or deer. The majority involved property damage only or were non-reportable (having damage less than $1,000 and no injuries). There were no fatalities and only four injury crashes.

2.6 Impact on Energy

National Grid (NG) currently provides natural gas and electric in the Town of Florida and it is anticipated that the project will use National Grid for these services. Application has been made to National Grid for new electric and gas service. It is not expected that the project will have a impact on existing energy supplies.

The electric distribution system on site will consist of a below ground duct bank system with ground mounted transformers. Natural gas will be piped underground into the building mechanical room to run the buildings heating system.

To minimize energy consumption, the project will review and implement energy saving measures where practicable. These may include:

- Optimized building envelope and insulation through energy modelling
- LED lighting
- Air Turnover Units to de-stratify building;
- Minimization of "vampire loads" for all material handling equipment
- Incorporation of high-efficiency carousels and automated storage and retrieval system conveyors, etc.
- Incorporation of programmable lighting controls
- A natural gas transmission main crosses the site north-south along the eastern limits. Refer to Attachment 4 for the location of the gas main. The natural gas main will be avoided during construction except for a single driveway crossing to prove access to tractor trailer storage lot. Crossing of the gas main will require review and approval by National Grid.

2.7 Impact on Light

Lighting will be provided for the parking lot areas, loading docks and along the two driveways. The lighting will consist of energy efficient LED light fixtures with a color temperature range of 3000 to 3500k. All lighting will have full cutoff and be dark sky friendly minimize the potential for glare and light spillage.

The light fixtures will be mounted on 40' poles and along the loading docks with full cut wall packs. The foot-candle level will be zero at the property line, except for the driveway/Route 5S intersections, which will be slightly elevated for safety.

Appendix F Historical Resources

State Highway 5S - Town of Florida

176 Mead Road

Amsterdam, NY 12010

Inquiry Number: 7837436.3

December 02, 2024

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/02/24

Site Name:

State Highway 5S - Town of Fl
176 Mead Road
Amsterdam, NY 12010
EDR Inquiry # 7837436.3

Client Name:

Langan
368 Ninth Avenue, 8th Floor
New York, NY 10001-2727
Contact: Laura Grose

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Langan were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # E999-418B-9322

PO # 170886701

Project State Highway 5S - Town of FL

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: E999-418B-9322

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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State Highway 5S - Town of Florida
176 Mead Road
Amsterdam, NY 12010

Inquiry Number: 7837436.4
December 02, 2024

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

12/02/24

Site Name:	Client Name:
State Highway 5S - Town of Fl	Langan
176 Mead Road	368 Ninth Avenue, 8th Floor
Amsterdam, NY 12010	New York, NY 10001-2727
EDR Inquiry # 7837436.4	Contact: Laura Grose

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Langan were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
P.O.#	170886701	**Latitude:**	42.932553 42° 55' 57" North
Project:	State Highway 5S - Town of FL	**Longitude:**	-74.227067 -74° 13' 37" West
		UTM Zone:	Zone 18 North
		UTM X Meters:	563069.50
		UTM Y Meters:	4753614.74
		Elevation:	509.57' above sea level

Maps Provided:

2019	1895, 1896
2016	
2013	
1980	
1954	
1949	
1947	
1931	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2019 Source Sheets



Amsterdam
2019
7.5-minute, 24000



Tribes Hill
2019
7.5-minute, 24000

2016 Source Sheets



Amsterdam
2016
7.5-minute, 24000



Tribes Hill
2016
7.5-minute, 24000

2013 Source Sheets



Amsterdam
2013
7.5-minute, 24000



Tribes Hill
2013
7.5-minute, 24000

1980 Source Sheets



Tribes Hill
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Amsterdam
1980
7.5-minute, 24000
Aerial Photo Revised 1978

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1954 Source Sheets



Amsterdam
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1949 Source Sheets



Amsterdam
1949
15-minute, 62500

1947 Source Sheets



Amsterdam
1947
15-minute, 62500

1931 Source Sheets



Amsterdam
1931
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1895, 1896 Source Sheets



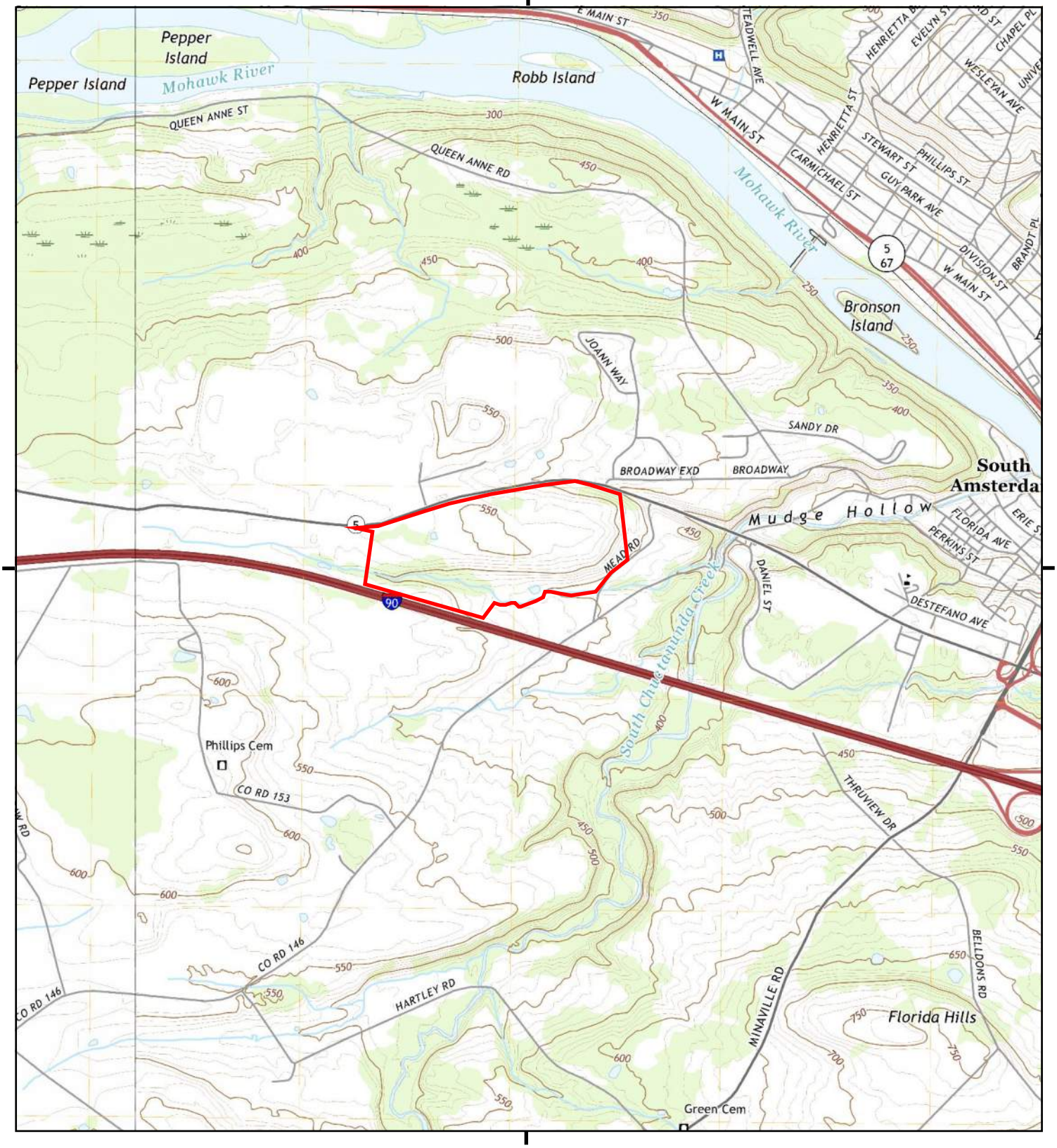
Amsterdam
1895
15-minute, 62500



Fonda
1896
15-minute, 62500

Historical Topo Map

2019



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

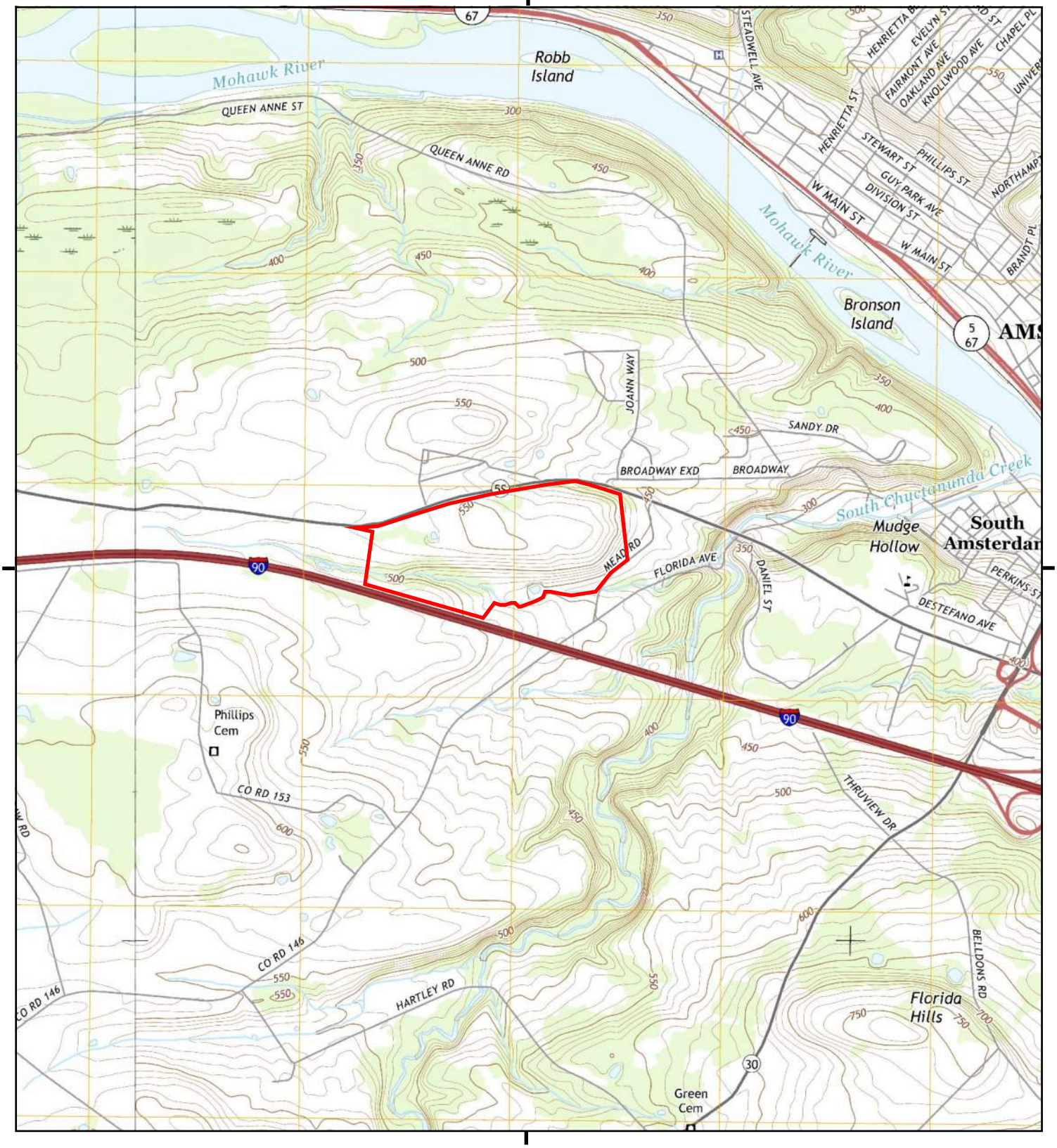
TP, Amsterdam, 2019, 7.5-minute
W, Tribes Hill, 2019, 7.5-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N

Historical Topo Map

2016



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NW N NE
W E
SW S SE

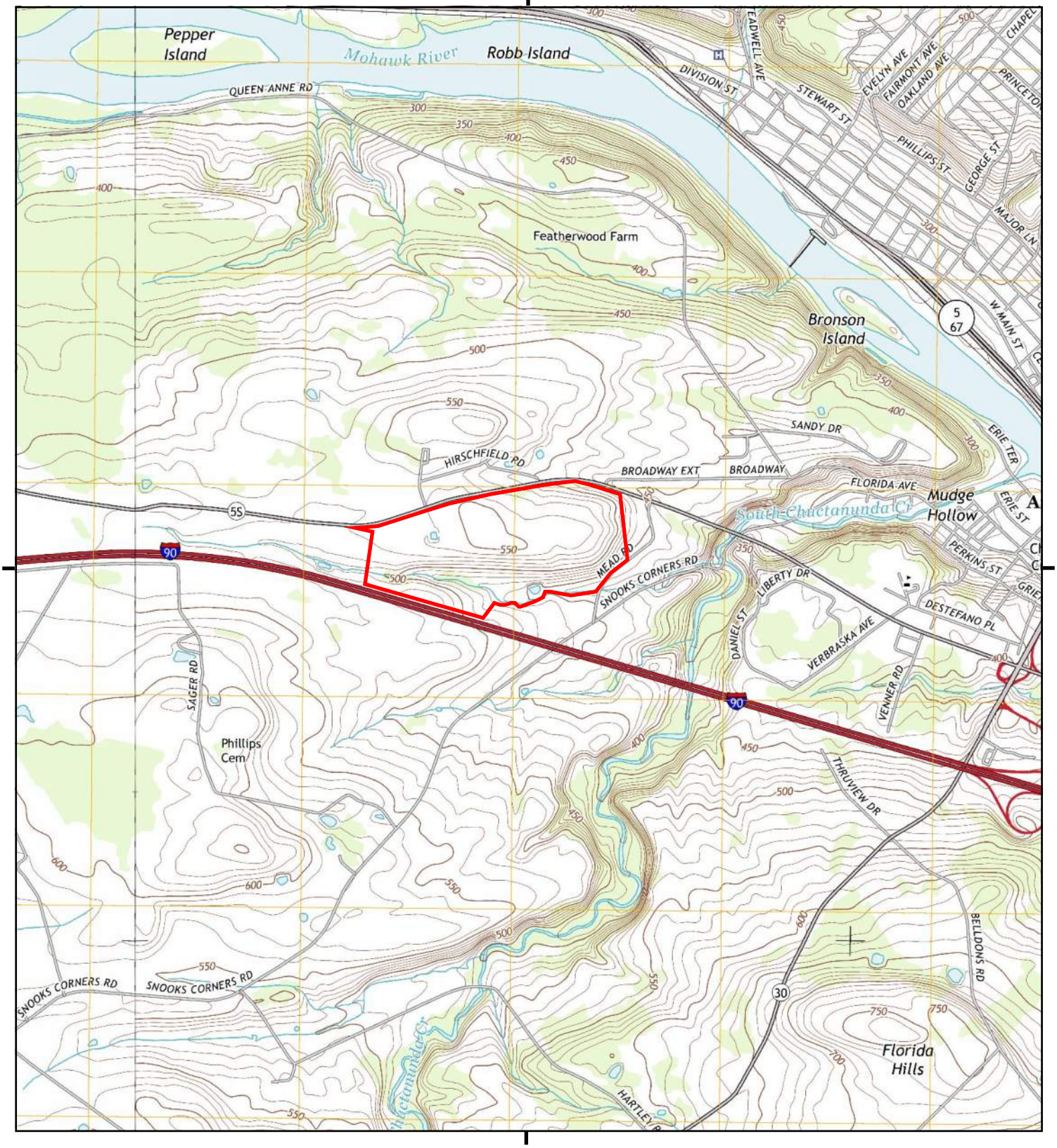
TP, Amsterdam, 2016, 7.5-minute
W, Tribes Hill, 2016, 7.5-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N

Historical Topo Map

2013



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W E
SW S SE

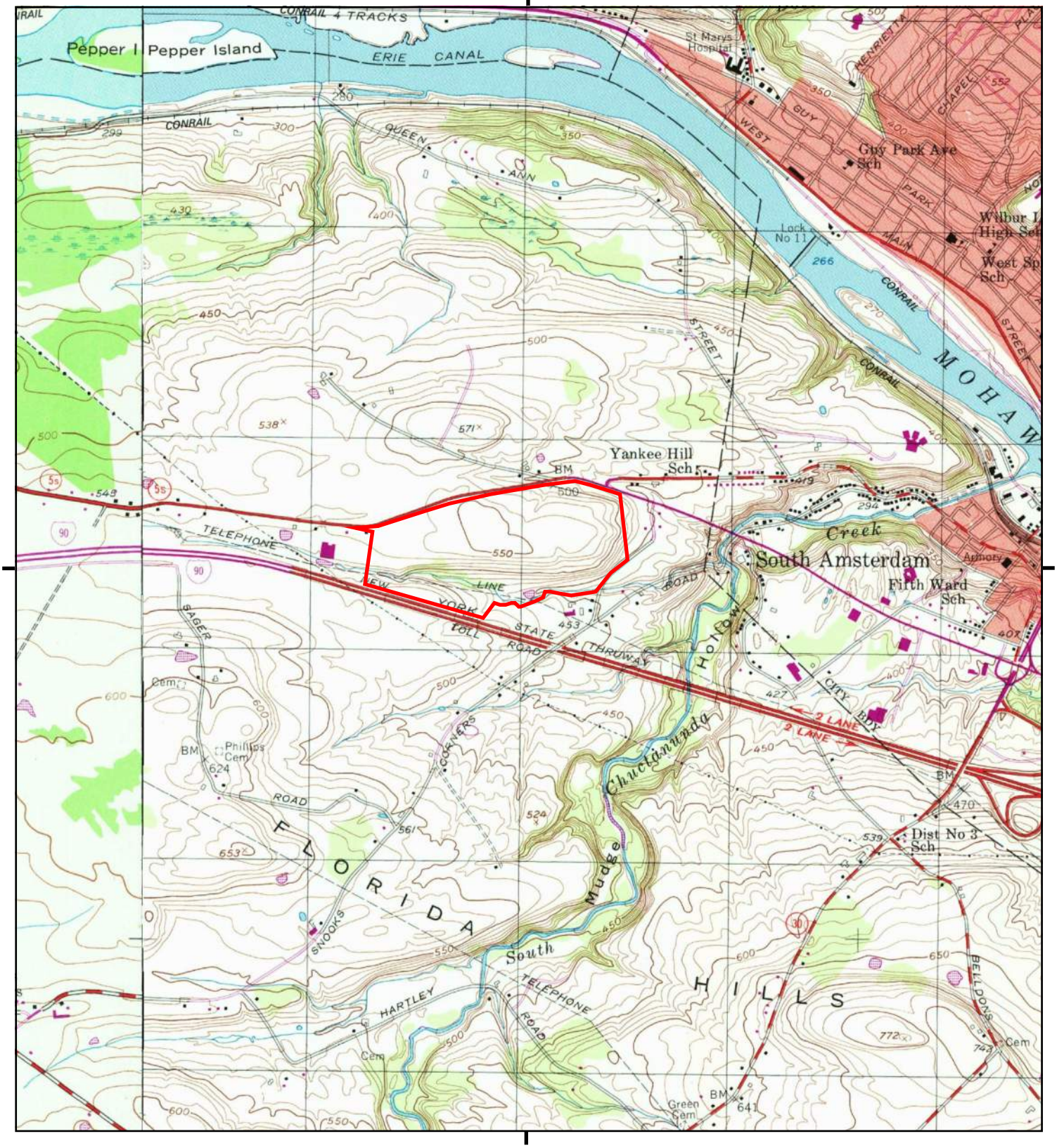
TP, Amsterdam, 2013, 7.5-minute
W, Tribes Hill, 2013, 7.5-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N

Historical Topo Map

1980



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

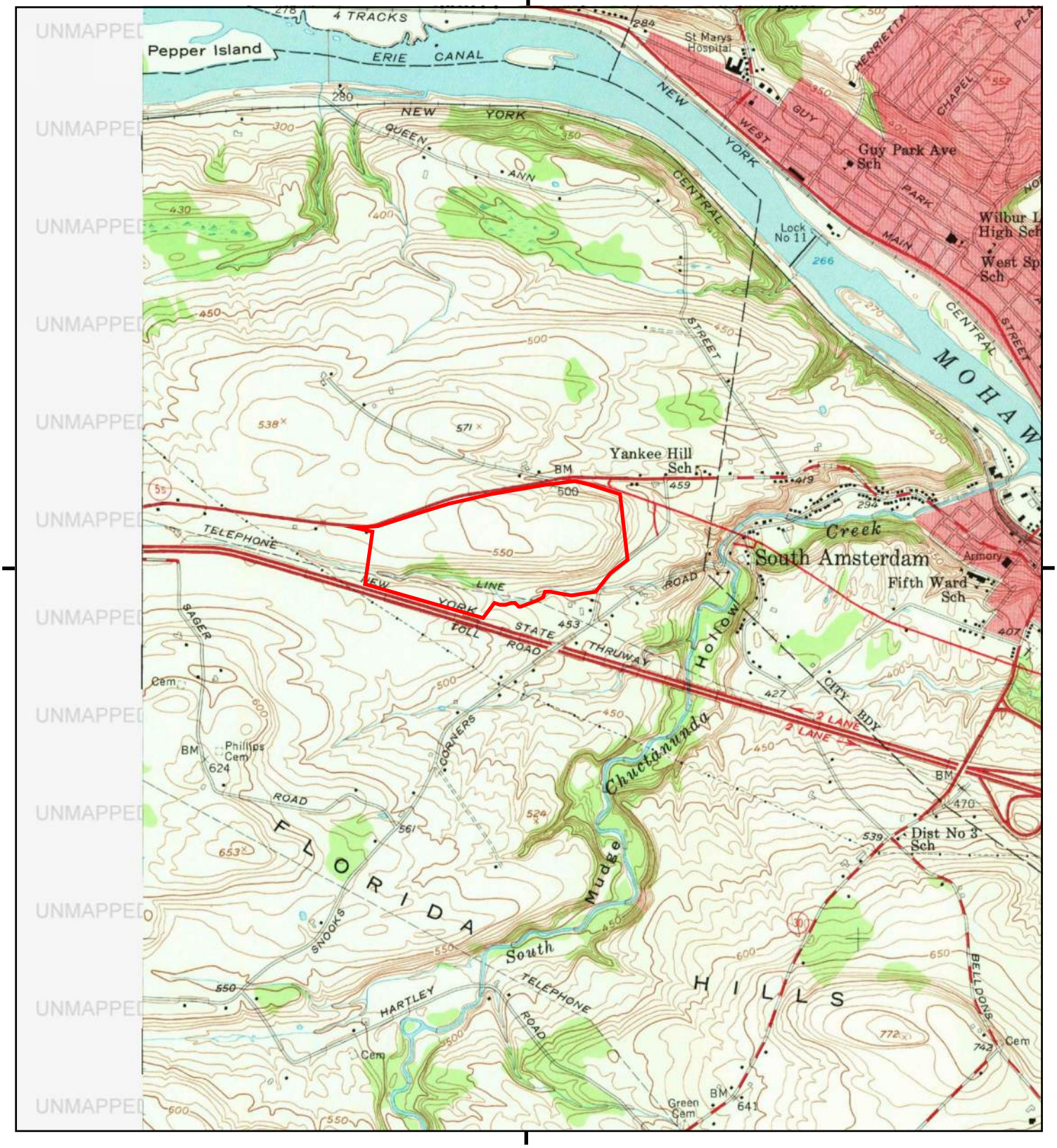
TP, Amsterdam, 1980, 7.5-minute
W, Tribes Hill, 1980, 7.5-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N

Historical Topo Map

1954



This report includes information from the following map sheet(s).

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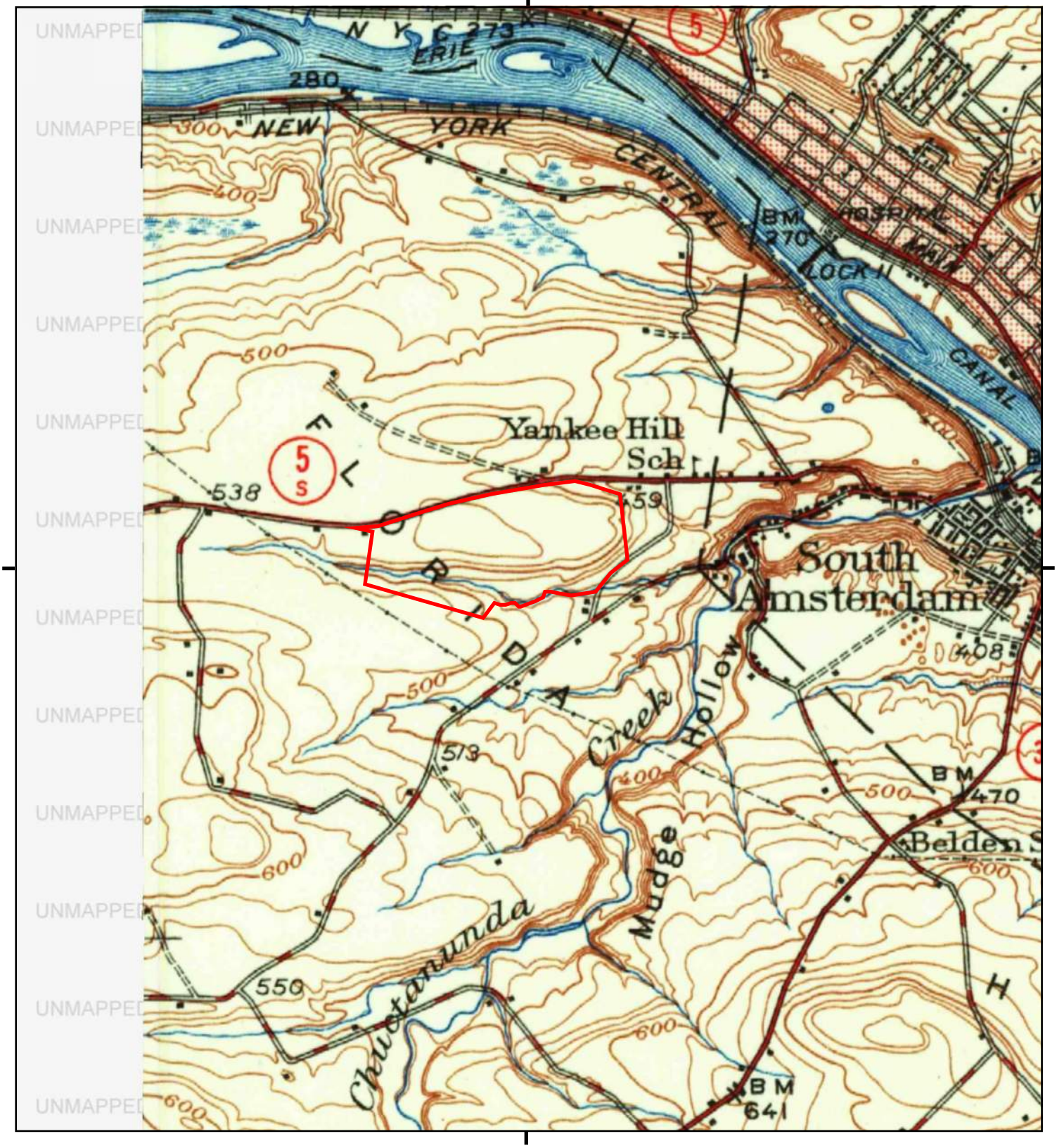
NW N NE
W E
SW S SE

TP, Amsterdam, 1954, 7.5-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N



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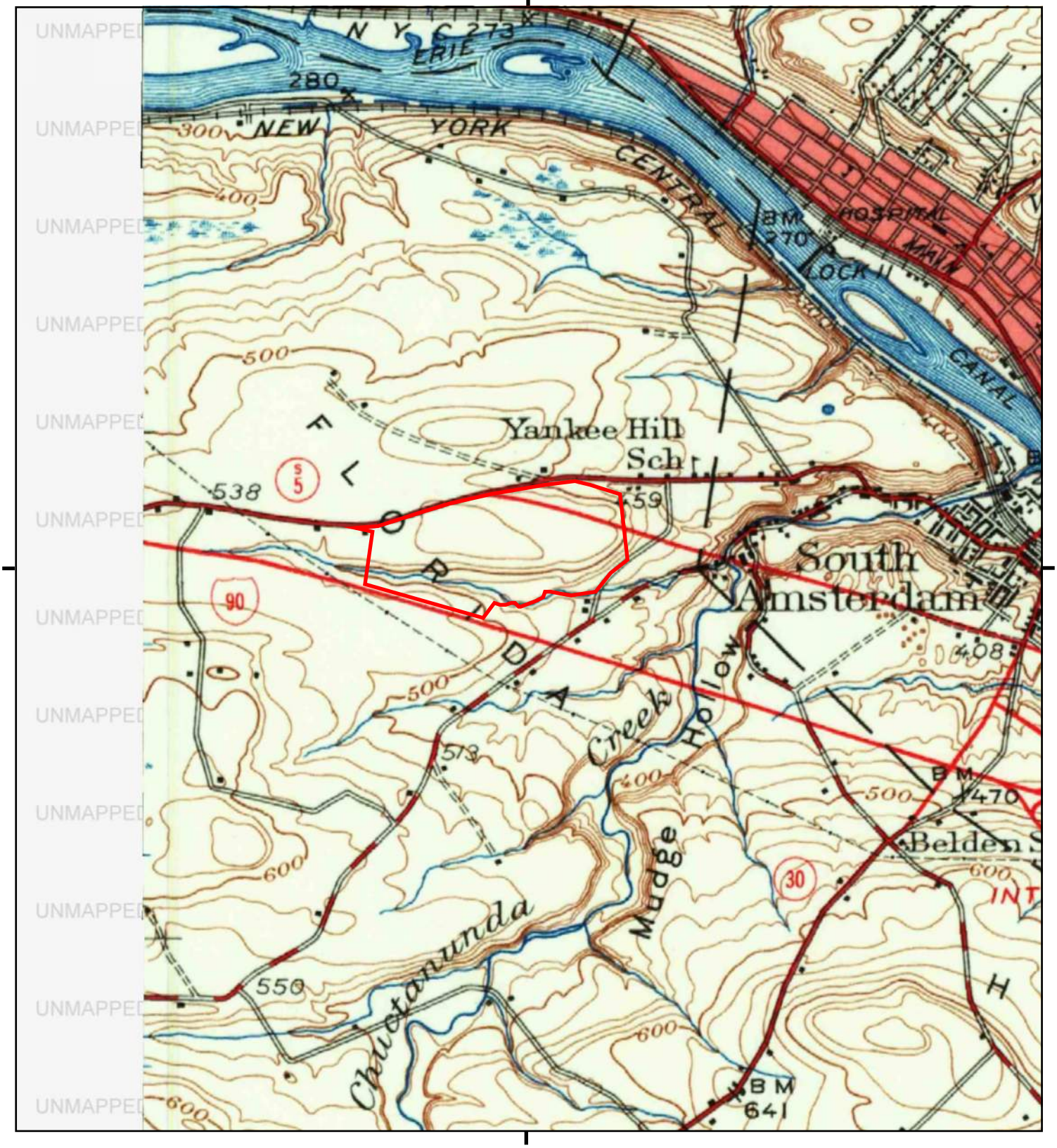
W E
SW S SE

TP, Amsterdam, 1949, 15-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N



This report includes information from the following map sheet(s).

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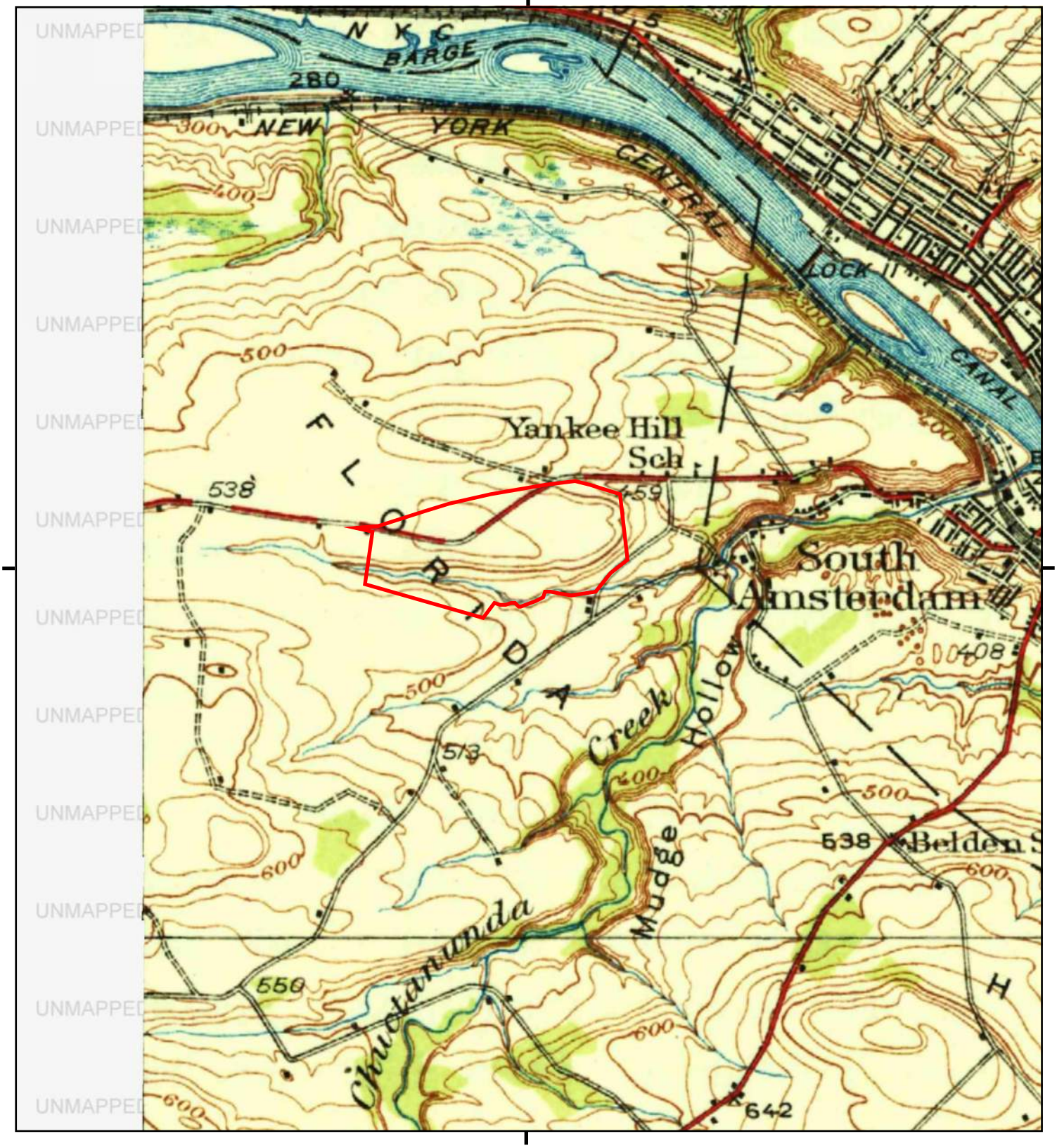
NW N NE
W E
SW S SE

TP, Amsterdam, 1947, 15-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N



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0 Miles 0.25 0.5 1 1.5

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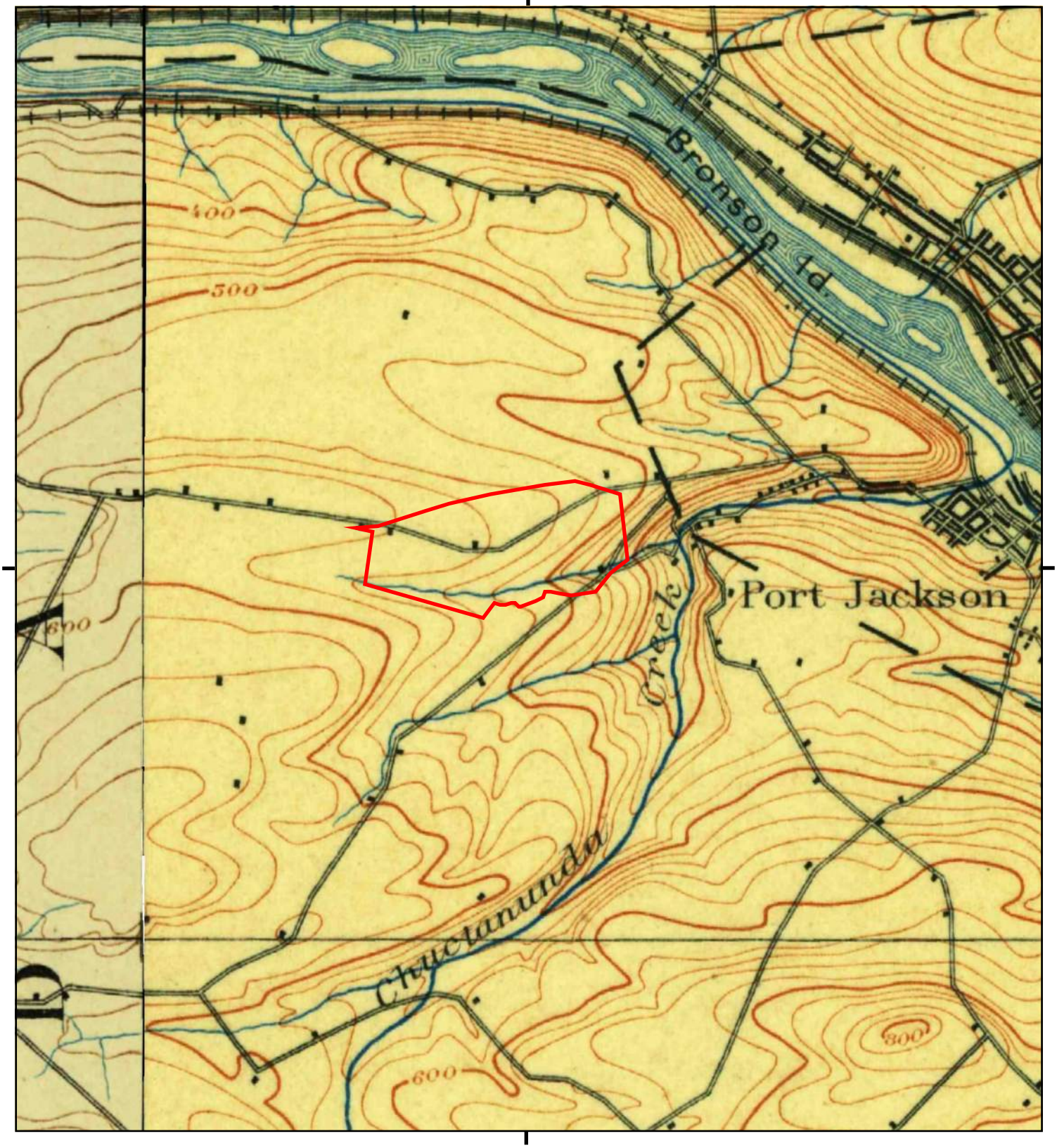
W E
SW S SE

TP, Amsterdam, 1931, 15-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Amsterdam, 1895, 15-minute
SW, Fonda, 1896, 15-minute

SITE NAME: State Highway 5S - Town of Florida
ADDRESS: 176 Mead Road
Amsterdam, NY 12010
CLIENT: Langan

N

State Highway 5S - Town of Florida
176 Mead Road
Amsterdam, NY 12010

Inquiry Number: 7837436.5
December 06, 2024

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☑	EDR Digital Archive
2017	☑	☑	Cole Information
2014	☑	☑	Cole Information
2010	☑	☑	Cole Information
2005	☑	☑	Cole Information
2000	☐	☑	Cole Information
1995	☐	☐	Cole Information
1965	☐	☐	Manning's City Directory

FINDINGS

TARGET PROPERTY STREET

176 Mead Road
Amsterdam, NY 12010

Year	*CD Image*	*Source*	
MEAD RD			
2020	pg A1	EDR Digital Archive	
2017	pg A4	Cole Information	
2014	pg A7	Cole Information	
2010	pg A10	Cole Information	
2005	pg A13	Cole Information	
2000	-	Cole Information	Street not listed in Source
1995	-	Cole Information	Street not listed in Source
1965	-	Manning's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
STATE HIGHWAY 5S			
2020	pg. A2	EDR Digital Archive	
2017	pg. A5	Cole Information	
2014	pg. A8	Cole Information	
2010	pg. A11	Cole Information	
2005	pg. A14	Cole Information	
2000	pg. A15	Cole Information	
1995	-	Cole Information	Street not listed in Source
1965	-	Manning's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

MEAD RD 2020

117	PHILIP BRACCHI
118	LANCE KROHN
176	BARBARA MEAD
180	KRISTOPHER LAIS

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STATE HIGHWAY 5S 2020

401	BOB HUTCHINGS
	BRAD BANKY
	BRADLEY ARNETT
	DOUGLAS ESAMANN
	ERIC DUNLAP
	FREDERICK NEWTON
	GEORGE JUILFS
	HEATH NASH
	JULIA JANSON
	KIRK HOBBS
	LARRY EISER
	MARY SCHAPIRO
	PHILLIP COX
	RENEE MARKO
	RHONDA WHITAKER
	RICH DOUGLAS
	SUSAN ODISEOS
	WENDY AUMILLER
	WILLIAM GREALIS
489	PHIL JOHNSON
514	JOSEPH SANTUCCIONE
515	LORRAINE LAYTON
1414	JAMES CORAPI
	JENNIE ZAWISZA
	JOHN DESTEFANO
	PETER MIKOLAITIS
1430	BILL DIAMOND
	DANA BROWN
	DAVE GOBLE
	DITESH ROHOO
	ERIC MADSEN
	FREDDY LUNA
	KELSEY BALDASCINI
	LEVON SCHILLING
	LORI PINION
	LYNN SELL
1451	BRIAN LOUER
	LEIGH HABEREK
1711	ERNEST DAVIERO
	LOREEN DAVIERO
1733	CELENE FRASIER
	JOHN FRASIER
1800	JIM BONLENDER
1863	HAUS ALPIN
1911	ANTHONY VELEZ
1920	DAVID PUTNAM
1936	ABRAHAMR DIANA
	ANA DIANA
	LORENA DIANA
1948	DAVID BLANCHARD

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

STATE HIGHWAY 5S 2020 (Cont'd)

1948	ISABEL CZECH
	JOSEPH CZECH
	RICHARD FLESH
1950	DONNA REALI
1961	LILA AGOSTA
1962	BEN MARS
	BERNARD MARS
	KRISTIN MARS
	KYLE MARS
2050	JOANN BURROUGHS
	SYLVIA BURROUGHS
2057	SHANE LARMAN
2067	DONALD HOLT
	ERIN HOLT
	PATRICIA HOLT
2084	JAMES CARROLL
2096	DENISE PASSERO
	JON PASSERO
	MATTHEW PASSERO
2118	LINDA KOWALSKI
2163	HAROLD ROTHBELL
2188	ANDY RENDA
	LAWRENCE VANALSTYNE
	MARLENE PINGITORE

Target Street	Cross Street	Source
✓	-	Cole Information

MEAD RD 2017

117	BRACCHI, PHILLIP R
118	KROHN, LANCE A
176	MEAD, BARBARA K
180	MEAD, JAMES M

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2017

368	SEBAST, BRENDA
387	ALEXANDER, SHERI L
397	NUGENT, KANDACE R
479	KOWALSKI, ROSE
485	HAWKINS, LEROY C
489	JOHNSON, PHIL S
514	SANTUCCIONE, JOSEPH S
515	LAYTON, LORRAINE
543	WATERSON, JAMES A
774	CRANESVILLE BLOCK COMPANY INC
877	BEYER, TIMOTHY G
1007	MONTGOMERY COUNTY SPCA
1019	KRUTZ, CLAUDE W
1247	GOTTADO CONTRACTING LLC
1269	THE STORAGE MALL
	UHAUL
1351	VALLEY VIEW MOTOR INN
	VALLEY VIEW MOTOR INN INC
1365	STARS CAFE
	VALLEY VIEW MOTOR INN
1375	VALLEY VIEW MINI MART INC
1414	DE STEFANO FUNERAL HOME
	DE, STEFANO
	MIKOLAITIS, PETER A
1430	VIDABLEND
1451	AMSTERDAM SUPER DEALS LLC
	BOURBON STREET
1455	STEWARTS SHOPS
1711	DAVIERO, ERNEST J
1733	FRASIER, JOHN M
1767	RIPPLE, THEODORE J
1800	TARGET
1863	ALPIN HAUS
1881	GREENE TRUCKING INC
1895	GREEN, JOSHUA
1905	HECK, ANDREW
1910	DANYLA, FRANCIS A
1911	BOND, JOHN M
1920	PUTNAM, DAVID H
1936	DIANA, ABRAHAM R
1937	FROLKE, JIM D
1948	CZECH, JOSEPH W
	FLESH, RICHARD H
1961	AGOSTA, CARMEN
1962	MARS, BEN
1997	PACKER, ANDREA F
2050	BURROUGHS, JOANN
2057	WATKINS, JODY A
2067	HOLT, DONALD W
2084	CARROLL, JIM A

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2017 (Cont'd)

2096	PASSERO, JON L
2118	KOWALSKI, LINDA J
2188	SCOTT, ROBERT E
2311	KARENS PRODUCE
2331	ALLHAY FARM LLC

Target Street	Cross Street	Source
✓	-	Cole Information

MEAD RD 2014

117	BRACCHI, PHILLIP R
118	KROHN, LANCE A
176	MEAD, RONALD J
180	MEAD, JAMES M

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2014

173	ROGERS, DOLORES A
278	KOCHENDOERFER, ROBERT K
308	KNIGHT, MICHAEL
368	SEBAST, BRENDA
387	ALEXANDER, SHERI L
397	NUGENT, KANDACE R
401	CRUSHED ROCK PRODUCTS
485	HAWKINS, LEROY C
489	OCCUPANT UNKNOWN,
514	SANTUCCIONE, JOSEPH S
515	REGNIER, DOUGLAS C
543	WATERSON, JAMES A
774	CRANESVILLE BLOCK COMPANY INC
877	BEYER, TIMOTHY G
1019	KRUTZ, CLAUDE W
1269	THE STORAGE MALL
1288	GILSTON, WILLIAM
1351	MARISKAL, NICKOLL
	VALLEY VIEW MOTOR INN
	VALLEY VIEW MOTOR INN INCORPORATED
1365	SINGH, SUNITA
	STARS CAFE
1375	VALLEY VIEW MINI MART INCORPORATED
1430	VIDABLEND
1455	STEWARTS SHOPS
1473	LIBERTY-NEW, DIMENSION I
1711	DAVIERO, ERNEST J
1733	FRASIER, JOHN M
1767	RIPPLE, THEODORE J
1863	ALPIN HAUS
1881	GREENE TRUCKING INCORPORATED
1882	PAJAK, KUM C
1895	BELVILLE, ELIZABETH
1905	HECK, ANDREW
1910	DANYLA, FRANCIS A
1911	BOND, JOHN M
1920	PUTNAM, DAVID H
1936	DIANA, ABRAHAM R
1937	FROLKE, JIM D
1948	BLANCHARD, DAVID A
	CZECH, JOSEPH W
1950	REALI, DONNA R
1961	AGOSTA, CARMEN
1962	MARS, BEN
1975	OCCUPANT UNKNOWN,
2050	BURROUGHS, JOANN
2057	CROUSE, DINA M
2067	HOLT, ERIC W
2084	CARROLL, JIM A
2088	GONZALEZ, JOE

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2014 (Cont'd)

2096	PASSERO, JON L
2118	KOWALSKI, LINDA J
2163	ROTHBELL, HAROLD
2188	IWANSKI, TERI
	PINGITORE, MARLENE
	RENDA, ANDY
	SAMPONE, CASSANDRA J
	SCOTT, ROBERT
	STREVY, JESSICA
2193	REALE CONSTRUCTION INC
2331	ALLHAY FARM LLC

Target Street	Cross Street	Source
✓	-	Cole Information

MEAD RD 2010

117	DENNISON, ROBERT E
118	KROHN, LANCE A
176	MEAD, RONALD J
180	MEAD, JAMES M

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2010

128	MOSSA, JAMIE
173	ROGERS, DOLORES A
194	NEFF, SCOTT A
207	JABLONSKI, DEBRA L
222	SORRENTINO, JOSEPH W
241	MCBRIDE, LEON C
270	PICKNEY, STEPHEN W
274	SEFCIK, PAUL D
278	KOCHENDOERFER, ROBERT K
308	KNIGHT, MICHAEL
312	WEKSZNER, MICHAEL A
368	OCCUPANT UNKNOWN,
387	ALEXANDER, SHERI L
397	SHAFER, JAMSE A
401	CALLANAN INDUSTRIES INC
	CRUSHED ROCK PRODUCTS INC
485	HAWKINS, LEROY C
489	JOHNSON, PHIL S
514	SANTUCCIONE, JOSEPH S
515	OCCUPANT UNKNOWN,
543	ZENNER, JULIE
725	CUSHING STONE CO
774	CRANESVILLE BLOCK CO INC
	ELECTRIC CITY CONCRETE CO INC
877	OCCUPANT UNKNOWN,
1019	OCCUPANT UNKNOWN,
1247	MOSA AMSTERDAM TRANSFER STA
1365	HOT HAM CAFE
	PATEL, JITENDRA
1414	BOICE, DAVID
	DE STEFANO FUNERAL HOME
1451	QUALITY EXPRESS PRINTING
	RONS TRUCKING
	TOPTHE HILL AUCTION GALLERY
1473	LIBERTY-NEW, DIMENSION I
1711	DAVIERO, ERNEST J
1733	FRASIER, JOHN M
1767	RIPPLE, THEODORE J
1779	OCCUPANT UNKNOWN,
1861	CAMPING WORLD
1863	ALPIN HAUS
1881	AMSTERDAM TRUCK CTR INC
	GREENE TRUCKING INC
1882	PAJAK, CHRISTOPHER
1895	OCCUPANT UNKNOWN,
1905	HECK, ANDREW
1910	DANYLA, FRANCIS A
1920	PUTNAM, DAVID
1936	DIANA, ABRAHAM R
1937	FROLKE, JIM D

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2010 (Cont'd)

1948	CZECH, JOSEPH W
1950	KOLSBUN, KARL K
1961	AGOSTA, LILA
1962	MARS, BERNARD C
1975	DIONS DJ SVC
	OCCUPANT UNKNOWN,
2050	BURROUGHS, STANLEY C
2057	WATKINS, JODY A
2067	HOLT, DONALD W
2084	CARROLL, JIM A
2088	GONZALEZ, JOSE R
2096	PASSERO, JON L
2110	OCCUPANT UNKNOWN,
2118	KOWALSKI, LINDA J
2163	ROTHBELL, HAROLD
2177	DOWNING, STACEY
2188	RENDA, ANDY

Target Street	Cross Street	Source
✓	-	Cole Information

MEAD RD 2005

117	OCCUPANT UNKNOWN,
118	KROHN, LANCE A
176	MEAD, RONALD J
180	MEAD, JAMES M

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2005

368	OCCUPANT UNKNOWN,
387	ALEXANDER, SHERI L
397	SHAFER, JAMES A
485	HAWKINS, LEROY C
489	JOHNSON, PHILIP S
514	SANTUCCIONE, JOSEPH S
515	OCCUPANT UNKNOWN,
543	OCCUPANT UNKNOWN,
877	BEYER, TIMOTHY G
1019	OCCUPANT UNKNOWN,
1365	PATEL, JITENDRA
1414	SANTSPREE, KELLY
1467	LIBERTY
1473	LIBERTY-NEW, DIMENSION I
1711	DAVIERO, ERNEST J
1733	FRASIER, JOHN M
1767	RIPPLE, THEODORE J
1779	WITTEMEYER, J
1800	ALVEY SYSTEMS INC
	ALVEY SYSTEMS INC FK
	MCDANIEL FIRE SYSTEMS
1803	COBLESKILL STONE PRODUCTS CORP
	FLORIDA NORTH INC
1861	CAMPING WORLD
1881	AMSTERDAM TRUCK CENTER INC
1882	PAJAK, GEORGE B
1895	OCCUPANT UNKNOWN,
1905	KRUTZ, WALTER
1910	DANYLA, FRANCIS A
1911	BOND, JOHN M
1936	CRIPE, RUTH J
1937	FROLKE, JIM D
1948	CZECH, JOSEPH W
1950	KOLSBUN, KARL K
1961	AGOSTA, LILA
1962	MARS, BERNARD C
1975	DION, JOHN C
2050	BURROUGHS, STANLEY C
2057	OCCUPANT UNKNOWN,
2067	HOLT, DONALD W
2084	OCCUPANT UNKNOWN,
2088	GONZALEZ, JOSE
2096	JONS GENERAL CLEANING INC
	PASSERO, JON L
2110	OCCUPANT UNKNOWN,
2118	KOWAISKI, LINDA J
2163	ROTHBELL, HAROLD
2177	DOWNING, JD
2188	KOWALSKI, EVELYN

Target Street	Cross Street	Source
-	✓	Cole Information

STATE HIGHWAY 5S 2000

1809	TOP OF THE HILL AUCTION GALLERY
1863	OSHEA, JOSEPH J
1936	CRIPE, DONALD
1937	FROLKE, JAMES D
1948	CZECH, J
1950	OCCUPANT UNKNOWN,
1961	AGOSTA, LILA
1962	ANDERSON, E
2050	BURROUGHS, STANLEY C
2067	HOLT, DONALD W
2096	PASSERO, DENISE L
2110	OCCUPANT UNKNOWN,
2118	KOWALSKI, G
2163	ROTHBELL, HAROLD
2188	FRIERS, JOSEPH
	WEBB, BEN

State Highway 5S - Town of Florida

176 Mead Road

Amsterdam, NY 12010

Inquiry Number: 7837436.8

December 03, 2024

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

12/03/24

Site Name:

State Highway 5S - Town of Fl(
176 Mead Road
Amsterdam, NY 12010
EDR Inquiry # 7837436.8

Client Name:

Langan
368 Ninth Avenue, 8th Floor
New York, NY 10001-2727
Contact: Laura Grose

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Search Results:

Year	*Scale*	*Details*	*Source*
2019	1"=625'	Flight Year: 2019	USDA/NAIP
2015	1"=625'	Flight Year: 2015	USDA/NAIP
2011	1"=625'	Flight Year: 2011	USDA/NAIP
2008	1"=625'	Flight Year: 2008	USDA/NAIP
2006	1"=625'	Flight Year: 2006	USDA/NAIP
1995	1"=625'	Acquisition Date: May 07, 1995	USGS/DOQQ
1988	1"=625'	Flight Date: May 07, 1988	USGS
1986	1"=625'	Flight Date: May 12, 1986	USDA
1978	1"=625'	Flight Date: May 11, 1978	USGS
1959	1"=625'	Flight Date: October 21, 1959	USGS
1957	1"=625'	Flight Date: July 02, 1957	USGS
1942	1"=625'	Flight Date: January 01, 1942	FirstSearch

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= 625'
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EDR


INQUIRY #: 7837436.8
YEAR: 2015
= 625'
N
EDR


INQUIRY #: 7837436.8
YEAR: 2011
= 625'
N
EDR


INQUIRY #: 7837436.8
YEAR: 2008
= 625'
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EDR



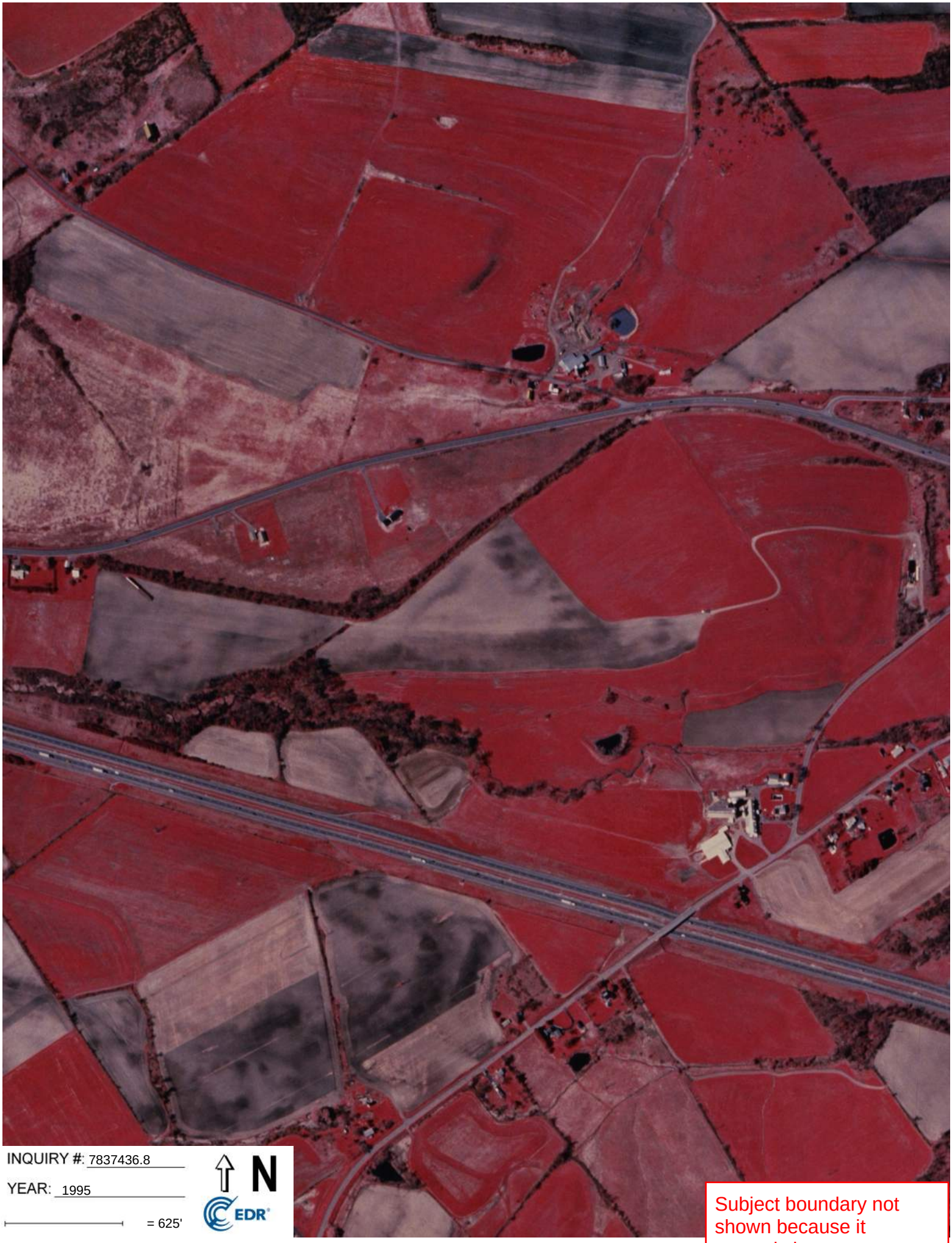
INQUIRY #: 7837436.8

YEAR: 2006

= 625'

N

EDR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YEAR: 1988

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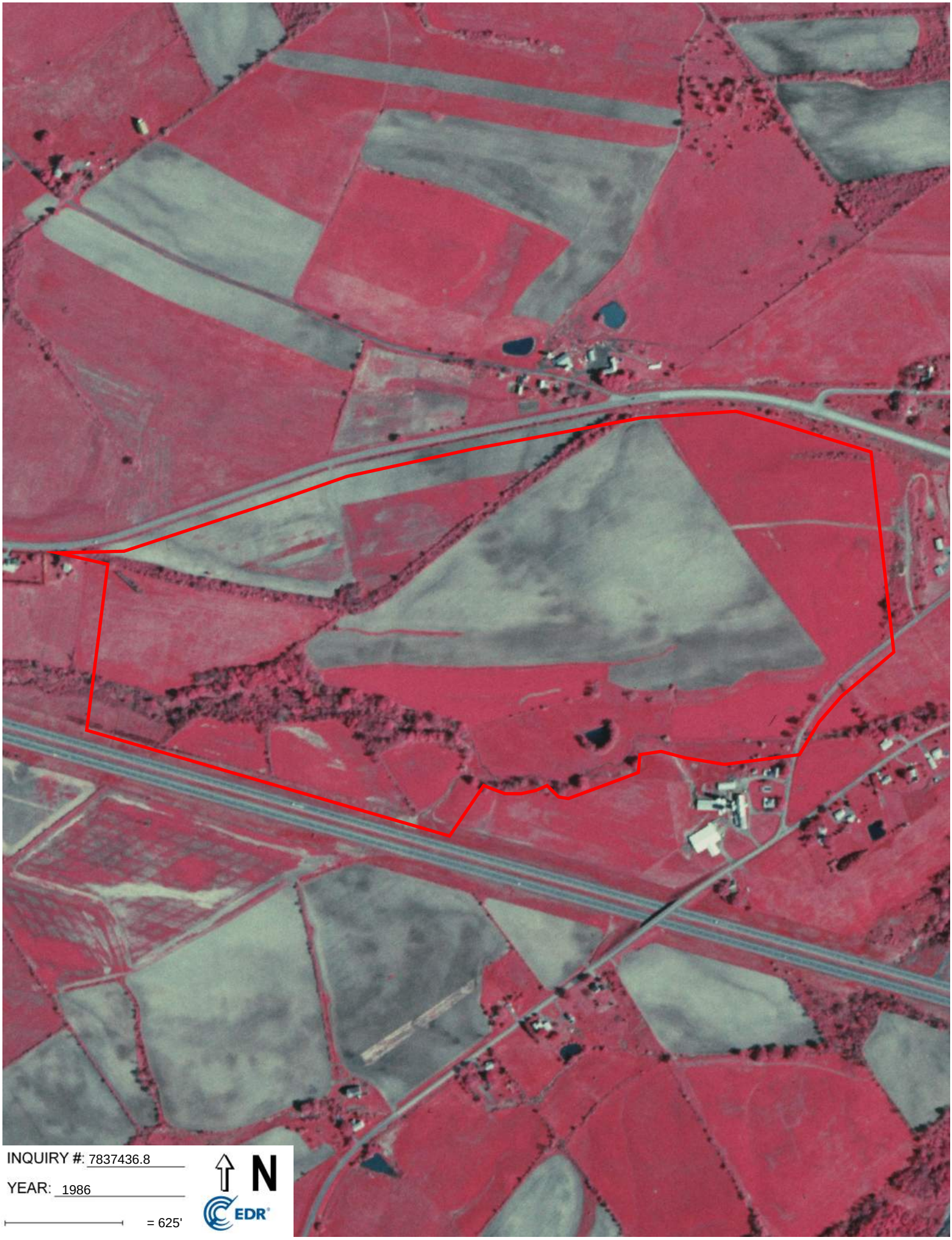
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INQUIRY #: 7837436.8

YEAR: 1978

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EDR

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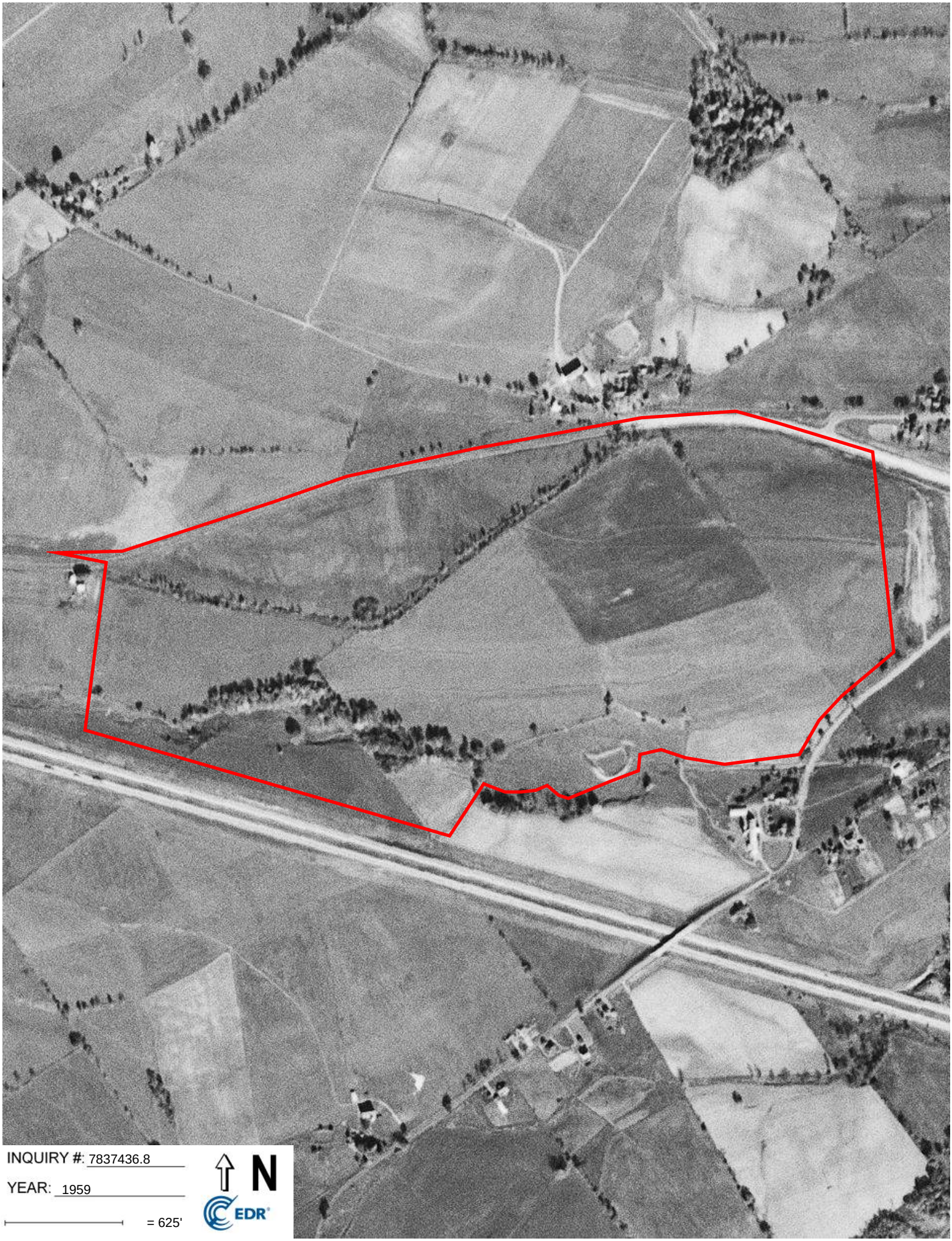
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EDR


INQUIRY #: 7837436.8
YEAR: 1957
= 625'
N
EDR


INQUIRY #: 7837436.8
YEAR: 1942
= 625'
N
EDR

Appendix G Resumes of Environmental Professionals

ANNA STATKIEWICZ

PROJECT SCIENTIST

ENVIRONMENTAL



3 Crossings Development, Pittsburgh, PA



Project Goliath, North Randall, OH



Ms. Statkiewicz has seven years of experience in environmental consulting, primarily focused on environmental site characterization and remediation projects. Her diverse project experience includes site characterization, due diligence assessments, remedial investigations and designs, construction oversight for remedial design implementation, vapor intrusion investigations, SPCC and PPC plans, NPDES permits, storage tank removals, wetland delineation and stream identification, acid mine drainage treatment and local zoning permits. Ms. Statkiewicz has also performed investigations and remediation under the Pennsylvania Land Recycling Program ("Act 2") and the Ohio Voluntary Action Program. In addition to investigation and permitting support, Ms. Statkiewicz has also assisted with managing a nationwide due diligence portfolio for a confidential e-commerce client. Prior to her tenure at Langan, Ms. Statkiewicz completed a graduate degree in Geology at University of Maryland, College Park. At Maryland, her graduate research focused on how the interaction among vegetation, hydrology, and geomorphology affects the stability of tidal channel inlets.

SELECTED PROJECTS

- Project Bark, Euclid, OH
- Project Goliath, North Randall, OH
- Teerco 5A Mine Site, Greene County, PA
- 3 Crossings Development, Pittsburgh, PA
- Station Square East Brownfield Project, Pittsburgh, PA
- Federal Bureau of Prisons, McKean, PA
- Riverlife Development, Pittsburgh, PA
- Edgewater Yacht Club, Cleveland, OH
- Natural Gas Pipelines and Production Facilities, Western PA and OH

SELECTED PUBLICATIONS, REPORTS, AND PRESENTATIONS

Design and Implementation of a Passive Treatment System for Acid Mine Drainage at the Teerco 5A Mine Site, Greene County, Pennsylvania, Air and Waste Management Annual Conference 2017

Vegetation-hydrodynamic controls on inlet channel stability of tidal freshwater marshes, Prince George's County, Upper Marlboro, Maryland funded by the Geological Society of America Graduate Student Grant Program

Geochemical and petrographic investigation of tufa deposition, Western Pennsylvania

EDUCATION

M.S., Geology,
University of Maryland

B.S., Geology,
University of Pittsburgh

B.A., Italian Language and Literature, University of Pittsburgh

CERTIFICATIONS AND TRAINING

OSHA 1910.120 40-hr HAZWOPER

LANGAN

SMITA P. DAY, PE

SENIOR PROJECT MANAGER

ENVIRONMENTAL ENGINEERING

Ms. Day is an environmental engineer with more than 17 years of experience in environmental engineering, managing and consulting in New York and New Jersey. She brings a unique combination of a practical approach, technical excellence, multidisciplinary experience, project management, and staff mentoring skills to her team. Her experience includes due diligence, site characterization, investigation, and remediation of residential, active and inactive commercial and industrial facilities, hazardous and non-hazardous waste management, storage tank and spill investigation, remediation, and closure, soil vapor intrusion investigations, and New York City Office of Environmental Remediation (OER) E-designated and Voluntary Cleanup Program (VCP) site applications, investigations, and remediation.



SELECTED PROJECTS

- NYCEDC Bush Terminal MiNY, Building A, Brooklyn, NY
- Waterline Square, New York, NY
- Willoughby Square, Brooklyn, NY
- Columbia University, Manhattanville Development, New York, NY
- 703 Washington Street, New York, NY
- 311 West Broadway, New York, NY
- Gateway II, Brooklyn, NY
- 957-961 First Avenue Properties, New York, NY
- Atlas Terminal Park, Glendale, NY
- 303 East 77th Street, New York, NY
- 50 West Street, New York, NY
- Bronx Terminal Market, Bronx, NY
- Javits Center Expansion, New York, NY
- John Jay College, New York, NY
- 7 World Trade Center, New York, NY
- Peter Cooper Village, New York, NY
- Schmid Labs, West Patterson, NJ
- New York City School Construction Authority, New York, NY
- Form Manufactured Gas Plants, New York, NY
- New York Jets Stadium, New York, NY
- Hostos Community College, New York, NY
- City University of New York, New York, NY
- River Place I and II, New York, NY
- 975 Manhattan Avenue, Brooklyn, NY*
- 252 Victory Boulevard, Staten Island, NY*
- BJs Shore Parkway, Brooklyn, NY*
- Mount Sinai Downtown Transformation, New York, NY*
- 219 Hudson Street, New York, NY*
- Bethpage Community Park, Bethpage, NY*
- Southwest Brooklyn Marine Transfer Station, Brooklyn, NY*
- Venice Marina, Brooklyn, NY*

**Projects represent experience with a previous firm*

EDUCATION

M.S., Geoenvironmental Engineering
Michigan State University

B.S., Bioresource Engineering
Rutgers University

PROFESSIONAL REGISTRATION

Professional Engineer (PE) in NY

OSHA 40-Hour HAZWOPER

10-Hour OSHA

NYC OER Turbo Training
Gold-Certified Professional

AFFILIATIONS

American Society of Civil Engineers (ASCE)

Commercial Real Estate Women (CREW)

Society of Women Environmental Professionals (SWEP)

LAURA GROSE

SENIOR STAFF SCIENTIST

ENVIRONMENTAL ENGINEERING

Ms. Grose is an environmental scientist with 6+ years of experience in environmental consulting in the greater New York metropolitan and Westchester County area. Ms. Grose has a background in environmental site assessments; subsurface investigations; remedial oversight and implementation; and report writing. She is currently involved with various environmental projects in the greater New York City area in the New York State Brownfield Cleanup Program and New York City Office of Environmental Remediation Voluntary Cleanup Program.



SELECTED PROJECTS

- 111 Leroy Street, E-Designation Consulting and Environmental Remediation, New York, NY
- 1120 Bronx River Avenue, Phase II ESI, Petroleum Spill Investigation, PBS Closure and Reporting, Spill Delineation, and Remediation via Recovery Wells, Bronx, NY
- 123-131 Pearl Street, NYSDEC BCP, Phase I ESA Report, Phase II ESI, BCP Application, Project Management, Port Chester, NY
- 145-165 Wolcott Street, NYSDEC BCP, BCP Application, New York, NY
- 250 Water Street, NYSDEC BCP, Waste Characterization and Reporting, New York, NY
- 2731 West 12th Street, NYSDEC BCP, Phase II ESI, Brooklyn, NY
- 561 Greenwich Street, Off-Site Investigation and Remediation, Site Management Plan, New York, NY
- 58-80 Borden Avenue, Phase I ESA, Phase II ESI, Petroleum Spill Investigation, Delineation, and Remediation via Recovery Wells, Queens, NY
- Bronx Psychiatric Center, PCB Remediation, Bronx, NY
- G4 Capital Partners Portfolio – Due Diligence Services, Phase I ESA, Project Management
- La Guardia Airport, NYS Superfund, Spill Investigation, Delineation, and Recovery via Recovery Wells, Queens, NY
- Pratt Landing – City DPW Yard and AMN Sites, NYSDEC BCP, BCP Application, Remedial Investigation, Remedial Action Work Plan, Project Management, New York, NY
- South Main Petroleum Site Assemblage, NYSDEC BCP, Phase I ESA, Phase II ESI, BCP Application, Project Management, Port Chester, NY
- Westchester Medical Center, Spill Investigation and Closure, PBS Closure and Reporting, Waste Characterization and Reporting, Project Management, Valhalla, NY
- Avalon Polychrome East Manufacturing Site, Yonkers, NY*
- Avalon Polychrome West Research and Development Site, Yonkers, NY*
- BICC Cables Site, Yonkers, NY*
- Chappaqua Station Site Remediation, Chappaqua, NY*
- City of Yonkers, Department of Public Works Excavation, Yonkers, NY*

**Projects represent experience with a previous firm*

EDUCATION

B.S., Environmental Science
State University of New York at Oneonta

PROFESSIONAL REGISTRATION

40-Hour OSHA HAZWOPER

10-Hour OSHA

NYSDEC GP-0-15-002 Erosion and Sediment Control (SWPPP Inspector)

AFFILIATIONS

Society of Women Environmental Professionals (SWEP)

- Edge on Hudson, Former General Motors Assembly Plant, Sleepy Hollow, NY*
- PSE&G Western Nassau Transmission Project, Garden City, NY*
- PSE&G Former Paterson MGP, Paterson, NJ*
- Saw Mill River Daylighting Project, Phase III, Yonkers, NY*

SHAWN W. MARTIN

SENIOR STAFF SCIENTIST

ENVIRONMENTAL SCIENTIST

Mr. Martin is an environmental staff scientist with 4 years of experience in the environmental consulting industry in New York and New Jersey. Mr. Martin has experience in field investigation implementation and coordination, due diligence report writing, construction oversight field implementation and senior engineering support, remediation work plan drafting and implementation, and regulatory agency coordination. His recent field experiences include in-situ chemical oxidation injections, remedial oversight, sub-slab depressurization system (SSDS) and testing, implementation, and monitoring. Office responsibilities include day-to-day construction oversight support, report writing, and data deliverable preparation.



SELECTED PROJECTS

- 205 Park Avenue, Operation Monitoring and Maintenance Services, Brooklyn, NY

EDUCATION

B.S., Earth and Environmental Studies, Molloy College

PROFESSIONAL REGISTRATION

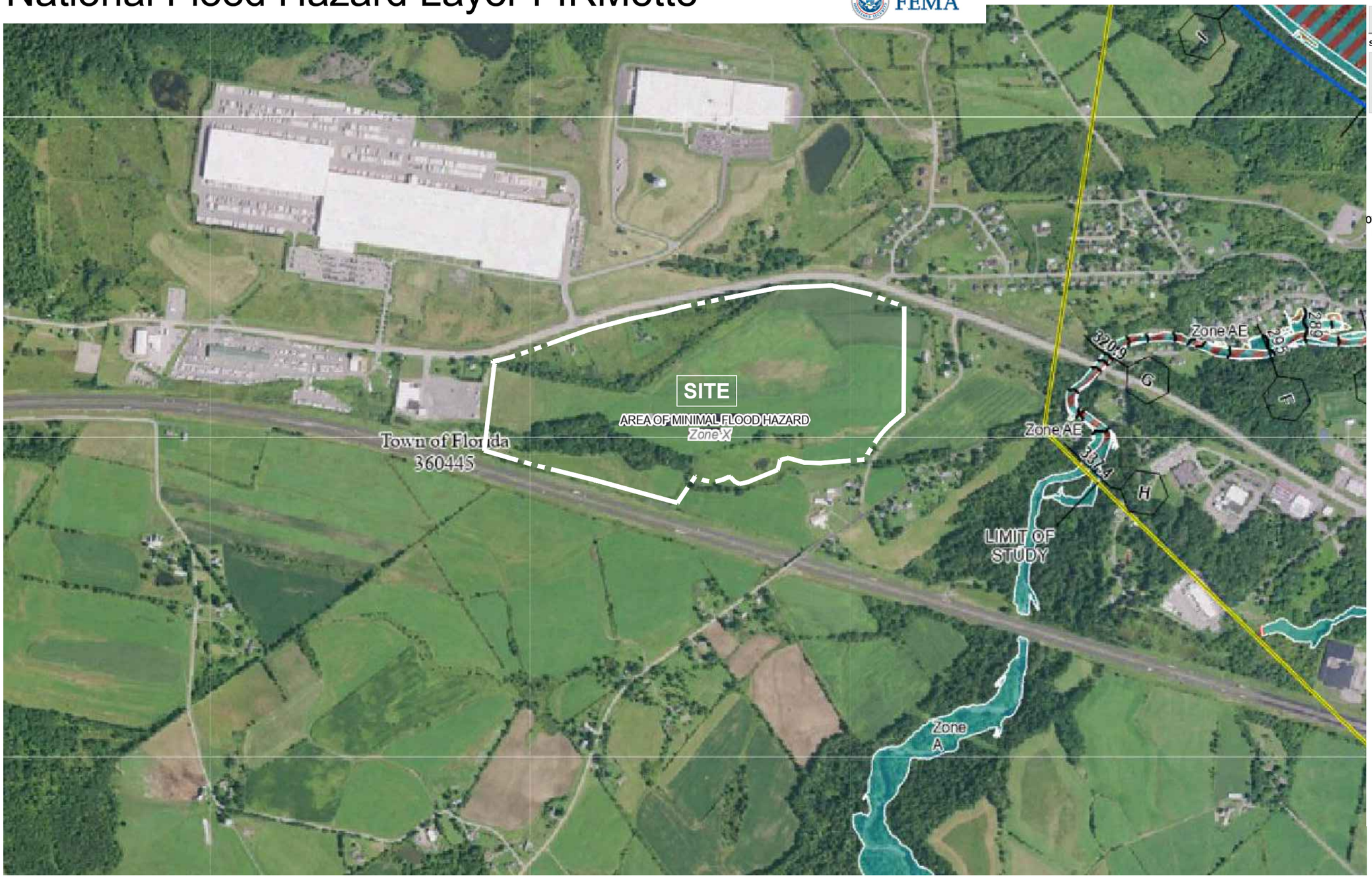
40-Hour OSHA (HAZWOPER)
10-Hour OSHA Construction
40-Hour NYC SST
USDOT/IATA Shipping and Transportation of Hazardous Materials

**Projects represent experience with a previous firm*

APPENDIX 11

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/16/2025 at 6:30 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX 12

Route 5S & Mead Rd – MSV1 Development Project
Air Quality Dispersion Modeling Analysis

Bluewater Property Group
April 17, 2025

INTRODUCTION

MSV1 (the "Project") is a proposed warehouse development located to the southwest of the New York Route 5S and Mead Road intersection in the Town of Florida, Montgomery County, New York (the "Site"), identified in Figure 1 below. The Study is conducted in support of the Town of Florida Planning Board's review of the potential environmental impacts of the Project pursuant to SEQRA and its implementing regulations in 6 NYCRR Part 617. The Project is located adjacent to a Disadvantaged Community (DAC), census tract #36057070200, as identified by the New York's Climate Justice Working Group under the Climate Act. To address the potential for adverse impacts to local air quality caused by Project-related traffic, the Study is intended to assess potential local air quality impacts under conservative scenarios. The Study focused on anticipated air emissions from mobile sources (i.e., passenger vehicles and long-haul trucks) associated with the Project and compared those emissions to the current National Ambient Air Quality Standards (NAAQS). The NAAQS are established by the United States Environmental Protection Agency (USEPA) and quantify maximum safe concentrations of air pollutants in ambient air on varying time-averaged durations of exposure.

Benzene, which is considered a High Toxicity Air Contaminant ("HTAC"), is identified as a potential pollution exposure factor in DACs; therefore, benzene emissions were also quantified and compared to the respective HTAC thresholds listed in the New York State Department of Environmental Conservation (NYSDEC) Division of Air Resources (DAR)-guidelines. The potential for air quality impacts from mobile sources on ozone that may be associated with the Project were also qualitatively assessed.

The Study found potential concentrations associated with the anticipated traffic counts in 2027 are expected to remain below the current HTAC and NAAQS thresholds, as shown in Table 1 and described herein. Projected contributions of volatile organic compounds (VOCs) (i.e., benzene) to the formation of ozone are also expected to be minor. Therefore, it can be assumed that air quality impacts on the surrounding community will not be significant.

Figure 1 – Site Location Map

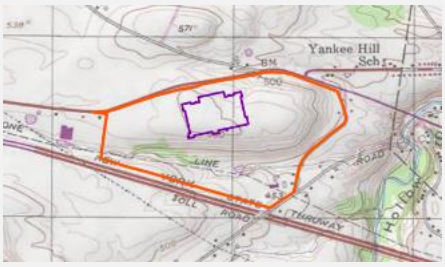


Figure 2 – AERMOD Setup



Figure 3 – Receptor Map



STUDY OBJECTIVES

A modeling program was developed to evaluate the potential impacts of anticipated Project-related traffic volumes on local air quality from traffic generated both onsite and on identified intersections along Route 5S, which is the projected route for project-generated traffic. The objectives of the modeling program were to:

- Estimate emissions of the key air pollutants associated with anticipated Project-related traffic volumes in 2027, the expected completion year of all developments within the Project. Key air pollutants modeled include: carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 2.5 microns ($PM_{2.5}$), and particulate matter less than 10 microns (PM_{10});
- Compare estimated Project-related emissions to the NAAQS;
- Estimate benzene emissions, which is considered a HTAC and identified as a potential pollution exposure factor in Disadvantaged Communities (DACs);
- Compare estimated benzene emissions to the NYSDEC DAR-1 guideline thresholds; and
- Qualitatively assess the potential for air quality impacts associated with ozone.

STUDY PROCEDURES

Air quality modeling was performed using the following EPA-approved air modeling software:

- EPA's Motor Vehicle Emission Simulator (MOVES5); and
- American Meteorological Society Model (AERMOD).

Vehicle movements for intersections that exceeded the applicable traffic volume thresholds established by either the New York City Environmental Quality Review (CEQR) Technical Manual or the New York State Department of Transportation (NYSDOT) were modeled using LINE sources, as were on-site vehicle movements. On-site parking areas were modeled using AREA sources. LINE and AREA sources are shown in Figure 2. Receptors (i.e., locations where the model calculates pollutant concentrations) were placed in a grid with 25-meter spacing at sensitive receptors including schools, nursing homes, and residential neighborhoods within a one-mile radius of the Project study area, as shown in Figure 3. The maximum downstream concentrations predicted by the model were added to published background concentrations and compared to the NAAQS. Published background concentrations were obtained from the New York State Ambient Air Quality Report published by NYSDEC (2023).

The models and calculations used the highest expected traffic counts from each period of the day broken into AM, midday, PM, and overnight, known as peak hour traffic counts, associated with the Project to predict estimated passenger vehicle (passenger cars and passenger trucks) and truck emissions associated with the Project. Emission rates obtained from MOVES5 were entered into AERMOD, and the predicted maximum downstream concentrations from the Project were added to the background concentrations and then compared to the current NAAQS.

RESULTS

The Study found that potential emissions associated with the anticipated passenger and truck traffic counts generated from the Project in 2027 will not be significant.

Modeled benzene concentrations of 0.15 ug/m^3 for short-term and 7.98E-02 ug/m^3 for annual are below the respective thresholds in DAR-1 of 27 ug/m^3 and 1.30E-01 ug/m^3, respectively. VOCs are a group of compounds and do not have an associated NAAQS; however, as described above, the Study considers benzene, which is also considered a VOC. Benzene concentrations are below the respective thresholds in DAR-1; therefore, projected contributions of VOCs to the formation of ozone are also expected to be minor.

The anticipated traffic counts associated with the Project, when added to the highest measured pollutant background concentrations, are expected to remain below the current NAAQS, as shown in Table 1 below.

TABLE 1
2027 AMBIENT AIR QUALITY MODELING RESULTS SUMMARY

POLLUTANT	AVERAGING PERIOD	PREDICTED DOWNSTREAM CONC.	NYSDEC BACKGROUND CONC.	TOTAL CONC.	PRIMARY NAAQS	SECONDARY NAAQS
		MICROGRAM/CUBIC METER (UG/M^3)				
CO	1-hour	543.36	2,999.9	3,543.3	40,075	--
	8-hour	166.96	1946.5	2,113.5	10,350	--
NO_2	1-hour	17.78	104.7	122.5	188	--
	Annual	0.38	25.3	25.7	100	--
$PM_{2.5}$	24-hour	2.05	24.0	26.1	35	35
	Annual	0.69	8.0	8.7	9	15
PM_{10}	24-hour	6.48	70	76.5	150	150

[1] To compare the results to the USEPA NAAQS, the 8th high concentration for 1-hr NO_2 and 24-hr $PM_{2.5}$.

The purpose of the NAAQS "primary standards" is to provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly, while the purpose of the secondary NAAQS is to provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. These standards are routinely used to determine the overall potential for impacts to sensitive receptors. With the projected pollutant concentrations anticipated to remain below both the primary and secondary NAAQS, it can be assumed that air quality impacts on the surrounding community will not be significant.

LANGAN

Technical Memorandum

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
One North Broadway, Suite 910 White Plains, NY 10601 T: 914.323.7400 F: 914.323.7401

To: Sean Baggett (Bluewater)

From: Brendon Blachowski (Langan)
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Info: David Everett (Whiteman Osterman & Hanna LLP)
Stephanie Duffield, PE (Langan)

Date: 17 April 2025

Re: Route 5S & Mead Rd – MSV1
Air Quality Dispersion Modeling Analysis
Town of Florida, New York
Langan Project No.: 140248201

EXECUTIVE SUMMARY

MSV1 (the "Project") is a proposed warehouse development located to the southwest of the New York Route 5S and Mead Road intersection in the Town of Florida, Montgomery County, New York (the "Site"). To evaluate the potential ambient air quality impacts of the Project, the potential future emissions from mobile sources (i.e., passenger vehicles and long-haul trucks) both onsite and on identified intersections along Route 5S were estimated using Environmental Protection Agency ("EPA")-approved modeling software and traffic volume projections. The air quality dispersion modeling results were compared to EPA's National Ambient Air Quality Standards ("NAAQS") to determine if there are potential air quality impacts to nearby sensitive receptors (i.e., local residential areas and schools). In addition, benzene, which is considered a High Toxicity Air Contaminant ("HTAC"), emissions were also quantified and compared to the respective HTAC thresholds listed in the New York State Department of Environmental Conservation (NYSDEC) Division of Air Resources (DAR)-1 guidelines. The potential for air quality impacts from mobile sources on ozone that may be associated with the Project were also qualitatively assessed. Based on projected worst-case peak hour passenger vehicle and truck traffic volumes broken down by daily time periods, the Project is not anticipated to result in any exceedance of the applicable HTAC or NAAQS thresholds at receptor locations. Projected contributions of relevant pollutants to the formation of ozone are also expected to be minor.

INTRODUCTION

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, DPC ("Langan") has prepared this memorandum to document results of this ambient air quality study (the "Study") conducted for the Project. Based on traffic volumes provided in the Traffic Impact

Study ("TIS") submitted for the Project[1], the Study includes ambient air quality dispersion modeling to simulate potential future conditions using current operational assumptions and methodology outlined in guidance documents provided by the EPA, New York State Department of Transportation ("NYSDOT"), New York State Department of Environmental Conservation ("NYSDEC"), and the New York City Environmental Quality Review ("CEQR") Technical Manual. Note, the State Environmental Quality Review Act ("SEQRA") guidance is typically used for projects located outside of New York City in the State of New York; however, SEQRA does not explicitly outline methodology for detailed mobile source air quality assessments. The CEQR Technical Manual provides specific guidance for mobile source air quality assessments and is designed for projects located within New York City, which generally has poorer background air quality and is less tolerant to air quality impacts compared to the rest of New York State. Therefore, CEQR guidelines were conservatively used for the Study in the absence of applicable SEQRA guidance. This memorandum describes the modeling methodology, results, and overall findings of the Study.

PURPOSE

The Study is conducted in support of the Town of Florida Planning Board's review of the potential environmental impacts of the Project pursuant to SEQRA and its implementing regulations in 6 NYCRR Part 617. The Project is located adjacent to a Disadvantaged Community (DAC), census tract #36057070200, as identified by the New York's Climate Justice Working Group under the Climate Act. To address the potential for adverse impacts to local air quality caused by Project-related traffic, the Study is intended to assess potential local air quality impacts under conservative scenarios for identified receptors both inside and outside the DAC along the primary traffic route (i.e., Route 5S). The Study focuses on projected air emissions from mobile sources (i.e., passenger vehicles and long-haul trucks) and compares those emissions to the current NAAQS. The NAAQS quantify maximum concentration levels of air pollutants in ambient air on varying time-averaged durations of exposure to provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly.

Benzene is identified as a potential pollution exposure factor in DACs; therefore, benzene emissions were also quantified and compared to the respective HTAC thresholds listed in the NYSDEC DAR-1 guidelines. The potential for air quality impacts from mobile sources on ozone that may be associated with the Project were also qualitatively assessed.

SCOPE OF STUDY

The Study focuses on the potential air quality impacts from projected traffic generated on the Site located to the southwest of the New York Route 5S and Mead Road intersection in the Town of Florida, Montgomery County, New York, as analyzed in the TIS. The Study also accounts for

[1] Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, DPC, NYSDOT Traffic Impact Study (April 2025). Note, trip generation counts presented in the TIS assume a 10% carpool utilization rate based on data published by the U.S. Census Bureau for the Town of Florida in Montgomery County. This Study conservatively assumes a 0% carpool utilization rate to evaluate potential air quality impacts under a worst-case scenario.

impacts of nearby intersections, which were included based on the CEQR Technical Manual (December 2021 Edition) and NYSDOT traffic screening thresholds. Nearby intersections that exceed either the CEQR peak hour passenger vehicle or truck volume screening thresholds, or the NYSDOT Level of Service ("LOS") and traffic volume increase thresholds are conservatively included in the model, in addition to driveways and parking areas at the Project.

Objective and Approach

The objective of the Study is to assess and quantify potential impacts of mobile sources on ambient air quality for receptors that would potentially be affected by the Project in the year 2027 using the traffic data provided in the TIS. Accordingly, to evaluate the potential impact of anticipated traffic volumes on ambient air quality at nearby receptor locations, air quality models were based on the latest available projected traffic data at the time of the Study. Projected traffic counts and vehicle types were accordingly based on the "build" scenarios in the TIS.

MOBILE SOURCES

Mobile Sources – Proposed Distribution Center

The Study includes estimated air emissions from mobile sources at the Project, which is identified in Figure 1, attached. Projected vehicle counts were modeled on onsite driveways and parking areas associated with the Site, as well as identified off-site intersections, as described below.

Mobile Sources – Intersections

The Study assesses intersections that include traffic generated from the proposed Project. The intersections for which traffic data was provided in the TIS were compared to the CEQR and NYSDOT traffic screening thresholds. To conservatively account for both CEQR and NYSDOT screening methodologies, any intersection that surpasses either the CEQR or NYSDOT screening thresholds is evaluated in the Study.

The CEQR screening thresholds require evaluation of intersections for projects that would generate an incremental increase in peak hour traffic resulting in the following scenarios:

- 170 or more auto trips,
- 12 or more heavy duty diesel vehicles for paved roads with average daily traffic fewer than 5,000 vehicles,
- 19 or more heavy duty diesel vehicles for collector roads,
- 23 or more heavy duty diesel vehicles for arterial roads; or,
- 23 or more heavy duty diesel vehicles for expressways and limited access roads.

The NYSDOT Level 2 screening thresholds require evaluation of intersections with LOS levels of D, E, or F, and a traffic volume increase of 10% or greater.

As shown in Attachment 1, three of the intersections in the TIS exceeded the screening thresholds described above and were modeled in the Study. These three intersections are as follows:

- Route 5S and Target Drive East
- Route 5S and West Driveway
- Route 5S and East Driveway

The locations of the Project and three intersections evaluated in the Study are provided in Figure 1, attached.

Mobile Sources - Modeling Approach

Pollutants of Concern

This Study uses EPA Motor Vehicle Emission Simulator ("MOVES5"), and EPA and American Meteorological Society Model ("AERMOD") modeling software (Version 23132) to calculate the projected concentrations of the following criteria pollutants: CO, NO_2, $PM_{2.5}$, and PM_{10}. Both MOVES5 and AERMOD are EPA-approved modeling software for estimating emissions and concentrations of pollutants generated from mobile emission sources, respectively. Predicted concentrations of pollutants from the modeling scenarios were compared to the current NAAQS.

Benzene, which is considered a High Toxicity Air Contaminant ("HTAC"), is identified as a potential pollution exposure factor in DACs; therefore, benzene emissions were also quantified in MOVES5 and compared to the respective HTAC threshold in NYSDEC's air quality regulations in 6 NYCRR Subpart 212-2.2, Table 2 ("Table 2"). The thresholds identified in Table 2 are applicable to stationary sources; however, because there is no equivalent regulatory framework for mobile air toxics, the HTAC limit in Table 2 was conservatively applied to determine if benzene required further evaluation. As shown in Attachment 1, benzene exceeds the thresholds in Table 2; therefore, warranting further evaluation.

Emission Rates

Mobile source emission rates projected in 2027 were calculated using MOVES5 and maximum projected peak hour traffic counts of passenger cars, passenger trucks, and heavy-duty vehicles. Traffic data for the Project and identified intersections during peak weekday morning (AM) and afternoon (PM) is based on the latest available projected traffic data at the time of the Study. Traffic data for weekday midday (MD) and overnight (ON) peak hours were estimated based on the distribution of vehicles during the respective time periods obtained from 24-hour Automatic Traffic Recorder ("ATR") counts on Route 5S.

These time periods are defined as follows, based on the EPA PM Hotspot Guidance[2]:

- AM: 06:00-09:00
- MD: 09:00-16:00
- PM: 16:00-19:00
- ON: 19:00-06:00

Site-generated peak hourly traffic data was applied to on-site parking areas and traffic movements. Conservatively, the maximum Project-specific traffic counts for each peak hour are used in the model for the associated time period (e.g., the AM peak hour traffic counts are used across the AM time period of 06:00-09:00). Emission factors specific to each peak hour traffic period are applied to their respective peak hour traffic volume and normalized based on vehicle categories obtained from NYSDEC-published data. On-site movements were normalized for their respective vehicle types (i.e., light-duty or heavy-duty trucks) and off-site movements (i.e., intersections) were normalized based on 2023 NYSDEC Montgomery County vehicle categories[3]. These emissions factors were entered as seasonal values in AERMOD to represent varying emissions rates and traffic volumes throughout each applicable time period, day of the week, and season throughout the year.

MOVES5 runs were generated for January, April, July, and October to account for seasonal variation. MOVES5 calculates mobile source emissions rates in units of grams per hour (g/hr). The MOVES5 modeling scenarios operate under the following assumptions:

1. Starting emissions "starts" are applied to passenger vehicles leaving the facility ("outs") during morning and evening peak hour traffic. These "starts" are conservatively assumed to be cold starts based on anticipated employee shift schedules at the proposed distribution center[4].
2. Idling emissions are applied to passenger vehicles and trucks leaving the facility (i.e., outs). It is conservatively assumed that every vehicle leaving the facility remains idle for a period of 5 minutes before exiting corresponding parking lots based on 6 NYCRR 217-3.2.
3. Running emissions are assumed to have occurred across the furthest possible representative on-site routes for cars and trucks traveling at an average speed of 15 miles per hour (mph). These onsite movements include parking lot aisles, driveways, and Site

[2] EPA, PM Hot-Spot Guidance: Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas (October 2021). The EPA PM Hotspot Guidance provides instructions for conducting quantitative hot-spot analyses for highway and other transit projects in $PM_{2.5}$ and PM_{10} nonattainment and maintenance areas. The guidance covers transportation conformity requirements, technical guidance on estimating project emissions using MOVES and other methods, and the application of EPA's AERMOD dispersion model for PM hot-spot analyses.

[3] Information provided by NYSDEC on April 4, 2025.

[4] Cold starts for employee vehicles (passenger cars and passenger trucks) are assumed to have a soaking time between 360 and 720 minutes. Cold starts for heavy duty vehicles are assumed to have a soaking time between 120 and 260 minutes. Soak time is defined as the time period between when a vehicle engine is turned off and when the engine is turned on again. Soak times were chosen based on anticipated tenant-specific operations.

entrances/exits. On-site speed limits are expected to be between 15 and 25 mph. Slower traveling speeds generally correspond with greater emissions of pollutants; therefore, 15 mph is used as a conservative assumption to replicate total estimated road length and speed during operation of the Site.

4. Road dust emissions are calculated for PM_{10} and $PM_{2.5}$ assuming a silt loading value of 0.015 grams per square meter (g/m^2) for expressways, 0.1 g/m^2 for arterial roads, 0.16 g/m^2 for collector roads, 0.4 g/m^2 for local paved roads, and an average vehicle weight of 6,000 pounds, in accordance with the CEQR Technical Manual.

Mobile source emission rates are summarized in Attachment 1.

Mobile Sources - Modeling Procedures and Assumptions

A representative model of the on-site vehicle routes and applicable intersections' geometry are constructed in AERMOD, and receptors are placed per CEQR and EPA guidance as shown on Figure 2 and summarized in Table A below. Emissions generated from build scenario traffic volumes are modeled at the identified analysis locations for the respective pollutant averaging periods. Trips are assigned to each travel lane and turning movement per the respective TIS traffic volume tables. A summary of the mobile source AERMOD modeling assumptions is provided below.

Table A. AERMOD Modeling Assumptions

Data Type	Input Value	Notes
Intersections and On-site Vehicle Movements		
Source	LINE	The three intersections and on-site vehicle movements are modeled as LINE source types.
Width of Source	3.3 m	(per lane)
Parking Areas		
Source	AREA	The on-site parking areas are modeled as AREA source types.
All Sources		
Pollutant	CO (1-hr, 8-hr); NO2 (1-hr, Annual); PM2.5 (24-hr, Annual); PM10 (24-hr); Benzene (1-hr, Annual)	Benzene emissions were modeled using a unitized emission rate of 1 g/s-m^2. Resulting concentrations were normalized based on corresponding MOVES emission rates to calculate predicted benzene concentrations.
Initial Vertical Dimension	2.6 m (LDV); 6.8 m (HDV)	The combined initial vertical dimension are estimated using a weighted average (i.e., average of LDV and HDV contribution).
Release Height	1.3 m (LDV); 3.4 m (HDV)	Initial vertical dimension multiplied by 0.5.
Emission Rate	MOVES-based emission rates (g/s)	EPA AP-42 emission factors are used for road dust calculations.
Urban/Rural	Rural	Based on DAR-10 land use classification.

Meteorological Data

Per EPA Appendix W, five years of the latest available representative meteorological data was obtained from NYSDEC. Surface and upper-air data were obtained from the Montgomery County Airport station. The most recent years of data available are 2018 to 2022 because 2023 data is incomplete, due in part to a nationwide helium shortage, as well as building construction at the National Weather Service office, which prevented the launch of any upper air balloons during that time. Therefore, the model uses the complete 2018 to 2022 meteorological dataset.

Receptors

Receptors are placed at a flagpole height of 1.8 meters to represent pedestrian height. Based on EPA PM Hotspot Guidance, a receptor grid was generated to cover areas of public access and residential areas within approximately one mile of the Project southwest of the Mohawk River. The receptors in the grid are spaced 25 meters apart. Based on DAR-10 guidance, receptors within the Project's site boundary are excluded from the model as it is anticipated there will be no public access to these areas. The surrounding area was reviewed for sensitive locations, such as schools, hospitals, and nursing homes, which may be affected by onsite emissions from onsite vehicle movements (i.e., running emissions on driveways, starting and idling emissions at parking lots) and offsite emissions from identified nearby intersections. The receptor grid shown in Figure 3 covers nearby sensitive locations including a nursing home, River Ridge Living Center, located at 100 Sandy Drive, Amsterdam, NY and a school, William Barkley School, located at 66 Destefano Ave, Amsterdam, NY.

Background Concentrations

Background concentrations were obtained from representative regional monitoring stations provided in the latest NYS 2023 Ambient Air Quality Report published by NYSDEC. Background 24-hour and annual PM2.5 concentrations were obtained from the Albany monitoring station based on proximity to the Project and similarity of climate, population, and topography per NYSDEC DAR-10 guidelines[5]. The Albany monitor is located approximately 48 kilometers from the Site. According to United States Census data, the population density of Albany is 1,826 people per square kilometer, while the population density of the Town of Florida, where the Site is located, is 495 people per square kilometer. Albany is more densely populated than the Town of Florida, therefore, it is reasonably assumed to be a conservative monitor.

More densely populated areas, such as Albany and Queens (discussed below), typically experience greater vehicle emissions compared to a less densely populated area due to the higher concentration of residents and businesses that necessitate increased transportation

[5] NYSDEC, DAR-10: NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis (November 8, 2019).

The DAR-10 guidelines outline recommended air dispersion modeling procedures for ambient air quality impact analyses. It builds on the EPA's approved methodologies, particularly those in 40 CFR Part 51, Appendix W, and includes additional recommendations specific to New York regulations.

activities. With more people living and working in close proximity, the demand for personal vehicles, public transportation, and commercial delivery services rises, leading to a higher volume of traffic on the roads. This increased traffic results in greater fuel consumption and consequently higher emissions of pollutants such as CO, NO_2, and PM. Furthermore, congestion in densely populated areas often causes idling and stop-and-go traffic, which exacerbates emissions of these pollutants.

CO, NO_2, and PM_{10} background concentrations were obtained from the Queens monitoring station. The Queens monitoring station is located approximately 243 kilometers from the Site. According to United States Census data, the population density of Queens County is 8,590 people per square kilometer. The Queens monitoring station is adjacent to the Horace Harding Expressway, which has an average daily vehicle count of 173,227, per NYSDOT data. The maximum vehicle counts in proximity to the Project location based on NYSDOT data is along Route 5S, which has an average daily vehicle count of 5,221. Queens is a more densely populated area than the Town of Florida, with more traffic on nearby roads and potential for more air quality impacts; therefore, it is reasonably assumed to be a conservative monitor.

Ambient background concentrations are added to the modeling results obtained from AERMOD to estimate the total concentrations at the identified receptors. Concentrations at receptor locations are compared against the respective NAAQS.

Ozone

Langan considered the potential for air quality impacts from mobile sources on ozone that may be associated with the Project.

Ozone is a colorless gas composed of three oxygen atoms, known chemically as O_3. It occurs both in the Earth's upper atmosphere and at ground level. Ground-level ozone is a major component of smog and poses health risks to humans, animals, and vegetation. The formation of ground-level ozone is a photochemical process involving precursor pollutants such as NO_X and volatile organic compounds (VOCs). These precursors are emitted from various sources, including vehicular emissions.

When NOX and VOCs are released into the atmosphere, they undergo a series of chemical reactions in the presence of sunlight, leading to the formation of ozone. Due to the intricate, nonlinear nature of these chemical reactions and the influence of various environmental factors such as temperature, humidity, and sunlight, air quality modeling software such as AERMOD, which is designed to predict the physical dispersion of pollutants, cannot accurately model ozone emissions.

In addition, ozone impacts are typically analyzed on a regional scale rather than from individual sources due to the nature of ozone formation and its ability to travel long distances, particularly during time periods of significant sunlight. Ozone precursors (e.g., NO_X and VOCs) can originate from various sources, including industrial activities, vehicular emissions, and natural sources like wildfires. Once formed, ozone can be transported by wind patterns across regions, potentially hundreds of miles away from its original source. This long-range transport means that ozone

levels in a particular area are influenced not only by local emissions but also by emissions from distant regions.

As described in the Findings and Conclusions section below, projected emissions of NOx associated with projected mobile sources in 2027, added to background concentrations, would not result in an exceedance of the applicable NAAQS and therefore, projected contributions of NOx to the formation of ozone are expected to be minor.

VOCs are a group of compounds and do not have an associated NAAQS; however, as described in the Pollutants of Concern section above, the Study considers benzene, which is also considered a VOC.

FINDINGS AND CONCLUSIONS

The Study found projected emissions associated with projected mobile sources in 2027, added to background concentrations, would not result in an exceedance of the applicable NAAQS at any receptor locations, including at sensitive receptor locations. A summary of the modeled results and background concentrations compared to the applicable NAAQS is included in Table B below.

TABLE B
2027 AMBIENT AIR QUALITY MODELING RESULTS SUMMARY

POLLUTANT	AVERAGING PERIOD	PREDICTED DOWNSTREAM CONC.	NYSDEC BACKGROUND CONC.	TOTAL CONC.	PRIMARY NAAQS	SECONDARY NAAQS
		MICROGRAM/CUBIC METER (UG/M^3)				
CO	1-hour	543.36	2,999.9	3,543.3	40,075	--
	8-hour	166.96	1946.5	2,113.5	10,350	--
NO_2	1-hour	17.78	104.7	122.5	188	--
	Annual	0.38	25.3	25.7	100	--
$PM_{2.5}$	24-hour	2.05	24.0	26.1	35	35
	Annual	0.69	8.0	8.7	9	15
PM_{10}	24-hour	6.48	70	76.5	150	150

[1] To compare the results to the USEPA NAAQS, the 8th high concentration for 1-hr NO_2 and 24-hr $PM_{2.5}$.

As shown in Table C, modeled benzene concentrations for both short-term and annual averaging periods are below the respective thresholds in DAR-1. Benzene is also considered a VOC. VOCs are a group of compounds and do not have an associated NAAQS; however, as described above, the Study considers benzene, and because benzene concentrations are below the respective thresholds in DAR-1, projected contributions of VOCs to the formation of ozone are also expected to be minor.

TABLE C
2027 HTAC MODELING RESULTS SUMMARY

HTAC	AVERAGING PERIOD	PREDICTED DOWNSTREAM CONC.	NYSDEC DAR-1 THRESHOLD	EXCEEDS THRESHOLD?
		MICROGRAM/CUBIC METER (UG/M^3)		
BENZENE	Short-Term	0.15	27	No
	Annual	7.98E-02	1.30E-01	No

Based on expected compliance with the air quality standards provided above, it is not anticipated that existing and projected mobile sources will have any significant adverse impact on air quality within the Study area. Additionally, the project's contributions to the formation of ozone are expected to be minor.

Attachments

Figure 1	Site Location Map
Figure 3	AERMOD Setup
Figure 3	Receptor Map
Attachment 1	Supporting Emissions Calculations

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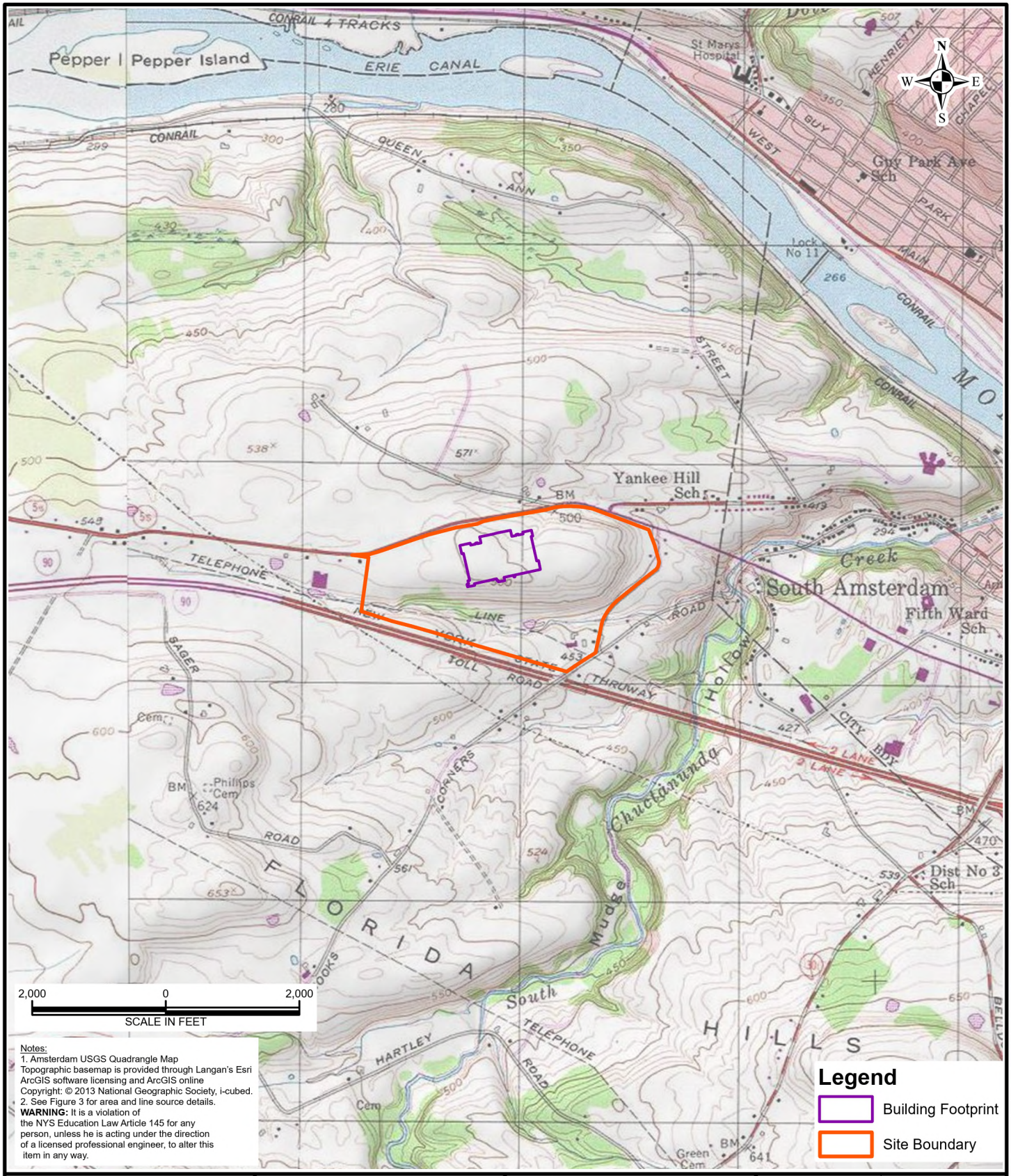
FIGURE 1
SITE LOCATION MAP



Notes:
1. Amsterdam USGS Quadrangle Map Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online Copyright: © 2013 National Geographic Society, i-cubed.
2. See Figure 3 for area and line source details.
WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

Legend
- Building Footprint
- Site Boundary

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Project	Figure Title	Project No.	Figure
MSV1 TOWN OF FLORIDA MONTGOMERY COUNTY NY	SITE LOCATION MAP	140315501 Date 4/14/2025 Scale 1" = 2,000 feet Drawn By LB	1

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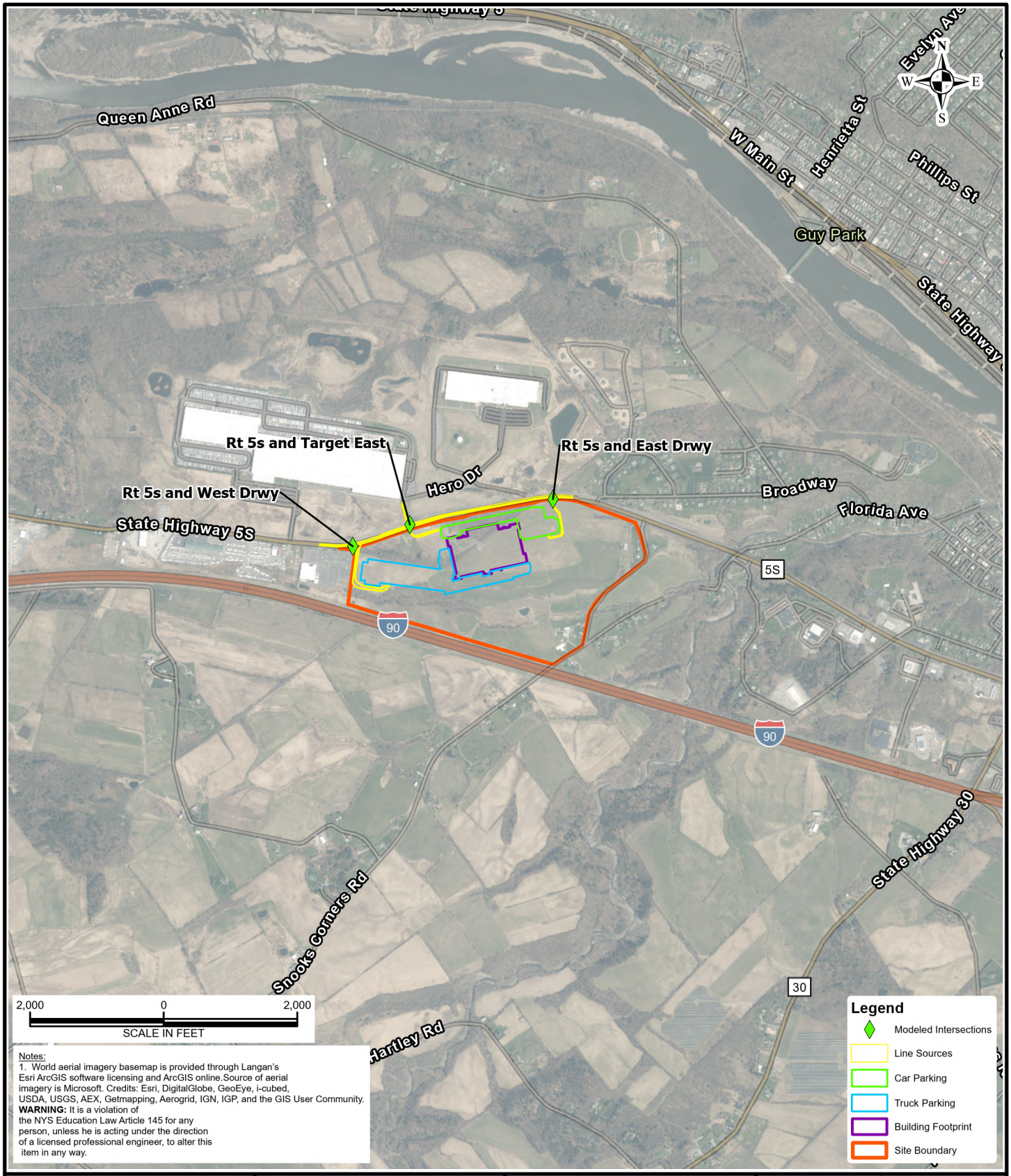
FIGURE 2
AERMOD SETUP



Notes:
1. World aerial imagery basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online.Source of aerial imagery is Microsoft. Credits: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community.
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Project	MSV1 TOWN OF FLORIDA MONTGOMERY COUNTY NY
Figure Title	AERMOD SETUP
Project No.	140315501
Date	4/14/2025
Scale	1" = 2,000 feet
Drawn By	LB
Figure	2

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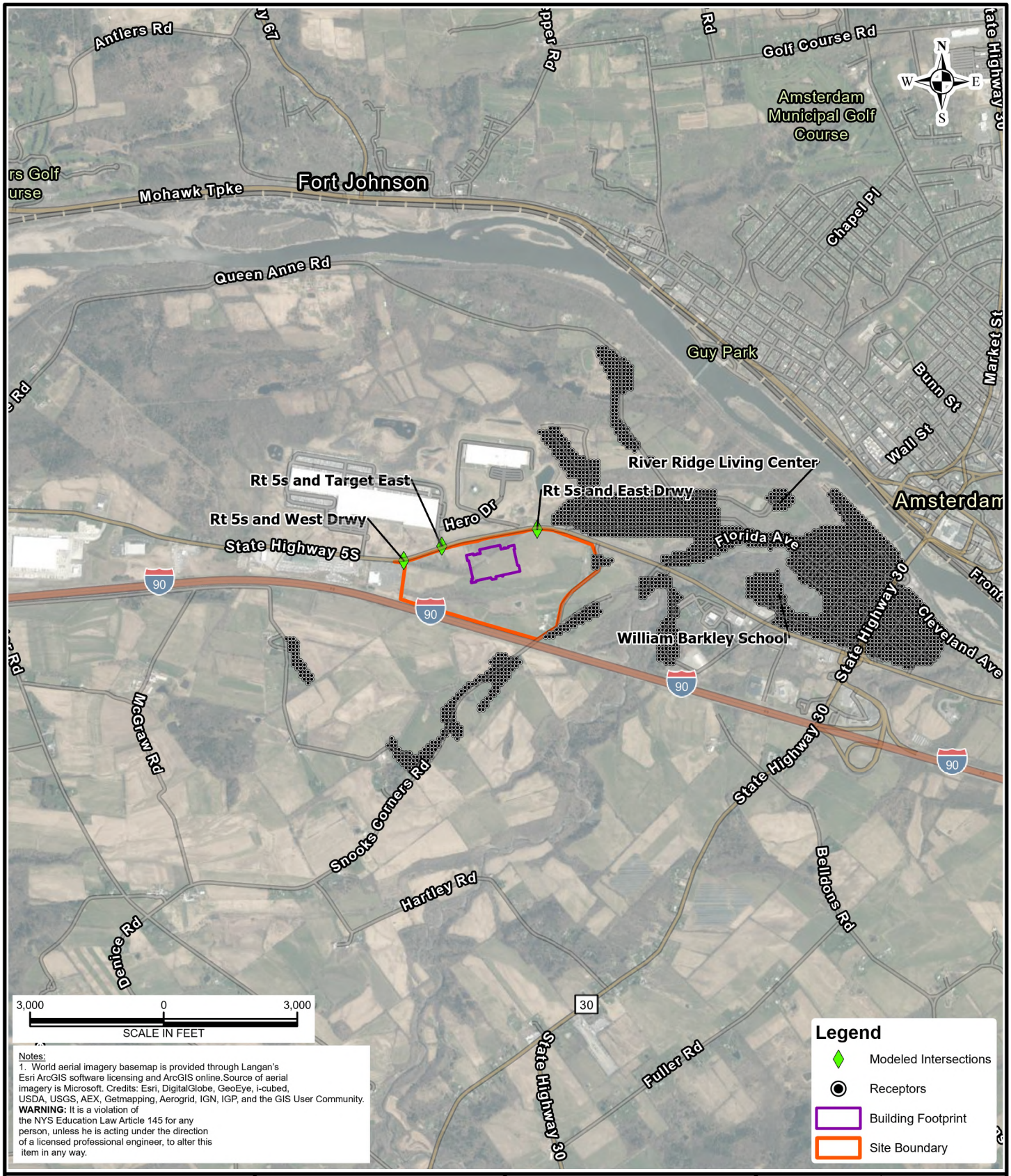
FIGURES 3
RECEPTOR MAP



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Project	MSV1 TOWN OF FLORIDA MONTGOMERY COUNTY NY
Figure Title	RECEPTOR MAP
Project No.	140315501
Date	4/14/2025
Scale	1" = 3,000 feet
Drawn By	LB
Figure	3

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ATTACHMENT 1
SUPPORTING EMISSIONS CALCULATIONS

Bluewater Property Group - MSV1
Town of Florida, New York
Intersection Screening Analysis

Table 1. Intersection Screening Analysis

Intersection Number (Synchro)	Intersection Name	Road Type 1	Road Type 2	Road Type 3	2027 No-Build Peak AM Trucks	2027 No-Build Peak PM Trucks	2027 Build Peak AM Trucks	2027 Build Peak PM Trucks	Truck AM Increase	Truck PM Increase	CEQR Truck Count Threshold[4]	Exceed CEQR Truck Threshold?	2027 No-Build Peak AM Total	2027 No-Build Peak PM Total	2027 Build Peak AM Total	2027 Build Peak PM Total	Project Increase (AM Peak)	Project Increase (PM Peak)	Percent Increase (AM)	Percent Increase (PM)	CEQR Threshold[4]	Exceeds CEQR Traffic Count Threshold?	LOS Rating 2027 Build AM	LOS Rating 2027 Build PM	DOT Screening Threshold Criteria				
																									Screening Criteria 1: Percent Threshold[2]	Exceeds Criteria 1?	Screening Criteria 2: LOS Threshold[3]	Exceeds Criteria 2?	Exceeded (Criteria 1 AND 2)
2	Rt 5s and Rt 30 SB Ramps	Minor Arterial	Principal Arterial Expressway	N/A	111	84	126	105	15	21	23	**No**	792	1216	927	1334	135	118	17	10	170	**No**	C	C	10	Yes	D, E, or F	No	**No**
3	Rt 5s and Rt 30 NB Ramps	Minor Arterial	Principal Arterial Other	N/A	63	46	71	57	8	11	23	**No**	561	896	645	953	84	57	15	6	170	**No**	B	C	10	Yes	D, E, or F	No	**No**
12	Rt 5s Ramps and Rt 30	Principal Arterial Expressway	Minor Arterial	N/A	138	102	153	123	15	21	23	**No**	1473	1647	1593	1741	120	94	8	6	170	**No**	B	B	10	No	D, E, or F	No	**No**
4	Rt 30 and I-90 Ramps	Principal Arterial Other	Principal Arterial Interstate	N/A	121	74	136	95	15	21	23	**No**	1276	1387	1369	1471	93	84	7	6	170	**No**	D	C	10	No	D, E, or F	Yes	**No**
8	Rt 5s and Target Dr East	Major Collector	Minor	N/A	71	49	86	70	15	21	12	**Yes**	389	796	538	892	149	96	38	12	170	**No**	B	C	10	Yes	D, E, or F	No	**No**
13	Rt 5s and West Drwy	Major Collector	Minor	N/A	40	27	59	53	19	26	19	**Yes**	322	719	377	774	55	55	17	8	170	**No**	B	B	10	Yes	D, E, or F	No	**No**
14	Rt 5s and East Drwy	Major Collector	Minor	N/A	67	42	82	63	15	21	19	**Yes**	368	789	507	909	139	120	38	15	170	**No**			10	Yes	D, E, or F	No	**No**

Notes:
1. Traffic counts based on TIS dated April 2025. Note, the TIS was not finalized at the time of this study; therefore, traffic counts may slightly vary.
2. NYSDOT thresholds based on guidance of New York State Department of Transportation Environmental Analysis Bureau Chapter 1.1.
3. CEQR thresholds based on City Environmental Quality Review Technical Manual Chapter 17.

Bluewater Property Group - MSV1
Town of Florida, New York
Traffic Counts

Table 2. Traffic Counts

Intersection Number (Synchro)	Intersection Name	Turning Movement	Time of Day	Code	Road Description	Road Code	Total Vehicles	HD%	LD%	Passenger Cars	Passenger Trucks	5+ Axle (HD) Trucks	IVD	Speed	Road + Speed	Area	% of site area	Vehicle Type
8	Rt 5s and Target Dr East	8EBL	AM	8EBLAM	Rural Unrestricted	3	10	10%	90%	4	6	1	3.02	15	315	N/A	N/A	N/A
		8EBL	MD	8EBLMD	Rural Unrestricted	3	5	100%	0%	0	0	5	6.80	15	315	N/A	N/A	N/A
		8EBL	PM	8EBLPM	Rural Unrestricted	3	3	100%	0%	0	0	3	6.80	15	315	N/A	N/A	N/A
		8EBL	ON	8EBLON	Rural Unrestricted	3	0	100%	0%	0	0	0	6.80	15	315	N/A	N/A	N/A
		8EBT	AM	8EBTAM	Rural Unrestricted	3	175	12%	88%	59	96	21	3.10	55	355	N/A	N/A	N/A
		8EBT	MD	8EBTMD	Rural Unrestricted	3	88	13%	87%	30	48	11	3.14	55	355	N/A	N/A	N/A
		8EBT	PM	8EBTPM	Rural Unrestricted	3	139	13%	87%	46	75	18	3.14	55	355	N/A	N/A	N/A
		8EBT	ON	8EBTON	Rural Unrestricted	3	14	13%	87%	5	8	2	3.14	55	355	N/A	N/A	N/A
		8EBR	AM	8EBRAM	Rural Unrestricted	3	110	0%	100%	42	68	0	2.60	9	39	N/A	N/A	N/A
		8EBR	MD	8EBRMD	Rural Unrestricted	3	55	0%	100%	21	34	0	2.60	9	39	N/A	N/A	N/A
		8EBR	PM	8EBRPM	Rural Unrestricted	3	90	0%	100%	35	56	0	2.60	9	39	N/A	N/A	N/A
		8EBR	ON	8EBRON	Rural Unrestricted	3	9	0%	100%	4	6	0	2.60	9	39	N/A	N/A	N/A
		8WBL	AM	8WBLAM	Rural Unrestricted	3	471	0%	100%	179	291	0	2.60	15	315	N/A	N/A	N/A
		8WBL	MD	8WBLMD	Rural Unrestricted	3	236	0%	100%	90	146	0	2.60	15	315	N/A	N/A	N/A
		8WBL	PM	8WBLPM	Rural Unrestricted	3	386	0%	100%	147	239	0	2.60	15	315	N/A	N/A	N/A
		8WBL	ON	8WBLON	Rural Unrestricted	3	39	0%	100%	15	25	0	2.60	15	315	N/A	N/A	N/A
		8WBT	AM	8WBTAM	Rural Unrestricted	3	117	22%	78%	35	57	26	3.53	55	355	N/A	N/A	N/A
		8WBT	MD	8WBTMD	Rural Unrestricted	3	59	22%	78%	18	29	13	3.53	55	355	N/A	N/A	N/A
		8WBT	PM	8WBTPM	Rural Unrestricted	3	158	9%	91%	55	89	15	3.00	55	355	N/A	N/A	N/A
		8WBT	ON	8WBTON	Rural Unrestricted	3	16	22%	78%	5	8	4	3.53	55	355	N/A	N/A	N/A
		8WBR	AM	8WBRAM	Rural Unrestricted	3	30	30%	70%	8	13	9	3.86	9	39	N/A	N/A	N/A
		8WBR	MD	8WBRMD	Rural Unrestricted	3	15	79%	21%	2	2	12	5.92	9	39	N/A	N/A	N/A
		8WBR	PM	8WBRPM	Rural Unrestricted	3	19	79%	21%	2	3	15	5.92	9	39	N/A	N/A	N/A
		8WBR	ON	8WBRON	Rural Unrestricted	3	2	79%	21%	1	1	2	5.92	9	39	N/A	N/A	N/A
		8NBL	AM	8NBLAM	Rural Unrestricted	3	16	0%	100%	7	10	0	2.60	15	315	N/A	N/A	N/A
		8NBL	MD	8NBLMD	Rural Unrestricted	3	8	0%	100%	4	5	0	2.60	15	315	N/A	N/A	N/A
		8NBL	PM	8NBLPM	Rural Unrestricted	3	136	0%	100%	52	84	0	2.60	15	315	N/A	N/A	N/A
		8NBL	ON	8NBLON	Rural Unrestricted	3	14	0%	100%	6	9	0	2.60	15	315	N/A	N/A	N/A
		8NBT	AM	8NBTAM	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	25	325	N/A	N/A	N/A
		8NBT	MD	8NBTMD	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	25	325	N/A	N/A	N/A
		8NBT	PM	8NBTPM	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	25	325	N/A	N/A	N/A
		8NBT	ON	8NBTON	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	25	325	N/A	N/A	N/A
		8NBR	AM	8NBRAM	Rural Unrestricted	3	10	0%	100%	4	7	0	2.60	9	39	N/A	N/A	N/A
		8NBR	MD	8NBRMD	Rural Unrestricted	3	5	0%	100%	2	4	0	2.60	9	39	N/A	N/A	N/A
		8NBR	PM	8NBRPM	Rural Unrestricted	3	89	0%	100%	34	55	0	2.60	9	39	N/A	N/A	N/A
		8NBR	ON	8NBRON	Rural Unrestricted	3	9	0%	100%	4	6	0	2.60	9	39	N/A	N/A	N/A
		8SBL	AM	8SBLAM	Rural Unrestricted	3	15	53%	47%	3	5	8	4.84	15	315	N/A	N/A	N/A
		8SBL	MD	8SBLMD	Rural Unrestricted	3	8	53%	47%	2	3	4	4.84	15	315	N/A	N/A	N/A
		8SBL	PM	8SBLPM	Rural Unrestricted	3	28	46%	54%	6	10	13	4.55	15	315	N/A	N/A	N/A
		8SBL	ON	8SBLON	Rural Unrestricted	3	3	53%	47%	1	1	2	4.84	15	315	N/A	N/A	N/A
		8SBT	AM	8SBTAM	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	30	330	N/A	N/A	N/A
		8SBT	MD	8SBTMD	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	30	330	N/A	N/A	N/A
		8SBT	PM	8SBTPM	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	30	330	N/A	N/A	N/A
		8SBT	ON	8SBTON	Rural Unrestricted	3	0	0%	100%	0	0	0	2.60	30	330	N/A	N/A	N/A
		8SBR	AM	8SBRAM	Rural Unrestricted	3	5	40%	60%	2	2	2	4.28	9	39	N/A	N/A	N/A
		8SBR	MD	8SBRMD	Rural Unrestricted	3	3	40%	60%	1	2	1	4.28	9	39	N/A	N/A	N/A
		8SBR	PM	8SBRPM	Rural Unrestricted	3	10	40%	60%	3	4	4	4.28	9	39	N/A	N/A	N/A
		8SBR	ON	8SBRON	Rural Unrestricted	3	1	40%	60%	1	1	0	4.28	9	39	N/A	N/A	N/A
13	Rt 5s and West Drwy	13EBT	AM	13EBTAM	Rural Unrestricted	3	289	6%	94%	104	169	16	2.83	55	355	N/A	N/A	N/A
		13EBT	MD	13EBTMD	Rural Unrestricted	3	145	6%	94%	52	85	8	2.83	55	355	N/A	N/A	N/A
		13EBT	PM	13EBTPM	Rural Unrestricted	3	222	5%	95%	80	131	11	2.81	55	355	N/A	N/A	N/A
		13EBT	ON	13EBTON	Rural Unrestricted	3	22	6%	94%	8	13	1	2.83	55	355	N/A	N/A	N/A
		13EBR	AM	13EBRAM	Rural Unrestricted	3	2	100%	0%	0	0	2	6.80	9	39	N/A	N/A	N/A
		13EBR	MD	13EBRMD	Rural Unrestricted	3	1	100%	0%	0	0	1	6.80	9	39	N/A	N/A	N/A
		13EBR	PM	13EBRPM	Rural Unrestricted	3	2	100%	0%	0	0	2	6.80	9	39	N/A	N/A	N/A
		13EBR	ON	13EBRON	Rural Unrestricted	3	0	100%	0%	0	0	0	6.80	9	39	N/A	N/A	N/A
		13WBL	AM	13WBLAM	Rural Unrestricted	3	7	100%	0%	0	0	7	6.80	15	315	N/A	N/A	N/A
		13WBL	MD	13WBLMD	Rural Unrestricted	3	4	100%	0%	0	0	4	6.80	15	315	N/A	N/A	N/A
		13WBL	PM	13WBLPM	Rural Unrestricted	3	8	100%	0%	0	0	8	6.80	15	315	N/A	N/A	N/A
		13WBL	ON	13WBLON	Rural Unrestricted	3	1	100%	0%	0	0	1	6.80	15	315	N/A	N/A	N/A
		13WBT	AM	13WBTAM	Rural Unrestricted	3	126	15%	85%	41	67	19	3.23	55	355	N/A	N/A	N/A
		13WBT	MD	13WBTMD	Rural Unrestricted	3	63	15%	85%	21	34	10	3.23	55	355	N/A	N/A	N/A
		13WBT	PM	13WBTPM	Rural Unrestricted	3	286	2%	98%	106	173	7	2.70	55	355	N/A	N/A	N/A
		13WBT	ON	13WBTON	Rural Unrestricted	3	29	15%	85%	10	16	4	3.23	55	355	N/A	N/A	N/A
		13NBL	AM	13NBLAM	Rural Unrestricted	3	1	100%	0%	0	0	1	6.80	15	315	N/A	N/A	N/A
		13NBL	MD	13NBLMD	Rural Unrestricted	3	1	100%	0%	0	0	1	6.80	15	315	N/A	N/A	N/A
		13NBL	PM	13NBLPM	Rural Unrestricted	3	3	100%	0%	0	0	3	6.80	15	315	N/A	N/A	N/A
		13NBL	ON	13NBLON	Rural Unrestricted	3	0	100%	0%	0	0	0	6.80	15	315	N/A	N/A	N/A
		13NBR	AM	13NBRAM	Rural Unrestricted	3	6	100%	0%	0	0	6	6.80	9	39	N/A	N/A	N/A
		13NBR	MD	13NBRMD	Rural Unrestricted	3	3	100%	0%	0	0	3	6.80	9	39	N/A	N/A	N/A
		13NBR	PM	13NBRPM	Rural Unrestricted	3	10	100%	0%	0	0	10	6.80	9	39	N/A	N/A	N/A
		13NBR	ON	13NBRON	Rural Unrestricted	3	1	100%	0%	0	0	1	6.80	9	39	N/A	N/A	N/A
14	Rt 5s and East Drwy	14EBT	AM	14EBTAM	Rural Unrestricted	3	167	18%	82%	52	85	30	3.35	55	355	N/A	N/A	N/A
		14EBT	MD	14EBTMD	Rural Unrestricted	3	84	18%	82%	27	43	15	3.35	55	355	N/A	N/A	N/A
		14EBT	PM	14EBTPM	Rural Unrestricted	3	232	12%	88%	78	126	28	3.11	55	355	N/A	N/A	N/A
		14EBT	ON	14EBTON	Rural Unrestricted	3	23	18%	82%	8	12	4	3.35	55	355	N/A	N/A	N/A
		14EBR	AM	14EBRAM	Rural Unrestricted	3	31	0%	100%	12	20	0	2.60	9	39	N/A	N/A	N/A
		14EBR	MD	14EBRMD	Rural Unrestricted	3	16	0%	100%	7	10	0	2.60	9	39	N/A	N/A	N/A
		14EBR	PM	14EBRPM	Rural Unrestricted	3	25	0%	100%	10	16	0	2.60	9	39	N/A	N/A	N/A
		14EBR	ON	14EBRON	Rural Unrestricted	3	3	0%	100%	2	2	0	2.60	9	39	N/A	N/A	N/A
		14WBT	AM	14WBTAM	Rural Unrestricted	3	615	6%	94%	220	358	35	2.84	55	355	N/A	N/A	N/A
		14WBT	MD	14WBTMD	Rural Unrestricted	3	308	6%	94%	110	179	19	2.85	55	355	N/A	N/A	N/A
		14WBT	PM	14WBTPM	Rural Unrestricted	3	578	6%	94%	206	336	35	2.85	55	355	N/A	N/A	N/A
		14WBT	ON	14WBTON	Rural Unrestricted	3	58	6%	94%	21	34	4	2.85	55	355	N/A	N/A	N/A
		14NBR	AM	14NBRAM	Rural Unrestricted	3	43	0%	100%	17	27	0	2.60	9	39	N/A	N/A	cars
		14NBR	MD	14NBRMD	Rural Unrestricted	3	22	0%	100%	9	14	0	2.60	9	39	N/A	N/A	cars
		14NBR	PM	14NBRPM	Rural Unrestricted	3	366	0%	100%	139	226	0	2.60	9	39	N/A	N/A	cars
		14NBR	ON	14NBRON	Rural Unrestricted	3	37	0%	100%	15	23	0	2.60	9	39	N/A	N/A	cars
N/A	Car Parking Lot	CA	AM	CAAM	Rural Unrestricted	3	684	0%	100%	260	423	0	2.60	5	35	N/A	N/A	cars
		CA	MD	CAMD	Rural Unrestricted	3	346	0%	100%	132	214	0	2.60	5	35	N/A	N/A	cars
		CA	PM	CAPM	Rural Unrestricted	3	1093	0%	100%	415	675	28	2.60	5	35	N/A	N/A	cars
		CA	ON	CAON	Rural Unrestricted	3	117	0%	100%	45	73	0	2.60	5	35	N/A	N/A	cars
N/A	Truck Parking Lot	TA	AM	TAAM	Rural Unrestricted	3	16	100%	0%	0	0	0	6.80	5	35	N/A	N/A	trucks
		TA	MD	TAMD	Rural Unrestricted	3	9	100%	0%	0	0	9	6.80	5	35	N/A	N/A	trucks
		TA	PM	TAPM	Rural Unrestricted	3	23	100%	0%	0	0	0	6.80	5	35	N/A	N/A	trucks
		TA	ON	TAON	Rural Unrestricted	3	2	100%	0%	0	0	2	6.80	5	35	N/A	N/A	trucks

Notes:

1. Traffic counts based on TIS dated April 2025. Note, the TIS was not finalized at the time of this study; therefore, traffic counts may slightly vary.
2. Per MOVES Technical Guidance, restricted roads are highways that can only be accessed by an on-ramp, while unrestricted are all other roads (arterials, connectors, and local streets).
3. Breakdown of passenger cars and passenger trucks is based on NYSDEC MOVES Input Data for Montgomery County from 2023.
4. Time of day periods ased on the EPA's PM Hotspot Guidance, the following timeframes were assumed for each time of day: AM = 6:00-9:00; MD = 9:00-4:00; PM = 16:00-19:00, ON = 19:00-6:00.
5. The initial vertical dimension is estimated using an emissions-weighted average based on the EPA PM Hot-spot Guidance: Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas. The following equation is used: (light-duty vehicle contribution [%] * 2.6 [meters]) + (heavy-duty vehicle contribution [%] * 6.8 [meters]).
6. Speeds are based on Synchro tables. Right turning movements were assumed to be 9 mph, while left turning movements were assumed to be 15 mph. Onsite speed limits were conservatively assumed to be 5 mph for area sources (parking lots).

Assumptions:

0.379 passenger cars percent
0.617 passenger trucks percent
0.004 heavy duty trucks percent
0.500 MD percent of AM peak
0.100 ON percent of PM peak

Bluewater Property Group - MSV1
Town of Florida, New York
Link Identification

Table 3. Link Naming

Intersection Number (Synchro)	Intersection Name	Link Name	# Lanes	Link Name
8	Rt 5s and Target Dr East	8EBL	1	8EBL
		8EBT	1	8EBT
		8EBR	1	8EBR
		8WBL	1	8WBL
		8WBT	1	8WBT
		8WBR	1	8WBR
		8NBL	1	8NBL
		8NBT	1	8NBT
		8NBR	1	8NBR
		8SBL	1	8SBL
		8SBT	1	8SBT
		8SBR	1	8SBR
13	Rt 5s and West Drwy	13EBT	1	13EBT
		13EBR	1	13EBR
		13WBL	1	13WBL
		13WBT	1	13WBT
		13NBL	1	13NBL
		13NBR	1	13NBR
14	Rt 5s and East Drwy	14EBT	1	14EBT
		14EBR	1	14EBR
		14WBT	2	14WBT
		14NBR	1	14NBR
N/A	Car Parking Lot	CA	N/A	CA
N/A	Truck Parking Lot	TA	N/A	TA

Bluewater Property Group - MSV1
Town of Florida, New York
Vehicle Counts, MOVES Source Type iractions Within Each HPMS Vehicle Class, and MOVES Normalization

Table 4a. Vehicle Counts

Intersection	Movement	Road Code	Link Length (mi)	Weekday Morning				Weekday Midday				Weekday Evening				Weekday Overnight			
				Volume	Speed	Heavy Vehicle %	Other Vehicle %	Volume	Speed	Heavy Vehicle %	Other Vehicle %	Volume	Speed	Heavy Vehicle %	Other Vehicle %	Volume	Speed	Heavy Vehicle %	Other Vehicle %
Rt 5s and Target Dr East	8EBL	3	0.16	10	15.0	10%	90%	5	15.0	100%	0%	3	15.0	100%	0%	0	15.0	100%	0%
	8EBT	3	0.32	175	55.0	12%	88%	88	55.0	13%	87%	139	55.0	13%	87%	14	55.0	13%	87%
	8EBR	3	0.19	110	9.0	0%	100%	55	9.0	0%	100%	90	9.0	0%	100%	9	9.0	0%	100%
	8WBL	3	0.35	471	15.0	0%	100%	236	15.0	0%	100%	386	15.0	0%	100%	39	15.0	0%	100%
	8WBT	3	0.32	117	55.0	22%	78%	59	55.0	22%	78%	158	55.0	9%	91%	16	55.0	22%	78%
	8WBR	3	0.30	30	9.0	30%	70%	15	9.0	79%	21%	19	9.0	79%	21%	2	9.0	79%	21%
	8NBL	3	0.19	16	15.0	0%	100%	8	15.0	0%	100%	136	15.0	0%	100%	14	15.0	0%	100%
	8NBT	3	0.18	0	25.0	0%	100%	0	25.0	0%	100%	0	25.0	0%	100%	0	25.0	0%	100%
	8NBR	3	0.34	10	9.0	0%	100%	5	9.0	0%	100%	89	9.0	0%	100%	9	9.0	0%	100%
	8SBL	3	0.31	15	15.0	53%	47%	8	15.0	53%	47%	28	15.0	46%	54%	3	15.0	53%	47%
	8SBT	3	0.18	0	30.0	0%	100%	0	30.0	0%	100%	0	30.0	0%	100%	0	30.0	0%	100%
	8SBR	3	0.15	5	9.0	40%	60%	3	9.0	40%	60%	10	9.0	40%	60%	1	9.0	40%	60%
Rt 5s and West Drwy	13EBT	3	0.18	289	55.0	6%	94%	145	55.0	6%	94%	222	55.0	5%	95%	22	55.0	6%	94%
	13EBR	3	0.33	2	9.0	100%	0%	1	9.0	100%	0%	2	9.0	100%	0%	0	9.0	100%	0%
	13WBL	3	0.31	7	15.0	100%	0%	4	15.0	100%	0%	8	15.0	100%	0%	1	15.0	100%	0%
	13WBT	3	0.18	126	55.0	15%	85%	63	55.0	15%	85%	286	55.0	2%	98%	29	55.0	15%	85%
	13NBL	3	0.31	1	15.0	100%	0%	1	15.0	100%	0%	3	15.0	100%	0%	0	15.0	100%	0%
	13NBR	3	0.26	6	9.0	100%	0%	3	9.0	100%	0%	10	9.0	100%	0%	1	9.0	100%	0%
Rt 5s and East Drwy	14EBT	3	0.24	167	55.0	18%	82%	84	55.0	18%	82%	232	55.0	12%	88%	23	55.0	18%	82%
	14EBR	3	0.33	31	9.0	0%	100%	16	9.0	0%	100%	25	9.0	0%	100%	3	9.0	0%	100%
	14WBT	3	0.24	615	55.0	6%	94%	308	55.0	6%	94%	578	55.0	6%	94%	58	55.0	6%	94%
	14NBR	3	0.21	43	9.0	0%	100%	22	9.0	0%	100%	366	9.0	0%	100%	37	9.0	0%	100%
Car Parking Lot	CA	3	0.26	684	5.0	0%	100%	346	5.0	0%	100%	1093	5.0	0%	100%	117	5.0	0%	100%
Truck Parking Lot	TA	3	0.39	16	5.0	100%	0%	9	5.0	100%	0%	23	5.0	100%	0%	2	5.0	100%	0%
Car Parking Lot - Idle	CA	3	0.00	69	0.0	0%	100%	35	0.0	0%	100%	591	0.0	0%	100%	60	0.0	0%	100%
Truck Parking Lot - Idle	TA	3	0.00	7	0.0	100%	0%	4	0.0	100%	0%	13	0.0	100%	0%	1	0.0	100%	0%

Table 4b. MOVES Source Type Fractions Within Each HPMS Vehicle Class

HPMS Vehicle Classes	MOVES Source Type ID	Annual Vehicle Population by MOVES Source Type	MOVES Source Type Fractions within Each HPMS Vehicle Class
Motorcycles [11]	11	4,113	0.014551823
Passenger Car [21]	21	102,006	0.360897946
Passenger Truck [31]	31	159,064	0.562769552
Light Commercial Truck [32]	32	10,213	0.036133666
Other Buses [41]	41	717	0.002536751
Transit Buses [42]	42	1,228	0.004344673
School Buses [43]	43	314	0.001110934
Refuse Truck [51]	51	195	0.000689911
Single Unit Short-Haul Truck [52]	52	3,918	0.013861912
Single Unit Long-Haul Truck [53]	53	176	0.000622689
Motor Home [54]	54	153	0.000541315
Combination Short-Haul Truck [61]	61	311	0.001110032
Combination Long-Haul Truck [62]	62	237	0.000838508

Key
Passenger Vehicles
Heavy Duty Vehicles
Other Vehicles

Table 4c. MOVES Normalization

Roadway Link "Source Type Hour Fractions" as MOVES input

Source Name	HPMS Vehicle Classes	MOVES Source Type ID	Project-Level MOVES Input				Vehicle Type
			WD AM	WD MD	WD PM	WE ON	
8EBL	Motorcycles [11]	11	0.013441	0.000000	0.000000	0.000000	
8EBL	Passenger Car [21]	21	0.333358	0.000000	0.000000	0.000000	
8EBL	Passenger Truck [31]	31	0.519825	0.000000	0.000000	0.000000	
8EBL	Light Commercial Truck [32]	32	0.033376	0.000000	0.000000	0.000000	
8EBL	Other Buses [41]	41	0.009891	0.098910	0.098910	0.098910	
8EBL	Transit Buses [42]	42	0.016940	0.169403	0.169403	0.169403	
8EBL	School Buses [43]	43	0.004332	0.043316	0.043316	0.043316	all
8EBL	Refuse Truck [51]	51	0.002690	0.026900	0.026900	0.026900	
8EBL	Single Unit Short-Haul Truck [52]	52	0.054049	0.540488	0.540488	0.540488	
8EBL	Single Unit Long-Haul Truck [53]	53	0.002428	0.024279	0.024279	0.024279	
8EBL	Motor Home [54]	54	0.002111	0.021106	0.021106	0.021106	
8EBL	Combination Short-Haul Truck [61]	61	0.004290	0.042902	0.042902	0.042902	
8EBL	Combination Long-Haul Truck [62]	62	0.003269	0.032694	0.032694	0.032694	
8EBT	Motorcycles [11]	11	0.013143	0.013001	0.013001	0.013001	
8EBT	Passenger Car [21]	21	0.325950	0.322432	0.322432	0.322432	
8EBT	Passenger Truck [31]	31	0.508273	0.502788	0.502788	0.502788	
8EBT	Light Commercial Truck [32]	32	0.032635	0.032282	0.032282	0.032282	
8EBT	Other Buses [41]	41	0.011869	0.012809	0.012809	0.012809	
8EBT	Transit Buses [42]	42	0.020328	0.021937	0.021937	0.021937	
8EBT	School Buses [43]	43	0.005198	0.005609	0.005609	0.005609	all
8EBT	Refuse Truck [51]	51	0.003228	0.003483	0.003483	0.003483	
8EBT	Single Unit Short-Haul Truck [52]	52	0.064859	0.069991	0.069991	0.069991	
8EBT	Single Unit Long-Haul Truck [53]	53	0.002914	0.003144	0.003144	0.003144	
8EBT	Motor Home [54]	54	0.002533	0.002733	0.002733	0.002733	
8EBT	Combination Short-Haul Truck [61]	61	0.005148	0.005556	0.005556	0.005556	
8EBT	Combination Long-Haul Truck [62]	62	0.003923	0.004234	0.004234	0.004234	
8EBR	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8EBR	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8EBR	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8EBR	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8EBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8EBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8EBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8EBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8EBR	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8EBR	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8EBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
8EBR	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8EBR	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8WBL	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8WBL	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8WBL	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8WBL	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8WBL	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8WBL	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8WBL	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8WBL	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8WBL	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8WBL	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8WBL	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
8WBL	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8WBL	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8WBT	Motorcycles [11]	11	0.011616	0.011616	0.013517	0.011616	
8WBT	Passenger Car [21]	21	0.288087	0.288087	0.335233	0.288087	
8WBT	Passenger Truck [31]	31	0.449231	0.449231	0.522749	0.449231	
8WBT	Light Commercial Truck [32]	32	0.028844	0.028844	0.033564	0.028844	
8WBT	Other Buses [41]	41	0.021980	0.021980	0.009390	0.021980	
8WBT	Transit Buses [42]	42	0.037645	0.037645	0.016083	0.037645	
8WBT	School Buses [43]	43	0.009626	0.009626	0.004112	0.009626	all
8WBT	Refuse Truck [51]	51	0.005978	0.005978	0.002554	0.005978	
8WBT	Single Unit Short-Haul Truck [52]	52	0.120109	0.120109	0.051312	0.120109	
8WBT	Single Unit Long-Haul Truck [53]	53	0.005395	0.005395	0.002305	0.005395	
8WBT	Motor Home [54]	54	0.004690	0.004690	0.002004	0.004690	
8WBT	Combination Short-Haul Truck [61]	61	0.009534	0.009534	0.004073	0.009534	
8WBT	Combination Long-Haul Truck [62]	62	0.007265	0.007265	0.003104	0.007265	
8WBR	Motorcycles [11]	11	0.010454	0.003144	0.003144	0.003144	
8WBR	Passenger Car [21]	21	0.259278	0.077978	0.077978	0.077978	
8WBR	Passenger Truck [31]	31	0.404308	0.121596	0.121596	0.121596	
8WBR	Light Commercial Truck [32]	32	0.025959	0.007807	0.007807	0.007807	
8WBR	Other Buses [41]	41	0.029673	0.078087	0.078087	0.078087	
8WBR	Transit Buses [42]	42	0.050821	0.133739	0.133739	0.133739	
8WBR	School Buses [43]	43	0.012995	0.034197	0.034197	0.034197	all
8WBR	Refuse Truck [51]	51	0.008070	0.021237	0.021237	0.021237	
8WBR	Single Unit Short-Haul Truck [52]	52	0.162147	0.426701	0.426701	0.426701	
8WBR	Single Unit Long-Haul Truck [53]	53	0.007284	0.019168	0.019168	0.019168	
8WBR	Motor Home [54]	54	0.006332	0.016663	0.016663	0.016663	
8WBR	Combination Short-Haul Truck [61]	61	0.012871	0.033870	0.033870	0.033870	
8WBR	Combination Long-Haul Truck [62]	62	0.009808	0.025811	0.025811	0.025811	
8NBL	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8NBL	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8NBL	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8NBL	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8NBL	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8NBL	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8NBL	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8NBL	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8NBL	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8NBL	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8NBL	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
8NBL	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8NBL	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8NBT	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8NBT	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8NBT	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8NBT	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8NBT	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8NBT	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8NBT	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8NBT	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8NBT	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8NBT	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8NBT	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
8NBT	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8NBT	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8NBR	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8NBR	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8NBR	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8NBR	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8NBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8NBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8NBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8NBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8NBR	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8NBR	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8NBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	

Key
Passenger Vehicles
Heavy Duty Vehicles
Other Vehicles

8NBR	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8NBR	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8SBL	Motorcycles [11]	11	0.006970	0.006970	0.008001	0.006970	
8SBL	Passenger Car [21]	21	0.172852	0.172852	0.198427	0.172852	
8SBL	Passenger Truck [31]	31	0.269539	0.269539	0.309419	0.269539	
8SBL	Light Commercial Truck [32]	32	0.017306	0.017306	0.019867	0.017306	
8SBL	Other Buses [41]	41	0.052752	0.052752	0.045923	0.052752	
8SBL	Transit Buses [42]	42	0.090348	0.090348	0.078651	0.090348	
8SBL	School Buses [43]	43	0.023102	0.023102	0.020111	0.023102	all
8SBL	Refuse Truck [51]	51	0.014347	0.014347	0.012489	0.014347	
8SBL	Single Unit Short-Haul Truck [52]	52	0.288260	0.288260	0.250941	0.288260	
8SBL	Single Unit Long-Haul Truck [53]	53	0.012949	0.012949	0.011272	0.012949	
8SBL	Motor Home [54]	54	0.011257	0.011257	0.009799	0.011257	
8SBL	Combination Short-Haul Truck [61]	61	0.022881	0.022881	0.019919	0.022881	
8SBL	Combination Long-Haul Truck [62]	62	0.017437	0.017437	0.015179	0.017437	
8SBT	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
8SBT	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
8SBT	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
8SBT	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
8SBT	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
8SBT	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
8SBT	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
8SBT	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
8SBT	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
8SBT	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
8SBT	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
8SBT	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
8SBT	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
8SBR	Motorcycles [11]	11	0.008961	0.008961	0.008961	0.008961	
8SBR	Passenger Car [21]	21	0.222239	0.222239	0.222239	0.222239	
8SBR	Passenger Truck [31]	31	0.346550	0.346550	0.346550	0.346550	
8SBR	Light Commercial Truck [32]	32	0.022251	0.022251	0.022251	0.022251	
8SBR	Other Buses [41]	41	0.039564	0.039564	0.039564	0.039564	
8SBR	Transit Buses [42]	42	0.067761	0.067761	0.067761	0.067761	
8SBR	School Buses [43]	43	0.017327	0.017327	0.017327	0.017327	all
8SBR	Refuse Truck [51]	51	0.010760	0.010760	0.010760	0.010760	
8SBR	Single Unit Short-Haul Truck [52]	52	0.216195	0.216195	0.216195	0.216195	
8SBR	Single Unit Long-Haul Truck [53]	53	0.009712	0.009712	0.009712	0.009712	
8SBR	Motor Home [54]	54	0.008443	0.008443	0.008443	0.008443	
8SBR	Combination Short-Haul Truck [61]	61	0.017161	0.017161	0.017161	0.017161	
8SBR	Combination Long-Haul Truck [62]	62	0.013078	0.013078	0.013078	0.013078	
13EBT	Motorcycles [11]	11	0.014108	0.014108	0.014195	0.014108	
13EBT	Passenger Car [21]	21	0.349891	0.349891	0.352045	0.349891	
13EBT	Passenger Truck [31]	31	0.545606	0.545606	0.548964	0.545606	
13EBT	Light Commercial Truck [32]	32	0.035032	0.035032	0.035247	0.035032	
13EBT	Other Buses [41]	41	0.005476	0.005476	0.004901	0.005476	
13EBT	Transit Buses [42]	42	0.009379	0.009379	0.008394	0.009379	
13EBT	School Buses [43]	43	0.002398	0.002398	0.002146	0.002398	all
13EBT	Refuse Truck [51]	51	0.001489	0.001489	0.001333	0.001489	
13EBT	Single Unit Short-Haul Truck [52]	52	0.029923	0.029923	0.026781	0.029923	
13EBT	Single Unit Long-Haul Truck [53]	53	0.001344	0.001344	0.001203	0.001344	
13EBT	Motor Home [54]	54	0.001169	0.001169	0.001046	0.001169	
13EBT	Combination Short-Haul Truck [61]	61	0.002375	0.002375	0.002126	0.002375	
13EBT	Combination Long-Haul Truck [62]	62	0.001810	0.001810	0.001620	0.001810	
13EBR	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
13EBR	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
13EBR	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
13EBR	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
13EBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
13EBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
13EBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks
13EBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
13EBR	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
13EBR	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
13EBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
13EBR	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
13EBR	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	
13WBL	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
13WBL	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
13WBL	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
13WBL	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
13WBL	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
13WBL	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
13WBL	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks
13WBL	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
13WBL	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
13WBL	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
13WBL	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
13WBL	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
13WBL	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	
13WBT	Motorcycles [11]	11	0.012683	0.012683	0.014569	0.012683	
13WBT	Passenger Car [21]	21	0.314544	0.314544	0.361332	0.314544	
13WBT	Passenger Truck [31]	31	0.490487	0.490487	0.563446	0.490487	
13WBT	Light Commercial Truck [32]	32	0.031493	0.031493	0.036177	0.031493	
13WBT	Other Buses [41]	41	0.014915	0.014915	0.002421	0.014915	
13WBT	Transit Buses [42]	42	0.025545	0.025545	0.004146	0.025545	
13WBT	School Buses [43]	43	0.006532	0.006532	0.001060	0.006532	all
13WBT	Refuse Truck [51]	51	0.004056	0.004056	0.000658	0.004056	
13WBT	Single Unit Short-Haul Truck [52]	52	0.081502	0.081502	0.013229	0.081502	
13WBT	Single Unit Long-Haul Truck [53]	53	0.003661	0.003661	0.000594	0.003661	
13WBT	Motor Home [54]	54	0.003183	0.003183	0.000517	0.003183	
13WBT	Combination Short-Haul Truck [61]	61	0.006469	0.006469	0.001050	0.006469	
13WBT	Combination Long-Haul Truck [62]	62	0.004930	0.004930	0.000800	0.004930	
13NBL	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
13NBL	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
13NBL	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
13NBL	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
13NBL	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
13NBL	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
13NBL	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks
13NBL	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
13NBL	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
13NBL	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
13NBL	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
13NBL	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
13NBL	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	
13NBR	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
13NBR	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
13NBR	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
13NBR	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
13NBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
13NBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
13NBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks
13NBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
13NBR	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
13NBR	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
13NBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
13NBR	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
13NBR	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	
14EBT	Motorcycles [11]	11	0.012252	0.012252	0.013132	0.012252	
14EBT	Passenger Car [21]	21	0.303859	0.303859	0.325694	0.303859	
14EBT	Passenger Truck [31]	31	0.473825	0.473825	0.507875	0.473825	
14EBT	Light Commercial Truck [32]	32	0.030423	0.030423	0.032609	0.030423	
14EBT	Other Buses [41]	41	0.017768	0.017768	0.011937	0.017768	
14EBT	Transit Buses [42]	42	0.030432	0.030432	0.020445	0.030432	
14EBT	School Buses [43]	43	0.007781	0.007781	0.005228	0.007781	all
14EBT	Refuse Truck [51]	51	0.004832	0.004832	0.003247	0.004832	
14EBT	Single Unit Short-Haul Truck [52]	52	0.097094	0.097094	0.065231	0.097094	
14EBT	Single Unit Long-Haul Truck [53]	53	0.004362	0.004362	0.002930	0.004362	
14EBT	Motor Home [54]	54	0.003792	0.003792	0.002547	0.003792	
14EBT	Combination Short-Haul Truck [61]	61	0.007707	0.007707	0.005178	0.007707	
14EBT	Combination Long-Haul Truck [62]	62	0.005873	0.005873	0.003946	0.005873	
14EBR	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
14EBR	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
14EBR	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
14EBR	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
14EBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
14EBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
14EBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
14EBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
14EBR	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
14EBR	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
14EBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
14EBR	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
14EBR	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
14WBT	Motorcycles [11]	11	0.014085	0.014030	0.014030	0.014030	
14WBT	Passenger Car [21]	21	0.349318	0.347969	0.347969	0.347969	
14WBT	Passenger Truck [31]	31	0.544712	0.542608	0.542608	0.542608	
14WBT	Light Commercial Truck [32]	32	0.034974	0.034839	0.034839	0.034839	
14WBT	Other Buses [41]	41	0.005629	0.005989	0.005989	0.005989	
14WBT	Transit Buses [42]	42	0.009641	0.010258	0.010258	0.010258	
14WBT	School Buses [43]	43	0.002465	0.002623	0.002623	0.002623	all
14WBT	Refuse Truck [51]	51	0.001531	0.001629	0.001629	0.001629	

14WBT	Single Unit Short-Haul Truck [52]	52	0.030759	0.032729	0.032729	0.032729	
14WBT	Single Unit Long-Haul Truck [53]	53	0.001382	0.001470	0.001470	0.001470	
14WBT	Motor Home [54]	54	0.001201	0.001278	0.001278	0.001278	
14WBT	Combination Short-Haul Truck [61]	61	0.002442	0.002598	0.002598	0.002598	
14WBT	Combination Long-Haul Truck [62]	62	0.001861	0.001980	0.001980	0.001980	
14NBR	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
14NBR	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
14NBR	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
14NBR	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
14NBR	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
14NBR	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
14NBR	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
14NBR	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
14NBR	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
14NBR	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
14NBR	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
14NBR	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
14NBR	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
CA	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
CA	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
CA	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
CA	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
CA	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
CA	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
CA	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars
CA	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
CA	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
CA	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
CA	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
CA	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
CA	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
TA	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
TA	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
TA	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
TA	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
TA	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
TA	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
TA	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks
TA	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
TA	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
TA	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
TA	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
TA	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
TA	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	
CA	Motorcycles [11]	11	0.014935	0.014935	0.014935	0.014935	
CA	Passenger Car [21]	21	0.370398	0.370398	0.370398	0.370398	
CA	Passenger Truck [31]	31	0.577583	0.577583	0.577583	0.577583	
CA	Light Commercial Truck [32]	32	0.037085	0.037085	0.037085	0.037085	
CA	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
CA	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
CA	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	cars (idle)
CA	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
CA	Single Unit Short-Haul Truck [52]	52	0.000000	0.000000	0.000000	0.000000	
CA	Single Unit Long-Haul Truck [53]	53	0.000000	0.000000	0.000000	0.000000	
CA	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
CA	Combination Short-Haul Truck [61]	61	0.000000	0.000000	0.000000	0.000000	
CA	Combination Long-Haul Truck [62]	62	0.000000	0.000000	0.000000	0.000000	
TA	Motorcycles [11]	11	0.000000	0.000000	0.000000	0.000000	
TA	Passenger Car [21]	21	0.000000	0.000000	0.000000	0.000000	
TA	Passenger Truck [31]	31	0.000000	0.000000	0.000000	0.000000	
TA	Light Commercial Truck [32]	32	0.000000	0.000000	0.000000	0.000000	
TA	Other Buses [41]	41	0.000000	0.000000	0.000000	0.000000	
TA	Transit Buses [42]	42	0.000000	0.000000	0.000000	0.000000	
TA	School Buses [43]	43	0.000000	0.000000	0.000000	0.000000	trucks (idle)
TA	Refuse Truck [51]	51	0.000000	0.000000	0.000000	0.000000	
TA	Single Unit Short-Haul Truck [52]	52	0.844033	0.844033	0.844033	0.844033	
TA	Single Unit Long-Haul Truck [53]	53	0.037915	0.037915	0.037915	0.037915	
TA	Motor Home [54]	54	0.000000	0.000000	0.000000	0.000000	
TA	Combination Short-Haul Truck [61]	61	0.066997	0.066997	0.066997	0.066997	
TA	Combination Long-Haul Truck [62]	62	0.051056	0.051056	0.051056	0.051056	

Rivamotor Property Group - WDV3
Town of Florida, New York
Asset Protection Summary

Table 3: Asset Declarations

Bluewater Property Group - MSV1
Town of Florida, New York
Parking Area Dimensions

Table 6. Parking Area Dimensions

Source ID	Area (m^2)	Length (mi)	Width (mi)	Approx. Travel Distance (mi)
CA	35,440	0.33	0.08	0.26
TA	66,830	0.48	0.13	0.39

Notes:

1. Approximate travel distance for parking areas based on guidance provided in the CEQR Technical Manual Chapter 17.

Bluewater Property Group - MSV1
Town of Florida, New York
Road Dust Calculations - 24-hr Analysis of PM10 and PM2.5

Per AP-42 Chapter 13.2.1.3 (Equation 1): $[E=k(sL)^{0.91}(W)^{1.02}]$

Table 7a. Road Dust Variables[1,2,3]

Variable[1]	Description	Value	Units
E	PM emission Factor		g/veh-mi
k	Particle Size Multiplier (PM10)	1	g/veh-mi
k	Particle Size Multiplier (PM2.5)	0.25	g/veh-mi
sL_2	Road surface silt loading	0.4	g/m^2
W_3	Vehicle weight	3	tons

Key			
sL_2	**Road Type**	**ADT**	**Definition**
0.015	Expressway	55-75 mph	High speed long distance. Multiple lanes no traffic signals
0.1	Arterial	50-70	Deliver traffic from collector to expressways
0.16	Collector	35-55 mph	Moderate traffic usually 2 lanes and may have traffic signals/stop signs
0.4	Local	Under 5,000	Provides access to commercial or residential properties

Table 7b. Road Dust Variables - Links

Source ID	Road Type	sL_2	PM10 (g/veh-mi)	PM2.5 (g/veh-mi)
8EBL	Local	0.4	1.33E+00	9.95E-01
8EBT	Collector	0.16	5.79E-01	4.66E-01
8EBR	Local	0.4	1.33E+00	9.95E-01
8WBL	Local	0.4	1.33E+00	9.95E-01
8WBT	Collector	0.16	5.79E-01	4.66E-01
8WBR	Local	0.4	1.33E+00	9.95E-01
8NBL	Local	0.4	1.33E+00	9.95E-01
8NBT	Local	0.4	1.33E+00	9.95E-01
8NBR	Local	0.4	1.33E+00	9.95E-01
8SBL	Local	0.4	1.33E+00	9.95E-01
8SBT	Local	0.4	1.33E+00	9.95E-01
8SBR	Local	0.4	1.33E+00	9.95E-01
10EBL	Collector	0.16	5.79E-01	4.66E-01
10EBT	Collector	0.16	5.79E-01	4.66E-01
10WBT	Collector	0.16	5.79E-01	4.66E-01
10WBR	Collector	0.16	5.79E-01	4.66E-01
10SBL	Collector	0.16	5.79E-01	4.66E-01
10SBR	Collector	0.16	5.79E-01	4.66E-01
11EBL	Local	0.4	1.33E+00	9.95E-01
11EBT	Arterial	0.1	3.77E-01	3.16E-01
11EBR	Local	0.4	1.33E+00	9.95E-01
11WBL	Local	0.4	1.33E+00	9.95E-01
11WBT	Arterial	0.1	3.77E-01	3.16E-01
11WBR	Local	0.4	1.33E+00	9.95E-01
11NBL	Local	0.4	1.33E+00	9.95E-01
11NBT	Local	0.4	1.33E+00	9.95E-01
11NBR	Local	0.4	1.33E+00	9.95E-01
11SBL	Local	0.4	1.33E+00	9.95E-01
11SBT	Local	0.4	1.33E+00	9.95E-01
11SBR	Local	0.4	1.33E+00	9.95E-01
13EBT	Arterial	0.1	3.77E-01	3.16E-01
13EBR	Local	0.4	1.33E+00	9.95E-01
13WBL	Local	0.4	1.33E+00	9.95E-01
13WBT	Arterial	0.1	3.77E-01	3.16E-01
13NBL	Local	0.4	1.33E+00	9.95E-01
13NBR	Local	0.4	1.33E+00	9.95E-01
14EBT	Local	0.4	1.33E+00	9.95E-01
14EBR	Local	0.4	1.33E+00	9.95E-01
14WBT	Local	0.4	1.33E+00	9.95E-01
14NBR	Local	0.4	1.33E+00	9.95E-01
CA	Local	0.4	1.33E+00	9.95E-01
TA	Local	0.4	1.33E+00	9.95E-01

Notes:

1. Road surface silt loading is 0.1 g/m2 for principal arterial type roadways and 0.4 g/m2 for local
2. Average vehicle weight is assumed 6,000 lbs per CEQR Technical Manual
3. Assumed that PM2.5 does not contribute significantly to the annual emission rate.

Rhumester Property Group - MSVC
Town of Florida, New York
Mobile Source - Emission Rate Summary

Table 8a. Mobile Source - Emission Rates Summary

Link No.	Link Description	Link Volume	Link Typeref	January WD AM						January WD MD						January WD PM						April WD AM						April WD MD						April WD PM						April WD EN						July WD AM						July WD MD						July WD PM						October WD AM						October WD MD						October WD PM						October WD EN					
				Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)						Emission Rate (g/hr)					
				CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene		CO	PM2.5	PM10	NOX	Benzene	
1	I89L	37	15	7.57E+00	1.91E-01	1.68E-01	1.21E+00	1.61E-03		6.48E+00	1.87E-01	1.65E-01	1.04E+00	1.57E-03		4.01E+00	1.73E-01	1.52E-01	6.43E-01	1.45E-03		6.48E+00	1.87E-01	1.65E-01	1.04E+00	1.57E-03		5.55E+00	1.60E-01	1.41E-01	8.90E-01	1.35E-03		4.01E+00	1.73E-01	1.52E-01	6.43E-01	1.45E-03		2.47E+00	1.59E-01	1.40E-01	3.96E-01	1.34E-03		6.48E+00	1.87E-01	1.65E-01	1.04E+00	1.57E-03		5.55E+00	1.60E-01	1.41E-01	8.90E-01	1.35E-03		4.01E+00	1.73E-01	1.52E-01	6.43E-01	1.45E-03		6.48E+00	1.87E-01	1.65E-01	1.04E+00	1.57E-03		5.55E+00	1.60E-01	1.41E-01	8.90E-01	1.35E-03		4.01E+00	1.73E-01	1.52E-01	6.43E-01	1.45E-03		2.47E+00	1.59E-01	1.40E-01	3.96E-01	1.34E-03	
2	I88T	15	55	1.43E+02	1.59E+00	1.68E+00	2.50E+01	1.85E-02		7.29E+01	7.16E-01	8.76E-01	1.31E+01	6.69E-03		4.09E+01	1.07E+00	1.64E-01	1.99E+00	6.49E-03		1.15E+02	1.13E+00	1.48E+00	1.84E+01	1.05E-02		7.29E+01	8.80E-01	1.09E+00	1.31E+01	8.27E-03		4.09E+01	1.07E+00	1.64E-01	1.99E+00	6.49E-03		2.47E+00	1.03E+00	1.34E+00	1.23E+01	8.27E-03		1.15E+02	1.13E+00	1.48E+00	1.84E+01	1.05E-02		7.29E+01	8.80E-01	1.09E+00	1.31E+01	8.27E-03		4.09E+01	1.07E+00	1.64E-01	1.99E+00	6.49E-03		1.15E+02	1.13E+00	1.48E+00	1.84E+01	1.05E-02		7.29E+01	8.80E-01	1.09E+00	1.31E+01	8.27E-03		4.09E+01	1.07E+00	1.64E-01	1.99E+00	6.49E-03		2.47E+00	1.03E+00	1.34E+00	1.23E+01	8.27E-03	
3	I88N	142	9	1.51E+02	2.01E+00	2.61E+00	2.64E+01	2.12E-02		7.68E+01	9.04E-01	1.17E+00	1.38E+01	7.65E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		2.60E+00	1.30E+00	1.69E+00	1.30E+01	9.46E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		2.60E+00	1.30E+00	1.69E+00	1.30E+01	9.46E-03	
4	I88W	142	9	1.51E+02	2.01E+00	2.61E+00	2.64E+01	2.12E-02		7.68E+01	9.04E-01	1.17E+00	1.38E+01	7.65E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		2.60E+00	1.30E+00	1.69E+00	1.30E+01	9.46E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		1.21E+02	1.43E+00	1.85E+00	1.94E+01	1.20E-02		7.68E+01	1.11E+00	1.44E+00	1.38E+01	9.46E-03		4.31E+01	1.35E+00	1.75E+00	2.10E+00	7.42E-03		2.60E+00	1.30E+00	1.69E+00	1.30E+01	9.46E-03	
5	I88T	31	55	1.08E+02	1.48E+00	1.60E+00	1.87E+01	1.36E-02		5.46E+01	7.48E-01	8.37E-01	9.78E+00	4.91E-03		3.00E+01	1.24E+00	1.35E+00	4.81E-01	5.32E-03		8.68E+01	1.03E+00	1.42E+00	1.37E+01	7.72E-03		5.46E+01	9.20E-01	1.03E+00	9.78E+00	6.07E-03		3.00E+01	1.24E+00	1.35E+00	4.81E-01	5.32E-03		1.85E+00	1.19E+00	1.29E+00	2.96E-01	4.91E-03		8.68E+01	1.03E+00	1.42E+00	1.37E+01	7.72E-03		5.46E+01	9.20E-01	1.03E+00	9.78E+00	6.07E-03		3.00E+01	1.24E+00	1.35E+00	4.81E-01	5.32E-03		8.68E+01	1.03E+00	1.42E+00	1.37E+01	7.72E-03		5.46E+01	9.20E-01	1.03E+00	9.78E+00	6.07E-03		3.00E+01	1.24E+00	1.35E+00	4.81E-01	5.32E-03		1.85E+00	1.19E+00	1.29E+00	2.96E-01	4.91E-03	
6	I88BR	80	9	5.93E+01	1.32E+00	2.28E+00	2.03E+01	1.57E-02		4.27E+01	6.67E-01	1.15E+00	7.65E+00	5.61E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		1.44E+00	1.07E+00	1.85E+00	9.59E-01	5.61E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		1.44E+00	1.07E+00	1.85E+00	9.59E-01	5.61E-03	
7	I88L	122	15	1.21E+02	1.65E+00	1.98E+00	1.98E+01	1.62E-02		6.22E+01	7.48E-01	1.00E+00	1.04E+01	5.61E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03	
8	I88T	122	25	1.21E+02	1.65E+00	1.98E+00	1.98E+01	1.62E-02		6.22E+01	7.48E-01	1.00E+00	1.04E+01	5.61E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03	
9	I88T	122	25	1.21E+02	1.65E+00	1.98E+00	1.98E+01	1.62E-02		6.22E+01	7.48E-01	1.00E+00	1.04E+01	5.61E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03		1.08E+02	1.03E+00	1.42E+00	1.37E+01	8.74E-03		6.22E+01	9.20E-01	1.27E+00	1.04E+01	6.93E-03		3.42E+01	1.24E+00	1.65E+00	1.19E+00	6.07E-03		2.11E+00	1.19E+00	1.59E+00	7.31E-01	5.61E-03	
10	I89L	86	15	2.53E+02	3.33E+00	3.52E+00	3.51E+01	2.86E-02		1.36E+02	1.49E+00	2.09E+00	2.31E+01	1.17E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		2.26E+02	2.13E+00	2.96E+00	3.43E+01	1.83E-02		1.36E+02	1.84E+00	2.56E+00	2.31E+01	1.45E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		4.40E+00	2.22E+00	3.09E+00	1.64E+00	1.17E-02		2.26E+02	2.13E+00	2.96E+00	3.43E+01	1.83E-02		1.36E+02	1.84E+00	2.56E+00	2.31E+01	1.45E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		2.26E+02	2.13E+00	2.96E+00	3.43E+01	1.83E-02		1.36E+02	1.84E+00	2.56E+00	2.31E+01	1.45E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		4.40E+00	2.22E+00	3.09E+00	1.64E+00	1.17E-02	
11	I88T	13	10	2.53E+02	3.33E+00	3.52E+00	3.51E+01	2.86E-02		1.36E+02	1.49E+00	2.09E+00	2.31E+01	1.17E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		2.26E+02	2.13E+00	2.96E+00	3.43E+01	1.83E-02		1.36E+02	1.84E+00	2.56E+00	2.31E+01	1.45E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		4.40E+00	2.22E+00	3.09E+00	1.64E+00	1.17E-02		2.26E+02	2.13E+00	2.96E+00	3.43E+01	1.83E-02		1.36E+02	1.84E+00	2.56E+00	2.31E+01	1.45E-02		7.16E+01	2.48E+00	3.45E+00	2.64E+00	1.27E-02		4.40E+00	2.22E+00	3.09E+00	1.64E+00	1.17E-02	
12	I88R	13	9	5.93E+01	1.32E+00	2.28E+00	2.03E+01	1.57E-02		4.27E+01	6.67E-01	1.15E+00	7.65E+00	5.61E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		1.44E+00	1.07E+00	1.85E+00	9.59E-01	5.61E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		4.74E+01	8.83E-01	1.52E+00	1.06E+01	8.74E-03		4.27E+01	7.93E-01	1.37E+00	7.65E+00	6.93E-03		2.34E+01	1.11E+00	1.92E+00	1.56E+00	6.07E-03		1.44E+00	1.07E+00	1.85E+00	9.59E-01	5.61E-03	
13	I89T	473	55	1.29E+02	2.05E+00	1.63E+00	2.60E+01	6.34E-03		6.89E+01	9.28E-01	8.04E-01	1.34E+01	2.56E-03		3.61E+01	1.54E+00	1.27E+00	1.80E+00	2.32E-03		2.46E+02	1.32E+00	1.14E+00	1.78E+01	3.34E-03		1.78E+02	1.14E+00	9.85E-01	1.34E+01	2.65E-03		9.34E+01	1.54E+00	1.27E+00	1.80E+00	2.32E-03		5.73E+00	1.48E+00	1.22E+00	9.00E-01	2.14E-03		2.46E+02	1.32E+00	1.14E+00	1.78E+01	3.34E-03		1.78E+02	1.14E+00	9.85E-01	1.34E+01	2.65E-03		9.34E+01	1.54E+00	1.27E+00	1.80E+00	2.32E-03		2.46E+02	1.32E+00	1.14E+00	1.78E+01	3.34E-03		1.78E+02	1.14E+00	9.85E-01	1.34E+01	2.65E-03		9.34E+01	1.54E+00	1.27E+00	1.80E+00	2.32E-03		5.73E+00	1.48E+00	1.22E+00	9.00E-01	2.14E-03	
14	I89R	67	9	6.27E+01	1.40E+00	2.41E+00	2.15E+01	1.66E-02		4.52E+01	7.05E-01	1.22E+00	8.09E+00	5.93E-03		2.47E+01	1.17E+00	2.03E+00	1.65E+00	6.42E-03		5.01E+01	9.34E-01	1.61E+00	1.12E+01	9.24E-03		4.52E+01	8.38E-01	1.45E+00	8.09E+00	7.33E-03		2.47E+01	1.17E+00	2.03E+00	1.65E+00	6.42E-03		1.52E+00	1.13E+00	1.96E+00	1.01E+00	5.93E-03		5.01E+01	9.34E-01	1.61E+00	1.12E+01	9.24E-03		4.52E+01	8.38E-01	1.45E+00	8.09E+00	7.33E-03		2.47E+01	1.17E+00	2.03E+00	1.65E+00	6.42E-03		5.01E+01	9.34E-01	1.61E+00	1.12E+01	9.24E-03		4.52E+01	8.38E-01	1.45E+00	8.09E+00	7.33E-03		2.47E+01	1.17E+00	2.03E+00	1.65E+00	6.42E-03		1.52E+00	1.13E+00	1.96E+00	1.01E+00	5.93E-03	
15	I89BL	847	9	6.27E+02	2.23E+01	3.51E+01	1.06E+02	2.11E-01		2.76E+02	1.06E+01	1.84E+01	4.76E+01	1.96E-01		1.46E+02	1.23E+01	2.13E+01	6.57E+00	2.02E-01		1.02E+03	1.46E+01	2.53E+01	5.70E+01	2.91E-01		7.26E+02	1.26E+01	2.19E+01	4.76E+01	2.31E-01		3.81E+02	1.23E+01	2.13E+01	6.57E+00	2.02E-01		2.26E+01	1.18E+01	2.05E+01	3.29E+00	1.96E-01		1.02E+03	1.46E+01	2.53E+01	5.70E+01	2.91E-01		7.26E+02	1.26E+01	2.19E+01	4.76E+01	2.31E-01		3.81E+02	1.23E+01	2.13E+01	6.57E+00	2.02E-01		1.02E+03	1.46E+01	2.53E+01	5.70E+01	2.91E-01		7.26E+02	1.26E+01	2.19E+01	4.76E+01	2.31E-01		3.81E+02	1.23E+01	2.13E+01	6.57E+00	2.02E-01		2.26E+01	1.18E+01	2.05E+01	3.29E+00	1.96E-01	
16	I89BL	24	55	4.43E+01	1.65E+00	1.19E+00	1.09E+01	1.67E-02		1.90E+01	5.52E-01	8.41E-01	3.37E+00	5.77E-03		1.01E+01	9.18E-01	1.40E+00	5.56E-01	6.26E-03		3.48E+01	7.30E-01	1.11E+00	5.88E+00	8.98E-03		1.90E+01	6.56E-01	1.00E+00	3.37E+00	7.16E-03		1.01E+01	9.18E-01	1.40E+00	5.56E-01	6.26E-03		6.23E+00	8.83E-01	1.35E+00	3.41E-01	5.77E-03		3.48E+01	7.30E-01	1.11E+00	5.88E+00	8.98E-03		1.90E+01	6.56E-01	1.00E+00	3.37E+00	7.16E-03		1.01E+01	9.18E-01	1.40E+00	5.56E-01	6.26E-03		3.48E+01	7.30E-01	1.11E+00	5.88E+00	8.98E-03		1.90E+01	6.56E-01	1.00E+00	3.37E+00	7.16E-03		1.01E+01	9.18E-01	1.40E+00	5.56E-01	6.26E-03		6.23E+00	8.83E-01	1.35E+00	3.41E-01	5.77E-03	
17	I89BT	999.235	55	1.13E+02	1.53E+00	1.53E+00	2.53E+01	6.67E-02		7.54E+01	1.17E+00	1.03E+00	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00	
18	I89BT	999.235	55	1.13E+02	1.53E+00	1.53E+00	2.53E+01	6.67E-02		7.54E+01	1.17E+00	1.03E+00	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.83E+01	2.26E+01	2.22E+01	8.36E+00	1.53E+00		1.59E+02	1.71E+01	7.57E+01	1.12E+02	2.09E+00		1.06E+02	1.36E+01	1.68E+01	1.02E+01	1.53E+00	
19	I89ST	276.13	55	3.68E+02	2.20E+00	2.22E+00	4.63E+01	2.30E+02		2.60E+02	1.52E+00	1.23E+00	1.89E+01	1.22E+02		1.66E+02	1.30E+00	1.67E+00	2.10E+00	1.22E+02		5.12E+02	2.27E+00	3.13E+00	2.65E+01	2.24E+02		3.61E+02	2.03E+00	2.60E+00	1.89E+01	1.22E+02		1.66E+02	1.30E+00	1.67E+00	2.10E+00	1.22E+02		1.66E+02	1.30E+00	1.67E+00	2.10E+00	1.22E+02		5.12E+02	2.27E+00	3.13E+00	2.65E+01	2.24E+02		3.61E+02	2.03E+00	2.60E+00	1.89E+01	1.22E+02		1.66E+02	1.30E+00	1.67E+00	2.10E+00	1.22E+02		1.66E+02	1.30E+00	1.67E+00	2.10E+00	1.22E+02		5.12E+02	2.27E+00	3.13E+00	2.65E+01	2.24E+02		3.61E+02	2.03E+00	2.60E+00	1.89E+01	1.22E+02	
20	I89NR	23.38	9	4.17E+01	8.67E-01	1.60E+00	1.43E+01	1.09E-02		3.00E+01	4.38E-01	8.09E-01	5.37E+00	3.94E-03		1.65E+01	7.30E-01	1.35E+00	1.04E+00	4.26E-03		3.33E+01	5.81E-01	1.07E+00	7.46E+00	5.91E-03		3.00E+01	5.22E-01	9.64E-01	5.37E+00	4.78E-03		1.65E+01	7.30E-01	1.35E+00	1.04E+00	4.26E-03		1.01E+00	7.07E-01	1.30E+00	6.37E-01	3.94E-03		3.33E+01	5.81E-01	1.07E+00	7.46E+00	5.91E-03		3.00E+01	5.22E-01	9.64E-01	5.37E+00	4.78E-03		1.65E+01	7.30E-01	1.35E+00	1.04E+00	4.26E-03		3.33E+01	5.81E-01	1.07E+00	7.46E+00	5.91E-03		3.00E+01	5.22E-01	9.64E-01	5.37E+00	4.78E-03		1.65E+01	7.30E-01	1.35E+00	1.04E+00	4.26E-03		1.01E+00	7.07E-01	1.30E+00	6.37E-01	3.94E-03	
41	CA	1138.21	5	2.17E+03	4.60E+01	4.60E+01	4.60E+02	2.17E+00		1.04E+03	2.17E+01	2.17E+01	2.17E+02	1.04E+00		5.21E+02	1.09E+01	1.09E+01	1.09E+02	5.21E-01		1.56E+03	3.26E+01	3.26E+01	3.26E+02	1.56E+00		1.04E+03	2.17E+01	2.17E+01	2.17E+02	1.04E+00		5.21E+02	1.09E+01	1.09E+01	1.09E+02	5.21E-01		2.60E+02	5.43E+00	5.43E+00	5.43E+01	2.60E-01		1.56E+03	3.26E+01	3.26E+01	3.26E+02	1.56E+00		1.04E+03	2.17E+01	2.17E+01	2.17E+02	1.04E+00		5.21E+02	1.09E+01	1.09E+01	1.09E+02	5.21E-01		2.60E+02	5.43E+00	5.43E+00	5.43E+01	2.60E-01	
42	TA	664.29	5	1.27E+03	2.69E+01	2.69E+01	2.69E+02	1.27E+00		6.08E+02	1.27E+01	1.27E+01	1.27E+02	6.08E-01		3.04E+02	6.35E+00	6.35E+00	6.35E+01	3.04E-01		9.12E+02	1.90E+01	1.90E+01	1.90E+02	9.12E-01		6.08E+02	1.27E+01	1.27E+01	1.27E+02	6.08E-01		3.04E+02	6.35E+00	6.35E+00	6.35E+01	3.04E-01		1.52E+02	3.17E+00	3.17E+00	3.17E+01	1.52E-01		9.12E+02	1.90E+01	1.90E+01	1.90E+02	9.12E-01		6.08E+02	1.27E+01	1.27E+01	1.27E+02	6.08E-01		3.04E+02	6.35E+00	6.35E+00	6.35E+01	3.04E-01		1.52E+02	3.17E+00	3.17E+00	3.17E+01	1.52E-01	
43	CA26	9	5	8.61E+02	1.82E+01	1.82E+01	1.82E+02	8.61E-01		4.13E+02	8.61E+00	8.61E+00	8.61E+01	4.13E-01		2.06E+02	4.30E+00	4.30E+00	4.30E+01	2.06E-01		3.61E+02	7.52E+00	7.52E+00	7.52E+01	3.61E-01		2.41E+02	5.02E+00	5.02E+00	5.02E+01	2.41E-01		1.20E+02	2.51E+00	2.51E+00	2.51E+01	1.20

Bluewater Property Group - MSV1
Town of Florida, New York
AERMOD Emission Rates Summary

Table 5: AERMOD Emission Rates

| Link Group | Sublink Group | Link ID | Link Length [m] | Link Fraction | January WS-MM | | | | | January WS-MD | | | | | January WS-PM | | | | | April WS-DN | | | | | April WS-MN | | | | | April WS-DA | | | | | April WS-MA | | | | | April WS-PA | | | | | July WS-DA | | | | | July WS-MA | | | | | July WS-PA | | | | | October WS-AM | | | | | October WS-MD | | | | | October WS-PM | | | | | October WS-DN | | | | |
|---|---|---

Bluewater Property Group - MSV1
Town of Florida, New York
AERMOD Emission Rate Grouped Summary

Table 10: AERMOD Emission Rates (Grouped)

Link Group	Sublink Group	Link ID	Link Area (m²)	Link Fraction	January WD AM				January WD MD				January WD PM				January WD ON				April WD AM				April WD MD				April WD PM				April WD ON				July WD AM				July WD MD				July WD PM				July WD ON				October WD AM				October WD MD				October WD PM				October WD ON			
					Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)				Emission Rate (g/s-m²)			
					CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene	CO	PM2.5	PM10	NOx	Benzene
All Surface Roof Grid	89BL	89BL	—	100.0%	2.153E-06	6.241E-07	2.114E-07	3.661E-05	2.153E-06	6.241E-07	2.114E-07	3.661E-05	2.153E-06	6.241E-07	2.114E-07	3.661E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Bluewater Property Group - MSV1
Town of Florida, New York
AERMOD Emission Factors

Table 11. AERMOD Emission Factors

Set Name	Day Hr	CO				PM2.5				PM10				NO2				Benzene			
		Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
8EBL	M-F 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 7	1.7656	1.6795	1.6528	1.6795	2.5549	2.5556	2.5564	2.5556	2.6078	2.6081	2.6085	2.6081	0.4355	0.4218	0.3649	0.4129	1.3008	1.4029	1.5350	1.4029
8EBL	M-F 8	1.7656	1.6795	1.6528	1.6795	2.5549	2.5556	2.5564	2.5556	2.6078	2.6081	2.6085	2.6081	0.4355	0.4218	0.3649	0.4129	1.3008	1.4029	1.5350	1.4029
8EBL	M-F 9	1.7656	1.6795	1.6528	1.6795	2.5549	2.5556	2.5564	2.5556	2.6078	2.6081	2.6085	2.6081	0.4355	0.4218	0.3649	0.4129	1.3008	1.4029	1.5350	1.4029
8EBL	M-F 10	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 11	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 12	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 13	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 14	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 15	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 16	1.6667	1.5849	1.5585	1.5849	1.6667	1.6671	1.6676	1.6671	1.6667	1.6669	1.6671	1.6669	1.6668	1.6045	1.3922	1.5573	1.6667	0.0000	1.9367	1.8086
8EBL	M-F 17	1	0.9510	0.9351	0.9510	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8364	0.9370	1	1.0605	1.1388	1.0605
8EBL	M-F 18	1	0.9510	0.9351	0.9510	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8364	0.9370	1	1.0605	1.1388	1.0605
8EBL	M-F 19	1	0.9510	0.9351	0.9510	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8364	0.9370	1	1.0605	1.1388	1.0605
8EBL	M-F 20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBL	M-F 24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8EBT	M-F 1	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 2	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 3	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 4	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 5	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 6	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 7	1.2441	1.1846	1.1662	1.1846	1.2552	1.2557	1.2562	1.2557	1.2565	1.2568	1.2570	1.2568	1.2084	1.1727	1.0006	1.1465	1.2483	1.3433	1.4669	1.3433
8EBT	M-F 8	1.2441	1.1846	1.1662	1.1846	1.2552	1.2557	1.2562	1.2557	1.2565	1.2568	1.2570	1.2568	1.2084	1.1727	1.0006	1.1465	1.2483	1.3433	1.4669	1.3433
8EBT	M-F 9	1.2441	1.1846	1.1662	1.1846	1.2552	1.2557	1.2562	1.2557	1.2565	1.2568	1.2570	1.2568	1.2084	1.1727	1.0006	1.1465	1.2483	1.3433	1.4669	1.3433
8EBT	M-F 10	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 11	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 12	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 13	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 14	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 15	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 16	0.6331	0.6029	0.7420	0.6029	0.6331	0.6333	0.6336	0.6333	0.6331	0.6332	0.6333	0.6332	0.6331	0.6083	0.5244	0.5874	0.6331	0.0000	0.9310	0.8140
8EBT	M-F 17	1	0.9524	1.1798	0.9524	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9600	0.8307	0.9309	1	1.0757	1.2216	1.0757
8EBT	M-F 18	1	0.9524	1.1798	0.9524	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9600	0.8307	0.9309	1	1.0757	1.2216	1.0757
8EBT	M-F 19	1	0.9524	1.1798	0.9524	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9600	0.8307	0.9309	1	1.0757	1.2216	1.0757
8EBT	M-F 20	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 21	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 22	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 23	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBT	M-F 24	0.0995	0.0948	0.0933	0.0948	0.1004	0.1005	0.1005	0.1005	0.1005	0.1005	0.1006	0.1005	0.0965	0.0933	0.0796	0.0910	0.1007	0.1083	0.1183	0.1083
8EBR	M-F 1	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 2	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 3	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 4	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 5	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 6	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 7	1.2222	1.1601	1.1411	1.1601	1.2222	1.2226	1.2230	1.2226	1.2222	1.2224	1.2226	1.2224	1.2246	1.1942	0.9704	1.1625	1.2222	1.3267	1.4615	1.3267
8EBR	M-F 8	1.2222	1.1601	1.1411	1.1601	1.2222	1.2226	1.2230	1.2226	1.2222	1.2224	1.2226	1.2224	1.2246	1.1942	0.9704	1.1625	1.2222	1.3267	1.4615	1.3267
8EBR	M-F 9	1.2222	1.1601	1.1411	1.1601	1.2222	1.2226	1.2230	1.2226	1.2222	1.2224	1.2226	1.2224	1.2246	1.1942	0.9704	1.1625	1.2222	1.3267	1.4615	1.3267
8EBR	M-F 10	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 11	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 12	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 13	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 14	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 15	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 16	0.6111	0.5801	0.7628	0.5801	0.6111	0.6113	0.6115	0.6113	0.6111	0.6112	0.6113	0.6112	0.6111	0.5848	0.5840	0.5602	0.6111	0.0000	0.9616	0.8327
8EBR	M-F 17	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8EBR	M-F 18	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8EBR	M-F 19	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8EBR	M-F 20	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 21	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 22	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 23	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8EBR	M-F 24	0.1000	0.0949	0.0934	0.0949	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1001	0.0970	0.0787	0.0943	0.1000	0.1085	0.1196	0.1085
8WBL	M-F 1	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 2	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 3	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 4	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 5	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 6	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 7	1.2202	1.1607	1.1425	1.1607	1.2202	1.2205	1.2209	1.2205	1.2202	1.2204	1.2205	1.2204	1.2222	1.1925	0.9665	1.1605	1.2202	1.3236	1.4573	1.3236
8WBL	M-F 8	1.2202	1.1607	1.1425	1.1607	1.2202	1.2205	1.2209	1.2205	1.2202	1.2204	1.2205	1.2204	1.2222	1.1925	0.9665	1.1605	1.2202	1.3236	1.4573	1.3236
8WBL	M-F 9	1.2202	1.1607	1.1425	1.1607	1.2202	1.2205	1.2209	1.2205	1.2202	1.2204	1.2205	1.2204	1.2222	1.1925	0.9665	1.1605	1.2202	1.3236	1.4573	1.3236
8WBL	M-F 10	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 11	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 12	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 13	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 14	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 15	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 16	0.6114	0.5816	0.7721	0.5816	0.6114	0.6116	0.6117	0.6116	0.6114	0.6115	0.6116	0.6115	0.6114	0.5850	0.5432	0.5602	0.6114	0.0000	0.9793	0.8456
8WBL	M-F 17	1	0.9512	1.2737	0.9512	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8WBL	M-F 18	1	0.9512	1.2737	0.9512	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8WBL	M-F 19	1	0.9512	1.2737	0.9512	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8WBL	M-F 20	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 21	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 22	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096

8WBL	M-F 23	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBL	M-F 24	0.1010	0.0961	0.0946	0.0961	0.1010	0.1011	0.1011	0.1011	0.1010	0.1010	0.1011	0.1010	0.1012	0.0980	0.0794	0.0952	0.1010	0.1096	0.1207	0.1096
8WBT	M-F 1	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 2	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 3	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 4	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 5	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 6	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 7	0.8633	0.8234	0.8109	0.8234	0.7706	0.7709	0.7712	0.7709	0.7601	0.7603	0.7604	0.7603	1.3203	1.2794	1.1043	1.2522	0.8277	0.8869	0.9639	0.8869
8WBT	M-F 8	0.8633	0.8234	0.8109	0.8234	0.7706	0.7709	0.7712	0.7709	0.7601	0.7603	0.7604	0.7603	1.3203	1.2794	1.1043	1.2522	0.8277	0.8869	0.9639	0.8869
8WBT	M-F 9	0.8633	0.8234	0.8109	0.8234	0.7706	0.7709	0.7712	0.7709	0.7601	0.7603	0.7604	0.7603	1.3203	1.2794	1.1043	1.2522	0.8277	0.8869	0.9639	0.8869
8WBT	M-F 10	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 11	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 12	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 13	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 14	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 15	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 16	0.4353	0.4152	0.4907	0.4152	0.3886	0.3887	0.3889	0.3887	0.3833	0.3834	0.3835	0.3834	0.6599	0.6344	0.5469	0.6136	0.4174	0.0000	0.5897	0.5214
8WBT	M-F 17	1	0.9518	1.2000	0.9518	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9596	0.8307	0.9296	1	1.0774	1.2290	1.0774
8WBT	M-F 18	1	0.9518	1.2000	0.9518	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9596	0.8307	0.9296	1	1.0774	1.2290	1.0774
8WBT	M-F 19	1	0.9518	1.2000	0.9518	1	1.0004	1.0008	1.0004	1	1.0002	1.0004	1.0002	1	0.9596	0.8307	0.9296	1	1.0774	1.2290	1.0774
8WBT	M-F 20	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 21	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 22	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 23	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBT	M-F 24	0.1181	0.1126	0.1109	0.1126	0.1054	0.1054	0.1055	0.1054	0.1039	0.1040	0.1040	0.1040	0.1802	0.1740	0.1502	0.1700	0.1132	0.1213	0.1318	0.1213
8WBR	M-F 1	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 2	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 3	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 4	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 5	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 6	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 7	1.0996	1.0462	1.0294	1.0462	1.3198	1.3203	1.3207	1.3203	1.3218	1.3220	1.3222	1.3220	0.6410	0.6199	0.5439	0.6076	0.9498	1.0162	1.1021	1.0162
8WBR	M-F 8	1.0996	1.0462	1.0294	1.0462	1.3198	1.3203	1.3207	1.3203	1.3218	1.3220	1.3222	1.3220	0.6410	0.6199	0.5439	0.6076	0.9498	1.0162	1.1021	1.0162
8WBR	M-F 9	1.0996	1.0462	1.0294	1.0462	1.3198	1.3203	1.3207	1.3203	1.3218	1.3220	1.3222	1.3220	0.6410	0.6199	0.5439	0.6076	0.9498	1.0162	1.1021	1.0162
8WBR	M-F 10	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 11	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 12	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 13	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 14	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 15	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 16	0.7895	0.7525	0.7673	0.7525	0.7895	0.7897	0.7900	0.7897	0.7895	0.7896	0.7897	0.7896	0.7895	0.7600	0.6605	0.7376	0.7895	0.0000	0.9394	0.8723
8WBR	M-F 17	1	0.9532	0.9731	0.9532	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8378	0.9370	1	1.0609	1.1435	1.0609
8WBR	M-F 18	1	0.9532	0.9731	0.9532	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8378	0.9370	1	1.0609	1.1435	1.0609
8WBR	M-F 19	1	0.9532	0.9731	0.9532	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9621	0.8378	0.9370	1	1.0609	1.1435	1.0609
8WBR	M-F 20	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 21	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 22	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 23	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8WBR	M-F 24	0.0733	0.0697	0.0686	0.0697	0.0880	0.0880	0.0880	0.0880	0.0881	0.0881	0.0881	0.0881	0.0426	0.0411	0.0361	0.0402	0.1053	0.1117	0.1200	0.1117
8NBL	M-F 1	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 2	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 3	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 4	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 5	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 6	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 7	0.1176	0.1119	0.1102	0.1119	0.1176	0.1177	0.1177	0.1177	0.1176	0.1177	0.1177	0.1177	0.1178	0.1150	0.0932	0.1119	0.1176	0.1276	0.1405	0.1276
8NBL	M-F 8	0.1176	0.1119	0.1102	0.1119	0.1176	0.1177	0.1177	0.1177	0.1176	0.1177	0.1177	0.1177	0.1178	0.1150	0.0932	0.1119	0.1176	0.1276	0.1405	0.1276
8NBL	M-F 9	0.1176	0.1119	0.1102	0.1119	0.1176	0.1177	0.1177	0.1177	0.1176	0.1177	0.1177	0.1177	0.1178	0.1150	0.0932	0.1119	0.1176	0.1276	0.1405	0.1276
8NBL	M-F 10	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 11	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 12	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 13	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 14	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 15	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 16	0.0588	0.0560	0.0743	0.0560	0.0588	0.0588	0.0589	0.0588	0.0588	0.0588	0.0588	0.0588	0.0588	0.0563	0.0523	0.0539	0.0588	0.0000	0.0942	0.0814
8NBL	M-F 17	1	0.9513	1.2737	0.9513	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8NBL	M-F 18	1	0.9513	1.2737	0.9513	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8NBL	M-F 19	1	0.9513	1.2737	0.9513	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.8954	0.9202	1	1.0847	1.2493	1.0847
8NBL	M-F 20	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 21	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 22	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 23	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBL	M-F 24	0.1029	0.0979	0.0964	0.0979	0.1029	0.1030	0.1030	0.1030	0.1029	0.1030	0.1030	0.1030	0.1031	0.0999	0.0808	0.0970	0.1029	0.1117	0.1229	0.1117
8NBT	M-F 1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 11	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 17	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8NBT	M-F 18	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8NBT	M-F 19	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8NBT	M-F 20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 21	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 22	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 23	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBT	M-F 24	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8NBR	M-F 1	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 2	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 3	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098

8NBR	M-F 4	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 5	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 6	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 7	0.1124	0.1067	0.1049	0.1067	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1126	0.1098	0.0892	0.1069	0.1124	0.1220	0.1344	0.1220
8NBR	M-F 8	0.1124	0.1067	0.1049	0.1067	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1126	0.1098	0.0892	0.1069	0.1124	0.1220	0.1344	0.1220
8NBR	M-F 9	0.1124	0.1067	0.1049	0.1067	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1124	0.1126	0.1098	0.0892	0.1069	0.1124	0.1220	0.1344	0.1220
8NBR	M-F 10	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 11	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 12	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 13	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 14	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 15	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 16	0.0562	0.0533	0.0701	0.0533	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0562	0.0538	0.0537	0.0515	0.0562	0.0000	0.0884	0.0766
8NBR	M-F 17	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8NBR	M-F 18	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8NBR	M-F 19	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
8NBR	M-F 20	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 21	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 22	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 23	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8NBR	M-F 24	0.1011	0.0960	0.0944	0.0960	0.1011	0.1012	0.1012	0.1012	0.1011	0.1011	0.1012	0.1011	0.1013	0.0981	0.0796	0.0953	0.1011	0.1098	0.1209	0.1098
8SBL	M-F 1	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 2	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 3	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 4	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 5	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 6	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 7	0.5626	0.5350	0.5262	0.5350	0.5468	0.5469	0.5471	0.5469	0.5459	0.5460	0.5461	0.5460	0.6168	0.5964	0.5244	0.5847	0.5751	0.6129	0.6619	0.6129
8SBL	M-F 8	0.5626	0.5350	0.5262	0.5350	0.5468	0.5469	0.5471	0.5469	0.5459	0.5460	0.5461	0.5460	0.6168	0.5964	0.5244	0.5847	0.5751	0.6129	0.6619	0.6129
8SBL	M-F 9	0.5626	0.5350	0.5262	0.5350	0.5468	0.5469	0.5471	0.5469	0.5459	0.5460	0.5461	0.5460	0.6168	0.5964	0.5244	0.5847	0.5751	0.6129	0.6619	0.6129
8SBL	M-F 10	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 11	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 12	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 13	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 14	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 15	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 16	0.3000	0.2853	0.3095	0.2853	0.2916	0.2917	0.2918	0.2917	0.2912	0.2912	0.2912	0.2912	0.3253	0.3131	0.2722	0.3038	0.3067	0.0000	0.3861	0.3529
8SBL	M-F 17	1	0.9511	1.0554	0.9511	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9618	0.8386	0.9364	1	1.0671	1.1688	1.0671
8SBL	M-F 18	1	0.9511	1.0554	0.9511	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9618	0.8386	0.9364	1	1.0671	1.1688	1.0671
8SBL	M-F 19	1	0.9511	1.0554	0.9511	1	1.0003	1.0006	1.0003	1	1.0001	1.0003	1.0001	1	0.9618	0.8386	0.9364	1	1.0671	1.1688	1.0671
8SBL	M-F 20	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 21	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 22	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 23	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBL	M-F 24	0.1125	0.1070	0.1052	0.1070	0.1094	0.1094	0.1094	0.1094	0.1092	0.1092	0.1092	0.1092	0.1230	0.1187	0.1044	0.1162	0.1150	0.1226	0.1324	0.1226
8SBT	M-F 1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 11	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 17	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8SBT	M-F 18	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8SBT	M-F 19	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000	1	1.0000	1.0000	1.0000
8SBT	M-F 20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 21	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 22	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 23	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBT	M-F 24	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8SBR	M-F 1	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 2	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 3	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 4	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 5	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 6	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 7	0.5000	0.4759	0.4683	0.4759	0.5000	0.5002	0.5003	0.5002	0.5000	0.5001	0.5002	0.5001	0.5056	0.4889	0.4297	0.4793	0.5000	0.5336	0.5771	0.5336
8SBR	M-F 8	0.5000	0.4759	0.4683	0.4759	0.5000	0.5002	0.5003	0.5002	0.5000	0.5001	0.5002	0.5001	0.5056	0.4889	0.4297	0.4793	0.5000	0.5336	0.5771	0.5336
8SBR	M-F 9	0.5000	0.4759	0.4683	0.4759	0.5000	0.5002	0.5003	0.5002	0.5000	0.5001	0.5002	0.5001	0.5056	0.4889	0.4297	0.4793	0.5000	0.5336	0.5771	0.5336
8SBR	M-F 10	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 11	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 12	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 13	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 14	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 15	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 16	0.3000	0.2856	0.3191	0.2856	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2521	0.2801	0.3000	0.0000	0.3867	0.3514
8SBR	M-F 17	1	0.9519	1.0679	0.9519	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8419	0.9365	1	1.0672	1.1702	1.0672
8SBR	M-F 18	1	0.9519	1.0679	0.9519	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8419	0.9365	1	1.0672	1.1702	1.0672
8SBR	M-F 19	1	0.9519	1.0679	0.9519	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8419	0.9365	1	1.0672	1.1702	1.0672
8SBR	M-F 20	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 21	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 22	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 23	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
8SBR	M-F 24	0.1000	0.0952	0.0937	0.0952	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0973	0.0855	0.0952	0.1000	0.1067	0.1154	0.1067
13EBT	M-F 1	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 2	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 3	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 4	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 5	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 6	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 7	1.3123	1.2479	1.2281	1.2479	1.3053	1.3060	1.3068	1.3060	1.3042	1.3045	1.3049	1.3045	1.3721	1.3345	1.1193	1.3026	1.3091	1.4132	1.5487	1.4132
13EBT	M-F 8	1.3123	1.2479	1.2281	1.2479	1.3053	1.3060	1.3068	1.3060	1.3042	1.3045	1.3049	1.3045	1.3721	1.3345	1.1193	1.3026	1.3091	1.4132	1.5487	1.4132

13EBT	M-F 9	1.3123	1.2479	1.2281	1.2479	1.3053	1.3060	1.3068	1.3060	1.3042	1.3045	1.3049	1.3045	1.3721	1.3345	1.1193	1.3026	1.3091	1.4132	1.5487	1.4132
13EBT	M-F 10	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 11	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 12	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 13	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 14	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 15	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 16	0.6584	0.6261	0.8007	0.6261	0.6549	0.6553	0.6557	0.6553	0.6543	0.6545	0.6547	0.6545	0.6847	0.6571	0.5666	0.6325	0.6568	0.0000	1.0010	0.8667
13EBT	M-F 17	1	0.9508	1.2294	0.9508	1	1.0005	1.0011	1.0005	1	1.0003	1.0006	1.0003	1	0.9587	0.8308	0.9268	1	1.0798	1.2396	1.0798
13EBT	M-F 18	1	0.9508	1.2294	0.9508	1	1.0005	1.0011	1.0005	1	1.0003	1.0006	1.0003	1	0.9587	0.8308	0.9268	1	1.0798	1.2396	1.0798
13EBT	M-F 19	1	0.9508	1.2294	0.9508	1	1.0005	1.0011	1.0005	1	1.0003	1.0006	1.0003	1	0.9587	0.8308	0.9268	1	1.0798	1.2396	1.0798
13EBT	M-F 20	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 21	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 22	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 23	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBT	M-F 24	0.0999	0.0950	0.0935	0.0950	0.0994	0.0994	0.0995	0.0994	0.0993	0.0993	0.0993	0.0993	0.1043	0.1009	0.0846	0.0984	0.0997	0.1076	0.1179	0.1076
13EBR	M-F 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 7	1.0000	0.9279	0.9046	0.9279	1.0000	1.0003	1.0005	1.0003	1.0000	1.0001	1.0003	1.0001	1.0116	0.9775	0.8618	0.9586	1.0000	1.0622	1.1409	1.0622
13EBR	M-F 8	1.0000	0.9279	0.9046	0.9279	1.0000	1.0003	1.0005	1.0003	1.0000	1.0001	1.0003	1.0001	1.0116	0.9775	0.8618	0.9586	1.0000	1.0622	1.1409	1.0622
13EBR	M-F 9	1.0000	0.9279	0.9046	0.9279	1.0000	1.0003	1.0005	1.0003	1.0000	1.0001	1.0003	1.0001	1.0116	0.9775	0.8618	0.9586	1.0000	1.0622	1.1409	1.0622
13EBR	M-F 10	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 11	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 12	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 13	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 14	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 15	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 16	0.5000	0.4640	0.4523	0.4640	0.5000	0.5001	0.5003	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4813	0.4179	0.4672	0.5000	0.0000	0.5578	0.5190
13EBR	M-F 17	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13EBR	M-F 18	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13EBR	M-F 19	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13EBR	M-F 20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13EBR	M-F 24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13WBL	M-F 1	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 2	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 3	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 4	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 5	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 6	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 7	0.8750	0.8078	0.7861	0.8078	0.8750	0.8752	0.8754	0.8752	0.8750	0.8751	0.8752	0.8751	0.8850	0.8552	0.7535	0.8387	0.8750	0.9311	1.0021	0.9311
13WBL	M-F 8	0.8750	0.8078	0.7861	0.8078	0.8750	0.8752	0.8754	0.8752	0.8750	0.8751	0.8752	0.8751	0.8850	0.8552	0.7535	0.8387	0.8750	0.9311	1.0021	0.9311
13WBL	M-F 9	0.8750	0.8078	0.7861	0.8078	0.8750	0.8752	0.8754	0.8752	0.8750	0.8751	0.8752	0.8751	0.8850	0.8552	0.7535	0.8387	0.8750	0.9311	1.0021	0.9311
13WBL	M-F 10	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 11	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 12	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 13	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 14	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 15	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 16	0.5000	0.4616	0.4492	0.4616	0.5000	0.5001	0.5002	0.5001	0.5000	0.5001	0.5001	0.5001	0.5000	0.4812	0.4175	0.4671	0.5000	0.0000	0.5597	0.5197
13WBL	M-F 17	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13WBL	M-F 18	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13WBL	M-F 19	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13WBL	M-F 20	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 21	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 22	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 23	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBL	M-F 24	0.1250	0.1154	0.1123	0.1154	0.1250	0.1250	0.1251	0.1250	0.1250	0.1250	0.1250	0.1250	0.1261	0.1215	0.1071	0.1191	0.1250	0.1330	0.1432	0.1330
13WBT	M-F 1	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 2	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 3	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 4	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 5	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 6	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 7	0.5204	0.4958	0.4881	0.4958	0.4674	0.4677	0.4679	0.4677	0.4585	0.4586	0.4588	0.4586	1.0319	1.0008	0.8579	0.9789	0.4956	0.5326	0.5808	0.5326
13WBT	M-F 8	0.5204	0.4958	0.4881	0.4958	0.4674	0.4677	0.4679	0.4677	0.4585	0.4586	0.4588	0.4586	1.0319	1.0008	0.8579	0.9789	0.4956	0.5326	0.5808	0.5326
13WBT	M-F 9	0.5204	0.4958	0.4881	0.4958	0.4674	0.4677	0.4679	0.4677	0.4585	0.4586	0.4588	0.4586	1.0319	1.0008	0.8579	0.9789	0.4956	0.5326	0.5808	0.5326
13WBT	M-F 10	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 11	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 12	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 13	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 14	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 15	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 16	0.2602	0.2479	0.3020	0.2479	0.2337	0.2338	0.2340	0.2338	0.2292	0.2293	0.2294	0.2293	0.5118	0.4918	0.4240	0.4752	0.2478	0.0000	0.3609	0.3164
13WBT	M-F 17	1	0.9503	1.2473	0.9503	1	1.0006	1.0011	1.0006	1	1.0003	1.0006	1.0003	1	0.9579	0.8309	0.9242	1	1.0813	1.2458	1.0813
13WBT	M-F 18	1	0.9503	1.2473	0.9503	1	1.0006	1.0011	1.0006	1	1.0003	1.0006	1.0003	1	0.9579	0.8309	0.9242	1	1.0813	1.2458	1.0813
13WBT	M-F 19	1	0.9503	1.2473	0.9503	1	1.0006	1.0011	1.0006	1	1.0003	1.0006	1.0003	1	0.9579	0.8309	0.9242	1	1.0813	1.2458	1.0813
13WBT	M-F 20	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 21	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 22	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 23	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13WBT	M-F 24	0.1198	0.1141	0.1123	0.1141	0.1076	0.1076	0.1077	0.1076	0.1055	0.1056	0.1056	0.1056	0.2370	0.2290	0.1963	0.2237	0.1141	0.1226	0.1337	0.1226
13NBL	M-F 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 7	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3372	0.3258	0.2871	0.3195	0.3333	0.3547	0.3817	0.3547
13NBL	M-F 8	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3372	0.3258	0.2871	0.3195	0.3333	0.3547	0.3817	0.3547
13NBL	M-F 9	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3372	0.3258	0.2871	0.3195	0.3333	0.3547	0.3817	0.3547
13NBL	M-F 10	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 11	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 12	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 13	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465

13NBL	M-F 14	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 15	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 16	0.3333	0.3077	0.2994	0.3077	0.3333	0.3334	0.3335	0.3334	0.3333	0.3334	0.3334	0.3334	0.3334	0.3208	0.2783	0.3114	0.3333	0.0000	0.3731	0.3465
13NBL	M-F 17	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13NBL	M-F 18	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13NBL	M-F 19	1	0.9232	0.8983	0.9232	1	1.0002	1.0005	1.0002	1	1.0001	1.0002	1.0001	1	0.9619	0.8361	0.9368	1	1.0641	1.1452	1.0641
13NBL	M-F 20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 21	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 23	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBL	M-F 24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13NBR	M-F 1	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 2	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 3	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 4	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 5	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 6	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 7	0.6000	0.5568	0.5428	0.5568	0.6000	0.6002	0.6003	0.6002	0.6000	0.6001	0.6002	0.6001	0.6069	0.5865	0.5171	0.5751	0.6000	0.6373	0.6846	0.6373
13NBR	M-F 8	0.6000	0.5568	0.5428	0.5568	0.6000	0.6002	0.6003	0.6002	0.6000	0.6001	0.6002	0.6001	0.6069	0.5865	0.5171	0.5751	0.6000	0.6373	0.6846	0.6373
13NBR	M-F 9	0.6000	0.5568	0.5428	0.5568	0.6000	0.6002	0.6003	0.6002	0.6000	0.6001	0.6002	0.6001	0.6069	0.5865	0.5171	0.5751	0.6000	0.6373	0.6846	0.6373
13NBR	M-F 10	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 11	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 12	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 13	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 14	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 15	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 16	0.3000	0.2784	0.2714	0.2784	0.3000	0.3001	0.3002	0.3001	0.3000	0.3000	0.3001	0.3000	0.3000	0.2888	0.2507	0.2803	0.3000	0.0000	0.3347	0.3114
13NBR	M-F 17	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13NBR	M-F 18	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13NBR	M-F 19	1	0.9279	0.9046	0.9279	1	1.0003	1.0005	1.0003	1	1.0001	1.0003	1.0001	1	0.9619	0.8369	0.9370	1	1.0622	1.1409	1.0622
13NBR	M-F 20	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 21	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 22	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 23	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
13NBR	M-F 24	0.1000	0.0928	0.0905	0.0928	0.1000	0.1000	0.1001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1009	0.0972	0.0858	0.0953	0.1000	0.1062	0.1141	0.1062
14EBT	M-F 1	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 2	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 3	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 4	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 5	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 6	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 7	0.7733	0.7371	0.7258	0.7371	0.7264	0.7265	0.7266	0.7265	0.7238	0.7239	0.7239	0.7239	0.9492	0.9203	0.7914	0.9004	0.7582	0.8138	0.8861	0.8138
14EBT	M-F 8	0.7733	0.7371	0.7258	0.7371	0.7264	0.7265	0.7266	0.7265	0.7238	0.7239	0.7239	0.7239	0.9492	0.9203	0.7914	0.9004	0.7582	0.8138	0.8861	0.8138
14EBT	M-F 9	0.7733	0.7371	0.7258	0.7371	0.7264	0.7265	0.7266	0.7265	0.7238	0.7239	0.7239	0.7239	0.9492	0.9203	0.7914	0.9004	0.7582	0.8138	0.8861	0.8138
14EBT	M-F 10	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 11	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 12	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 13	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 14	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 15	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 16	0.3890	0.3708	0.4460	0.3708	0.3654	0.3654	0.3655	0.3654	0.3641	0.3641	0.3641	0.3641	0.4735	0.4550	0.3923	0.4399	0.3814	0.0000	0.5485	0.4825
14EBT	M-F 17	1	0.9522	1.1848	0.9522	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9599	0.8307	0.9306	1	1.0761	1.2234	1.0761
14EBT	M-F 18	1	0.9522	1.1848	0.9522	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9599	0.8307	0.9306	1	1.0761	1.2234	1.0761
14EBT	M-F 19	1	0.9522	1.1848	0.9522	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9599	0.8307	0.9306	1	1.0761	1.2234	1.0761
14EBT	M-F 20	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 21	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 22	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 23	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBT	M-F 24	0.1065	0.1015	0.1000	0.1015	0.1000	0.1001	0.1001	0.1001	0.0997	0.0997	0.0997	0.0997	0.1305	0.1260	0.1084	0.1231	0.1044	0.1121	0.1220	0.1121
14EBR	M-F 1	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 2	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 3	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 4	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 5	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 6	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 7	1.2400	1.1770	1.1577	1.1770	1.2400	1.2404	1.2408	1.2404	1.2400	1.2402	1.2404	1.2402	1.2424	1.2116	0.9845	1.1794	1.2400	1.3460	1.4827	1.3460
14EBR	M-F 8	1.2400	1.1770	1.1577	1.1770	1.2400	1.2404	1.2408	1.2404	1.2400	1.2402	1.2404	1.2402	1.2424	1.2116	0.9845	1.1794	1.2400	1.3460	1.4827	1.3460
14EBR	M-F 9	1.2400	1.1770	1.1577	1.1770	1.2400	1.2404	1.2408	1.2404	1.2400	1.2402	1.2404	1.2402	1.2424	1.2116	0.9845	1.1794	1.2400	1.3460	1.4827	1.3460
14EBR	M-F 10	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 11	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 12	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 13	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 14	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 15	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 16	0.6400	0.6075	0.7988	0.6075	0.6400	0.6402	0.6404	0.6402	0.6400	0.6401	0.6402	0.6401	0.6400	0.6124	0.6116	0.5867	0.6400	0.0000	1.0071	0.8721
14EBR	M-F 17	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14EBR	M-F 18	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14EBR	M-F 19	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14EBR	M-F 20	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 21	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 22	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 23	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14EBR	M-F 24	0.1200	0.1139	0.1120	0.1139	0.1200	0.1200	0.1201	0.1200	0.1200	0.1200	0.1200	0.1200	0.1202	0.1164	0.0945	0.1131	0.1200	0.1303	0.1435	0.1303
14WBT	M-F 1	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 2	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 3	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 4	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 5	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 6	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 7	1.0587	1.0068	0.9908	1.0068	1.0634	1.0636	1.0638	1.0636	1.0637	1.0637	1.0638	1.0637	1.0403	1.0117	0.8491	0.9876	1.0603	1.1445	1.2541	1.1445
14WBT	M-F 8	1.0587	1.0068	0.9908	1.0068	1.0634	1.0636	1.0638	1.0636	1.0637	1.0637	1.0638	1.0637	1.0403	1.0117	0.8491	0.9876	1.0603	1.1445	1.2541	1.1445
14WBT	M-F 9	1.0587	1.0068	0.9908	1.0068	1.0634	1.0636	1.0638	1.0636	1.0637	1.0637	1.0638	1.0637	1.0403	1.0117	0.8491	0.9876	1.0603	1.1445	1.2541	1.1445
14WBT	M-F 10	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 11	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 12	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 13	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 14	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 15	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 16	0.5329	0.5068	0.6463	0.5068	0.5329	0.5330	0.5331	0.5330	0.5329	0.5329	0.5330	0.5329	0.5329	0.5114	0.4410	0.4925	0.5329	0.0000	0.8100	0.7018
14WBT	M-F 17	1	0.9511	1.2220	0.9511	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9590	0.8308	0.9277	1	1.0792	1.2369	1.0792
14WBT	M-F 18	1	0.9511	1.2220	0.9511	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9590	0.8308	0.9277	1	1.0792	1.2369	1.0792

14WBT	M-F 19	1	0.9511	1.2220	0.9511	1	1.0002	1.0004	1.0002	1	1.0001	1.0002	1.0001	1	0.9590	0.8308	0.9277	1	1.0792	1.2369	1.0792
14WBT	M-F 20	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 21	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 22	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 23	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14WBT	M-F 24	0.0998	0.0950	0.0934	0.0950	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0980	0.0948	0.0795	0.0924	0.1003	0.1083	0.1186	0.1083
14NBR	M-F 1	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 2	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 3	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 4	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 5	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 6	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 7	0.1175	0.1115	0.1097	0.1115	0.1175	0.1175	0.1176	0.1175	0.1175	0.1175	0.1175	0.1175	0.1177	0.1148	0.0933	0.1117	0.1175	0.1275	0.1405	0.1275
14NBR	M-F 8	0.1175	0.1115	0.1097	0.1115	0.1175	0.1175	0.1176	0.1175	0.1175	0.1175	0.1175	0.1175	0.1177	0.1148	0.0933	0.1117	0.1175	0.1275	0.1405	0.1275
14NBR	M-F 9	0.1175	0.1115	0.1097	0.1115	0.1175	0.1175	0.1176	0.1175	0.1175	0.1175	0.1175	0.1175	0.1177	0.1148	0.0933	0.1117	0.1175	0.1275	0.1405	0.1275
14NBR	M-F 10	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 11	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 12	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 13	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 14	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 15	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 16	0.0601	0.0571	0.0750	0.0571	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0601	0.0575	0.0574	0.0551	0.0601	0.0000	0.0946	0.0819
14NBR	M-F 17	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14NBR	M-F 18	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14NBR	M-F 19	1	0.9492	1.2586	0.9492	1	1.0003	1.0007	1.0003	1	1.0001	1.0003	1.0001	1	0.9560	0.9648	0.9206	1	1.0855	1.2468	1.0855
14NBR	M-F 20	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 21	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 22	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 23	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
14NBR	M-F 24	0.1011	0.0960	0.0944	0.0960	0.1011	0.1011	0.1012	0.1011	0.1011	0.1011	0.1011	0.1011	0.1012	0.0981	0.0796	0.0953	0.1011	0.1097	0.1209	0.1097
CA	M-F 1	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 2	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 3	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 4	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 5	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 6	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 7	0.2216	0.1349	0.0983	0.1280	0.5549	0.5359	0.5274	0.5338	0.5681	0.5522	0.5451	0.5505	0.2063	0.1903	0.1525	0.1845	0.2007	0.1134	0.0710	0.1025
CA	M-F 8	0.2216	0.1349	0.0983	0.1280	0.5549	0.5359	0.5274	0.5338	0.5681	0.5522	0.5451	0.5505	0.2063	0.1903	0.1525	0.1845	0.2007	0.1134	0.0710	0.1025
CA	M-F 9	0.2216	0.1349	0.0983	0.1280	0.5549	0.5359	0.5274	0.5338	0.5681	0.5522	0.5451	0.5505	0.2063	0.1903	0.1525	0.1845	0.2007	0.1134	0.0710	0.1025
CA	M-F 10	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 11	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 12	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 13	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 14	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 15	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 16	0.0867	0.0550	0.0567	0.0541	0.2736	0.2673	0.2659	0.2670	0.2815	0.2762	0.2750	0.2760	0.0993	0.0876	0.0879	0.0847	0.0680	0.0000	0.0365	0.0409
CA	M-F 17	1	0.4784	0.3923	0.4921	1	0.8886	0.8678	0.8924	1	0.9073	0.8897	0.9104	1	0.8183	0.7772	0.8233	1	0.4466	0.3469	0.4672
CA	M-F 18	1	0.4784	0.3923	0.4921	1	0.8886	0.8678	0.8924	1	0.9073	0.8897	0.9104	1	0.8183	0.7772	0.8233	1	0.4466	0.3469	0.4672
CA	M-F 19	1	0.4784	0.3923	0.4921	1	0.8886	0.8678	0.8924	1	0.9073	0.8897	0.9104	1	0.8183	0.7772	0.8233	1	0.4466	0.3469	0.4672
CA	M-F 20	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 21	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 22	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 23	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
CA	M-F 24	0.1328	0.0660	0.0415	0.0632	0.1145	0.0996	0.0939	0.0987	0.1133	0.1008	0.0961	0.1001	0.1089	0.0954	0.0770	0.0934	0.1420	0.0713	0.0430	0.0669
TA	M-F 1	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 2	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 3	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 4	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 5	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 6	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 7	0.6146	0.4867	0.4313	0.4800	0.6848	0.6592	0.6482	0.6565	0.6952	0.6709	0.6605	0.6684	0.6450	0.6253	0.5613	0.6148	0.6714	0.5701	0.5307	0.5521
TA	M-F 8	0.6146	0.4867	0.4313	0.4800	0.6848	0.6592	0.6482	0.6565	0.6952	0.6709	0.6605	0.6684	0.6450	0.6253	0.5613	0.6148	0.6714	0.5701	0.5307	0.5521
TA	M-F 9	0.6146	0.4867	0.4313	0.4800	0.6848	0.6592	0.6482	0.6565	0.6952	0.6709	0.6605	0.6684	0.6450	0.6253	0.5613	0.6148	0.6714	0.5701	0.5307	0.5521
TA	M-F 10	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 11	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 12	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 13	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 14	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 15	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 16	0.3241	0.2621	0.2424	0.2612	0.3756	0.3662	0.3642	0.3659	0.3817	0.3728	0.3708	0.3724	0.3605	0.3481	0.3089	0.3394	0.3274	0.0000	0.2839	0.2747
TA	M-F 17	1	0.7997	0.7398	0.8027	1	0.9687	0.9631	0.9697	1	0.9703	0.9650	0.9713	1	0.9657	0.8612	0.9453	1	0.8478	0.8735	0.8562
TA	M-F 18	1	0.7997	0.7398	0.8027	1	0.9687	0.9631	0.9697	1	0.9703	0.9650	0.9713	1	0.9657	0.8612	0.9453	1	0.8478	0.8735	0.8562
TA	M-F 19	1	0.7997	0.7398	0.8027	1	0.9687	0.9631	0.9697	1	0.9703	0.9650	0.9713	1	0.9657	0.8612	0.9453	1	0.8478	0.8735	0.8562
TA	M-F 20	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 21	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 22	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 23	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740
TA	M-F 24	0.0834	0.0661	0.0593	0.0656	0.0869	0.0836	0.0825	0.0835	0.0875	0.0844	0.0833	0.0843	0.0840	0.0813	0.0731	0.0799	0.0889	0.0752	0.0721	0.0740

Bluewater Property Group - MSV1
Town of Florida, New York
Benzene Emission Rates

Table 12a. Benzene Screening

Pollutant	Maximum Emission Rate		Mass Emission Limit (lb/yr)	Exceeds Threshold?
	g/hr	lb/yr		
Benzene	33.49	647	100	Yes

Table 12b. Benzene Emission Rates

Link Group	Sublink Group	Link ID	Benzene Emission Rate ($g/s\text{-}m^2$)		Generic Benzene Conc. (ug/m3)		Adjusted Benzene Conc. (ug/m3)	
			Short-Term	Annual	Short-Term	Annual	Short-Term	Annual
Rt 5s and Target Dr East	8EBL	8EBL1	2.12E-10	5.97E-10	5.54E+02	5.54E+02	1.17E-07	3.31E-07
	8EBL	8EBL2	5.52E-10	1.56E-09	1.62E+03	1.62E+03	8.97E-07	2.52E-06
	8EBL	8EBL3	5.57E-10	1.57E-09	1.75E+03	1.75E+03	9.76E-07	2.75E-06
	8EBL	8EBL4	9.13E-11	2.57E-10	2.82E+02	2.82E+02	2.58E-08	7.26E-08
	8EBT	8EBT1	4.92E-09	1.04E-08	2.93E+03	2.93E+03	1.44E-05	3.05E-05
	8EBT	8EBT2	1.50E-09	3.17E-09	1.15E+03	1.15E+03	1.72E-06	3.65E-06
	8EBT	8EBT3	4.12E-09	8.72E-09	4.03E+03	4.03E+03	1.66E-05	3.51E-05
	8EBR	8EBR1	7.95E-09	1.69E-08	1.40E+03	1.40E+03	1.12E-05	2.37E-05
	8EBR	8EBR2	1.87E-09	3.96E-09	3.63E+02	3.63E+02	6.78E-07	1.44E-06
	8EBR	8EBR3	1.24E-09	2.64E-09	2.43E+02	2.43E+02	3.02E-07	6.42E-07
	8EBR	8EBR4	1.34E-09	2.83E-09	2.68E+02	2.68E+02	3.58E-07	7.58E-07
	8EBR	8EBR5	5.23E-09	1.11E-08	1.14E+03	1.14E+03	5.98E-06	1.27E-05
	8EBR	8EBR6	9.54E-10	2.02E-09	2.21E+02	2.21E+02	2.11E-07	4.48E-07
	8WBL	8WBL1	2.58E-08	5.49E-08	4.79E+03	4.79E+03	1.24E-04	2.63E-04
	8WBL	8WBL2	1.38E-08	2.93E-08	1.71E+03	1.71E+03	2.36E-05	5.02E-05
	8WBL	8WBL3	4.12E-09	8.77E-09	4.53E+02	4.53E+02	1.86E-06	3.97E-06
	8WBL	8WBL4	2.07E-09	4.41E-09	2.30E+02	2.30E+02	4.75E-07	1.01E-06
	8WBL	8WBL5	2.20E-09	4.68E-09	2.50E+02	2.50E+02	5.49E-07	1.17E-06
	8WBL	8WBL6	9.08E-09	1.93E-08	1.13E+03	1.13E+03	1.02E-05	2.18E-05
	8WBL	8WBL7	1.50E-09	3.19E-09	1.97E+02	1.97E+02	2.95E-07	6.28E-07
	8WBT	8WBT1	5.65E-09	9.39E-09	4.24E+03	4.24E+03	2.39E-05	3.98E-05
	8WBT	8WBT2	6.01E-09	1.00E-08	2.70E+03	2.70E+03	1.62E-05	2.70E-05
	8WBR	8WBR1	5.23E-09	1.05E-08	6.54E+03	6.54E+03	3.42E-05	6.87E-05
	8WBR	8WBR2	3.26E-09	6.55E-09	2.75E+03	2.75E+03	8.97E-06	1.80E-05
	8WBR	8WBR3	2.12E-09	4.26E-09	1.55E+03	1.55E+03	3.29E-06	6.62E-06
	8WBR	8WBR4	3.72E-10	7.46E-10	2.67E+02	2.67E+02	9.93E-08	1.99E-07
	8NBL	8NBL1	3.36E-09	3.00E-09	3.81E+02	3.81E+02	1.28E-06	1.14E-06
	8NBL	8NBL2	3.78E-09	3.37E-09	4.00E+02	4.00E+02	1.51E-06	1.35E-06
	8NBL	8NBL3	9.42E-10	8.39E-10	9.48E+01	9.48E+01	8.93E-08	7.96E-08
	8NBL	8NBL4	9.76E-10	8.69E-10	9.69E+01	9.69E+01	9.45E-08	8.42E-08
	8NBL	8NBL5	2.43E-09	2.16E-09	2.41E+02	2.41E+02	5.86E-07	5.22E-07
	8NBL	8NBL6	8.86E-09	7.89E-09	7.77E+02	7.77E+02	6.89E-06	6.13E-06
	8NBT	8NBT1	0.00E+00	0.00E+00	2.35E+03	2.35E+03	0.00E+00	0.00E+00
	8NBT	8NBT2	0.00E+00	0.00E+00	2.70E+03	2.70E+03	0.00E+00	0.00E+00
	8NBT	8NBT3	0.00E+00	0.00E+00	3.96E+02	3.96E+02	0.00E+00	0.00E+00
	8NBT	8NBT4	0.00E+00	0.00E+00	6.09E+02	6.09E+02	0.00E+00	0.00E+00
	8NBT	8NBT5	0.00E+00	0.00E+00	5.57E+03	5.57E+03	0.00E+00	0.00E+00
	8NBT	8NBT6	0.00E+00	0.00E+00	5.79E+02	5.79E+02	0.00E+00	0.00E+00
	8NBR	8NBR1	1.87E-09	1.65E-09	4.04E+02	4.04E+02	7.55E-07	6.65E-07
	8NBR	8NBR2	1.91E-09	1.68E-09	3.85E+02	3.85E+02	7.37E-07	6.49E-07
	8NBR	8NBR3	4.17E-10	3.68E-10	8.02E+01	8.02E+01	3.35E-08	2.95E-08
	8NBR	8NBR4	4.77E-10	4.20E-10	9.07E+01	9.07E+01	4.33E-08	3.81E-08
	8NBR	8NBR5	1.07E-09	9.46E-10	2.05E+02	2.05E+02	2.20E-07	1.94E-07
	8NBR	8NBR6	3.71E-09	3.27E-09	7.76E+02	7.76E+02	2.88E-06	2.53E-06
	8NBR	8NBR7	2.19E-09	1.93E-09	5.40E+02	5.40E+02	1.18E-06	1.04E-06
	8NBR	8NBR8	6.79E-09	5.98E-09	2.10E+03	2.10E+03	1.43E-05	1.26E-05
	8SBL	8SBL1	2.59E-10	3.56E-10	1.60E+02	1.60E+02	4.13E-08	5.68E-08
	8SBL	8SBL2	1.76E-09	2.42E-09	1.10E+03	1.10E+03	1.93E-06	2.66E-06
	8SBL	8SBL3	2.96E-09	4.07E-09	2.17E+03	2.17E+03	6.42E-06	8.84E-06
	8SBL	8SBL4	3.35E-09	4.62E-09	3.40E+03	3.40E+03	1.14E-05	1.57E-05
	8SBT	8SBT1	0.00E+00	0.00E+00	5.91E+02	5.91E+02	0.00E+00	0.00E+00
	8SBT	8SBT2	0.00E+00	0.00E+00	5.53E+03	5.53E+03	0.00E+00	0.00E+00
	8SBT	8SBT3	0.00E+00	0.00E+00	6.97E+02	6.97E+02	0.00E+00	0.00E+00
	8SBT	8SBT4	0.00E+00	0.00E+00	9.75E+02	9.75E+02	0.00E+00	0.00E+00
	8SBT	8SBT5	0.00E+00	0.00E+00	3.93E+03	3.93E+03	0.00E+00	0.00E+00
	8SBT	8SBT6	0.00E+00	0.00E+00	7.25E+02	7.25E+02	0.00E+00	0.00E+00
	8SBR	8SBR1	2.35E-10	3.06E-10	1.35E+02	1.35E+02	3.17E-08	4.14E-08
	8SBR	8SBR2	1.62E-09	2.11E-09	9.39E+02	9.39E+02	1.52E-06	1.98E-06
	8SBR	8SBR3	2.21E-09	2.89E-09	1.16E+03	1.16E+03	2.56E-06	3.34E-06
Rt 5s and Eat Drwy	14EBT	14EBT1	9.05E-09	1.43E-08	4.94E+03	4.94E+03	4.47E-05	7.05E-05
	14EBT	14EBT2	3.82E-09	6.01E-09	6.44E+03	6.44E+03	2.46E-05	3.87E-05
	14EBT	14EBT3	2.86E-09	4.50E-09	1.65E+04	1.65E+04	4.73E-05	7.44E-05
	14EBT	14EBT4	2.00E-09	3.15E-09	3.87E+04	3.87E+04	7.74E-05	1.22E-04
	14EBR	14EBR1	1.96E-09	4.33E-09	6.57E+03	6.57E+03	1.29E-05	2.84E-05
	14EBR	14EBR2	7.44E-10	1.64E-09	6.77E+03	6.77E+03	5.04E-06	1.11E-05
	14EBR	14EBR3	2.17E-10	4.78E-10	3.90E+03	3.90E+03	8.45E-07	1.86E-06
	14EBR	14EBR4	2.57E-10	5.67E-10	5.59E+03	5.59E+03	1.44E-06	3.17E-06
	14EBR	14EBR5	4.27E-10	9.41E-10	9.75E+03	9.75E+03	4.17E-06	9.18E-06
	14EBR	14EBR6	4.18E-10	9.22E-10	8.85E+03	8.85E+03	3.70E-06	8.16E-06
	14EBR	14EBR7	2.23E-10	4.91E-10	3.29E+03	3.29E+03	7.33E-07	1.62E-06
	14EBR	14EBR8	2.12E-10	4.68E-10	2.59E+03	2.59E+03	5.50E-07	1.21E-06
	14EBR	14EBR9	1.18E-10	2.61E-10	1.28E+03	1.28E+03	1.51E-07	3.34E-07
	14EBR	14EBR10	4.86E-10	1.07E-09	4.82E+03	4.82E+03	2.34E-06	5.16E-06
	14EBR	14EBR11	5.70E-11	1.26E-10	5.56E+02	5.56E+02	3.17E-08	6.99E-08
	14EBR	14EBR12	9.10E-11	2.01E-10	9.21E+02	9.21E+02	8.38E-08	1.85E-07
	14WBT	14WBT1	2.69E-09	5.18E-09	5.53E+04	5.53E+04	1.49E-04	2.86E-04
	14WBT	14WBT2	2.95E-09	5.66E-09	2.24E+04	2.24E+04	6.62E-05	1.27E-04
	14WBT	14WBT3	3.85E-09	7.40E-09	1.15E+04	1.15E+04	4.42E-05	8.48E-05
	14WBT	14WBT4	5.17E-09	9.94E-09	6.93E+03	6.93E+03	3.59E-05	6.89E-05
	14WBT	14WBT5	6.14E-09	1.18E-08	5.60E+03	5.60E+03	3.44E-05	6.61E-05
	14NBR	14NBR1	3.01E-09	2.67E-09	7.16E+02	7.16E+02	2.15E-06	1.91E-06
	14NBR	14NBR2	1.57E-09	1.39E-09	3.50E+02	3.50E+02	5.48E-07	4.86E-07
	14NBR	14NBR3	1.15E-08	1.02E-08	2.64E+03	2.64E+03	3.04E-05	2.70E-05
	14NBR	14NBR4	3.51E-09	3.12E-09	9.00E+02	9.00E+02	3.16E-06	2.81E-06
	14NBR	14NBR5	2.05E-08	1.82E-08	8.19E+03	8.19E+03	1.68E-04	1.49E-04
	14NBR	14NBR6	9.48E-09	8.42E-09	6.11E+03	6.11E+03	5.79E-05	5.14E-05
	14NBR	14NBR7	5.44E-09	4.83E-09	3.40E+03	3.40E+03	1.85E-05	1.64E-05
	14NBR	14NBR8	4.90E-09	4.35E-09	3.71E+03	3.71E+03	1.82E-05	1.61E-05
	14NBR	14NBR9	1.62E-08	1.44E-08	2.98E+04	2.98E+04	4.83E-04	4.29E-04
Rt 5s and West Drwy	13EBT	13EBT1	4.49E-09	9.86E-09	5.60E+02	5.60E+02	2.51E-06	5.52E-06
	13EBT	13EBT2	3.88E-09	8.53E-09	5.43E+02	5.43E+02	2.11E-06	4.63E-06
	13EBT	13EBT3	3.74E-09	8.21E-09	5.87E+02	5.87E+02	2.20E-06	4.82E-06
	13EBT	13EBT4	3.44E-09	7.55E-09	6.01E+02	6.01E+02	2.07E-06	4.54E-06
	13EBR	13EBR1	2.66E-10	4.06E-10	8.35E+02	8.35E+02	2.22E-07	3.39E-07
	13EBR	13EBR2	2.40E-10	3.66E-10	8.46E+02	8.46E+02	2.03E-07	3.09E-07
	13EBR	13EBR3	6.98E-11	1.06E-10	2.64E+02	2.64E+02	1.84E-08	2.81E-08
	13EBR	13EBR4	4.82E-10	7.36E-10	1.78E+03	1.78E+03	8.59E-07	1.31E-06
	13EBR	13EBR5	4.25E-11	6.48E-11	1.57E+02	1.57E+02	6.68E-09	1.02E-08
	13EBR	13EBR6	6.95E-11	1.06E-10	2.61E+02	2.61E+02	1.81E-08	2.77E-08
	13EBR	13EBR7	3.54E-10	5.40E-10	1.42E+03	1.42E+03	5.02E-07	7.66E-07
	13EBR	13EBR8	7.19E-11	1.10E-10	3.12E+02	3.12E+02	2.24E-08	3.43E-08
	13EBR	13EBR9	7.19E-11	1.10E-10	3.19E+02	3.19E+02	2.29E-08	3.50E-08
	13WBL	13WBL1	9.50E-10	1.62E-09	8.20E+02	8.20E+02	7.79E-07	1.33E-06
	13WBL	13WBL2	9.19E-10	1.57E-09	7.12E+02	7.12E+02	6.55E-07	1.12E-06
	13WBL	13WBL3	4.74E-10	8.08E-10	3.53E+02	3.53E+02	1.67E-07	2.85E-07
	13WBL	13WBL4	2.28E-09	3.89E-09	1.65E+03	1.65E+03	3.77E-06	6.43E-06
	13WBL	13WBL5	3.69E-10	6.29E-10	1.64E+02	1.64E+02	6.06E-08	1.03E-07
	13WBL	13WBL6	5.25E-10	8.97E-10	2.37E+02	2.37E+02	1.25E-07	2.13E-07
	13WBL	13WBL7	2.73E-09	4.65E-09	1.32E+03	1.32E+03	3.60E-06	6.14E-06
	13WBL	13WBL8	5.50E-10	9.38E-10	2.89E+02	2.89E+02	1.59E-07	2.71E-07
	13WBL	13WBL9	4.55E-10	7.76E-10	2.44E+02	2.44E+02	1.11E-07	1.89E-07
	13WBT	13WBT1	4.44E-09	5.84E-09	4.19E+02	4.19E+02	1.86E-06	2.45E-06
	13WBT	13WBT2	4.52E-09	5.94E-09	3.84E+02	3.84E+02	1.74E-06	2.28E-06
	13WBT	13WBT3	2.37E-09	3.11E-09	1.88E+02	1.88E+02	4.46E-07	5.86E-07
	13WBT	13WBT4	3.02E-09	3.98E-09	2.28E+02	2.28E+02	6.88E-07	9.05E-07
	13WBT	13WBT5	5.60E-09	7.36E-09	3.87E+02	3.87E+02	2.17E-06	2.85E-06
	13NBL	13NBL1	1.11E-10	1.13E-10	1.71E+02	1.71E+02	1.90E-08	1.93E-08
	13NBL	13NBL2	3.20E-10	3.26E-10	4.71E+02	4.71E+02	1.51E-07	1.54E-07
	13NBL	13NBL3	9.75E-11	9.94E-11	1.30E+02	1.30E+02	1.27E-08	1.30E-08
	13NBL	13NBL4	8.67E-11	8.84E-11	1.14E+02	1.14E+02	9.90E-09	1.01E-08
	13NBL	13NBL5	3.31E-10	3.38E-10	4.43E+02	4.43E+02	1.47E-07	1.50E-07
	13NBL	13NBL6	9.66E-11	9.85E-11	1.30E+02	1.30E+02	1.26E-08	1.28E-08
	13NBL	13NBL7	9.43E-11	9.61E-11	1.28E+02	1.28E+02	1.20E-08	1.23E-08
	13NBL	13NBL8	3.06E-10	3.12E-10	3.95E+02	3.95E+02	1.21E-07	1.23E-07
	13NBL	13NBL9	2.80E-10	2.86E-10	3.22E+02	3.22E+02	9.02E-08	9.19E-08
	13NBR	13NBR1	6.13E-10	8.11E-10	3.42E+02	3.42E+02	2.09E-07	2.77E-07
	13NBR	13NBR2	1.73E-09	2.30E-09	9.06E+02	9.06E+02	1.57E-06	2.08E-06
	13NBR	13NBR3	5.90E-10	7.81E-10	2.90E+02	2.90E+02	1.71E-07	2.26E-07
	13NBR	13NBR4	5.12E-10	6.78E-10	2.48E+02	2.48E+02	1.27E-07	1.68E-07
	13NBR	13NBR5	2.32E-09	3.08E-09	1.15E+03	1.15E+03	2.67E-06	3.54E-06
	13NBR	13NBR6	4.88E-10	6.46E-10	2.44E+02	2.44E+02	1.19E-07	1.57E-07
	13NBR	13NBR7	1.89E-09	2.50E-09	1.04E+03	1.04E+03	1.96E-06	2.60E-06
Area Sources	CA	CA	4.12E-07	2.20E-07	3.46E+05	3.46E+05	1.42E-01	7.60E-02
	TA	TA	3.97E-09	4.52E-09	3.04E+05	3.04E+05	1.21E-03	1.37E-03
						Total	0.15	7.98E-02
						DAR-1 Threshold	27	1.30E-01
						Exceeds Threshold?	N	N

Notes:

1. Short-term benzene emission rate conservatively based on worst-case time period and season (January PM).
2. Mass emission limits based on DAR-1 AGC/SGC tables provided under 6 NYCRR Part 212
3. Annual benzene emission rate based on the weighted average of each time period and season analyzed to account for the variance of emission rates.

Conversions:

8,760 hr/yr
453.59 g/lb

Abbreviations:

CO carbon monoxide
PM2.5 (particulate matter 2.5 microns or less in diameter)
PM10 (particulate matter 10 microns or less in diameter)
NOX (nitrogen oxides)
g/s (grams per second)
$g/s\text{-}m^2$ (grams per second per square meter)

Bluewater Property Group - MSV1
Town of Florida, New York
Air Quality Dispersion Modeling Results

Table 13. Air Quality Dispersion Modeling Results Summary

Pollutant	Averaging Period	Maximum Downstream Concentration[1]	EPA Background Concentration	NYSDEC Background Concentration[2]	Total Concentration[3]	Primary NAAQS	Secondary NAAQS	Units
CO	1-hour	543.36	3,091.5	2,999.9	3,543.3	40,075	--	ug/m^3
	8-hour	166.96	2,748.0	1,946.5	2,113.5	10,305	--	ug/m^3
NO_2	1-hour	17.78	112.8	104.7	122.5	188	--	ug/m^3
	Annual	0.38	35.7	25.3	25.7	100	100	ug/m^3
$PM_{2.5}$	24-hour	2.05	40.0	24.0	26.1	35	35	ug/m^3
	Annual	0.69	10.5	8.0	8.7	9	15	ug/m^3
PM_{10}	24-hour	6.48	17	70	76.5	150	150	ug/m^3

Notes:

1. Maximum downstream concentrations estimated from AERMOD.
2. Background concentrations obtained from NYSDEC Ambient Air Quality Report 2023. Specifically, Albany (PM2.5) and Queens (NO2, CO, PM10).
3. Total concentration = Max year of the Maximum downstream concentration + NYSDEC Background Concentration.

Conversions:

1.88 ug/m^3 / ppb NO_2
1145 ug/m^3 / ppm CO

Abbreviations:

CO carbon monoxide
PM2.5 (particulate matter 2.5 microns or less in diameter)
PM10 (particulate matter 10 microns or less in diameter)
NO2 (nitrogen dioxide)
NAAQS (National Ambient Air Quality Standards)
ug/m^3 (microgram per cubic meter)
ppm (parts per million)
ppb (parts per billion)

APPENDIX 13

Natural Resources Survey/Assessment

for

MSV1 – Amazon Distribution Center
NYS Route 5S
Town of Florida, New York

April 21, 2025

Prepared by:

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Stratton, VT 05360
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Table of Contents

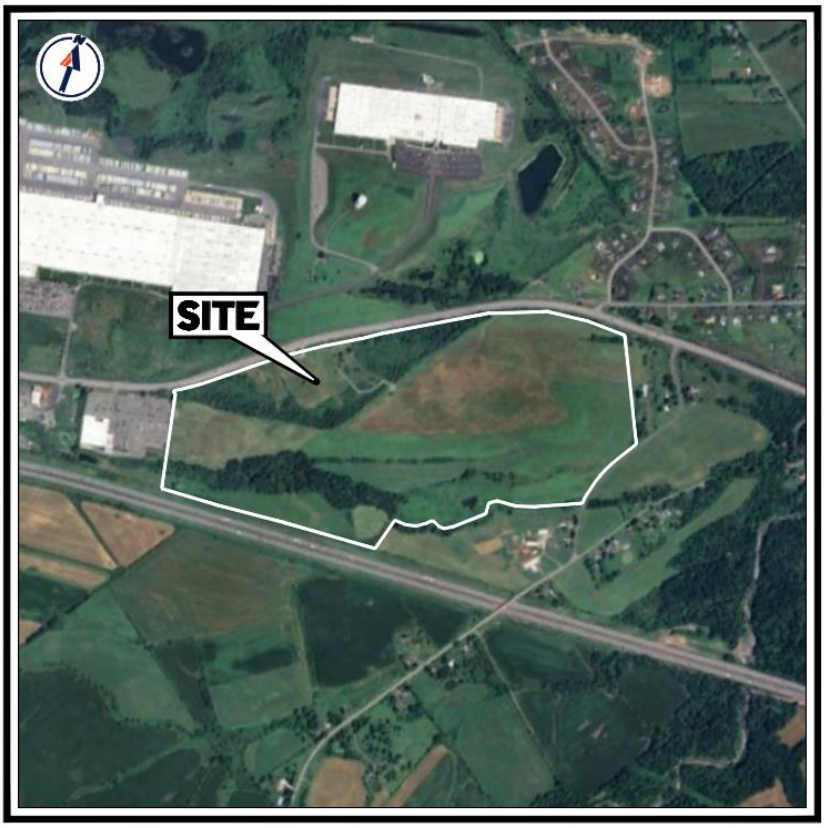
	Page
1.0 INTRODUCTION	1
2.0 METHODS	2
2.1 Agency Correspondence/Inquiry	2
2.2 Ecological Community and Habitat Field Inventory	2
2.2.1 Rare Plants	3
2.3 Wildlife Field Inventory	3
3.0 WETLAND IDENTIFICATION	4
3.1 Wetland Delineation	4
3.2 Wetland Functional Evaluation	4
3.3 Anticipated Impacts to Wetlands	6
3.4 Wetland Mitigation	7
4.0 FINDINGS	**8**
4.1 Habitat	8
4.1.1 Terrestrial System	8
4.1.2 Palustrine System	9
4.2 Wildlife	10
4.2.1 Birds	10
4.2.2 Mammals	10
4.2.3 Herptiles (Reptiles and Amphibians)	10
5.0 POTENTIAL THREATENED/ENDANGERED SPECIES	**12**
5.1 Northern long-eared bat (NLEB)	12
5.2 Tri-colored bat	13
5.3 Monarch butterfly	13
6.0 ANTICIPATED IMPACTS	**15**
6.1 Impacts to Vegetation and Cover Types	15
6.2 Impacts to Wildlife	15
7.0 MITIGATION MEASURES	**16**
7.1 Mitigation for Impacts to Vegetation and Cover Types	16
7.2 Mitigation for Wildlife Impacts	16

List of Attachments

Attachment 1 - MSV1 Site Plan
Attachment 2 - 2019 Wildlife Habitat Assessment
Attachment 3 - Existing Plant Communities
Attachment 4 - Representative Site Photographs
Attachment 5 - Statement of Receipt of payment to The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Program: Credit Transaction Letter

1.0 INTRODUCTION

Ecological Solutions, LLC completed an updated Natural Resources Report for Tax Lot 54.-1-36 containing approximately 137± acres (Site) located on NYS Route 5 in the Town of Florida, Montgomery County New York. The Applicant, BMG Albany, LLC ("BMG"), is proposing to amend an approval granted by the Town of Florida Planning Board for an ecommerce with a footprint of approximately 652,000 square feet ("SF") and 3.2 million SF of gross floor area, respectively, and other related site improvements, including accessory parking for employee vehicles and trucks, stormwater control measures, utility lines, dark-sky compliant lighting, signage and landscaping served by municipal sewer and water services (*Attachment 1*).



This report updates and expands upon an August 22, 2019 Wildlife Habitat Assessment (2019 Report) completed by AECOM for the 1,000,000 SF Warehouse project approved by the Town of Florida Planning Board in December 2019 (Refer to Attachment 2)

The findings of this report is generally consistent with the findings of the 2019 Report and document that habitat, wildlife and threatened and endangered species issues related to site development have remain unchanged between 2019 and the present.

Wetland impacts for the Project required a US Army Corps of Engineers (USACE) Permit for the unavoidable disturbance of 1.9 acres. Mitigation of the wetlands impacts has been provided for the disturbed wetlands as required by the USACE permit and the permit was recently extended. The New York State Department of Environmental Conservation (NYSDEC) has confirmed that the project is not subject to that agency's potential wetlands jurisdiction during a transition period that ends on January 1, 2028.

The data contained in this report was gathered during field visits on March 24, April 4, and April 9, 2025 and totaled about 20 man hours during seasonable weather conditions. Through these site visits the entire site was extensively evaluated. The purpose of the

inventory was to document existing vegetation and habitat cover types, plant species, and wildlife species on the site.

This field investigation supplements the field investigations completed as part of the 2019 Report, which included assessment of wildlife cover mapping, vegetative inventories, and wildlife observation surveys completed by AECOM field ecologists in late Fall of 2018, with a supplementary review in April of 2019.

Additional wildlife species may be located on the site at some time during their life cycle but are most likely transient. There is no species that is supported wholly by the habitats on this site.

2.0 METHODS

2.1 Agency Correspondence/Inquiry

As part of the environmental review for the subject site, Ecological Solutions, LLC, reviewed the Environmental Assessment Form Mapper regarding the status of NYSDEC-designated rare, threatened, or endangered species potentially on the site. No NYSDEC-protected species were identified. The US Fish and Wildlife Service (USFWS) IPaC for threatened and endangered species indicates that there are three Federally species that may be located on or in the vicinity of the site Northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus)* and the monarch butterfly (*Danaus plexippus*).

The tricolored bat and the monarch butterfly are still proposed for listing, and there was no requirement to consult for these species during the permitting process. No suitable habitat for other State or Federal species was identified during any of the site visits and no such species were observed. No NYSDEC designated “species of special concern” were observed on the site.

2.2 Ecological Community and Habitat Field Inventory

The vegetation inventory included identification of ecological communities or habitat cover types. Cover type surveys were conducted by first reviewing aerial photographs of the site and adjacent properties and subsequently by investigating the habitats on the site to identify and classify each.

Within each cover type, visual searches for herbaceous and woody plant species or parts thereof, including remnants of leaves, bark, twigs, seeds, flowers, fruits, or other identifiable plant structures (seasonally limited) were conducted to identify and document vegetation on the site. Trees, shrubs, and fall flowering plants were identified to species levels where possible based on plant remains. Refer to Attachment 3 – Existing Plant Community Map and Attachment 4 – Site Photographs for the location and representative photographs of the plant communities

2.2.1 Rare Plants

Based on previous field surveys which were conducted during the wetland delineation in May 2019 no federally listed or State listed threatened, endangered, or rare plant species were identified on the site.

2.3 Wildlife Field Inventory

Seasonally limited field surveys were conducted and identified general wildlife species including mammals, birds, and herpetiles (reptiles and amphibians). Methods used are outlined below.

A. **Mammals**. The following survey methods were utilized during the field survey:

1. Sign search, in which the observer records any recognizable signs (tracks, droppings, hair, bones, etc.) of mammal species.
2. Opportunistic mammal sightings, in which the observer identifies mammals encountered in the field at random.

Mammals were identified based on visual encounters, vocalizations, tracks, fur, bones, rubs, scrapes, droppings, and other recognizable signs in habitats throughout the site. Sampling routes were established throughout the site and wildlife was recorded as encountered.

B. **Birds.** Field methods used to survey for avian species included:

1. Walking transects where the observer records all species encountered (seen/heard) along a trail.
2. Opportunistic bird sighting, where the observer records birds encountered randomly.
3. Sign search, where the observer records signs (feathers, old nests, droppings, tracks, etc.) of birds encountered in the field.

C. **Herptiles (Reptiles and Amphibians)**. Field methods used to survey for herptile species included:

1. Log rolling (overturning logs, large stones, and other debris to reveal herptiles underneath).
2. Aural surveys were conducted for vocal herptiles and if found were identified by visual encounter, vocalizations, spermatophores, egg masses, and remains.

3.0 WETLAND IDENTIFICATION

3.1 Wetland Delineation

A Federal wetland delineation was completed on the site in 2019 in accordance with the Routine Delineation Method outlined in the *US Army Corps of Engineers* (USACE) *Wetlands Delineation Manual, Technical Report Y-87-1*[1] and supplement and confirmed by the USACE. Wetland boundaries were field confirmed on April 4, 2025.

There have been no changes to wetland boundaries per the original delineation completed in May 2019.. By email dated March 5, 2025, NYSDEC confirmed that new agency jurisdiction over wetlands, effective January 1, 2025, does not apply to the project during a transitional period ending December 31, 2028.

3.2 Wetland Functional Evaluation

An assessment of wetland functions and values was conducted on the wetland that was identified and delineated on the referenced site. Using a widely accepted method for wetland functions and values assessment developed by the New England District, U.S. Army Corps of Engineers (USACE), 13 distinct wetland functions and values were assessed for the delineated wetlands on the site. This method yielded an objective, descriptive quality index of each wetland rather than a subjective quantified rating of each wetland. This assessment had two major objectives:

1. Objectively identify the functions and values provided by the wetland identified on the site, and
2. Provide baseline data with which the Applicant could work in planning land uses, and against which the Applicant could assess potential impacts of proposed development of the site.

The descriptive quality index of the wetland, based on this methodology, is summarized in this report.

Wetland functions are chemical, physical, and biological processes that wetlands naturally perform, such as absorption of nutrients or floodwaters, or provision of habitat for fish and wildlife. Wetland values are the benefits that society derives from wetland functions, such as flood abatement, or water quality maintenance.

The functions and values assessment was based on the method outlined in *The Highway Methodology Workbook Supplement: Wetland Functions and Values, A Descriptive Approach*, by the *U.S. Army Corps of Engineers New England District*. This method was selected over an arbitrary numeric quantifying assessment scheme because it provides an objective, descriptive approach to functions and values assessment based on professional

[1] (U.S. Army Corps of Engineers Environmental Laboratory, 1987) (1987 Federal Manual)

observation and judgment rather than a simple numeric value rating system. Quantified functions and values assessments do not always provide for descriptive information about wetlands and therefore may overlook important aspects of wetland functions and values.

The Highway Method provides for assessment of each wetland for thirteen defined functions and values. Of these, the first eight are considered wetland functions, and the last five are considered to be wetland values. These are:

1. Groundwater Recharge/Discharge – the potential for a wetland to serve as a recharge area for an aquifer or as a surface discharge point for groundwater.

2. Floodflow Attenuation– A wetland's ability to store and attenuate floodwaters during prolonged precipitation events, thereby reducing or preventing flood damage.

3. Fish and Shellfish Habitat – The ability of permanent or temporary water bodies to provide suitable habitat for fish or shellfish.

4. Sediment/Toxicant/Pathogen Retention – The effectiveness of the wetland in trapping sediments, toxicants or pathogens, thereby protecting water quality.

5. Nutrient Removal/Retention/Transformation – The effectiveness of the wetland at absorbing, retaining, and transforming or binding excess nutrients, thereby protecting water quality.

6. Production Export – The wetland's ability to produce food or usable products for humans or other living organisms.

7. Sediment/Shoreline Stabilization – The wetland's ability to prevent erosion and sedimentation by stabilizing soils along stream banks or the shorelines of water bodies.

8. Wildlife Habitat – The ability of wetlands to provide food, water, cover, or space for wildlife populations typically associated with wetlands or their adjacent areas, both resident and migratory.

9. Recreation – The value placed on a wetland by society for providing consumptive and non-consumptive as well as active or passive recreational opportunities such as canoeing/boating, fishing, hunting, bird/wildlife watching, hiking, etc.

10. Education/Scientific Value – The value placed on a wetland by society for providing subjects for scientific study or research or providing a teaching resource for schools.

11. Uniqueness/Heritage – The value placed on a wetland by society for having unique characteristics such as archaeological or historical value, unusual aesthetic qualities, or unique plants, animals, or geologic features, etc.

12. Visual Quality/Aesthetics – The value placed on a wetland by society for having visual and/or other aesthetic qualities.

13. Threatened or Endangered Species Habitat – The value placed on a wetland by society for effectively harboring or providing habitat for threatened or endangered species.

Findings of the assessment are outlined below:

The wetland area that will be impacted receives water primarily through overland sheet flow and drains off the site to the Route 5S drainage swale system. Hydrological indicators identified within the wetland included soil saturation, watermarks, drift lines, drainage patterns, and water stained leaves.

This wetland is typical of a highly impacted agricultural wetland that has recently been abandoned. The wetland to be impacted is adjacent to Route 5S and two existing residences and cropland to the south. Functions and values provided by these wetlands include floodflow attenuation, sediment trapping, nutrient removal, and wildlife habitat. Of these, the most significant functions based on extent of rationale in identifying functions and values, are floodflow attenuation and sediment trapping (*Attachment*).

Wildlife usage noted in these wetlands is consistent with deer tracks observed in the substrate as well as fox and coyote tracks and other mammals. Common bird species would also utilize the wetland for nesting and foraging as evidenced by nest remains of gold finch and robin. Potential for salamander, wood frogs, green frogs, and other amphibians is limited due to the lack of vernal pool habitat and supporting uplands however the man made pond is habitat for green and bullfrogs.

3.3 Anticipated Impacts to Wetlands

The proposed site development was issued a USACE Permit No. NAN-2019-00679-USH for the permanent filling of 1.9 acres of wetlands. Mitigation required by the USACE for these wetland impacts was completed on August 26, 2020. Refer to the *Statement of Receipt of payment to The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Program: Credit Transaction Letter (Attachment 4)*

NYSDEC waived Clean Water Act Water Quality Certification for the wetland impacts covered by the USACE permit due to failure to respond with a reasonable period.

The remaining regulated wetlands on the site will continue to provide the same functional benefits after completion of the proposed development of the site including: maintenance of flood, erosion and storm control; control of pollution and sedimentation; and provision of area for wildlife habitat. will allow the hydrology of the wetland to remain intact. The wetland mitigation area will contribute to any lost wetland function resulting from impacts.

Short-term physical impacts to regulated wetlands on the site will be minimized by the use of erosion controls throughout the site especially in critical areas adjacent to regulated wetlands. No NYSDEC regulated watercourse will be impacted as a result of the proposed development.

3.4 Wetland Mitigation

Mitigation

Wetland mitigation was required by the USACE for the permanent wetland fill associated with the Project. Mitigation required by the USACE for these wetland impacts was completed on August 26, 2020. The current owner or the property, WE Acquisitions LLC, completed the purchase of 2.3 wetland credits form the Wetland Trust for $225,450. Refer to the *Statement of Receipt of payment to The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Program: Credit Transaction Letter (Attachment 3)*

Stormwater Measures

A Stormwater Pollution Prevention Plan (SWPPP) prepared by Bohler Engineering details the steps necessary to control stormwater generated on the site as a result of increased impervious surfaces. According to the report, the site has been designed to facilitate stormwater movement and purification especially for salt and sand use on site roads.

Land areas that are not collected by the stormwater management system will sheet flow off the site through natural patterns and surface conditions. The creation of detention basins will function to maintain post-development peak stormwater discharges to at and below their pre-development levels.

The proposed development is designed to integrate the existing runoff patterns and natural features with little disturbance. The natural features on-site will provide environmentally preferred stormwater management mitigation by improving runoff quality through the use of open-channel/wetland filtration, absorption, and evaporation.

The stormwater analysis illustrates that the proposed system will function properly, provide water quality enhancements, and require minimal maintenance to insure continued performance. During construction appropriate soil erosion and sediment control measures will reduce any potential impacts to these regulated resources.

4.0 FINDINGS

4.1 Habitat

There is several distinct dominant cover types identified on the site. Approximate physical impacts to each habitat type are shown and listed in *Table 1* as identified in the project Environmental Assessment Form and as described by (Edinger et al 2014).

Table 1
Habitat Cover Type Impacts

NO.		Acres Identified (Approximate)	Proposed Impacts
1	Mesophytic Forest	20+/-	10
2	Wetland Complex	16.5+/-	1.8
3	Agricultural/Successional Field	100 +/-	95+/-

4.1.1 Terrestrial System

The terrestrial system consists of upland habitats. These habitats have well-drained soils that are dry to mesic (never hydric), and vegetative cover that is never predominantly hydrophytic, even if the soil surface is occasionally or seasonally flooded or saturated. In other words, this is a broadly defined system that includes everything except aquatic, wetland, and subterranean communities.

Mesophytic Forest

This ecological community is composed of hardwood or mixed forest typically on a well-drained soil. The forest canopy may consist of a variety of trees including; quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), black cherry (*Prunus serotina*), black birch (*Betula lenta*) and sugar maple (*Acer saccharum*).

This forest segment also has a well-developed shrub layer and species rich herbaceous layer with characteristic species including American hornbeam (*Carpinus caroliniana*), witch hazel (*Hamamelis virginiana*), and vines. Most of the trees are generally in the 4-8 inch dbh range and are in moderate health.

Agricultural/Successional Field

This land use/cover type consists of areas that are actively cultivated to produce crops such as corn, or hayfield. This land use and variable cover type can at times offer moderate wildlife habitat, primarily in the form of seasonally available food sources. The agricultural fields are intermixed with successional fields which are characterized by transitional species with a grasses and shrubs.

4.1.2 Palustrine System

The palustrine system consists of non-tidal, perennial wetlands characterized by emergent vegetation. The system includes wetlands permanently saturated by seepage, permanently flooded wetlands, and wetlands that are seasonally or intermittently flooded (these may be seasonally dry) with vegetative cover that is predominantly hydrophytic with hydric soils. Wetland communities on the site are distinguished by their plant composition (hydrophytes), substrate (hydric soils), and hydrologic regime (frequency of flooding).

Wetland Complex

Wetland habitat consists of areas dominated by wetland shrub species and saplings of wetland tree species to form dense thickets. Depending on the hydrologic regime, these areas may also exhibit some lesser components of upland and/or invasive shrub and non-woody species.

Shrub areas are generally dominated by shrubs such as silky dogwood, gray dogwood (*Cornus racemosa*), Northern arrowwood, black willow, and saplings of red maple (*Acer rubrum*), Eastern cottonwood (*Populus deltoides*), and green ash (*Fraxinus pennsylvanica*),.

Common reed and purple loosestrife are locally abundant and may occur with other species such as willow herb (*Epilobium sp*.), sensitive fern (*Onoclea sensibilis*) and moneywort (*Lysimachia nummularia*). Vines such as poison ivy (*Toxicodendron radicans*) and fox grape (*Vitis labrusca*) are also present at varying densities.

Depending on landscape position, time of year and recent climatological conditions, standing water may or may not be present. These habitat types are generally adjacent to and interspersed with other wetland habitat types and contribute to the site's overall habitat structural diversity and complexity.

Wildlife utilization of these areas observed in 2019 and mostly confirmed in seasonally limited surveys in 2025 includes avian species commonly found in a variety of habitats, including scrub/shrub thickets and includes the black-capped chickadee, tufted titmouse, Northern cardinal, and blue jay, as well as species more typically associated with wetland habitats

such as the red-winged blackbird, common grackle, and great blue heron. Amphibians such as the green frog utilize this habitat type, as well as mammals such as raccoon and white-tailed deer.

4.2 Wildlife

4.2.1 Birds

The following are the birds identified using the site: chickadee, juncos, blue jay, turkey vulture, great blue heron.

4.2.2 Mammals

The following is a list of mammals identified using the site: white tailed deer, red fox, coyote, raccoon.

4.2.3 Herptiles (Reptiles and Amphibians)

There were no herpetiles identified on the site to this point this year:

5.0 POTENTIAL THREATENED/ENDANGERED SPECIES

5.1 Northern long-eared bat (NLEB)

The NLEB typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by NLEBs as a roost.

The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to NLEBs than a particular tree species or habitat type.

Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas.

However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for NLEB, some of which may fly up to 2-5 miles from upland roosts on a regular basis. NLEBs also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.,* old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While NLEBs appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Conclusion - No hibernacula were observed on the site. Activities during construction will include clearing trees, grading and earth-moving, building construction, addition of electric lights, increasing impervious surface area and altering site drainage. These actions may result in direct and indirect minimal effects on NLEB bats by altering the quality and quantity of the small amount of existing summer habitat on the site (mesophytic forest).

Such alterations include generating noise, generating dust, decreasing water quality, and creating visual disturbances. All of the proposed tree clearing will take place between November 1 and March 31 the time that this species is in hibernation so no individuals of the species will be directly harmed by the site construction. The proposed conservation measures to be employed so that there is no adverse impact to this species include:

- Site lighting will use approved light fixtures that have tops that direct light down to minimize light pollution and which are designed to not interfere with potential bat foraging activities;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti-tracking pads to prevent erosion and sedimentation to surface waters;
- Prior to clearing, the limits of proposed clearing will be clearly demarcated on the site with orange construction fencing (or similar) to prevent inadvertent over clearing of the site, and;
- Stormwater pond/s if required will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

5.2 Tri-colored bat

As per the NYSDEC Natural Heritage Program "Wooded riparian areas are likely an important foraging habitat for this species during the summer" and they may select roosts in buildings, crevices of cliffs and rocks, or in or below the canopy of live or recently dead trees that retain some dead or live leaves.

Conclusion – Similar to the NLEB the proposed conservation measures to be employed so that there is no adverse impact to this species include:

- Site lighting will use approved light fixtures that have tops that direct light down to minimize light pollution and which are designed to not interfere with potential bat foraging activities;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti-tracking pads to prevent erosion and sedimentation to surface waters;
- Prior to clearing, the limits of proposed clearing will be clearly demarcated on the site with orange construction fencing (or similar) to prevent inadvertent over clearing of the site, and;
- Stormwater pond/s if required will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

5.3 Monarch butterfly

Monarchs, like all other butterflies and moths, go through egg, larval (caterpillar), chrysalis (pupa), and adult stages. Monarch caterpillars ingest milkweed that contains a toxic compound. The presence of this toxin is used by the monarch butterfly as a defense against predators.

In late August, masses of monarch butterflies begin an epic migration stretching thousands of miles from areas across the United States and as far north as Canada (east of the Rocky Mountains) to overwinter in mountaintops of Central Mexico.

Conclusion – The site is large and contains agricultural lands that are not often utilized by Monarchs which require milkweed plants to lay eggs for the larvae to feed. It is not clear how extensively monarch butterfly could use the site. As a measure to promote use it would be useful to plant/seed milkweed onto the site wherever possible.

6.0 ANTICIPATED IMPACTS

The proposed development and its appurtenant features will necessarily require clearing of upland forest and agricultural land. Earth moving (excavation, filling, and grading), operation of heavy machinery, construction, alteration of existing drainage patterns, addition of impervious surfaces, changes in traffic patterns, and increased human activity will occur on the subject site. Anticipated impacts from these activities are outlined below.

6.1 Impacts to Vegetation and Cover Types

1. **Mesophytic Forest Loss.** The proposed activities will require the removal of approximately 10 acres or 50% percent of this cover type from the site.
2. **Wetland Complex.** Approximately 1.8 acres of impact is associated with the proposed project, which has been authorized by USACE Permit No. NAN-2019-00679-USH
3. **Agricultural/Successional Field**. The proposed activities will result in a net loss of approximately 30 acres, with a large portion of the agricultural field allow to revert to successional fields.

6.2 Impacts to Wildlife

General Direct impacts to wildlife biodiversity from the proposed development will primarily be displacement and some direct loss especially to species that spend a large percentage of their life cycle underground. All of the species found and likely to be found on the site are typically found in this local area and will have already adapted to proximal human habitation. Most species are likely migratory using the site as needed. These species will remain on available lands in the vicinity of the site which will remain connected especially along the Chuctanunda creek.

Threatened/Endangered Species. Please see Section 5.0. No other threatened or endangered species from the USFWS list or identified by the NYSDEC have the potential to be on the site.

7.0 MITIGATION MEASURES

As noted above, mitigation of impacts relating to the wetland filling has been completed as required by USACE Permit No. NAN-2019-00679-USH. In addition, mitigation measures for the potential impacts are outlined below.

7.1 Mitigation for Impacts to Vegetation and Cover Types

The Applicant will minimize impacts by establishing undisturbed, naturally vegetated zones demarcated in the field by orange construction fencing and by clearing only necessary areas within the Limit of Disturbance area.

Native plantings could be useful as part of the site landscaping plan - i.e milkweed.

7.2 Mitigation for Wildlife Impacts

Wildlife displacement from the site will occur since most of the site will be impacted. However, approximately 90 acres or 65% will remain undeveloped and will include a mixture of landscape, wetlands, successional fields and forested areas.

In as much as possible earth moving and tree clearing activities should occur between November1 and March 31 to avoid any direct impacts to NLEBs, tri-colored bats potentially utilizing the site. In addition, no dyes or chemicals should be placed in stormwater detention facilities that could result in wildlife impacts. Fencing (surrounding stormwater basins, atop any retaining walls in excess of 30” in height, etc.) may impede wildlife movements. As mitigation a post and rail style fence should allow wildlife to traverse freely above, below, and through the site fencing.

Attachment 1
MSV1 Site Plan

ZONING TABLE

ZONE: C-2 COMMERCIAL/LIGHT INDUSTRIAL
USE: WAREHOUSE IS A SPECIAL PERMITTED USE
SECTION: 54. BLOCK: 1 LOT: 36

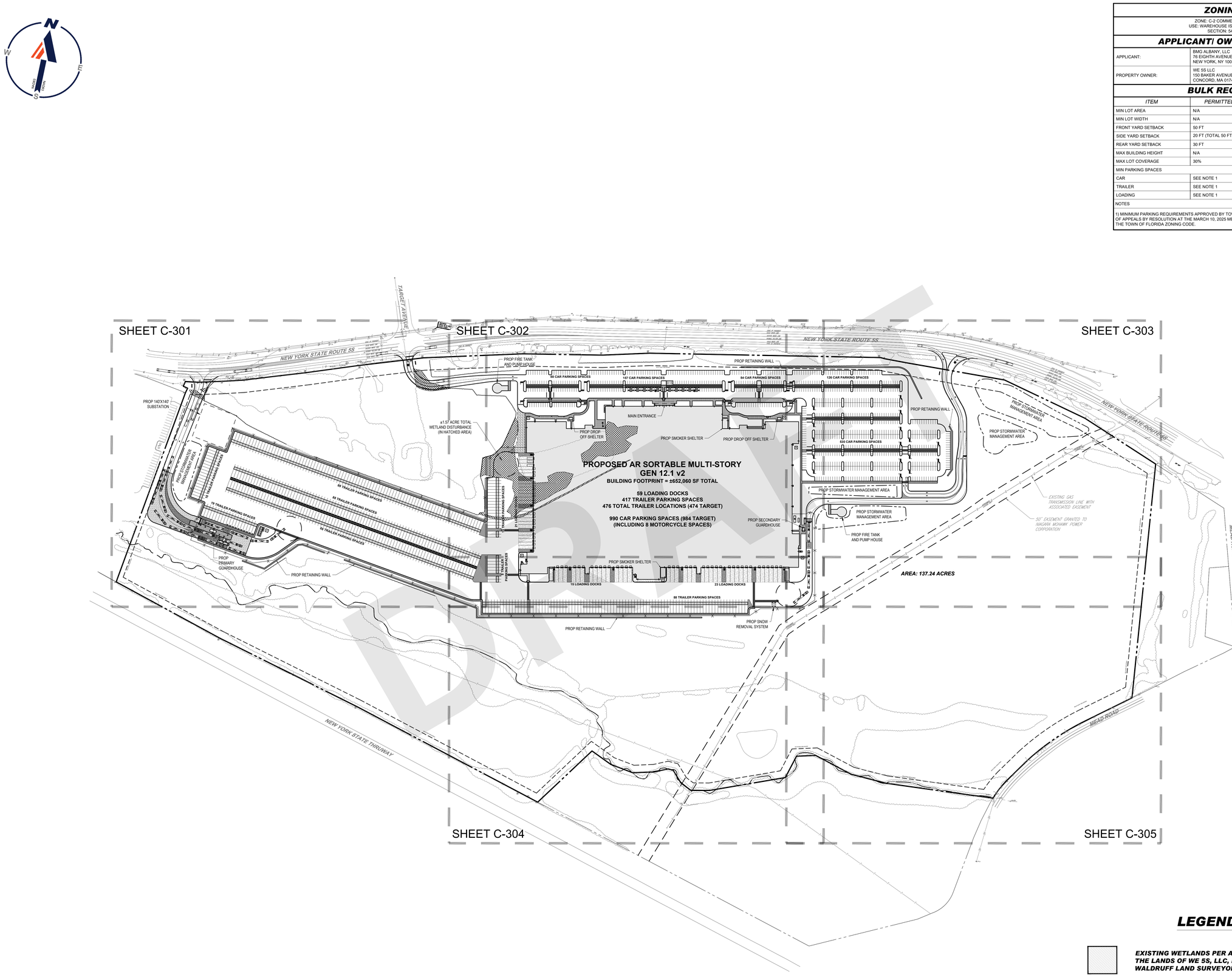
APPLICANT/ OWNER INFORMATION

APPLICANT:	BMG ALBANY, LLC 76 EIGHTH AVENUE 10TH FLOOR NEW YORK, NY 10011
PROPERTY OWNER:	WE 5S LLC 150 BAKER AVENUE EXT SUITE 303 CONCORD, MA 01742

BULK REQUIREMENTS

ITEM	PERMITTED	EXISTING	PROPOSED
MIN LOT AREA	N/A	5,978,128 SF (137.2 AC)	NO CHANGE
MIN LOT WIDTH	N/A	4,010.2 FT	NO CHANGE
FRONT YARD SETBACK	50 FT	31.2 FT	206.1 FT
SIDE YARD SETBACK	20 FT (TOTAL 50 FT)	760.8 FT	1370.6 FT
REAR YARD SETBACK	30 FT	1136.7 FT	713.4 FT
MAX BUILDING HEIGHT	N/A	±25 FT	103.5 FT
MAX LOT COVERAGE	30%	0%	11%
MIN PARKING SPACES			
CAR	SEE NOTE 1	N/A	990 SPACES
TRAILER	SEE NOTE 1	N/A	415 SPACES
LOADING	SEE NOTE 1	N/A	59 SPACES
NOTES		(V) =	VARIANCE REQUIRED

1) MINIMUM PARKING REQUIREMENTS APPROVED BY TOWN OF FLORIDA ZONING BOARD OF APPEALS BY RESOLUTION AT THE MARCH 10, 2025 MEETING PER SECTION 46 AND 47 OF THE TOWN OF FLORIDA ZONING CODE.



LEGEND

EXISTING WETLANDS PER ALTA/NSPS LAND TITLE SURVEY OF THE LANDS OF WE 5S, LLC, PREPARED BY AUSFIELD & WALDRUFF LAND SURVEYORS LLP

***CURRENT WETLAND DISTURBANCE FOR PROPOSED DISTRIBUTION FACILITY
TOTAL DISTURBANCE = ±1.57 ACRES***

150 75 37.5 0 150
1"=150'

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PRELIMINARY

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PROJECT No.:	NYB2401176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/24/2025
CAD I.D.:	P-CIVL-SITE

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER
PROPERTY GROUP

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

**ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36**

BOHLER
BOHLER PLANNING, LANDSCAPE ARCHITECTURE, ENGINEERING AND SURVEYING, PLLC
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ALBANY, NY 12205
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www.BohlerEngineering.com

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-300

ORG. DATE - 04/24/2025

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\\BOHLERENG.NET\SHARES\MA\PROJECTS\2024\NYB2401176.00\CAD\DRAWINGS\PLAN SETS\CIVIL SITE PLANS\P-CIVL-SITE.NYB2401176.00-0A——LAYOUT: C-300 OVERALL

Attachment 2
2019 Wildlife Habitat Assessment

AECOM Imagine it. Delivered.

Prepared For:
Winstanley Enterprises, L.L.C.
New Haven, CT

Prepared by:
AECOM
Rocky Hill, CT
August 2019

Wildlife Habitat Assessment

Winstanley Warehouse Facility
State Route 5S/Mead Road/Snooks Corners Road
Florida, NY

WE Acquisitions LLC
c/o 300 George Street
New Haven, CT. 06511

August 22, 2019

Contents

1.0 Introduction 1-1

2.0 Site Description 2-1

2.1 Description of Wildlife Habitat Cover Types 2-1
2.1.1 Upland Habitat Descriptions 2-2
2.1.2 Wetland Habitat Descriptions 2-4
2.1.3 Aquatic Habitat Areas 2-5
2.1.4 Expected and/or Observed State and Federal-Listed Species 2-6

3.0 Summary 3-6

4.0 References 4-7

List of Attachments

Attachment A Correspondence From NYNHP and USFWS IPaC System Results

List of Tables

Table 1 Observed and Potential Wildlife Species

List of Figures

Figure 1 Site Locus

Figure 2 Land Use and Wildlife Habitat Cover Types on the Site

1.0 Introduction

This report presents a wildlife habitat assessment of an assembly of parcels (the "Site") comprising approximately 160+/- acres along State Highway 5S, west of Mead Road and north of the New York State Thruway (Interstate 90) and an unnamed tributary to Chuctanunda Creek (**Figure 1**) in Florida, Montgomery County, New York.. The site and adjacent lands are primarily in current or former agriculture use, with some of the adjacent areas having been converted to large commercial development and residential subdivisions between 1995 and 2009 (based on inspection of available historic aerial photographs). Blocks of forested and shrub/sapling thickets and old field habitat are also interspersed throughout the area.

AECOM Technical Services, Inc. ("AECOM") performed desktop surveys to collect background information using state GIS and other available databases related to soil conditions, wetland/watercourses, state- and federal-listed species, cover types and wildlife habitats on the Site. Documentation of consultation with the New York Natural Heritage Program ("NYNHP", October 2, 2018) and the United State Fish and Wildlife Service ("USFWS") Information for Planning and Consultation system ("IPaC", August 13, 2018) is included herein as **Attachment A**.

AECOM also reviewed available site mapping and proposed site plans to ensure field efforts would be directed at appropriate locations based upon initial cover mapping of habitat conditions. Field investigations that included cover mapping, vegetative inventories, and wildlife observation surveys were carried out by AECOM field ecologists in late Fall of 2018, with a supplementary review in April of 2019.

2.0 Site Description

This section identifies wildlife resources that currently exist at the Site. The objective is to identify and describe the Site's existing wildlife habitat/ecological resources and evaluate these resources in the context of the surrounding landscape.

2.1 Description of Wildlife Habitat Cover Types

This wildlife habitat assessment identified existing habitat cover types and land uses on the site with the objective of identifying ecological resources in the context of the surrounding landscape. For classification purposes, the Site and surrounding areas are divided into ecological communities per the New York Natural Heritage Program (NYNHP) Classes (Edinger *et al.*, 2014) as indicated below. Numbers in parentheses after each ecological community type and/or land use/cover type represent the approximate acreage of each habitat on the Site. **Figure 2** identifies the location of each community/habitat type on an aerial photograph base map.

NYNHP Classes for Upland Areas:

- VI(A)30 Successional Old Field, (2.9 acres)
- VI(A)31 Successional Shrubland, (9.9 acres)
- VI(C)16 Rich Mesophytic Forest, (12.1 acres)
- VI(C)26 Successional Northern Hardwood Forest, (1.4 acres)

- VI(D)1 Crop land, row crops, (98.9 acres)
- VI(D)2 Crop land, field crops, (9.2 acres)
- VI(D)11,12 Residential, (includes buildings, lawn and areas of impervious surfaces (8.9 acres)

NYNHP Classes for Wetland Areas:

- V(A)2 Shallow Emergent Marsh, (0.2 acres)
- V(A)3 Shrub Swamp, (0.5 acres)
- Mixed Emergent/Shrub Swamp (12.3 acres)
- V(C)2 Red Maple-Hardwood Swamp (PFO), (3.0 acres)

NYNHP Classes for Riverine Areas

- III(A)3 Rocky Headwater Stream, (4,356 linear feet)

NYNHP Classes for Lacustrine Areas

- IV(B)5 Farm Pond/Artificial Pond, (0.4)

2.1.1 Upland Habitat Descriptions

As identified above, upland habitats on the Site are predominantly composed of active agricultural fields, fallow, successional old field habitat, successional shrubland and northern hardwood forest and rich mesophytic forest. Peripheral residential and riprap erosion control roadside areas also occur along Route 5S. A brief description of each ecological community and/or cover type is presented below. **Table 1** provides observed wildlife for habitat types described below, with the exception of Residential Areas, which is treated separately, and provides a list of wildlife which may potentially utilize these habitats based upon existing conditions.

Successional Old Field

This ecological community is defined as meadow habitat dominated by forbes and grasses that occurs on sites that have been cleared and plowed for farming or other development and then abandoned. Shrubs may be present, but collectively they have less than 50% cover in the community. This is a relatively short-lived community that succeeds to a shrubland, woodland, or forest community. This community may provide habitat for a variety of butterflies, birds typically associated with field and shrub communities, and small mammals. Examples from Edinger et. al., 2014 include black swallowtail, field sparrow, and meadow vole.

Successional Shrubland

This type of habitat occurs as successional old field habitats advanced in age and growth. Successional shrubland is similar to successional old field with the added development of shrub and sapling growth which dominates at least half of its aerial extent. The two habitats (i.e., successional old field and successional shrubland) are often found proximal to and interspersed with each other. This habitat is frequented by a number of bird species including gray catbird, brown thrasher eastern towhee, and song sparrow (Edinger et. al., 2014).

Rich Mesophytic Forest

This ecological community is composed of hardwood or mixed forest typically on a mineral rich, fine textured, well-drained soil. The forest canopy may consist of a variety of trees including; red oak (*Quercus rubra*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), American beech (*Fagus grandifolia*), black cherry (*Prunus serotina*), black birch (*Betula lenta*) and sugar maple (*Acer saccharum*). This forest also has a well-developed shrub layer and species rich herbaceous layer with characteristic species including American hornbeam (*Carpinus caroliniana*), maple-leaf viburnum (*Viburnum acerifolium*), witch hazel (*Hamamelis virginiana*), interrupted fern (*Osmunda claytoniana*), white baneberry (*Actaea pachypoda*), and early meadow rue (*Thalictrum dioicum*).

Successional Northern Hardwood Forest

This forest is a hardwood or mixed forest that occurs on sites that have been cleared or similarly disturbed. Codominant canopy species may include any of the following trees; quaking aspen (*Populus tremuloides*), big-toothed aspen (*P. grandidentata*), balsam poplar (*P. balsamifera),* paper birch (*Betula papyrifera*), gray birch (*Betula populifolia*), pin cherry (*Prunus pensylvanica*), black cherry and white pine (*Pinus strobus*), with lesser amounts of white ash, green ash (*Fraxinus pennsylvanica*), and American elm (*Ulmus americana*).

Cropland Row Crops

This land use/cover type consists of areas that are actively cultivated to produce crops such as corn, potatoes and soybeans or similar crops. This land use and variable cover type can at times offer moderate wildlife habitat, primarily in the form of seasonally available food sources.

Cropland Field Crops

This land use/cover type consists of areas that are actively cultivated to produce crops such as alfalfa, Timothy, oats and wheat and includes areas that are periodically rotated to pasture lands. This land use and variable cover type can at times offer moderate wildlife habitat, in the form of seasonally available food sources and limited cover. Both cropland categories are created and/or maintained by human activities such that exiting soils and vegetation are substantially different than the character of what occurred prior to manipulation by humans. Characteristic birds with varying abundance may include grasshopper sparrow, vesper sparrow, bobolink, and mourning dove (Edinger et. al., 2014).

Residential Areas

Residential areas are defined as mowed lawn with trees and residential buildings and support structures. This land use offers limited wildlife habitat value. Wildlife occurring in these upland areas are expected to be those typical of urbanized environments with high human disturbance, fragmented forest, and open fields of upstate New York. Typical wildlife species would include:

- **Birds**: American robin (*Turdus migratorious)*, mockingbird (*Mimus polyglottus*), mourning dove(*Zenaida macroura*), rock dove (*Colubia livia*), killdeer (*Chardrius vociferous*), European starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*); and

- **Mammals**: Whitefooted mouse (*Peromyscus leucopus*), deer mouse (*Peromyscus maniculatus*), meadow vole (*Microtus pennsylvanicus*), grey squirrel (*Sciurus carolinensis*), Eastern chipmunk (*Tamias striatus*), Eastern cottontail (*Sylvilagus floridanus*), raccoon

(*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), red fox (Vulpes vulpes), coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*) and white-tailed deer (*Odocoileus virginianus*).

2.1.2 Wetland Habitat Descriptions

This section provides a physical description of the wetland habitats as generally defined for the purposes of habitat cover mapping. **Table 1** also provides a list of observed wildlife and wildlife species which may potentially utilize these habitats based upon the conditions present.

Shallow Emergent Marsh

Palustrine emergent shallow marsh (PEM) habitats occur in areas with saturated soils and include areas of standing water to a depth of up to approximately three feet for some portion of the year. These hydrological conditions will vary seasonally and are also dependent on recent climatological conditions and biological factors, including the North American beaver, whose activity levels will vary over time based upon food resource availability. Small areas of water colonized by aquatic plants are included within the deeper portions of this habitat type and provide resources for reptiles, amphibians, fish and aquatic invertebrates.

Dominant herbaceous plant species within this habitat type include common reed (*Phragmites australis*), common cattail (*Typha latifolia*), soft rush (*Juncus effusus*), wool grass (*Scirpus cyperinus*), purple loosestrife (*Lythrum salicaria*), water horehound (*Lycopus americanus*), beggar-ticks (*Bidens frondosa*), smartweeds (*Polygonum spp.*), grass-leaved goldenrod (*Euthamia graminifolia*) and rough-stemmed goldenrod (*Solidago rugosa*). Patches of wetland shrubs and/or small trees such as black willow (*Salix nigra*), silky dogwood (*Cornus amomum*), and Northern arrowwood (*Viburnum dentatum*) are found along the margins and within this habitat type and reflect the wide range of growing conditions present.

Avian species observed in these habitats include wading birds such as green heron and great blue heron, waterfowl such as Canada goose, mallard, green-winged teal, blue-winged teal, pied-billed grebe and other species including osprey, belted kingfisher, Eastern kingbird, red-winged blackbird, swamp sparrow and common grackle. Amphibians and reptiles observed within this habitat include the spring peeper, green frog, Northern leopard frog and painted turtle. Sign of the North American beaver, raccoon, muskrat and white-tailed deer were also observed.

Palustrine Shrub Swamp

Palustrine scrub shrub/shrub swamp (PSS) habitats consist of areas dominated by wetland shrub species and saplings of wetland tree species combined with various lianas to form dense thickets. Depending on the hydrologic regime, these areas may also exhibit some lesser components of upland and/or invasive shrub and non-woody species. Areas of PSS are generally dominated by shrubs such as silky dogwood, gray dogwood (*Cornus racemosa*), Northern arrowwood, black willow, honeysuckle (*Lonicera spp.*) and common buckthorn (*Rhamnus cathartica*), and saplings of red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), Eastern cottonwood (*Populus deltoides*), green ash (*Fraxinus pennsylvanica*), black ash (*Fraxinus nigra*) and pin oak (*Quercus palustris*). Common reed and purple loosestrife are locally abundant and may occur with other species such as willow herb (*Epilobium sp.*), sensitive fern (*Onoclea sensibilis*) and moneywort (*Lysimachia nummularia*). Vines such as poison ivy (*Toxicodendron radicans*) and fox grape (*Vitis labrusca*) are also present at varying densities. Depending on landscape position, time of year and recent climatological conditions, standing water may or may not be present. These habitat types are generally adjacent to and

interspersed with other habitat types (PFO/PEM) and contribute to the site's overall habitat structural diversity and complexity.

Wildlife utilization of these areas includes avian species commonly found in a variety of habitats, including scrub/shrub thickets and includes the black-capped chickadee, tufted titmouse, Northern cardinal, and blue jay, as well as species more typically associated with wetland habitats such as the red-winged blackbird, common grackle, swamp sparrow, green heron and great blue heron. Amphibians such as the Northern leopard frog, green frog and spring peepers may utilize this habitat type, as well as mammals such as raccoon, muskrat, beaver and white-tailed deer. Other species likely to occur within this habitat type are indicated in **Table 1**.

Palustrine Forested Wetland

Palustrine forested wetlands (PFO) on the site are dominated by tree species such as red maple, silver maple, Eastern cottonwood, green ash, black ash, willow (Salix Sp.), American sycamore (*Platanus occidentalis*), slippery elm (*Ulmus rubra*) and pin oak. The forest canopy is subtended by an understory consisting of saplings of these tree species as well as shrubs such as silky dogwood, gray dogwood, black willow, Northern arrowwood, honeysuckle and common buckthorn. Overall canopy coverage varies and in forest openings, where sufficient light penetrates to the forest floor, herbaceous plants such as sedges (*Carex spp.*), rushes (*Juncus spp.*) and forbes such as asters (*Aster spp.*), goldenrods (*Solidago spp.*), purple loosestrife, moneywort, willow herb and sensitive fern can be found. Vines such as poison ivy (*Toxicodendron radicans*) and fox grape (*Vitis labrusca*) may also be present at varying densities.

Surface water/hydrology conditions vary and include areas of sustained standing water, perennial and intermittent stream channels, as well as areas which appear to be saturated for prolonged periods, and areas with little or no evidence of standing water. Plant community composition and structure are strongly influenced by these varying hydrological conditions.

Wildlife utilization of this habitat type is largely dependent on and in response to the variability in plant communities and the wide variety of plant species and hydrological conditions results in the presence of a wide range of animal species. Mammals such as North American beaver, white-tailed deer, raccoon, and gray squirrel, amphibians such as the green frog and Northern leopard frog, and avian species such as Baltimore oriole, Northern cardinal, hairy woodpecker, downy woodpecker and other species can be expected to use this habitat type.

2.1.3 Aquatic Habitat Areas

Aquatic habitats on the Site are limited to two farm ponds and the unnamed tributary to Chuctanunda Creek.

Farm Pond/Artificial Pond

These small aquatic habitats are constructed in agricultural or residential areas and typically lack perennially flowing inlets or outlets. Observed biota is limited and may reflect those species which naturally colonized them, as well as those intentionally seeded. Fish such as sunfish (*Lepomis spp.*), yellow perch (*Perca flavescens*) and largemouth bass (*Micropterus salmoides*) are commonly found in these habitats along with painted turtle (*Chrysemys picta*), green frog (*Rana clamitans*) and other common reptiles and amphibians. Mammals such as muskrat (*Ondatra zibethicus*) and beaver are likewise found colonizing these habitats, especially when additional lentic and lotic aquatic habitats are found close by.

Rocky Headwater Stream

The unnamed tributary to Chuctanunda Creek is a small, shallow, perennial stream with moderate to steep gradient. Water flows over eroded bedrock, boulders, cobbles, gravel and sand and alternating sequences of riffles, runs and pools are present. Fish commonly observed in these habitats include dace (*Rhinichthys spp*.), creek chub (*Semotilus atromaculatus*), common shiner (*Luxilus cornutus*), sculpins (*Cottus spp*.), and white sucker (*Catostomus commersonii*). A robust aquatic macroinvertebrate community is also commonly observed in these habitats and includes species such as caddisfly (*Trichoptera*), stonefly (*Plecoptera*), mayfly (*Ephemoptera*), chironomid midges, and crayfish (*Cambaridae*).

2.1.4 Expected and/or Observed State and Federal-Listed Species

AECOM has reviewed available data regarding state- and federal-listed species on the site. Before requesting a Natural Heritage review, the New York State Natural Heritage Program ("NYNHP") recommends consulting its Environmental Resource Mapper. If a project site does not fall within an area displayed in the Rare Plants and Rare Animals layer, then NYNHP has no records to report and there is no need to submit a request for a project screening. Database consultation determined that NYNHP has no records of state-listed species on or proximal to this site; therefore a request for project screening was not submitted. Results from the Environmental Resource Mapper for the Site is included in **Attachment A**.

As a result of consulting the USFWS Information for Planning and Consultation ("IPaC") system (August 13, 2019), one federal-listed species was indicated as potentially utilizing the Site, the Northern long-eared bat (*Myotis septentrionalis*). A copy of the IPaC species list generated for the Site is also included in **Attachment A**.

3.0 Summary

This report presents an overview of existing and potential wildlife habitat on the 160+/- acre Site. The habitat assessment demonstrates that the species and habitats found in on the Site are typical of those expected to be found, and are not high quality or particularly sensitive habitats. Habitats identified are minimally ranked as apparently secure within New York State. NYNHP had no records of state-listed animals or plants, significant natural communities or other significant habitats on or in the immediate vicinity of the Site. The USFWS IPaC system indicated one federal-listed species may utilize the site, the Northern long-eared bat.

The more significant habitat identified on the Site is clearly the riparian habitat along the un-named tributary to Chuctanunda Creek in the southern tier of the Site. The aquatic habitat of the creek along a diverse riparian habitat of shrub and more mature wooded cover provide functional habitat for a wide range of invertebrate and vertebrate wildlife species, and the riparian corridor effect connecting to Chuctanunda Creek enhances the connectivity of this habitat to a broader vicinity beyond the Site limits. While the remainder of the Site is open space with scattered woodland habitat, it is subjected to current and past land uses which limit the habitat conditions and associated functions. As proposed, the development of the site largely retains the functional connectivity and integrity of the riparian corridor along the tributary stream, and restricts the development to the more disturbed portions of the site. It will be important during construction to control any access into the southern riparian zone and to control erosion and sediment from the construction zone to avoid impairment of

the riparian corridor. Soil stabilization and landscaping along the southern limits of the proposed development should be emphasized to buffer the effects of the development from this riparian habitat.

4.0 References

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero, 2014. Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation. March,, 2014.

United States Fish and Wildlife Service (USFWS), 2005. National Wetland Inventory (NWI). United States Fish and Wildlife Service. Maps/Data available for download at: http://www.nwi.fws.gov/distribution_ctrs.htm. 2005.

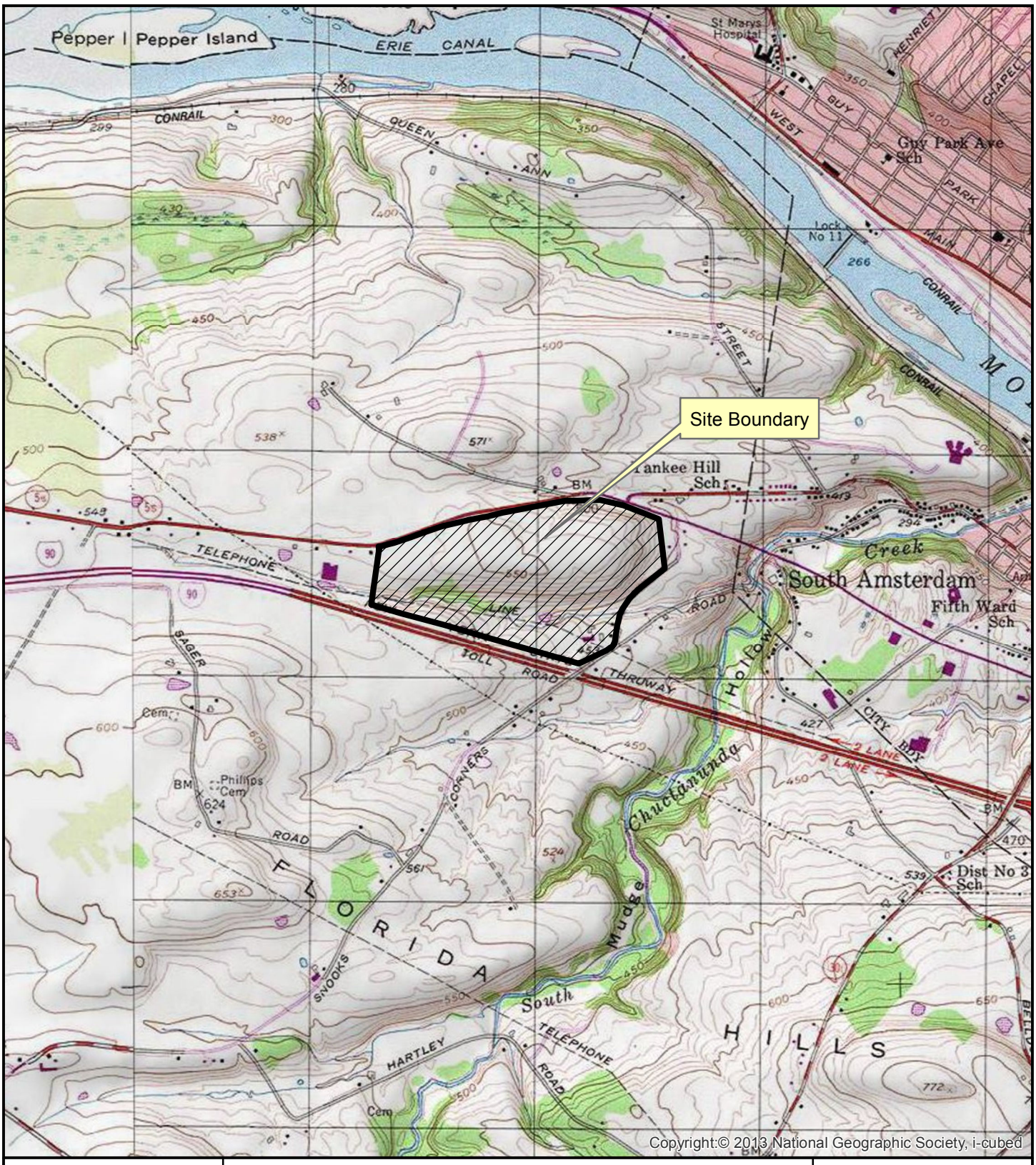
Tables and Figures

Table 1:
CHECKLIST OF WILDLIFE SPECIES POTENTIALLY USING ON-SITE HABITATS

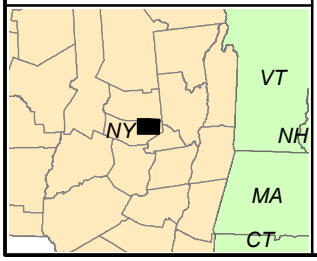
Common Name	***Scientific Name***	**Possible**	**Probable**	**Confirmed**
Amphibians				
Spotted salamander	*Ambystoma maculatum*		X	
Redback salamander	*Plethodon cinereus*		X	
Eastern American toad	*Bufo a. americanus*		X	
Northern spring peeper	*Pseudacris crucifer*		X	
Gray treefrog	*Hyla versicolor*		X	
Green frog	*Lithobates clamitans*		X	
Wood frog	*Lithobates sylvaticus*	X		
Pickerel frog	*Lithobates palustris*		X	
Reptiles				
Northern water snake	*Nerodia s. sipedon*	X		
Northern brown snake	*Storeria d. dekayi*	X		
Eastern garter snake	*Thamnophis s. sirtalis*		X	
Eastern Ribbon Snake	*Thamnophis sauritus*	X		
Northern black racer	*Coluber c. constrictor*		X	
Eastern green snake	*Opheodrys v. vernalis*		X	
Black rat snake	*Pantherophis obsoletus*		X	
Eastern milk snake	*Lampropeltistriangulum*		X	
Wood Turtle	*Glyptemys insculpta*	X		
Painted Turtle	*Chrysemys picta*		X	
Birds				
Turkey vulture	*Cathartes aura*		X	
Broad-winged hawk	*Buteo platypterus*	X		
Red-tailed hawk	*Buteo jamaicensis*		X	
Ruffed grouse	*Bonasa umbellus*		X	
Wild turkey	*Meleagris gallopavo*			X
American woodcock	*Scolopax minor*		X	
Rock dove (pigeon)	*Columba livia*		X	
Mourning dove	*Zenaida macroura*			X
Downy woodpecker	*Picoides pubescens*		X	
Hairy woodpecker	*Picoides villosus*		X	
Northern flicker	*Colaptes auratus*		X	
Eastern phoebe	*Sayornis phoebe*		X	
Eastern kingbird	*Tyrannus tryannus*	X		
Blue jay	*Cyanocitta cristata*			X
American crow	*Corvus brachyrhynchos*			X
Black-capped chickadee	*Parus atricapillus*			X
Tufted titmouse	*Parus bicolor*			X
Red-breasted nuthatch	*Sitta Canadensis*	X		
White-breasted nuthatch	*Sitta carolinensis*			X
Brown creeper	*Certhia americana*		X	
House wren	*Troglodytes aedon*		X	
Winter wren	*Troglodytes troglodytes*		X	
American robin	*Turdus migratorius*			X
Gray catbird	*Dumetella carolinensis*		X	

Common Name	*Scientific Name*	Possible	Probable	Confirmed
Northern mockingbird	*Mimus polyglottos*		X	
Brown thrasher	*Taxostoma rufum*	X		
Cedar waxwing	*Bombycilla cedrorum*		X	
European starling	*Sturnus vulgaris*		X	
Red-eyed vireo	*Vireo olivaceus*		X	
Blue-winged warbler	*Vermivora pinus*	X		
Yellow warbler	*Dendroica petechia*		X	
Yellow-rumped warbler	*Dendroica coronata*	X		
Black-and-white warbler	*Mniotilta varia*		X	
American redstart	*Setophaga ruticilla*		X	
Northern cardinal	*Cardinalis cardinalis*			X
Rose-breasted grosbeak	*Pheucticus ludovicianus*		X	
Rufous-sided towhee	*Pipilo erythrothalmus*		X	
American tree sparrow	*Spizella arborea*		X	
Chipping sparrow	*Spizella passerina*		X	
Fox sparrow	*Passerella iliaca*		X	
Song sparrow	*Melospiza melodia*		X	
White-throated sparrow	*Zonotrichia albicollis*		X	
Dark-eyed junco	*Junco hyemalis*			X
Red-winged blackbird	*Agelaius phoeniceus*		X	
Rusty blackbird	*Euphagus carolinus*	X		
Common grackle	*Quiscalus quiscula*		X	
Brown-headed cowbird	*Molothrus ater*		X	
Purple finch	*Carpodacus purpureus*	X		
House finch	*Carpodacus mexicanus*	X		
Common redpoll	*Carduelis flammea*	X		
Hoary redpoll	*Carduelis hornemanni*	X		
Pine siskin	*Carduelis pinus*	X		
American goldfinch	*Carduelis tristis*		X	
House sparrow	*Passer domesticus*		X	
Mammals				
Masked shrew	*Sorex cinereus*		X	
Water shrew	*Sorex palustris*	X		
Northern shorttailed shrew	*Blarina brevicauda*		X	
Eastern mole	*Scalopus aquaticus*		X	
Star-nosed mole	*Condylura cristata*		X	
Little brown Myotis	*Myotis lucifugus*		X	
Northern Myotis	*Myotis septentrionalis*		X	
Big brown bat	*Eptesicus fuscus*		X	
Red bat	*Lasiurus borealis*	X		
Hoary bat	*Lasiurus cinereus*	X		
Eastern cottontail	*Sylvilagus floridanus*		X	
Eastern chipmunk	*Tamias striatus*		X	
Woodchuck	*Marmota monax*		X	
Gray squirrel	*Sciurus carolinensis*			X
Red squirrel	*Tamiasciurus hudsonicus*		X	
Southern flying squirrel	*Glaucomys volans*		X	
White-footed mouse	*Peromyscus leucopus*		X	
Southern red-backed vole	*Clethrionomys gapperi*		X	
Meadow vole	*Microtus pennsylvanicus*		X	
Woodland vole	*Microtus pinetorum*		X	

Common Name	*Scientific Name*	Possible	Probable	Confirmed
House mouse	*Mus musculus*		X	
Meadow jumping mouse	*Zapus hudsonius*		X	
Coyote	*Canis latrans*		X	
Red fox	*Vulpes vulpes*		X	
Gray fox	*Urocyon cinereoargenteus*		X	
Raccoon	*Procyon lotor*		X	
Ermine	*Mustela erminea*	X		
Long-tailed weasel	*Mustela frenata*		X	
Mink	*Mustela vison*		X	
Striped skunk	*Mephitis mephitis*		X	
Norway rat	*Rattus norvegicus*		X	
Virginia opossum	*Didelphis virginiana*		X	
White-tailed deer	*Odocoileus virginianus*			X



Map Location



N

Site Locus Map - Mead Road Site

Florida, New York

0 1,000 2,000 4,000 6,000 Feet

0 0.25 0.5 1 Miles

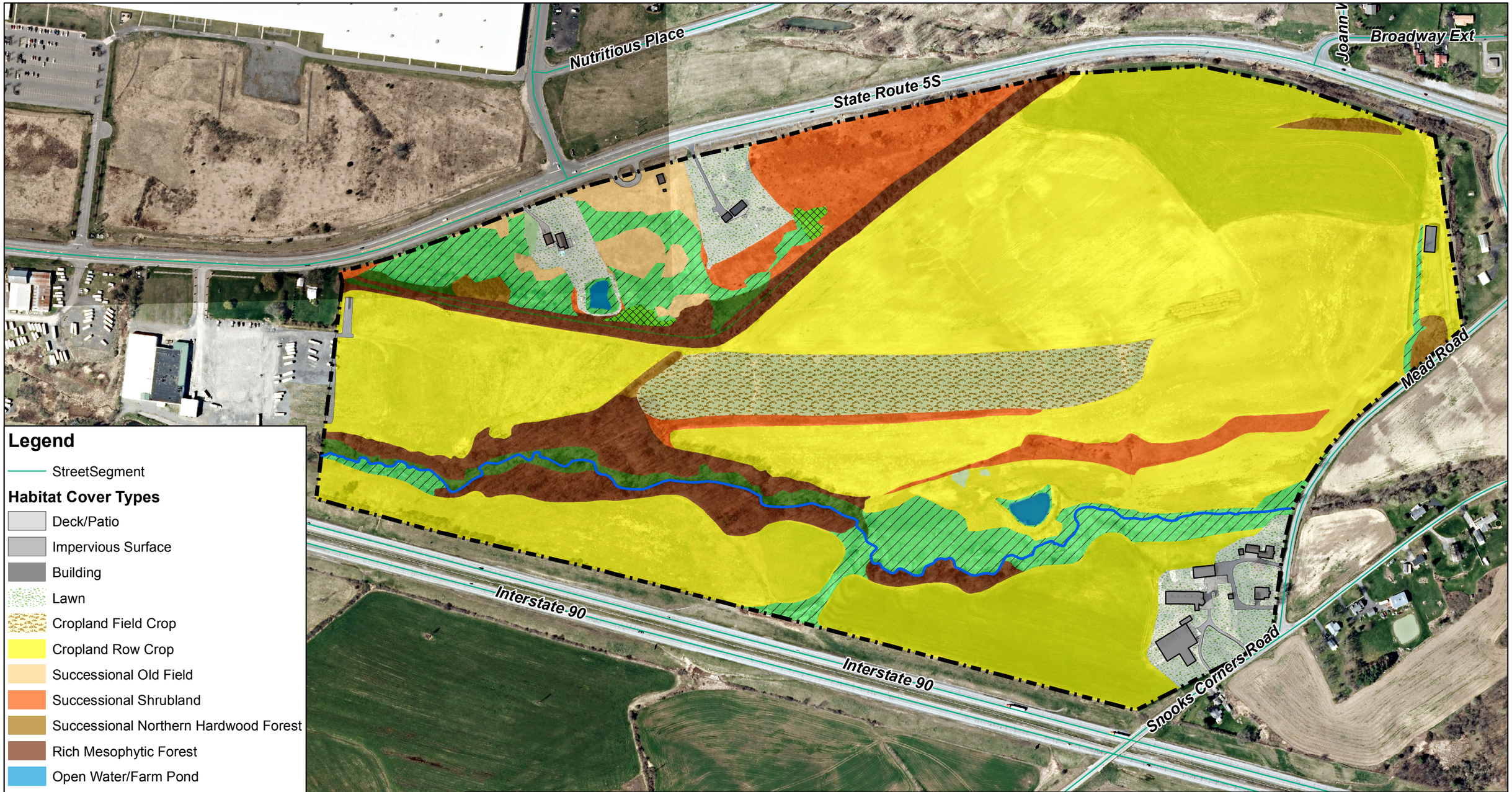
Map Projection: State Plane, NAD 83, feet.
Image Source: USGS Topographic Quadrangle Amsterdam and Tribes Hill, NY

AECOM

Figure 1

8/20/2019

Proj. #: 60592111



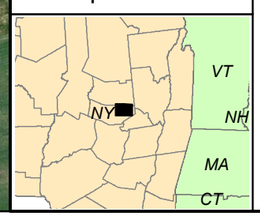
Legend

StreetSegment

Habitat Cover Types

- Deck/Patio
- Impervious Surface
- Building
- Lawn
- Cropland Field Crop
- Cropland Row Crop
- Successional Old Field
- Successional Shrubland
- Successional Northern Hardwood Forest
- Rich Mesophytic Forest
- Open Water/Farm Pond
- PEM
- PSS
- PSS/PEM
- PFO
- Perennial Stream
- Property Boundary

Map Location



Habitat Cover Types - Mead Road Site

Florida, New York

N

0 350 700 1,400 2,100 Feet

0 0.1 0.2 0.4 Miles

Map Projection: State Plane, NAD 83, feet.
Image Source: USGS Topographic Quadrangle Amsterdam and Tribes Hill, NY

AECOM

Figure 2

8/20/2019

Proj. #: 60592111

Attachment A

Correspondence From NYNHP and USFWS IPaC Review

WE Florida NY NYS Env Resource Mapper Results 10-2-18



October 2, 2018

Figure 3

1:18,056

0 0.225 0.45 0.9 mi

0 0.35 0.7 1.4 km

Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Author: GEA
Not a legal document

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To:
Consultation Code: 05E1NY00-2019-SLI-2989
Event Code: 05E1NY00-2019-E-09393
Project Name: Mead Road, Florida, New York

August 13, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-2989

Event Code: 05E1NY00-2019-E-09393

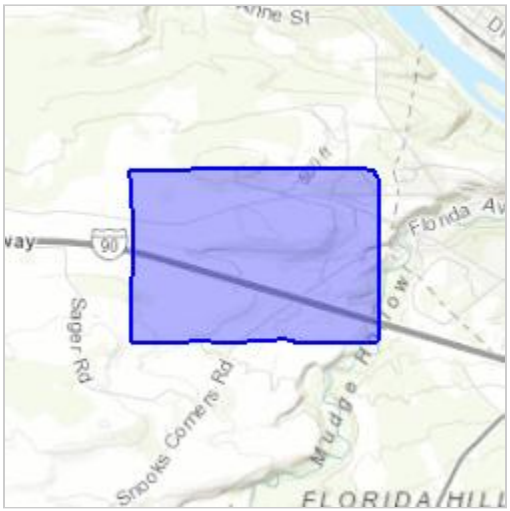
Project Name: Mead Road, Florida, New York

Project Type: DEVELOPMENT

Project Description: Development of regional distribution center

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.93211033762973N74.22940725674601W



Counties: Montgomery, NY

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

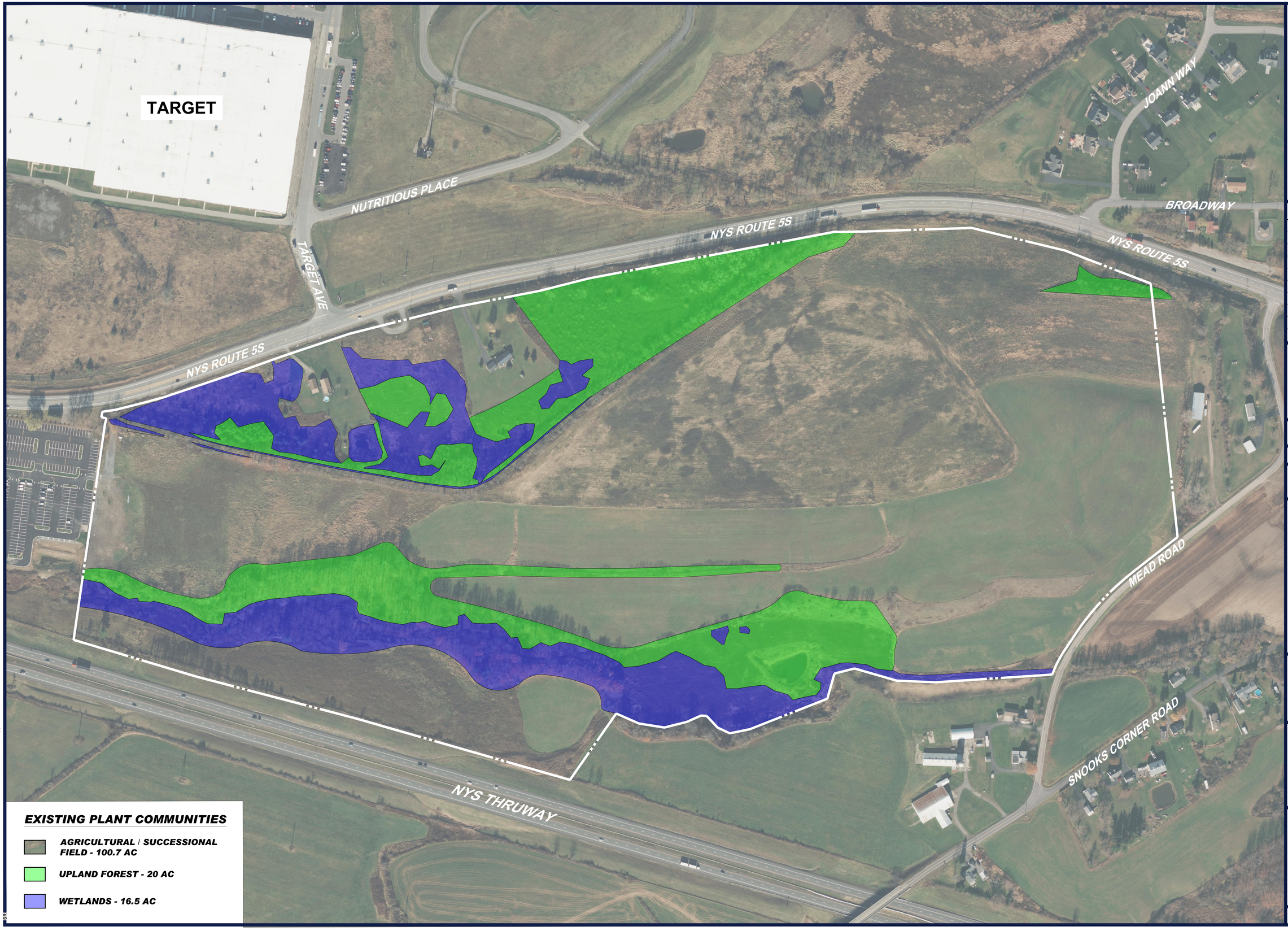
Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Attachment 3
Existing Plant Communities



P:\2024\NYB240176.00\CAD\DRAWINGS\EXHIBITS\SITE AERIAL\SITE AERIAL——LAYOUT: LAYOUT1 (3)

SRW

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABILITY CONSULTING
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE COPYRIGHTED AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE, WITHOUT THE WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811
Know what's below.
Call before you dig.
NEW YORK STATE
YOU MUST CALL 811 BEFORE ANY EXCAVATION
WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-962-7962
www.digsafelynewyork.com

FOR CONCEPT PURPOSES ONLY

THIS DRAWING IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	NYB240176.00
DRAWN BY:	SJR
CHECKED BY:	SRW
DATE:	1/10/2025
CAD I.D.:	SITE AERIAL

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

SHEET TITLE:

EXISTING PLANT COMMUNITIES

SHEET NUMBER:

ORG. DATE - 4/11/2025

PER EDUCATION LAW OF THE STATE OF NEW YORK, SECTION 7209, ANYPERSON WHO, UNLESS HE/SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS.

Attachment 4
Representative Site Photographs





























Attachment 5
Statement of Receipt of payment to The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Program: Credit Transaction Letter

Statement of Receipt of payment to The Wetland Trust Susquehanna Basin Headwaters and Adjacent Basins In-Lieu Fee Program: Credit Transaction Letter

Sponsor: The Wetland Trust, Inc., 4729 State Route 414, Burdett, NY 14818, Phone 607-765-4780 EIN: 26-2931343. Make all payments payable to: The Wetland Trust, Inc.

Submitted to: District Engineer, Department of the Army, Buffalo District Corps of Engineers 1776 Niagara Street, Buffalo, NY 14207-3199, and
District Engineer, Department of the Army, New York District Corps of Engineers 26 Federal Plaza, New York, New York 10278-0090

TWT Service Area: Mohawk River, SA 6

Project Name: Interchange 27 Warehouse - Town of Florida, Montgomery County
US Army Corps Permit Number: NAN-2019-00679-USH (pending)
Permittee: WE Acquisitions LLC
Permittee Contact Name: Linda Costanzo
Permittee Address: 150 Baker Avenue Extension Suite 303 Concord, MA 01742
Permittee Telephone: (978) 287-8631
Permittee Fax:
Permittee Contact Email: lcostanzo@winent.com

Impacted 8-digit HU: **Mohawk River, 02020004**
Authorized Acres impacted: 2
Resource type (s) impacted: Shrub-Scrub 0.5 acres; Wet Meadow1.5 acres
Latitude/Longitude of impacted area: 42.934778, -74.230804
Number of Credits purchased: 2.3
Credit Purchase Type and Amount: Advanced: 2.3 Released:0

This Letter confirms receipt of $225,450.60 for the above authorized proposed project.

By making this payment, the permittee, WE Acquisitions LLC, permanently transfers responsibility for the mitigation liability to The Wetland Trust, Inc. the ILF sponsor. By accepting the ILF payment, The Wetland Trust is responsible for use of these funds to provide compensatory mitigation for the above-described impacts in accordance with the signed instrument.

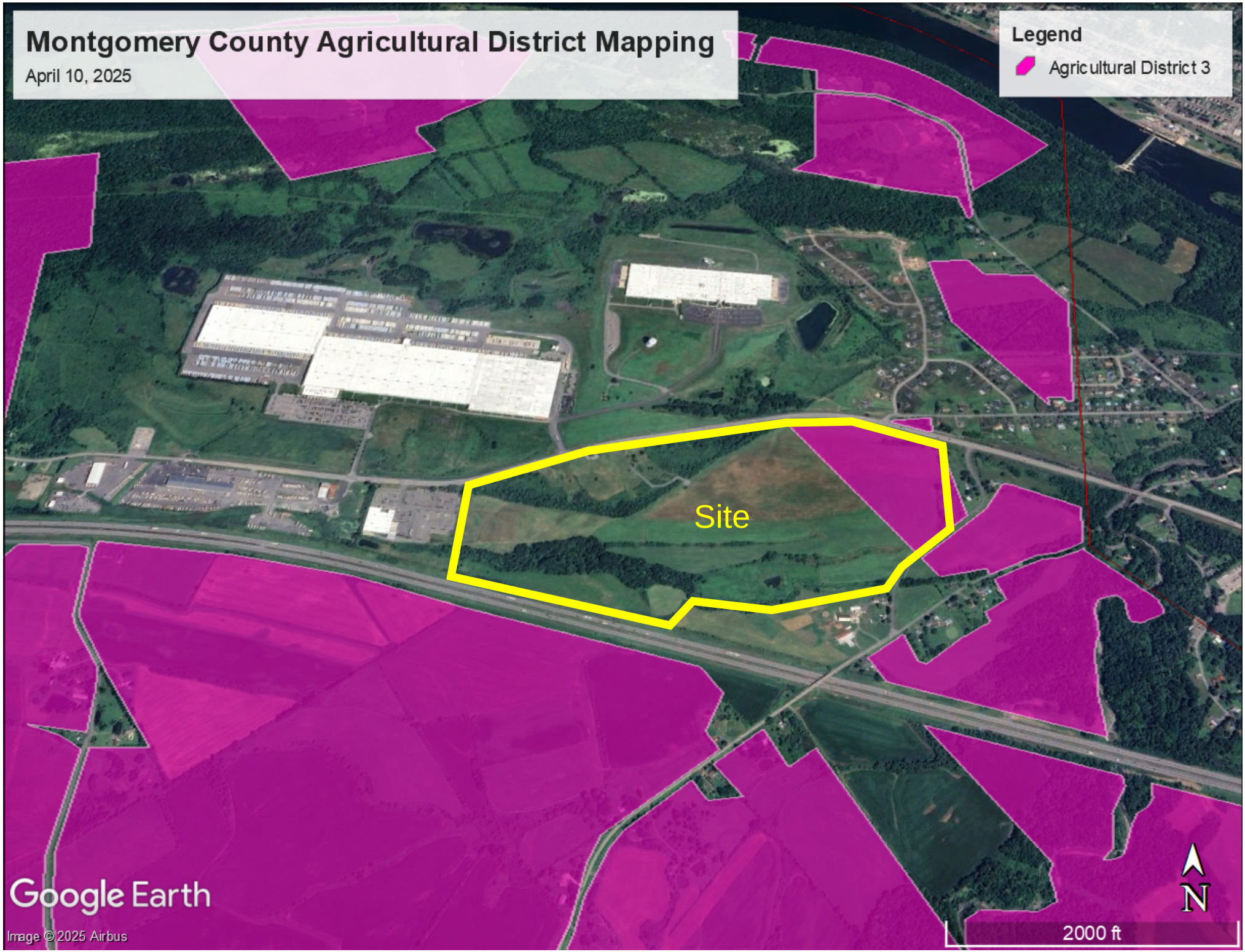
Date: 26 August 2020

Title: Executive Director

By: _____
The Wetland Trust

www.thewetlandtrust.org

APPENDIX 14


Montgomery County Agricultural District Mapping
April 10, 2025
Legend
Agricultural District 3
Site
Google Earth
Image © 2025 Airbus
N
2000 ft

January 20, 2025

AGRICULTURAL DATA STATEMENT

1. Name and address of applicant:

BMG Albany, LLC

One Tower Bridge, 100 Front Street

West Conshohocken, PA 19428

2. Location of the proposed action:

1700 Block of Route 5S, South Side of Route 5s, west of Mead Road

3. Description of the proposed action to include: (1) Size of parcel or acreage to be acquired and tax map identification number of tax parcel(s) involved; (2) The type of action proposed (e.g., single-family dwelling or subdivision, multi-family development, apartment complex, commercial or industrial facility, school, community or public service facility, airport, etc.) and (3) project density. **[Please provide this information on the reverse side of this application and attach additional description as necessary.]**

4. Name, address, telephone number and type of farm of owner(s) of land within the agricultural district which land contains farm operation(s) and upon which the project is proposed or which is located within 500 feet of the boundary of the property upon which the project is proposed:

A. Name: Eric Mead
Address & Telephone #: 322 Snooks Corners Rd, Amsterdam NY 12010
Type of farm: Field Crops/Dairy Farm

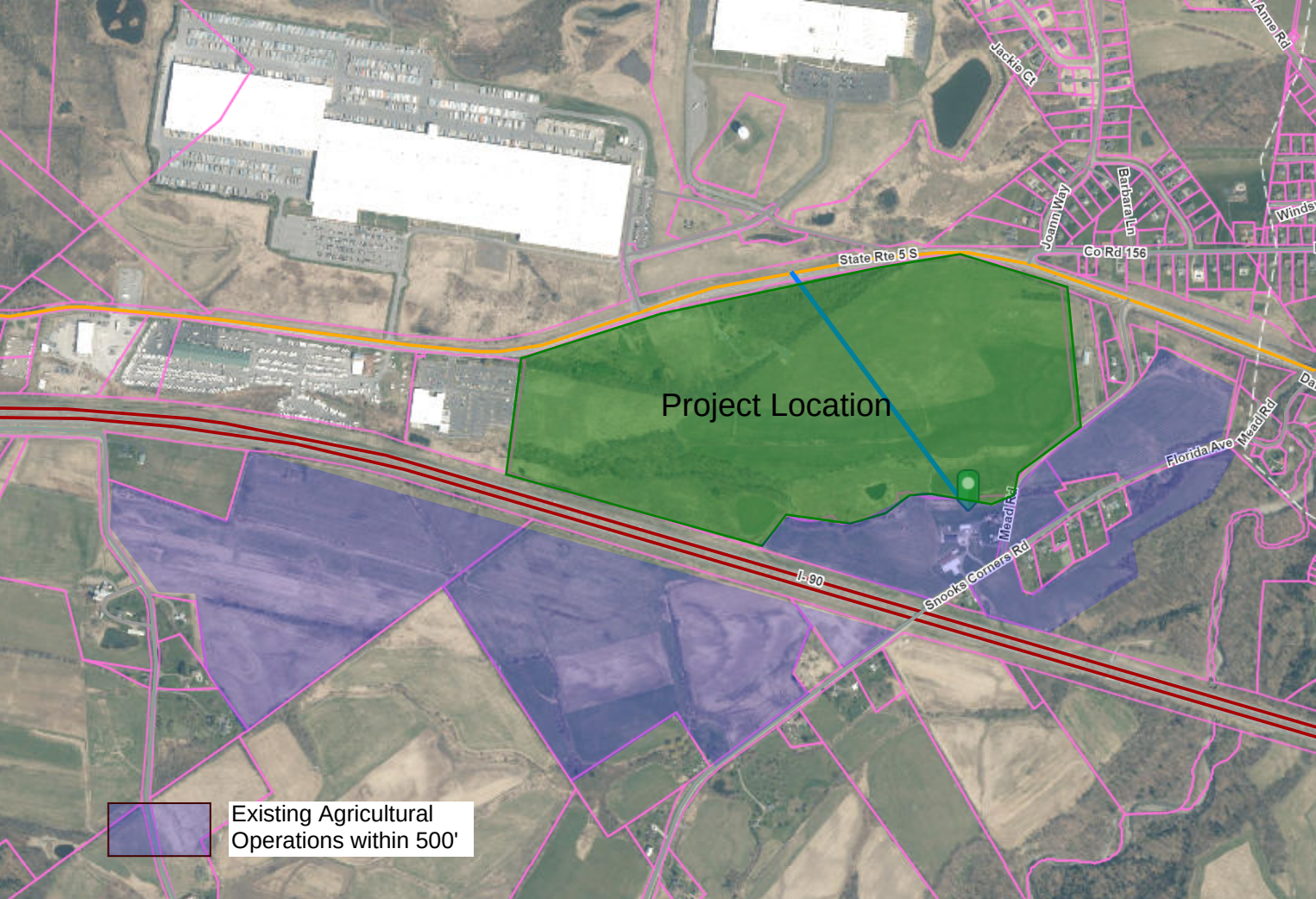
B. Name: David Nelson
Address & Telephone #: 28 Henrietta Blvd, Amsterdam NY 12010
Type of farm: Field Crops

C. Name: Kelli P. McCoski
Address & Telephone #: 146 Maloney Rd, Johnstowwn NY 12095
Type of farm: Field Crops

D. Name: Melvin Lampkin
Address & Telephone #: 272 Bulls Head Rd, Amsterdam NY 12010
Type of farm: Field Crops

5. Tax map or other map showing the site of the proposed project relative to the location of farm operations identified in the ADS. See attached tax map

Tax Parcel: 54.-1-36
Parcel Size: 139 +/- acres
Project Description: Construction of a 3.2 million SF e-commerce logistics, storage and distribution facility with a ±652,060 SF footprint and comprising 4.5 stories with a height of 103.5'.


Project Location
State Rte 5 S
Co Rd 156
I-90
Snooks Corners Rd
Florida Ave
Mead Rd
Jackie Ct
Joann Way
Barbara Ln
Existing Agricultural Operations within 500'

APPENDIX 15

Visual Impact Assessment

Proposed Warehouse Distribution Facility
Route 5S / Mead Road
Town of Florida
Montgomery County, NY

Prepared for
Bluewater Property Group

April 22, 2025
Prepared by

BOHLER

Table of Contents

I. Visual Impact Assessment Overview

II. Project Vicinity

III. Previously Approved Project

IV. Proposed Conditions – Current Application

V. List of Figures

a. Vicinity Map
b. Town of Florida Zoning Map
c. USGS Topographic Map

Previously approved plans & exhibits

d. Site Plan
e. Landscape Plan
f. Neighborhood Perspective Exhibit – Cross Section
g. Neighborhood Perspective Exhibit – Photo simulation

Current application plans & exhibits

h. Site Plan
i. Landscape Plan
j. Illustrative Cross Sections
k. Photo Simulations

I. Visual Impact Assessment Overview

This assessment has been conducted to review the visual impact of the proposed development from the surrounding area. The assessment included the following components: a review of the project vicinity to understand existing conditions and land uses, a review of previously prepared plans and exhibits from past application(s), and a review of current application site plans. Based on the current site plans the assessment included the development of exhibit cross sections and photo simulations to illustrate proposed conditions. The assessment utilized publicly available data including aerial mapping and topographic LIDAR survey.

Project Location

The project site area is 139 acres located along Route 5S in the Town of Florida, Montgomery County, New York. Bordered to the north by State Route 52, to the east by Mead Road, to the south by Interstate 90 and to the west by an existing industrial distribution facility.

Zoning

The project site is located within the Commercial / Light Industrial Zone (C-2) and the proposed industrial use is permitted.

Development Summary – Current Application

The proposed project includes the construction of a multi-story industrial facility with associated access drives, trailer loading & parking areas, and car parking areas. The proposed industrial building footprint is 652,060 square feet with a total building height of 100 feet above grade.

II. Project Vicinity

Land Use

As shown on the Town of Florida Zoning Map, the subject property is surrounded by the following land uses:

- South of I-90: Agriculture Zoned Land primarily composed of residential & farming use with some parcels operating commercial and service type uses
- North of I-90: The subject property is directly surrounded by multiple large industrial distribution uses including Amazon, Target and Beech-Nut

Nutrition facilities. The subject property also is adjacent to a residential neighborhood to the northeast including Broadway Extended and Joann Way roads.

Community Sensitive Receptor Locations

Multiple locations surrounding the subject property have been identified as 'Community Sensitive Receptors' with input from the local municipality. These locations were identified as areas of potential concern with regards to visual impact. The following Community Sensitive Receptors are listed based on their distance from the subject property (closest listed first, furthest listed last):

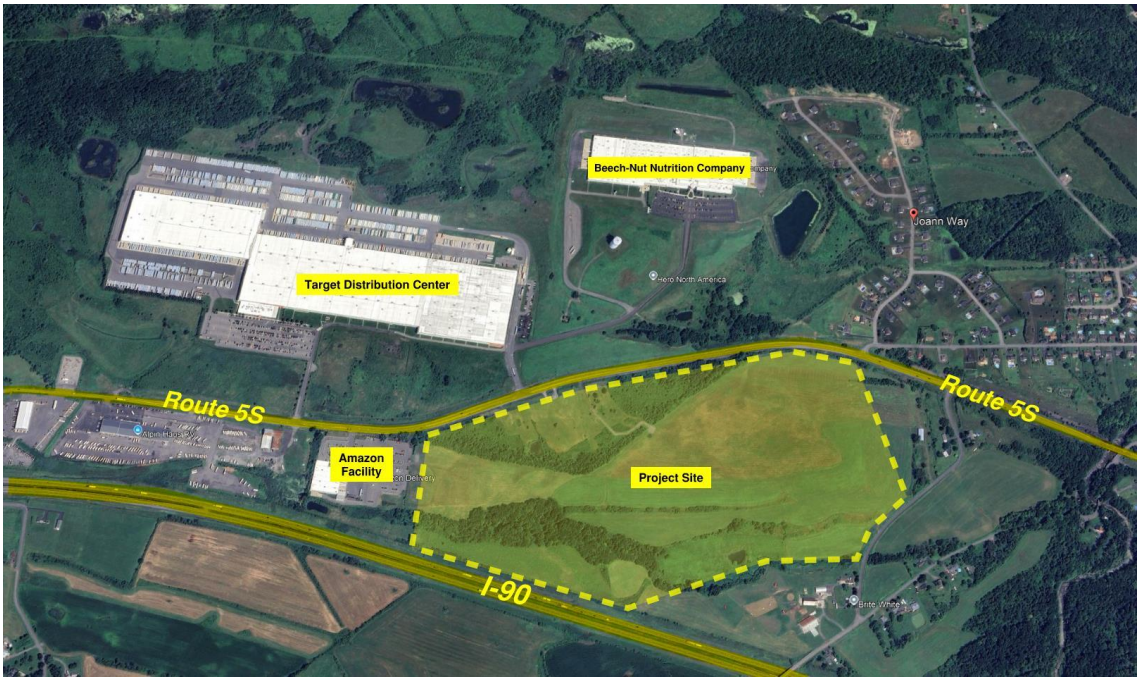
1. Broadway Extension (residential neighborhood)
2. Joann Way (residential neighborhood)
3. William Barkley Elementary School (1.0 miles away)
4. New York Route 30 Viewshed (1.5 miles away)
5. Mohawk River Pedestrian Bridge (1.5 miles away)
6. Memorial Park & Town Baseball Field (3.0 miles away)
7. Chuctanunda Cemetery (4.0 miles away)

Existing Viewshed Conditions

The existing landscape surrounding the project site consists of I-90 & Route 5S corridors, multiple industrial facilities, a residential neighborhood to the northeast and residential properties to the east. Viewshed impact into the site from the north, west and south will be limited based on the similar industrial uses and roadway corridors surrounding the site.

Viewshed impact into the site from the northeast (residential neighborhood) and to the east from residential properties shall be mitigated and proposed conditions are illustrated with the current application cross sections and photo simulations included within this study. The existing viewshed from the residential neighborhood is currently visually impacted by the Route 5S corridor, multiple industrial facilities and an existing Town of Florida water tower, 50 feet in height, located directly to the north of the subject site.

The site is not located within a designated scenic vista or viewshed area including Scenic Areas of Statewide Significance (SASS) or National Scenic Byways.



Aerial map, project vicinity

III. Previously Approved Project

A site plan for the subject property was previously approved and included a 1.0M SF footprint warehouse with associated access drives, trailer loading and parking areas, and car parking areas. The proposed building was orientated parallel to Route 5S with a proposed minimum front yard setback of 94 feet. Trailer access, loading and parking was located on all sides of the building including within the front yard along Route 5S.

As part of the previously approved site plan application, a landscape plan was included that featured more than 100 trees located between the proposed development and the residential neighborhood to the northeast, one of the identified sensitive receptors in the surrounding area. The proposed trees were a mix of deciduous and evergreen species to provide buffering and screening of the proposed industrial development.

Visual Simulations (Previous)

Visual Simulations including illustrative cross sections and photo simulations were included with the previous approved application to portray proposed conditions of the development. The included visual simulations depicted the conditions between the residential neighborhood to the northeast and the subject property.

IV. Proposed Conditions – Current Application

The current site plan includes a multi-story industrial facility with associated access drives, trailer loading & parking areas, and car parking areas. The proposed industrial building footprint is 652,060 square feet with a total building height of 100 feet above grade. The proposed building is located along Route 5S and includes a minimum 200 foot front yard building setback.

The current landscape plan includes more than 300 proposed evergreen and deciduous trees located to provide screening from adjacent land uses. The trees are located throughout the front yard and parking areas of the site to provide visual softening of the vehicular areas and the building. The proposed trees have been located at higher proposed elevations on the site to maximum the screening benefit.

In comparison to the previously approved site plan, there are multiple noteworthy differences that affect the visual impact of the proposed development:

- **Reduction in building footprint.** The current site plan includes a 652K SF footprint as compared to the previously approved 1M SF footprint.

- **Increase in building height.** The current application includes a maximum building height of 100 feet as compared to the lower max height in the previously approved site plan. The site is located within the C-2 zone which does not include a maximum building height requirement.

- **Lowering of first floor elevation.** To mitigate visual impact of the proposed building height, the current site plan has lowered the first floor elevation of the proposed building.

- **Increase in proposed landscape & screening.** To enhance the site and provide buffering and screening of the proposed development from adjacent sensitive receptors, the proposed landscape plan includes larger quantities of proposed trees. The current landscape plan includes more than 300 deciduous and evergreen trees located between the proposed development and the residential neighborhood to the northeast, as compared to the 100 trees included in the previous site plan application.

- **Increased distance of proposed trailer parking from residential neighborhood.** The previously approved site plan application included

proposed trailer parking within 100 feet of the residential neighborhood to the northeast of the project site. In the current application, the truck parking area has been relocated to the western side of the project site adjacent to similar adjacent land uses.

Visual Simulations (Current)

The current site plan application includes illustrative cross sections and photo simulations to portray proposed conditions of the project as they relate to the identified community sensitive receptor locations. The illustrations include proposed site elements consisting of the building, drive aisles and parking areas, and landscape screening blended with existing conditions.

The illustrative cross sections depict existing and proposed elevations of the project development and surrounding location identified below.

1. View from Joann Way & Broadway Extended (residential neighborhood)
   Summary of Visual Impact: The closest home within the Joann Way residential neighborhood is approximately 1/4 mile distance from the closest corner of the proposed building. The residential neighborhood is approximately 50 feet lower in elevation compared to the first floor elevation of the proposed building. With the neighborhood lower in elevation than the proposed site, the proposed landscape trees will greatly impact the visual of the northern and eastern sides of the site and building façade.

2. View from Pedestrian Bridge
   Summary of Visual Impact: The Mohawk Valley Gateway Overlook Pedestrian Bridge is approximately 1.5 miles distance from the proposed building. The pedestrian bridge is more than 200 feet lower in elevation than the first floor elevation of the proposed building. For reference, the existing water tower located in close proximity to the proposed site is not visible from the pedestrian bridge viewshed. Based on topography, land form and existing vegetation between the pedestrian bridge and the project site (as shown on the cross section exhibits) no visual impact is anticipated from this community location.

3. View from School
   Summary of Visual Impact: The William Barkley Elementary School is approximately 1.0 miles distance from the proposed building. The school is approximately 100 feet lower in elevation than the first floor elevation of

the proposed building. There exists a mature stand of existing trees more than 1,000 feet in width located between the school and State Route 5S. Based on this large existing forested area and the distance to the proposed site, no visual impact is anticipated from this community location.

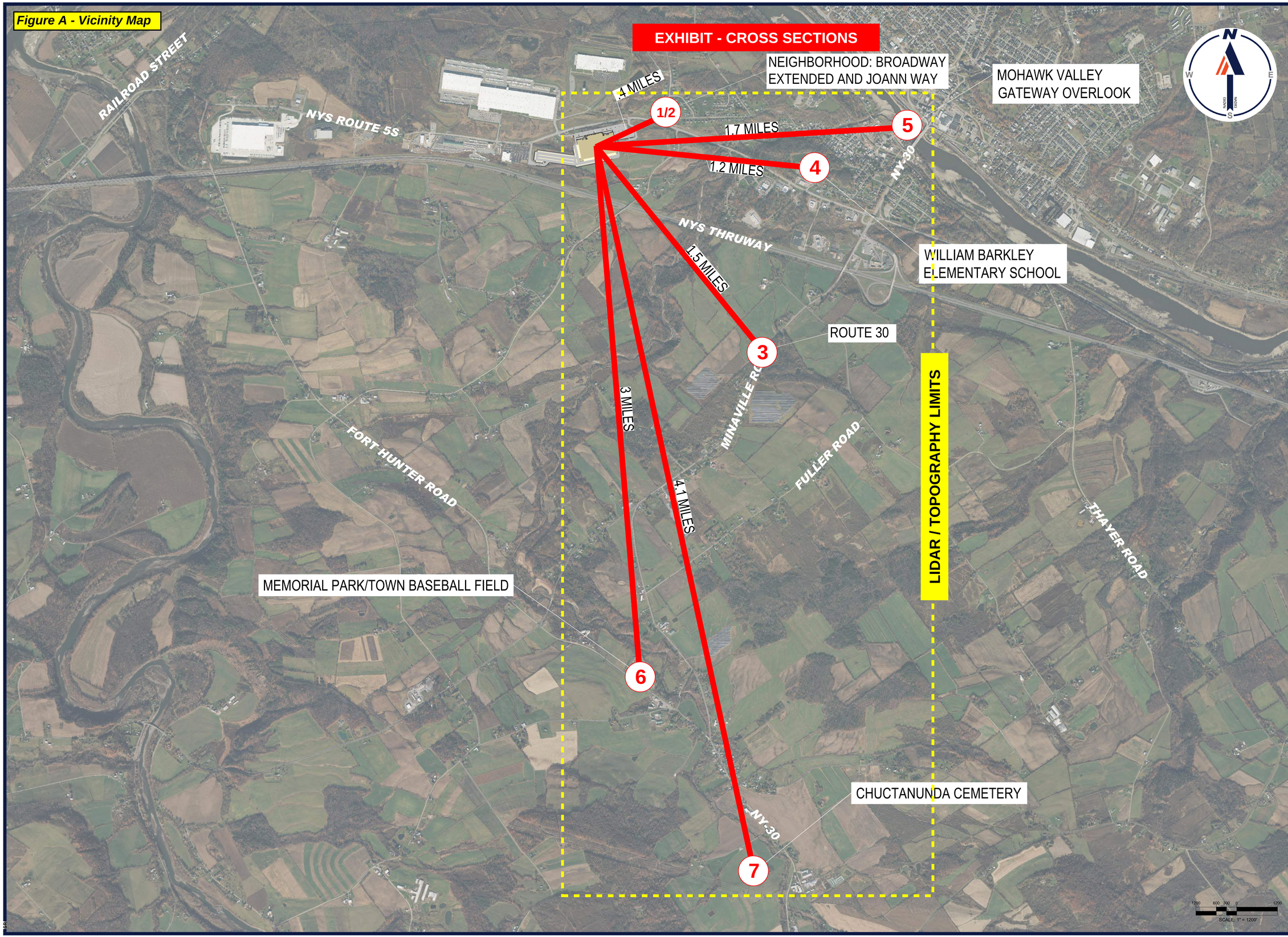
4. View from Route 30
   Summary of Visual Impact: A location along Route 30 as identified in the map figures is approximately 1.5 miles distance from the proposed building. In this location Route 30 is approximately 50 feet higher in elevation than the first floor elevation of the proposed building. This viewshed includes existing farmland in the foreground as well as existing industrial uses and the existing water tower (adjacent to the site) in the distant background. The visual impact is minimized from this location as the proposed building will be located in the distant background among other existing industrial land uses in the area.

The Photo Simulations include 'before' and simulated 'after' construction imagery of the project development from the views identified below. The simulations include multiple growth periods for the proposed landscape trees including 1-year 5-years and 10-years. This is intended to provide a more accurate depiction of the proposed screening after installation and the visual impact the landscape trees will have from surrounding areas.

1. View from Joann Way (residential neighborhood)
2. View from Broadway Extended (residential neighborhood)
3. View from Route 30

Visual Impact Summary

As outlined and described above, the visual impact of the current application has been reviewed to evaluate the viewshed impact within the vicinity of the project site. The current application has made significant efforts to reduce visual impact of the site by reducing the building footprint compared to the previously approved application and locating truck parking areas further from adjacent residential zones. In addition to these measures, significant landscape improvements are proposed for the purposes of visual mitigation to surrounding land uses.



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PROJECT No.:	NYB240176.00
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CHECKED BY:	SRW
DATE:	1/10/2025
CAD I.D.:	VISUAL IMPA

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

VICINITY MAP

SHEET NUMBER:

C-001

REVISION 1 - 1/28/2025

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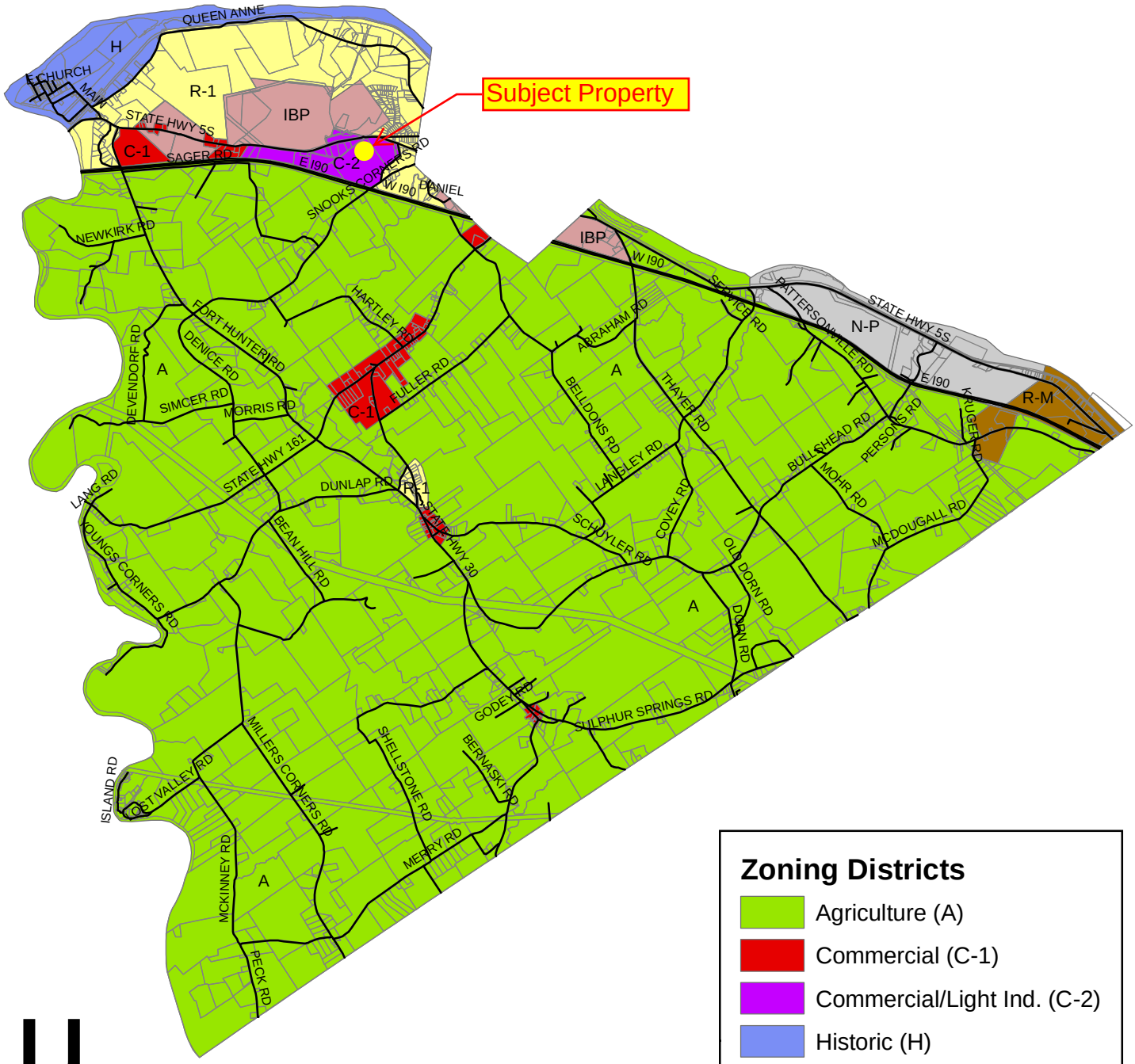
MONTGOMERY COUNTY, NEW YORK

Figure B - Town of Florida Zoning Map



Zoning Districts

- Agriculture (A)
- Commercial (C-1)
- Commercial/Light Ind. (C-2)
- Historic (H)
- Ind. Business Park (IBP)
- Natural Products (N-P)
- Residential (R-1)
- Res. Mobile Home (R-M)

MAP IS INTENDED FOR GENERAL PLANNING PURPOSES ONLY.

Location Map

Town of Florida Zoning Map

Source: Montgomery County GIS

Montgomery County Department of Economic Development & Planning
9 Park St., P.O. Box 1500
Fonda, NY 12068-1500

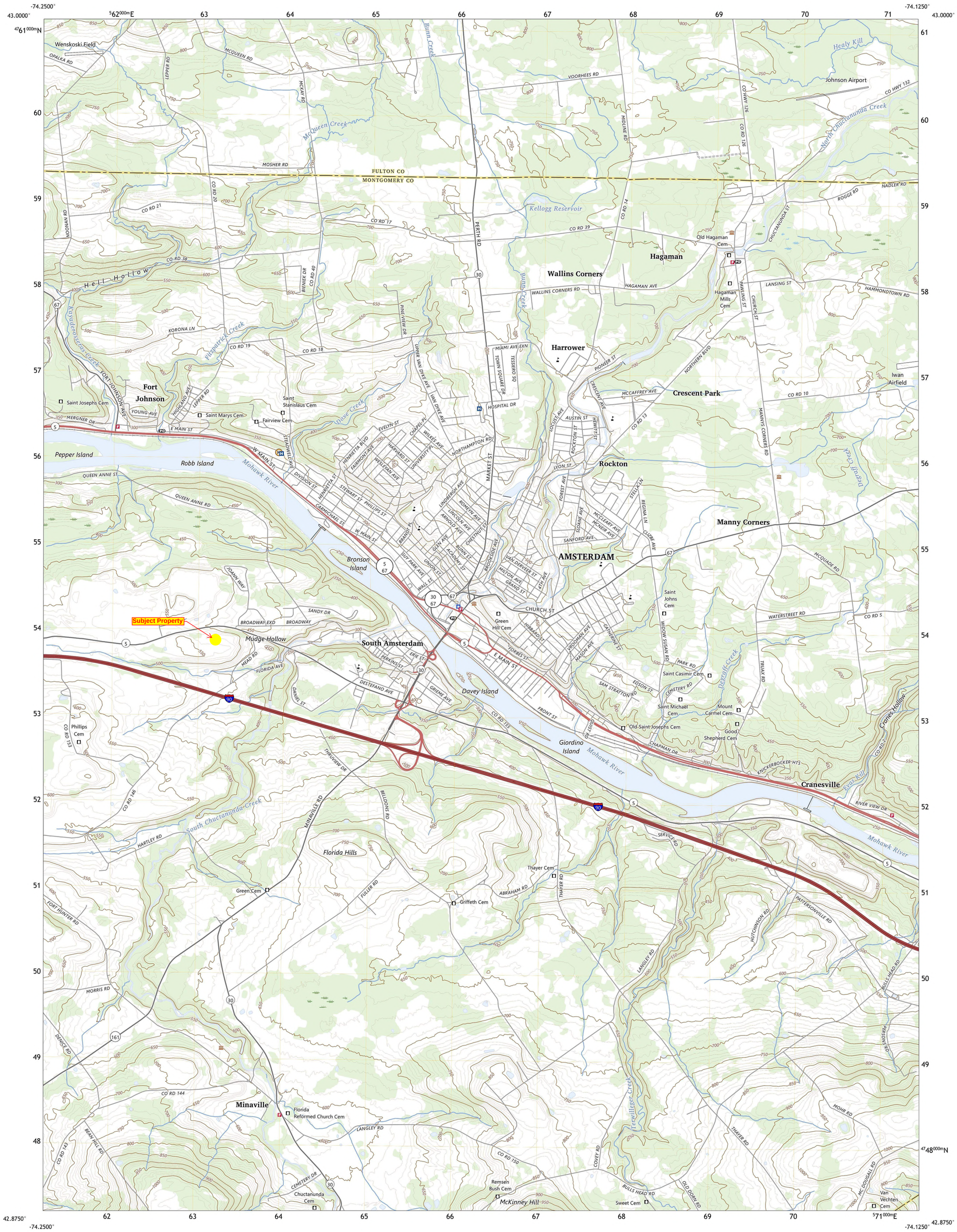
Oct 2009 rds

Figure C - USGS Topographic Map

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

AMSTERDAM QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 18T

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, October 2017 - December 2017
Roads.....U.S. Census Bureau, 2016
Names.....GNIS, 1980 - 2023
Hydrography.....National Hydrography Dataset, 2001 - 2021
Contours.....National Elevation Dataset, 1998 - 2019
Boundaries.....Multiple sources; see metadata file 2021 - 2022

Wetlands.....FWS National Wetlands Inventory 1986

MN
GN
13°0'
231 MILS
0°33'
10 MILS
UTM GRID AND 2023 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
WN
Grid Zone Designation
18T

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard.

NEW YORK
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES

1 Gloversville
2 Broadalbin
3 Galway
4 Tribes Hill
5 Pattersonville
6 Esperance
7 Duanesburg
8 Rotterdam Junction

ROAD CLASSIFICATION

Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

AMSTERDAM, NY
2023

NSN, 7643016386405
NGA REF NO. USGSX24K906

Figure D - Previously Approved Site Plan

ZONING ANALYSIS TABLE

ZONING DISTRICT	- DISTRICT C-2 - WAREHOUSES ARE REQUIRE A SPECIAL USE PERMIT		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	NOT SPECIFIED	137.2 ACRES	NO CHANGE
MIN. LOT WIDTH	NOT SPECIFIED	3909.0 FT	NO CHANGE
MAX. LOT COVERAGE	30 %	1.4%	40.1% (V)
MAX. BUILDING HEIGHT	NOT SPECIFIED	25 FT ±	-
MIN. FRONT YARD SETBACK	50 FT	31.2 FT	94.1 FT
MIN. SIDE YARD SETBACK	20 FT (ONE SIDE) 50 FT (BOTH SIDES)	760.8 FT	406.7 FT (ONE SIDE) 406.7 FT (BOTH SIDES)
MIN. REAR YARD SETBACK	30 FT	1136.7 FT	530.9 FT
PARKING SPACES	NOT SPECIFIED	N/A	1096 SPACES

(V) - VARIANCE REQUESTED
(NA) - NOT APPLICABLE

NUTRITIOUS PLACE
TAMSEY AVE
NEW YORK ROUTE 5S
BROADWAY EXT.
MEAD ROAD
NEW YORK STATE THRUWAY
SNOOKS CORNERS
PROPOSED WAREHOUSE (1,000,000 SF±)
N/F LOT HOLDING, CORP. Deed Ref: 2014-16588 Tax ID: 54-1-30
N/F THEODORE J. RIPPLE & WAYNE C. RIPPLE LISS #263 Tax ID: 54-1-21
N/F LINCC HOUSE LEG #244 Tax ID: 55-2-1 & 4
PROPERTY IS SUBJECT TO AN 50' WIDE EASEMENT GRANTED TO MOHAWK HOMINY POWER CORPORATION BY CERTAIN LOWER AS RECORDED IN LIBER 650P 281 PAGE 371, DATED MAY 1, 1951.
PROPERTY IS SUBJECT TO AN 50' WIDE EASEMENT GRANTED TO MOHAWK HOMINY POWER CORPORATION BY CERTAIN LOWER AS RECORDED IN LIBER 650P 281 PAGE 371, DATED MAY 1, 1951.
REFER TO GENERAL NOTES SHEET FOR NOTES
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1"= 150'
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NEW YORK, NY
LONG ISLAND, NY
NORTHERN NEW JERSEY
UPSTATE NEW YORK
NEW ENGLAND
ALBANY, NY
LEHIGH VALLEY, PA
HARRISBURG, PA
REHOBOTH BEACH, DE
BALTIMORE, MD
SOUTHERN MARYLAND
ATLANTA, GA
AUGUSTA, GA
CENTRAL VIRGINIA
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PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	2/11/2019
SCALE:	AS NOTED
CAD I.D.:	B180283SS00

PROJECT:

CONCEPT PLAN

FOR

WAREHOUSE

LOCATION OF SITE

ROUTE 5S
TOWN OF FLORIDA
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SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER: 1 OF 1

REV 0

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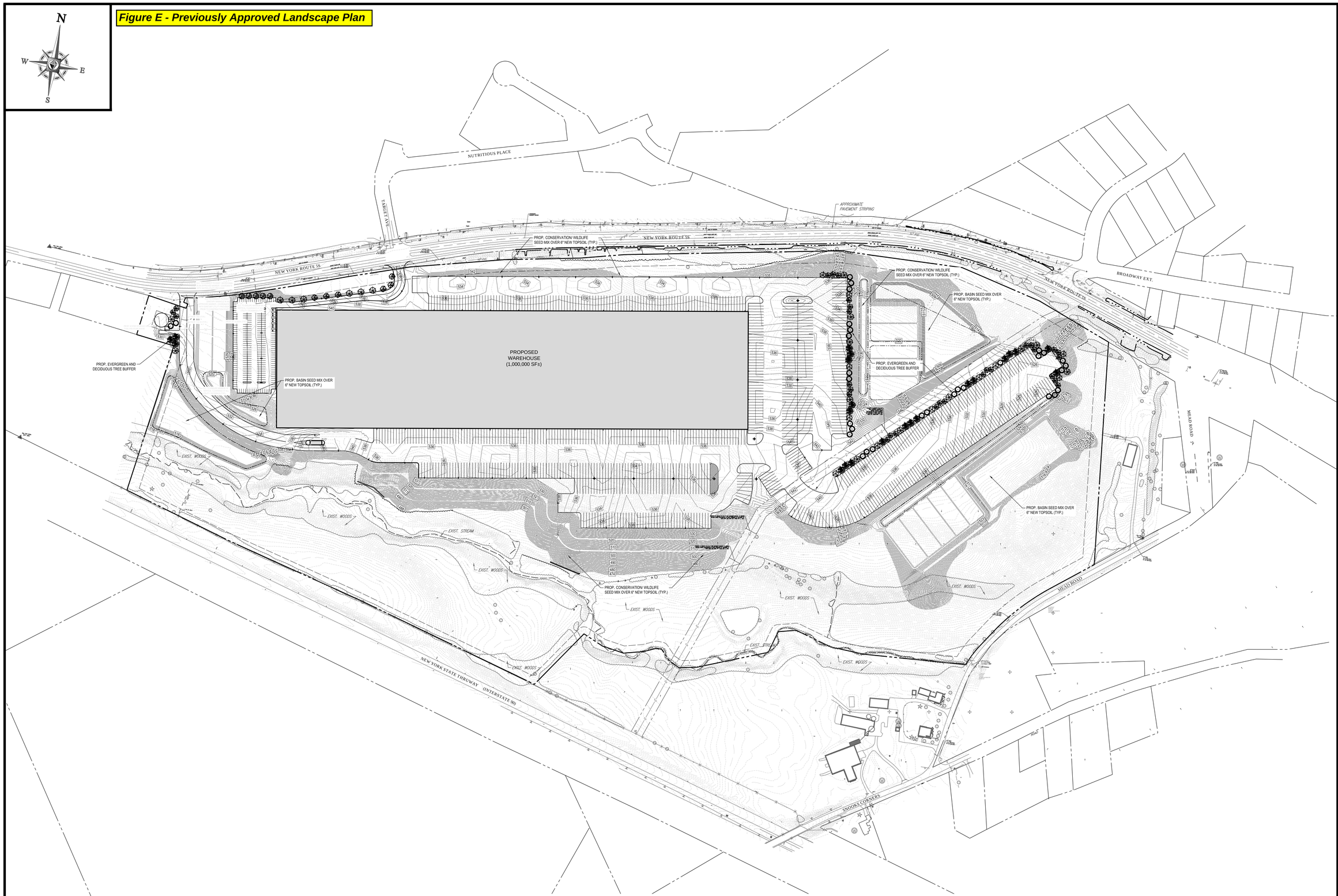
Figure E - Previously Approved Landscape Plan



LANDSCAPE SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONT.
SHADE TREES					
AROG	11	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2-3" CAL.	B+B
GTIS	6	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2-3" CAL.	B+B
QP	12	QUERCUS PALUSTRIS	PIN OAK	2 1/2-3" CAL.	B+B
UAP	5	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2 1/2-3" CAL.	B+B
ZSVG	6	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	2 1/2-3" CAL.	B+B
SUBTOTAL:	40				
EVERGREEN TREES					
CLY	22	X CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	6-7'	B+B
PIAB	31	PICEA ABIES	NORWAY SPRUCE	6-7'	B+B
PS	30	PINUS STROBUS	EASTERN WHITE PINE	6-7'	B+B
SUBTOTAL:	83				

TOWN OF FLORIDA LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
SECTION 37:	A. WHERE ANY PERMITTED NON-RESIDENTIAL LAND USE ABUTS AN EXISTING RESIDENTIAL PARCEL OR VACANT PARCEL WHERE RESIDENTIAL DEVELOPMENT COULD OCCUR, A LANDSCAPE STRIP AT LEAST 20' WIDE SHALL BE MAINTAINED AS A LANDSCAPED AREA IN THE FRONT, SIDE AND/OR REAR YARD WHICH ADJOIN THESE USES.	PROVIDED
	B. ALL LANDSCAPING SHALL BE MINIMUM OF 4' IN HEIGHT	PROVIDED

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS

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2	10/25/2019	PER TOWN COMMENTS	SG

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PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	4/25/2019
SCALE:	AS NOTED
CAD I.D.:	B180283_LANDSCAPE

PROJECT:
SITE DEVELOPMENT PLAN
FOR
WAREHOUSE

LOCATION OF SITE
ROUTE 5S
TOWN OF FLORIDA
MONTGOMERY COUNTY
NEW YORK STATE

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RHODE ISLAND No. 419
NEW YORK No. 002359
NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359

SHEET TITLE:
OVERALL LANDSCAPE PLAN

SHEET NUMBER:
19
OF 23

REV 2 - (2019-10-25)

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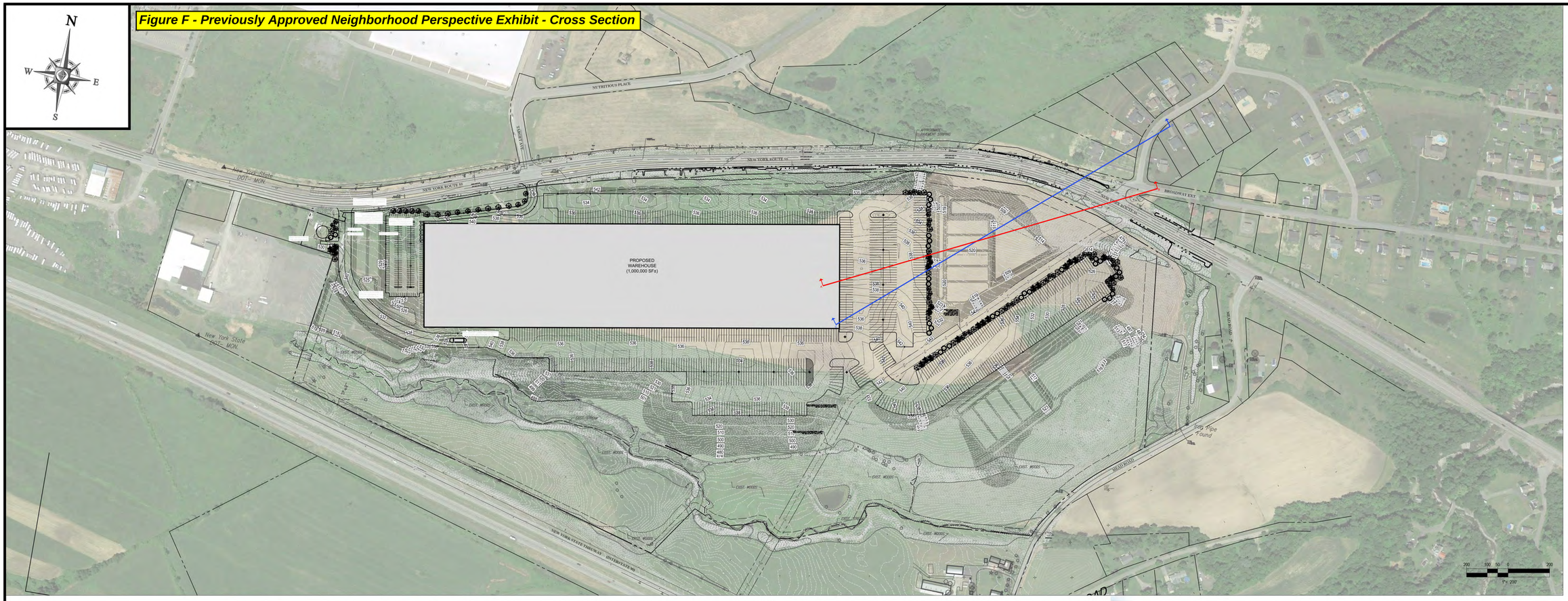
Figure F - Previously Approved Neighborhood Perspective Exhibit - Cross Section







SECTION PERSPECTIVES

SCALE: 1" = 60'

60 30 15 0 60
1"= 60'

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DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	4/25/2019
SCALE:	AS NOTED
CAD I.D.:	B180283_LANDS53

PROJECT:

SITE DEVELOPMENT PLAN
FOR
WAREHOUSE

LOCATION OF SITE

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CONNECTICUT No. 1359

SHEET TITLE:

NEIGHBORHOOD PERSPECTIVE EXHIBIT

SHEET NUMBER:

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OF 23

REV 3 - (2019-11-20)

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Figure G - Previously Approved Neighborhood Perspective Exhibit - Photo simuation



BEFORE



AFTER

BROADWAY EXTENDED PERSPECTIVE



BEFORE



AFTER

JOANN WAY PERSPECTIVE

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♦ NEW YORK, NY ♦ LEHIGH VALLEY, PA ♦ NORTHERN VIRGINIA ♦ AUSTIN, TX
♦ LONG ISLAND, NY/CT/RI ♦ DOUGLASVILLE, PA ♦ CENTRAL VIRGINIA ♦ SOUTH FLORIDA
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2	10/25/2019	PER TOWN COMMENTS	SG
3	11/20/2019	PER TOWN COMMENTS	SG

PRELIMINARY

PROJECT No.:	B180283
DRAWN BY:	JSH
CHECKED BY:	SRW
DATE:	4/25/2019
SCALE:	AS NOTED
CAD I.D.:	B180283_LANDSS3

PROJECT:

SITE DEVELOPMENT PLAN

FOR

WAREHOUSE

LOCATION OF SITE

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NEW YORK STATE

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NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359

SHEET TITLE:

NEIGHBORHOOD PERSPECTIVE EXHIBIT

SHEET NUMBER:

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OF 23

REV 3 - (2019-11-20)

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Figure H - Site Plan



ZONING TABLE

ZONE: C-2 COMMERCIAL/LIGHT INDUSTRIAL
USE: PROPOSED WAREHOUSE DISTRIBUTION FACILITY (SPECIAL USE PERMIT)
SECTION: 54, BLOCK: 1, LOT: 36

APPLICANT/ OWNER INFORMATION

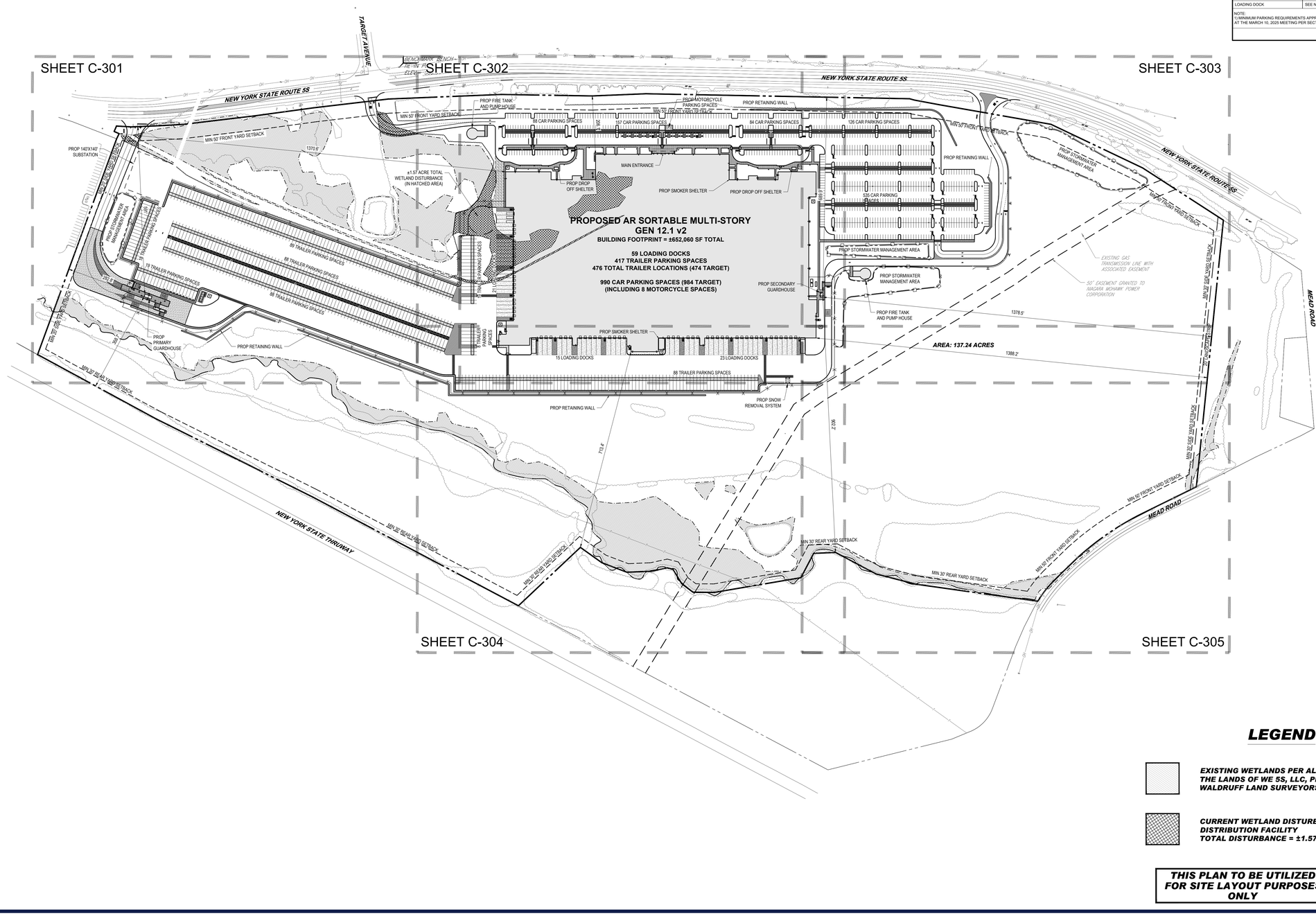
APPLICANT:	BMG ALBANY, LLC 100 FRONT STREET, SUITE 1225 WEST CONSHOHOCKEN, PA 19428
PROPERTY OWNER:	WE 5S LLC 150 BAKER AVENUE EXT SUITE 303 CONCORD, MA 01742

BULK REQUIREMENTS

ITEM	REQUIRED	EXISTING	PROPOSED
MIN LOT AREA	N/A	5,978,128 SF (137.2 AC)	NO CHANGE
MIN LOT WIDTH	N/A	4,010.2 FT	NO CHANGE
MAX LOT COVERAGE	30%	0%	11%
PRINCIPAL BUILDING			
FRONT YARD SETBACK	50 FT	31.2 FT	206.1 FT
SIDE YARD SETBACK	20 FT (TOTAL 50 FT)	760.8 FT	1370.6 FT
REAR YARD SETBACK	30 FT	1136.7 FT	713.4 FT
MAX BUILDING HEIGHT	N/A	625 FT	103.5 FT
ACCESSORY BUILDING			
FRONT YARD SETBACK (PRIMARY GUARDHOUSE)	50 FT	N/A	561 FT
SIDE YARD SETBACK (PRIMARY GUARDHOUSE)	20 FT	N/A	282.8 FT
REAR YARD SETBACK (PRIMARY GUARDHOUSE)	10 FT	N/A	358.7 FT
FRONT YARD SETBACK (SECONDARY GUARDHOUSE)	50 FT	N/A	689.9 FT
SIDE YARD SETBACK (SECONDARY GUARDHOUSE)	20 FT	N/A	1378.5 FT
REAR YARD SETBACK (SECONDARY GUARDHOUSE)	10 FT	N/A	902.2 FT
MAX BUILDING HEIGHT (PRIMARY & SECONDARY GUARDHOUSE)	25 FT	N/A	14 FT
LANDSCAPE REQUIREMENT			
LANDSCAPE STRIP	REFER TO SECTION 37 OF THE TOWN OF FLORIDA ZONING ORDINANCE	N/A	20 FT
PARKING REQUIREMENTS			
CAR PARKING	SEE NOTE 1	N/A	990 SPACES
TRAILER PARKING	SEE NOTE 1	N/A	417 SPACES
LOADING DOCK	SEE NOTE 1	N/A	59 SPACES

NOTE:
1) MINIMUM PARKING REQUIREMENTS APPROVED BY TOWN OF FLORIDA ZONING BOARD OF APPEALS BY RESOLUTION AT THE MARCH 10, 2025 MEETING PER SECTION 46 AND 47 OF THE TOWN OF FLORIDA ZONING CODE.

(V) = VARIANCE REQUIRED
(W) = WAIVER REQUESTED



SITE INFORMATION

1. APPLICANT:
   BMG ALBANY, LLC
   100 FRONT STREET, SUITE 1225
   WEST CONSHOHOCKEN, PA 19428
2. OWNER:
   WE 5S LLC
   150 BAKER AVENUE EXT SUITE 303
   CONCORD, MA 01742
3. PARCEL:
   MAP: 54.-1-36
   ROUTE 5S/MEAD ROAD
   TOWN OF FLORIDA
   MONTGOMERY COUNTY, NY

LEGEND

EXISTING WETLANDS PER ALTA/NSPS LAND TITLE SURVEY OF THE LANDS OF WE 5S, LLC, PREPARED BY AUSFIELD & WALDRUFF LAND SURVEYORS LLP

***CURRENT WETLAND DISTURBANCE FOR PROPOSED DISTRIBUTION FACILITY
TOTAL DISTURBANCE = ±1.57 ACRES***

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

150 75 37.5 0 150
1"=150'

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PROJECT No.:	NYB240176.00-0A
DRAWN BY:	VR/JRS/AKD/SJR
CHECKED BY:	SRW
DATE:	04/24/2025
CAD I.D.:	P-CIVL-SITE

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

**ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36**

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SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

C-300

ORG. DATE - 04/24/2025

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Figure I - Landscape Plan

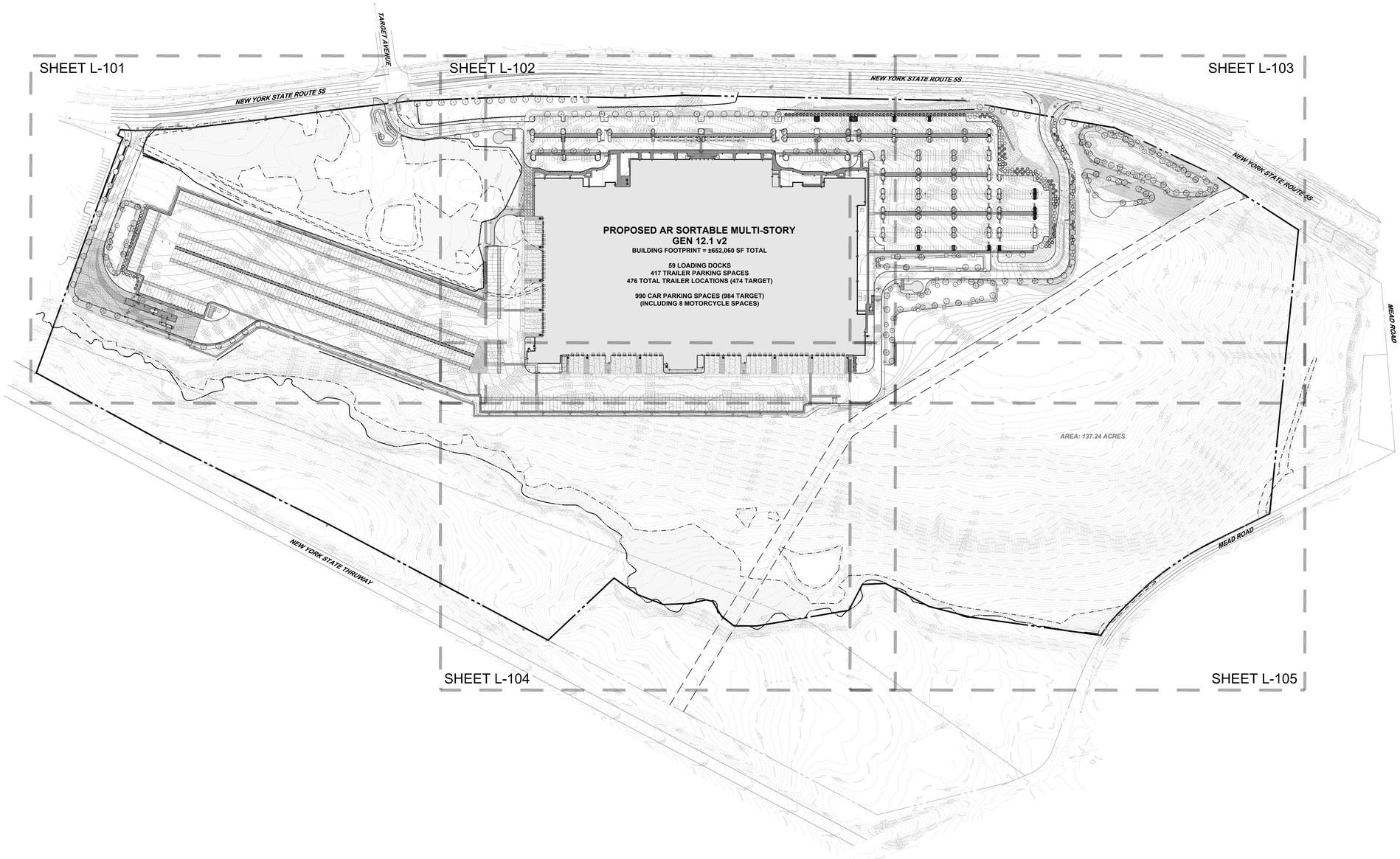


TOWN OF FLORIDA, NEW YORK
LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENT	PROPOSED
§SECTION 15 - WALLS, FENCES AND HEDGES	D. YARD REQUIREMENTS 1. A FENCE, WALL OR HEDGE SHALL BE NO CLOSER THAN TWO (2) FEET FROM THE FRONT LOT LINE, AND SHALL PROVIDE NECESSARY VISIBILITY ON CORNER LOTS. 2. A FENCE, WALL OR HEDGE SHALL BE NO CLOSER THAN TWO (2) FEET FROM ANY SIDE OR REAR YARD PROPERTY LINE, PROVIDING A STRIP OF LAND ON EACH SIDE OF THE PROPERTY LINE FOR ABUTTING PROPERTY OWNERS TO MAINTAIN THEIR FENCE WITHOUT TRESPASSING ON THE LANDS OF THE ABUTTING PROPERTY OWNER.	PROVIDED.
§SECTION 37 - LANDSCAPING REQUIREMENTS	A. WHERE ANY PERMITTED NON-RESIDENTIAL LAND USE, MULTIPLE-FAMILY DEVELOPMENT OR MOBILE HOME PARK ABUTS AN EXISTING RESIDENTIAL PARCEL OR VACANT PARCEL WHERE RESIDENTIAL DEVELOPMENT COULD OCCUR, A STRIP OF LAND AT LEAST 20 FEET WIDE SHALL BE MAINTAINED AS A LANDSCAPED AREA IN THE FRONT, SIDE AND/OR REAR YARD WHICH ADJOIN THESE USES. B. REQUIRED LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN A HEALTHY GROWING CONDITION AND SHALL TAKE THE FORM OF ANY OR ALL OF THE FOLLOWING: SHADE TREES, DECIDUOUS SHRUBS, EVERGREENS, WELL-KEPT GRASSED AREAS OR GROUND COVER. IN ANY CASE, ALL SUCH LANDSCAPING SHALL BE A MINIMUM OF FOUR (4) FEET IN HEIGHT.	PROVIDED. MIN. 20 FEET LANDSCAPE STRIP WITHIN FRONT YARD

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
ARF	53	ACER RUBRUM 'FRANK JR.'	REDPOINTE® MAPLE	2-2.5" CAL.	B&B
CCA	18	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL.	B&B
GTI	19	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2-2.5" CAL.	B&B
LSM	26	LIQUIDAMBAR STYRACIFLUA 'MORAINE'	MORAINE SWEET GUM	2-2.5" CAL.	B&B
PAM	28	PLATANUS X ACERIFOLIA 'MORTON CIRCLE'	EXCLAIMATION™ LONDON PLANE TREE	2-2.5" CAL.	B&B
QPO	11	QUERCUS PALUSTRIS	PIN OAK	2-2.5" CAL.	B&B
QRO	15	QUERCUS RUBRA	RED OAK	2.5" CAL.	B&B
TCG	12	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2-2.5" CAL.	B&B
EVERGREEN TREES					
PGL	55	PICEA GLAUCA	WHITE SPRUCE	6-7'	B&B
PPG	51	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	6-7'	B&B
PSP	50	PINUS STROBUS	WHITE PINE	6-7'	B&B
TN	32	THUJA OCCIDENTALIS 'NIGRA'	BLACK ARBORVITAE	6-8'	B&B
TOG	50	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-7'	B&B
ORNAMENTAL TREES					
PXO	5	PRUNUS X 'OKAME'	OKAME FLOWERING CHERRY	8-10'	B&B
STORMWATER BASIN TREES					
BNO	56	BETULA NIGRA 'BNMTF'	MULTI-STEM DURA HEAT RIVER BIRCH	2-2.5" CAL.	B&B
NSG	33	NYSSA SYLVATICA	SOUR GUM	2-2.5" CAL.	B&B
QBC	30	QUERCUS BICOLOR	SWAMP WHITE OAK	2-2.5" CAL.	B&B
STORMWATER BASIN SHRUBS					
CAO	50	CORNUS AMOMUM	SILKY DOGWOOD	24-30"	CONTAINER
IVJ	17	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
IVR	65	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	18-24"	CONTAINER
MPB	53	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	30-36"	CONTAINER
VDA	55	VIBURNUM DENTATUM 'ARROWWOOD'	ARROWWOOD VIBURNUM	24-30"	CONTAINER
GROUND COVERS					
HHR	50	HEMEROCALLIS X 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL	CONTAINER



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1"=150'

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DRAWN BY: VR/JRS/AKD/SJR
CHECKED BY: SRW
DATE: 04/21/2025
CAD I.D.: P-CIVIL-LSCP

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BMG ALBANY, LLC

PROPOSED WAREHOUSE DISTRIBUTION FACILITY

ROUTE 5S/MEAD ROAD
TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

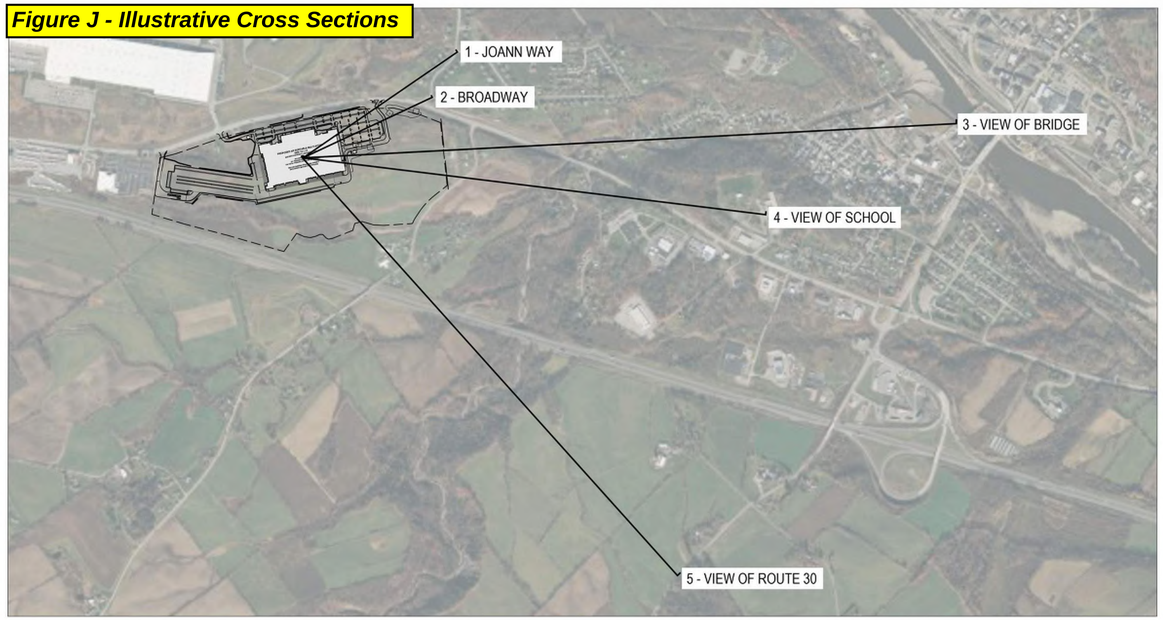
OVERALL LANDSCAPE PLAN

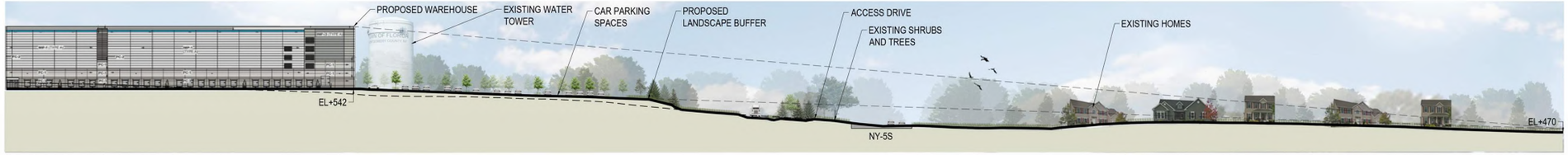
SHEET NUMBER:

L-100

ORG. DATE - 04/21/2025

Figure J - Illustrative Cross Sections





1 **LANDSCAPE SECTION - JOANN WAY**

SCALE: 1"=100'



2 **LANDSCAPE SECTION - BROADWAY**

SCALE: 1"=100'

100 50 25 0 100

1"= 100'

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CHECKED BY:	SRW
DATE:	1/10/2025
CAD I.D.:	NYB240176.0

PROJECT:

SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

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TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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RHODE ISLAND No. 419
NEW YORK No. 002359
NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

LANDSCAPE SECTIONS - 1

SHEET NUMBER:

L-100

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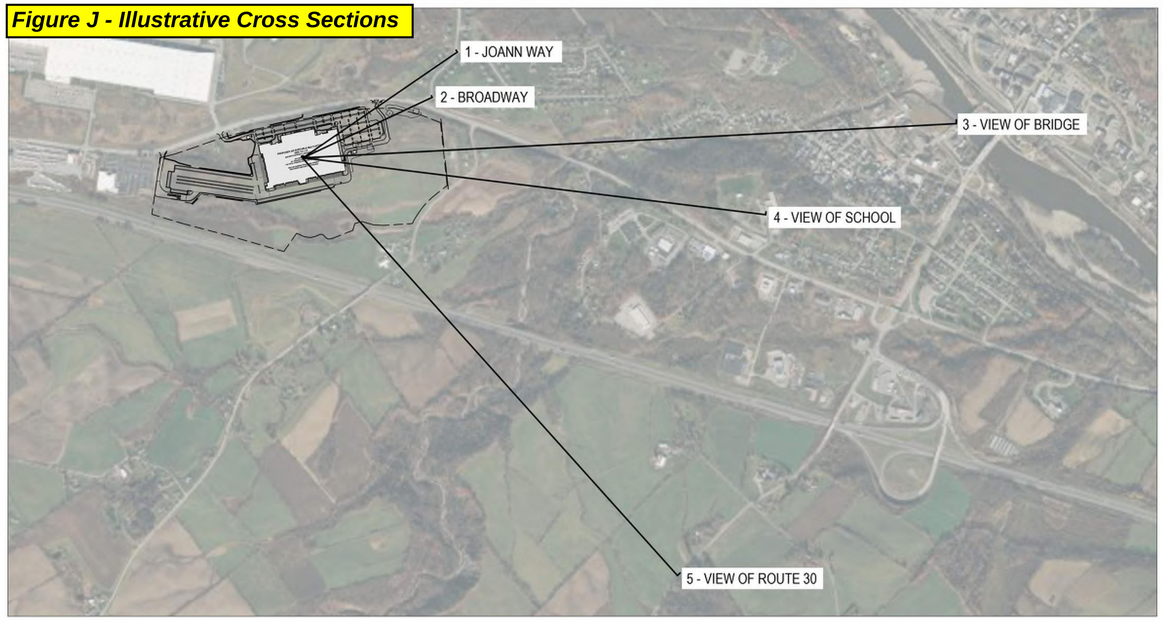



3 **LANDSCAPE SECTION - VIEW OF BRIDGE**

SCALE: 1"=300'



4 **LANDSCAPE SECTION - VIEW OF SCHOOL**

SCALE: 1"=300'



5 **LANDSCAPE SECTION - VIEW OF ROUTE 30**

SCALE: 1"=300'

300 150 75 0 300

1"= 300'

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CAD I.D.:	NYB240176.0

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SITE DEVELOPMENT PLANS

FOR

BLUEWATER PROPERTY GROUP

PROPOSED DEVELOPMENT

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MONTGOMERY COUNTY, NEW YORK
MAP: 54.-1-36

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SHEET TITLE:

LANDSCAPE SECTIONS -2

SHEET NUMBER:

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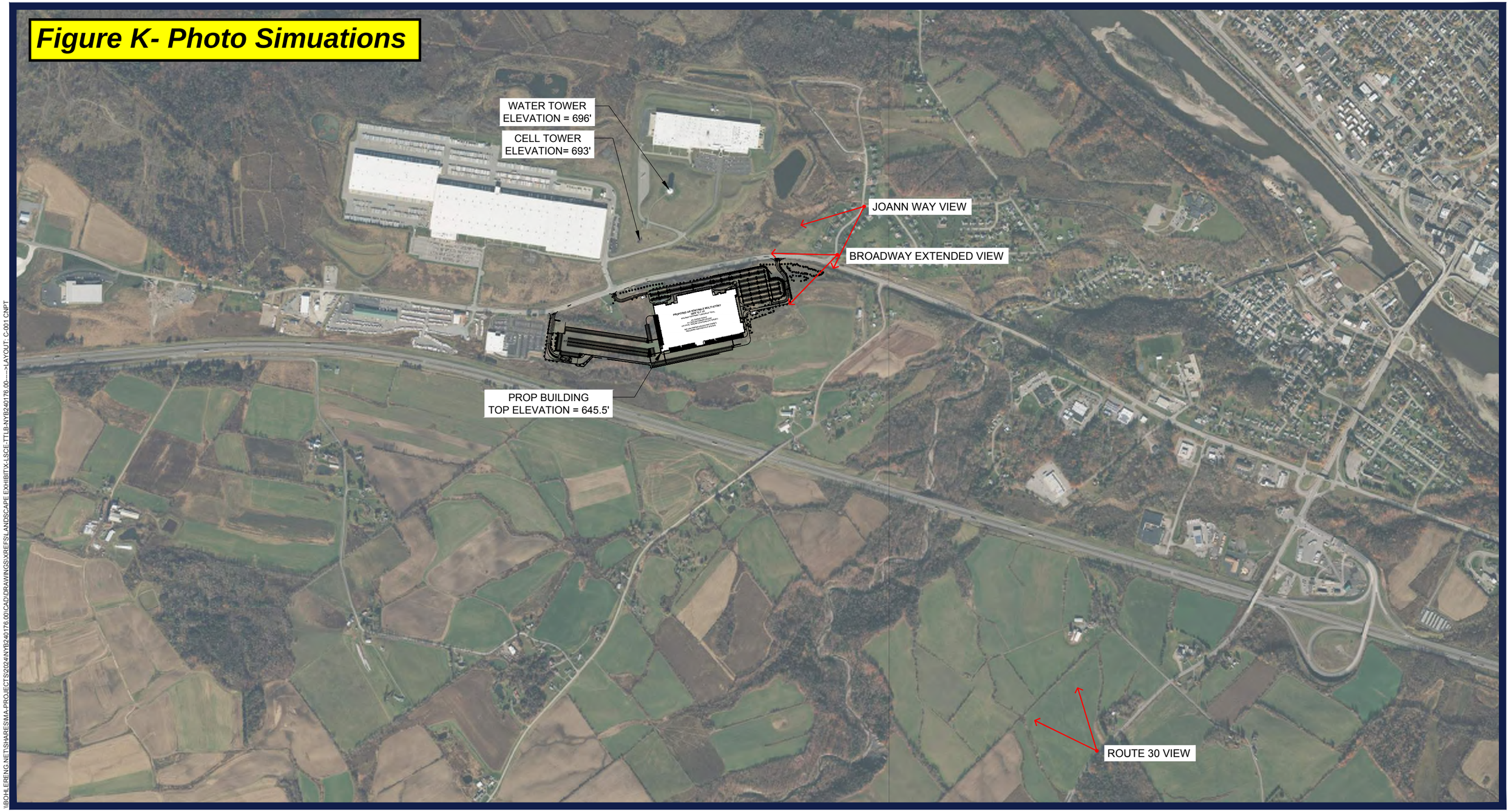
Figure K- Photo Simuations



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BMG ALBANY, LLC

ROUTE 5S/MEAD ROAD, TOWN OF FLORIDA
MONTGOMERY COUNTY, NEW YORK

1200 600 300 0 1200
SCALE: 1" = 1200'

Figure K- Photo Simuations

BROADWAY EXTENDED VIEW



BEFORE



AFTER 1 YEAR



AFTER 5 YEARS



AFTER 10 YEARS

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Figure K- Photo Simuations

JOANN WAY VIEW



BEFORE



AFTER 1 YEAR



AFTER 5 YEARS



AFTER 10 YEARS

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Figure K- Photo Simuations

ROUTE 30 VIEW



BEFORE



AFTER 1, 5, AND 10 YEARS

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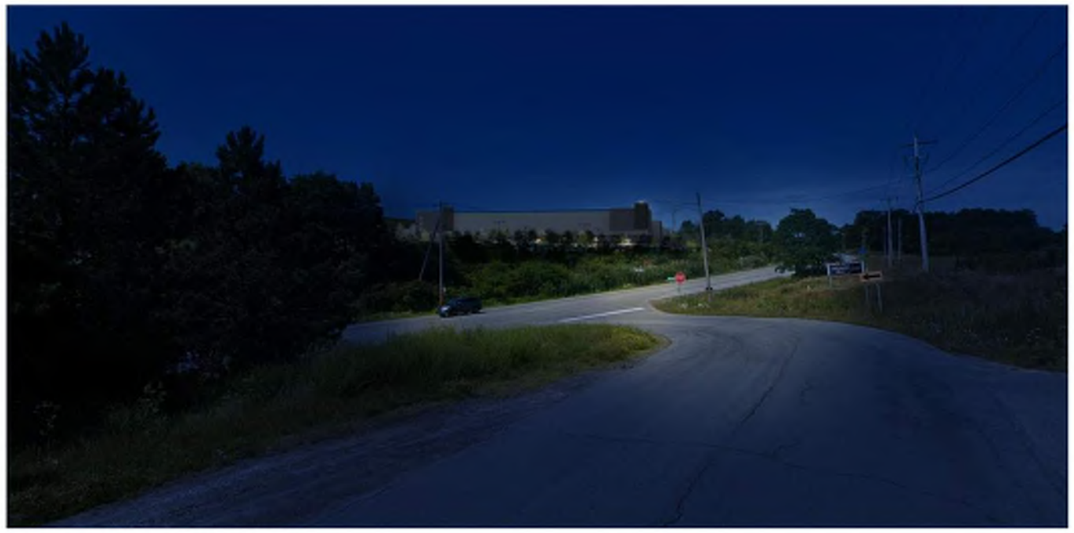
Figure K- Photo Simuations

NIGHTTIME VIEWS



BROADWAY EXTENDED



JOANN WAY

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MONTGOMERY COUNTY, NEW YORK

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APPENDIX 16

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

RANDY SIMONS
Commissioner Pro Tempore

February 20, 2025

Jed Sarabia
Bohler Engineering
17 Computer Drive West
Albany, NY 12205

Re: USACE
MSV1 – Amazon Warehouse/Distribution Facility
Route 5S, Town of Florida, Montgomery County, NY
25PR01056

Dear Jed Sarabia:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

Based upon this review, it is the opinion of the New York SHPO that no historic properties, including archaeological and/or historic resources, will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please contact Josalyn Ferguson at the following email address:

Josalyn.Ferguson@parks.ny.gov

Sincerely,

R. Daniel Mackay

Deputy State Historic Preservation Officer
Division for Historic Preservation

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

August 26, 2022

Mr. Brad Sherwood
US Army Corps of Engineers New York District
1 Buffington St.
Building 10, 3rd Floor
Watervliet, NY 12189

Re: USACE
Winstanley Distribution Center / Interchange 27 Warehouse
NYS Route 5S and Mead Road, Florida, NY
19PR04728
NAN-2019-00679-USH

Dear Mr. Sherwood:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

We have reviewed the report entitled “Phase III Data Retrieval, Winstanley Distribution Center, J. Houck Historic Site (05704.000188)” (SHPO Report No. 22SR00426), as well as the accompanying materials demonstrating adherence to the Data Retrieval Plan approved by the SHPO in a letter dated 8/14/2019. It is the SHPO’s opinion that the project’s Adverse Effects to the J. Houck archaeological site have been mitigated.

If further correspondence is required regarding this project, please refer to the SHPO Project Review (PR) number noted above. If you have any questions, please contact me via email.

Sincerely,

Tim Lloyd, Ph.D.
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only

HARTGEN
archeological associates inc

PHASE I ARCHEOLOGICAL INVESTIGATION

Winstanley Distribution Center

NY-5S and Mead Road
Town of Florida
Montgomery County, New York

HAA # 5334-31

Submitted to:
WE Acquisitions, LLC
300 George Street
New Haven, CT 06511

Prepared by:
Hartgen Archeological Associates, Inc.

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January 2019

MANAGEMENT SUMMARY

SHPO Project Review Number: *Not yet assigned*
Involved State and Federal Agencies: *Not yet identified*
Phase of Survey: *IA/IB*

LOCATION INFORMATION

Municipality: *Town of Florida*
County: *Montgomery County*

SURVEY AREA

Length: *4,210 ft (m)*
Width: *1,890 ft (m)*
Acres: *120 acres*

RESULTS OF RESEARCH

Archeological sites within one mile: *12*
Surveys in or adjacent: *3*
NR/NRE sites in or adjacent: *0*
Precontact Sensitivity: *Moderate*
Historic Sensitivity: *Moderate to High*

ARCHEOLOGICAL SURVEY OVERVIEW

Number and Interval of Shovel Tests: *1,014 tests at 50-ft intervals*
Number and Size of Units: *n/a*
Width of Plowed Strips: *n/a*
Surface Survey Transect Interval: *n/a*

RESULTS OF ARCHEOLOGICAL SURVEY

Number and Name of Precontact Sites Identified: *None (0)*
Number and Name of Historic Sites Identified: *One (1), J. Houck Historic Site*
Number and Name of Sites Recommended for Phase II or Avoidance: *One (1), J. Houck Historic Site*

RECOMMENDATIONS

The J. Houck Historic Site was identified in the west-central portion of the APE, adjacent to the former alignment of NY Route 5S. The site consists of the remains of a foundation and well, and six shovel tests containing historic artifacts within an area measuring about 1 acre. Artifacts recovered in this vicinity suggest an occupation from c. 1830 through 1910. As avoidance is not feasible, Hartgen recommends that a Phase II archeological site evaluation be completed to determine if the site is National Register eligible.

Prior soil disturbance was noted in the westernmost section of the APE. With the exception of a stray historic artifact in Test 515, no other historic or precontact artifacts or features were noted in the APE. No further work is recommended in the remainder of the APE.

Report Authors: *Elizabeth Gregory, Matthew J. Kirk, R.P.A.*
Date of Report: *January 2018*

ABSTRACT

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase I archeological investigation for the proposed Winstanley Distribution Center (Project) located in the Town of Florida, Montgomery County, New York. The total property acquisition includes approximately 140 acres. The proposed development will include the removal of existing structures and the construction of a 750,000 to 1,000,000 square-foot distribution center, parking, access roads, storm water management areas, and utility lines. No detailed site plans have yet been developed. The area of potential effects (APE) includes all portions of the property that will be directly altered by the proposed undertaking. The APE encompasses an estimated 120 acres of the total 140 acre Project.

The J. Houck Historic Site was identified in the west-central portion of the APE, adjacent to the former alignment of NY Route 5S. The site consists of the remains of a foundation and well, and six shovel tests containing historic artifacts within an area measuring about 1 acre. Artifacts recovered in this vicinity suggest an occupation from c. 1830 through 1910. As avoidance is not feasible, Hartgen recommends that a Phase II archeological site evaluation be completed to determine if the site is National Register eligible.

Prior soil disturbance was noted in the westernmost section of the APE, likely associated with the installation of the Lott Holding Corp. parking area. With the exception of a stray historic artifact in Test 515, no other historic or precontact artifacts or features were noted in the APE. No further work is recommended in the remainder of the APE.

TABLE *of* CONTENTS

PHASE I CULTURAL RESOURCES SURVEY 1
1 Introduction 1
2 Project Information 1
2.1 Project Location 1
2.2 Description of the Project 1
2.3 Description of the Area of Potential Effects (APE) 1
3 Environmental Background 1
3.1 Present Land Use and Current Conditions 1
3.2 Soils 2
3.3 Bedrock Geology 3
3.4 Physiography and Hydrology 3
4 Documentary Research 3
4.1 Archeological Sites 3
4.2 Historic Properties 4
4.3 Previous Surveys 5
5 Historical Map Review 5
5.1 Map-Documented and Existing Structures 6
6 Archeological Sensitivity Assessment 6
6.1 Precontact Archeological Sensitivity 7
6.2 Historic Archeological Sensitivity 7
7 Archeological Potential 7
8 Archeological Survey 8
8.1 Methodology 8
8.1.1 Shovel Testing 8
8.1.2 Artifacts and Laboratory 8
8.2 Results 8
8.2.1 J. Hawke/J. Houck Historic Site 10
9 Recommendations 11
10 Bibliography 12

Maps
Photographs
Appendix 1: Shovel Test Records
Appendix 2: Artifact Inventory

Map List

Map 1. Project Location (USGS 2015)
Map 2. Project Map (Esri Inc. 2016)
Map 3. Soil Map (USDA NRCS 2006)
Map 4. (Geil and Hunter 1853; NYSDOT 1992; USGS 1895; USGS 1947)

Photograph List

Photo 1. View of the graveled drive at the westernmost boundary of the Project. Historic aerial photographs show extensive disturbance throughout the grassy area after 1995, highly visible between 2006 and 2013. View looking east.

Photo 2. Remnants of extensive disturbance are visible on the ground surface, and are also visible on Map 2. View looking northeast.

Photo 3. View looking west in the V-shaped wooded area. Piles of large rocks are visible throughout this wooded area, which was the original path of the present-day Route 5S.

Photo 4. View looking southwest towards the house and associated garage at 1733 Route 5S.

Photo 5. View looking northwest in the north-central portion of the Project. The house at 1733 Route 5S is visible in the background, and the distribution center across the street is visible to the right of the photo.

Photo 6. View looking northeast in the north-central portion of the Project. The farm stand and shed along Route 5S are visible to the left in the photo, and part of the garage and house at 1711 Route 5S are visible to the right in the photo.

Photo 7. Several completed shovel tests are visible in the snow, in the western-central portion of the Project. View looking northeast.

Photo 8. View looking east toward a steeply sloping area near the central portion of the APE.

Photo 9. The wooden farm stand and associated metal shed (visible behind the building) were located between the two extant houses on Route 5S. View looking southwest.

Photo 10. The house and associated garage at 1711 Route 5S. View looking southwest.

Photo 11. Four archeologists excavate shovel tests towards the central portion of the Project. View looking west.

Photo 12. Pink flags mark shovel tests at 50-ft intervals in the central-eastern portion of the Project. View looking northwest.

Photo 13. The area south of Tests 529 to 620 was steeply sloped. View looking southeast.

Photo 14. Archeologists excavate shovel tests towards the eastern-central portion of the Project. View looking southwest.

Photo 15. Some portions of the Project contained large areas of standing water. View looking west.

Photo 16. View looking southeast in the northeastern portion of the Project. This section of the APE consisted of brush and trees, occasionally dense.

Photo 17. Slope was noted between transects in the northeastern portion of the Project. View looking southeast.

Photo 18. Slope was noted between transects in the northern portion of the Project. View looking southeast.

Photo 19. Archeologists excavate shovel tests in a corn field in the eastern portion of the Project. View looking west.

Photo 20. View looking east towards the western boundary of the Project. The metal barn/storage building see on Map 2c is visible at the base of the slope.

Photo 21. The gravel drive leading to the large metal barn/storage building is visible off of Mead Road. The area to the left of the barn is steeply sloped. View looking northwest.

Photo 22. Shovel tests are flagged in the southernmost portion of the APE, south of the unnamed tributary of the South Chuctanunda Creek. View looking southeast.

Photo 23. Portions of this southern section of the APE, south of the South Chuctanunda Creek, were steeply sloped. View looking northwest from Test 551.

Photo 24. Three shovel tests were excavated in the wooded area towards the central-southern portion of the APE. View looking east.

Photo 25. Cattails and other plants typical of wet areas were visible towards the central portion of this southern section of the APE. Areas of standing water were not excavated. View looking east.

Photo 26. View looking northwest from Test 668. This southern section of the APE was brushy, with sections of standing water. A steeply sloping area is visible in the background of the photo.

Photo 27. A stone foundation, consistent with the location of MDS 1, was observed in the wooded area along the former path of present-day Route 5S. View looking north.

Photo 28. A stone well was observed adjacent to the foundation. View looking northeast.

Table List

Table 1. Soils in Project 2
Table 2. Archeological sites within one mile (1.6 km) of the Project 3
Table 3 Relevant previous surveys within or adjacent to the Project 5
Table 4. Summary of map-documented and existing structures within the Project /APE 6
Table 5. Summary of Archeological Site 1 10

PHASE I CULTURAL RESOURCES SURVEY

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase I archeological investigation for the proposed Winstanley Distribution Center (Project) located in the Town of Florida, Montgomery County, New York. This investigation was conducted to comply with Section 14.09 of the State Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

2 Project Information

2.1 Project Location

The Project is located between NY-5S, the New York State Thruway (I-90), and Mead Road, in the Town of Florida, Montgomery County, New York.

2.2 Description of the Project

The total property acquisition includes approximately 140 acres. The proposed development will include the removal of existing structures and the construction of a 750,000 to 1,000,000 square-foot distribution center, parking, access roads, storm water management areas, and utility lines. No detailed site plans have yet been developed, as the proposed owner is conducting due diligence prior to finalizing a footprint.

2.3 Description of the Area of Potential Effects (APE)

The area of potential effects (APE) includes all portions of the property that will be directly altered by the proposed undertaking. As no detailed site plans have yet been developed, the APE encompasses an estimated 120 acres of the total 140 acre Project.

3 Environmental Background

The environment of an area is significant for determining the sensitivity of the Project for archeological resources. Precontact and historic groups often favored level, well-drained areas near wetlands and waterways. Therefore, topography, proximity to wetlands, and soils are examined to determine if there are landforms in the Project that are more likely to contain archeological resources. In addition, bedrock formations may contain chert or other resources that may have been quarried by precontact groups. Soil conditions can provide a clue to past climatic conditions, as well as changes in local hydrology.

3.1 Present Land Use and Current Conditions

A site visit was conducted concurrent with fieldwork by Bradley Russell and Elizabeth Gregory on November 12, 2018 to observe and photograph existing conditions within the Project.

Presently, the land consists of two residential properties including houses, garages, and outbuildings (both properties to the north along Route 5S), a wooden farm stand building and associated small metal shed (central-north, along Route 5S), and a metal barn/shed structure to the east, off of Mead Rd. Several portions of the Project consist of brushy and wooded areas, and the remainder consists of actively farmed fields. The westernmost boundary lies along the edge of a graveled parking lot, part of which appears to extend into the Project. An unnamed tributary of the South Chuctanunda Creek runs along the southeastern boundary and through the southern portion of the Project. The Project is

bounded by NY-5S to the north, Mead Road to the southeast, a working farm and the New York State Thruway (I-90) to the south, and the property of Lott Holding Corp., 1785 NY Route 5, to the west.

There are two ponds within the Project, in addition to the unnamed tributary of the South Chuctanunda Creek. Areas of standing water were noted throughout the APE. Small streams ran through the wooded area in the northern section of the Project.

3.2 Soils

Soil surveys provide a general characterization of the types and depth of soils that are found in an area. This information is an important factor in determining the appropriate methodology if and when a field study is recommended (USDA NRCS 2018).

Table 1. Soils in Project

Symbol	Name	Depth	Textures	Slope	Drainage	Landform
AnB	Angola silt loam	0-23 cm (0-9 in) 23-61 cm (9-24 in) 61-71 cm (24-28 in)	Silty loam Silty clay loam Weathered bedrock	3-8%	Somewhat poorly drained	Benches, ridges, till plains
ApB	Appleton silt loam	0-20 cm (0-8 in) 20-41 cm (8-16 in) 41-76 cm (16-30 in) 76-137 cm (30-54 in) 137-201 cm (54-79 in)	Silt loam Loam Gravelly silt loam Gravelly loam Gravelly loam	3-8%	Somewhat poorly drained	Drumlins, ridges, till plains
CFL	Cut and Fill Land	0-10 cm (0-4 in) 10-178 cm (4-70 in)	Gravelly loam Very gravelly loam	0-15%	Somewhat excessively drained	--
ChA	Churchville silty clay loam	0-18 cm (0-7 in) 18-81 cm (7-32 in) 81-213 cm (32-84 in)	Silty clay loam Clay Channery loam	0-3%	Somewhat poorly drained	Lake plains, till plains
LaC	Lansing silt loam	0-20 cm (0-8 in) 20-33 cm (8-13 in) 33-53 cm (13-21 in) 53-71 cm (21-28 in) 71-99 cm (28-39 in) 99-201 cm (39-79 in)	Silt loam Gravelly silt loam Gravelly silt loam Gravelly silt loam Gravelly silt loam Gravelly loam	8-15%	Well drained	Drumlins, hills, till plains
Ma	Madalin silty clay loam	0-18 cm (0-7 in) 18-23 cm (7-9 in) 23-53 cm (9-21 in) 53-76 cm (21-30 in) 76-201 cm (30-79 in)	Silty clay loam Silty clay loam Clay Silty clay Stratified silt to clay	0-3%	Poorly drained	Depressions
MmB	Manheim silt loam	0-23 cm (0-9 in) 23-71 cm (9-28 in) 71-127 cm (28-50 in)	Silt loam Gravelly silt loam Gravelly silt loam	3-8%	Somewhat poorly drained	Drumlinoid ridges, hills, till plains
PaB	Palatine silt loam	0-28 cm (0-11 in) 28-46 cm (11-18 in) 46-71 cm (18-28 in) 71-81 cm (28-32 in)	Silt loam Channery silt loam Very channery silt loam Unweathered bedrock	3-8%	Well drained	Benches, ridges, till plains
PaC	Palatine silt loam	0-28 cm (0-11 in) 28-46 cm (11-18 in) 46-71 cm (18-28 in) 71-81 cm (28-32 in)	Silt loam Channery silt loam Very channery silt loam Unweathered bedrock	8-15%	Well drained	Benches, ridges, till plains
PaD	Palatine silt loam	0-28 cm (0-11 in) 28-46 cm (11-18 in) 46-71 cm (18-28 in) 71-81 cm (28-32 in)	Silt loam Channery silt loam Very channery silt loam Unweathered bedrock	15-25%	Well drained	Benches, ridges, till plains

Symbol	Name	Depth	Textures	Slope	Drainage	Landform
RhB	Rhinebeck silty clay loam	0-33 cm (0-13 in) 33-71 cm (13-28 in) 71-178 cm (28-70 in)	Silty clay loam Silty clay Stratified silt loam to clay	3-8%	Somewhat poorly drained	Lake plains
W	Water	--	--	--	--	--

3.3 Bedrock Geology

The bedrock within the Project consists of Canajoharie shale (Oc) of the Lorraine, Trenton, and Black River Groups. It is not known to be chert-bearing in Montgomery County.

3.4 Physiography and Hydrology

Steeply sloped areas are considered largely unsuitable for human occupation. As such, the standards for archeological fieldwork in New York State generally exclude areas with a slope in excess of 12% from archeological testing (NYAC 1994). Exceptions to this rule include steep areas with bedrock outcrops, overhangs, and large boulders that may have been used by precontact people as quarries or rock-shelters. Such areas may still warrant a systematic field examination.

After completing a slope analysis, it was determined that approximately 50 acres of the 120-acre APE contains slope in excess of 12%. The Project's topography is depicted on Map 2. The Project contains no areas of bedrock outcrops, overhangs, or large boulders. Based on this analysis, about 70 acres of the 120-acre APE will be tested.

Three waterways are located nearby or within the Project. The South Chuctanunda Creek is located 0.6 mi of the Project. An unnamed tributary of this creek runs along the southeastern boundary and through the southern portion of the APE. The APE contains two small ponds, one in the southern section and one towards the northwestern section. Finally, the Mohawk River is located approximately 4,300 feet northeast of the Project.

The two small ponds are both manmade. The pond associated with the property at 1733 Route 5S, located south of the house and garage, was created between 1995 and 2006 (Map 2a). The pond to the southeast, just north of the unnamed tributary and nearby I-90, appears to have been installed between 1969 and 1980 (Map 2e) (USGS 1969; USGS 1980).

4 Documentary Research

Hartgen conducted research using the New York State Cultural Resource Information System (CRIS), which is maintained by the New York SHPO and the Division for Historic Preservation DHP within OPRHP. CRIS contains a comprehensive inventory of archeological sites, State and National Register (NR) properties, properties determined eligible for the NR (NRE), and previous cultural resource surveys.

4.1 Archeological Sites

An examination of CRIS identified 12 reported archeological sites within one mile (1.6 km) of the Project (Table 2). Previously reported archeological sites provide an overview of both the types of sites that may be present in the Project and relation of sites throughout the surrounding region. The presence of few reported sites, however, may result from a lack of previous systematic survey and does not necessarily indicate a decreased archeological sensitivity within the Project.

Table 2. Archeological sites within one mile (1.6 km) of the Project

OPRHP Site No.	NYSM Site No.	Site Identifier	Description	Proximity to Project
05704.000092	1571	Terraut (AKA Terrant &, or Tenant) Site	Precontact site; no further information.	5,750 feet south
05704.000093	1572	Hartley Site	Precontact site; no further information.	5,940 feet south

OPRHP Site No.	NYSM Site No.	Site Identifier	Description	Proximity to Project
05704.000096	1579	Unnamed Site	Precontact site; no further information.	3,200 feet southeast
05704.000115	-	J. McClumpha Historic Archaeological Site	Pre-1853 historic site consisting of: a 1893 Chicago exposition medallion, whiteware, pearlware, flow blue, yellowware, spongeware, lusterware, gray salt-glazed stoneware, hand-painted polychrome pearlware, creamware, slip-decorated buff earthenware, hand-wrought nails, vessel- and window-glass, metal figurine fragments, and porcelain doll fragments.	2,350 feet northwest
05704.000116	-	W. McClumpha Historic Archaeological Site	Pre-1853 historic site consisting of: whiteware, semi-porcelain, pearlware, black-glazed redware, flow blue, yellowware, gray salt-glazed stoneware, hand-painted polychrome pearlware, creamware, vessel- and window-glass, as well as cut- and wire-nails.	1,910 feet north
05704.000120	11244	Farm Complex 1 (DeForest/Pettengill/Lohmeyer Farm)	Mid-19th Century historic farm complex that includes a collapsed barn, two silo foundations, a well, earthen ramps, a roadway, gate, chicken coop, and a milk house. A variety of early 20th Century farm equipment was also present.	500 feet northeast
05704.000121	11242	Farm Complex 2 (Fossgate/Houck Farm)	Mid-19th Century farm complex consisting of two houses (the Jacob and Christina Houck farmhouse and the J. Houck Tenant House), three barns, at least three small sheds, and the Houck family cemetery. The Jacob and Christina Houck farmhouse was dismantled (in hopes of future reconstruction elsewhere), two (of the three) barns, and three sheds were demolished in 2005.	320 feet north
05704.000122	11243	Farm Complex 3 (Keller/Walrath/Krochina Farm)	Early 19th Century farmhouse (initially used as a tavern), with tenant house added by the mid-19th Century. The complex also includes one extant barn (of unknown date) as well as the stone foundations of a possible carriage house (built over as a garage composed of mixed historic and modern building materials).	1,220 feet west
05704.000135	-	MCIDA P-1 Precontact Site	Precontact site consisting of one gray chert flake.	5,135 feet west
-	3317	ACP FUTN No#	Precontact traces of occupation, reported by Arthur C. Parker in 1922.	2,700 feet east
-	8355	ACP MTGY No#	Precontact trail, reported by Arthur C. Parker in 1922.	720 feet south
-	9258	ACP MTGY No#	Precontact traces of occupation, reported by Arthur C. Parker in 1922.	5,010 feet northwest

4.2 Historic Properties

An examination of CRIS did not identify any NR properties, NRE properties, properties previously determined to be ineligible, nor any properties of undetermined status within the Project.

4.3 Previous Surveys

A review of CRIS identified three previous surveys within the immediate vicinity of the Project (Table 3).

Table 3 Relevant previous surveys within or adjacent to the Project

Project/Phase	Summary	Citation
PIN 2029.57.101 (State Routes 5S & 30), Phase I	This Project was located along NY Route 5S. The precontact archeological sensitivity was considered moderate, and the historic archeological sensitivity was considered moderate to high. Three historic sites were identified during Phase IB investigations. No precontact artifacts or features were identified during this survey. Additionally, 48 structures were assessed, thirteen of which were determined to be National Register Eligible.	(Hartgen Archeological Associates 2002)
Proposed Florida Business Park (Lot 4), Phase IA/IB	The NRE structure (Fossgate/Houck Farmstead) and known historic features, including walkways and a stone wall, and a small family cemetery were located in the Project. A walkover survey, stripping, and excavation of 160 shovel tests were completed here. The Phase IB survey located a number of 19th century ceramics, brick and mortar fragments, faunal bones. Seven historic features, including a well-preserved stone walkway located near the farmhouse, were documented during this survey. Several areas contained extensive disturbance. No precontact artifacts or features were noted within the Project. Avoidance or further investigation was recommended for the areas of the Project containing the Fossgate/Houck house and associated features.	(Hartgen Archeological Associates 2003)
Beech-Nut Relocation Project, Phase IA/IB	The precontact and historic archeological sensitivities was determined to be moderate. A total of 276 tests were excavated at 50-ft intervals. No archeological deposits or features were found. No further work was recommended.	(Hartgen Archeological Associates 2008)

Historic maps indicate that development occurred throughout the region, beginning prior to 1850. Five early- to mid-19th c. archeological sites have been recorded within one mile of the current Project, two located within 500 feet (Farm Complex 2, Fossgate/Houck Farm (05704.000121) and Farm Complex 1, DeForest/Pettengill/Lohmeyer Farm (05704.000120)). Three other reported farm sites are located north of the Project. All of these farm houses are visible on the 1853 Geil Montgomery Co. map (Map 4) (Geil and Hunter 1853).

The current Project is bounded by New York State Highway 5S at the northern end. The 2002 State Routes 5S & 30 project determined that "no significant subsurface deposits other than features visible at the surface were recovered from the Farm Complex 1 area at SR 5S and Broadway Extension," located near the northeastern section of the current Project.

The Fossgate/Houck Farmstead was located at the intersection of Hirschfield Rd and NY State Highway 5S. Hirschfeld Road, which was once located near the intersection of Broadway and NY-5S, across the street from the current Project, was removed sometime after 2003. It was replaced by "Nutritious Pl." and the distribution center complex. The Beech-Nut Relocation Project was located just north of the current Project, on the opposite side of NY-Route 5S.

5 Historical Map Review

Historic maps indicate some historic development within the Project. Late 19th- to mid-20th century maps, dating between 1895 and 1947, depict a historic road through the APE (Old Route 5S), which appears to follow the current V-shaped tree line in the northern section of the Project. On late 19th to early 20th-century maps, two structures appear along this road (MDS 1 and 2) (Map 4). These two map-documented structures, labelled "J. Hawke," are visible on maps beginning in 1895 and were presumably constructed between 1853 and 1895. They appear to have been removed sometime between 1924 and 1931. The road appears to have been rerouted

to its current configuration between 1947 and 1949 (present-day NY-5S) and two houses were constructed on lots north of the former roadway, fronting the new portion of Route 5S. The Old Route 5S ran along the properties' southern boundaries, along or through what is currently a tree line.

Currently, two houses and associated structures are extant within the Project; the oldest was constructed c. 1989. Two houses, associated garages and sheds, and a barn and shed are located in the northwestern section of the Project, along NY-5S. A review of historic aerial images indicates that the barn and shed structures located on the lot between the two extant houses, as well as the associated horseshoe-shaped driveway, were constructed between 1995 and 2005.

A barn or storage structure is also located at the eastern edge of the Project, near Mead Road, and was built in the late 20th century, prior to 1995.

5.1 Map-Documented and Existing Structures

Each past or current structure within the Project is assigned a unique structure number. Map-documented structures—those structures that are depicted on one or more maps—are distinguished using the abbreviation "MDS" after the structure number (e.g. Structure 3 (MDS)).

Table 4. Summary of map-documented and existing structures within the Project /APE

Structure #	(Geil and Hunter 1853)	(Nichols 1868)	(USGS 1895)	(USGS 1931)	(USGS 1947)	(NYSDOT 1992)	Extant (2018)	Notes
1	"J. Hawke"	"J. Houck"	X					
2	"J. Hawke"							
3			X					
4						X	X	1733 Route 5S
5							X	1711 Route 5S
6							X	Farm stand (Rt 5S)
7							X	Barn (Mead Rd.)

MDS 1 and MDS 2 were both labelled "J. Hawke" on the 1853 Geil map. This was a misspelling on the early map, and was later corrected to "J. Houck" on the 1868 map. The members of the Houck family who occupied these two structures, within the current Project, were likely close relatives of the Houck family who occupied the mid-19th century Farm Complex 2 (Fossgate/Houck Farm) (05704.000121), located 320 feet north of the current Project.

There are nine (9) individual and associated structures within the Project (Maps 2a, 2b, and 2c). All extant structure within the APE are of recent construction dates. Construction dates were determined using historic map review and historic aerial photography.

- The house and associated garage at 1733 Route 5S (Photo 4) appear to have been constructed between 1980 and 1992. The pond and associated shelter to the south of the house were created between 1995 and 2006.

- The house, associated garage, and small shed at 1711 Route 5S (Photo 10) were constructed between 1992 and 1995.

- The farm stand and associated shed along Route 5S, between the two houses (MDS 4 and 5) were constructed between 2005 and 2006 (Photo 9).

- The extant metal barn/large shed off of Mead Road was constructed between 2001 and 2005 (Photos 20-21), and replaced an earlier barn immediately to its south that was constructed prior to 1995.

6 Archeological Sensitivity Assessment

The New York Archaeological Council provides the following description of archeological sensitivity:

> Archaeologically sensitive areas contain one or more variables that make them likely locations for evidence of past human activities. Sensitive areas can include places near known prehistoric sites that share the same valley or that occupy a similar landform (e.g., terrace above a river), areas where historic maps or photographs show that a building once stood but is now gone as well as the areas within the former yards around such structures, an environmental setting similar to settings that tend to contain cultural resources, and locations where Native Americans and published sources note sacred places, such as cemeteries or spots of spiritual importance (NYAC 1994:9).

6.1 Precontact Archeological Sensitivity

The precontact sensitivity of an area is based on proximity to previously documented precontact archeological sites, known precontact resources (e.g. chert outcrops), and physiographic characteristics such as topography and drainage. Generally, areas in the vicinity of streams and wetlands are considered to have elevated sensitivity for sites associated with Native American use or occupation because they presented potential food and water sources as well as transportation corridors.

Seven precontact archeological sites have been reported within one mile of the current Project, although most are located 2,700 to 5,940 feet away. Additionally, the bedrock within the Project is not known to be chert bearing in Montgomery County. However, three water sources are located within or nearby the current Project. Given this information, the precontact archeological sensitivity for the Project is moderate.

6.2 Historic Archeological Sensitivity

The historic sensitivity of an area is based primarily on proximity to previously documented historic archeological sites, map-documented structures, or other documented historical activities (e.g. battlefields).

Historic maps indicate that development occurred throughout the region, beginning prior to 1850. Five early- to mid-19th c. historic archeological sites have been recorded within one mile of the current Project, with two located within 500 feet (Farm Complex 2, Fossgate/Houck Farm (05704.000121) and Farm Complex 1, DeForest/Pettengill/Lohmeyer Farm (05704.000120)). Three other reported farm sites are located north of the Project. All of the residential structures identified within these sites are visible on the 1853 Geil Montgomery Co. map (Geil and Hunter 1853). Additionally, historic maps indicate that the Old Route 5S ran through the current Project, and that two mid- to late 19th-century structures appear to have been located along the old Route 5S within the Project. The historic archeological sensitivity is high.

7 Archeological Potential

Archeological potential is the likelihood of locating intact archeological remains within an area. The consideration of archeological potential takes into account subsequent uses of an area and the impact those uses would likely have on archeological remains.

Approximately 50 acres of the 120-acre total APE are sloped in excess of 12%. The archeological potential in these areas is low, and no testing is recommended here.

It appears that limited development has occurred within the remaining 70 acres. Historic maps indicate the route of Old Route 5S ran along the current tree line in the west/northwestern portion of the Project, and that two structures were located along this roadway. After these structures were removed between 1853 and 1868 (MDS 2) and between 1924 and 1931 (MDS 1), it does not appear that any further development occurred in that vicinity and the roadway was rerouted to its present configuration between 1947 and 1949. It appears that the only other development within this Project was the construction of the extant houses, associated garages, and sheds along the current Route 5S, all built after 1989, and the farm stand and shed between the houses, constructed between 1995 and 2005. The metal barn structure in the southeastern section of the APE, off of Mead Road, was constructed in the late 20th century. Aerial photographs appear to show some disturbance

between 2006 and 2013 in the western portion of the Project, east of the Lott company property and south of the tree line. This may indicate a reduced archeological potential in this area.

Five nearby early to mid-19th century farmstead sites were identified and reported during previous surveys of the adjacent properties north and west of the current Project. Some disturbance was noted during these surveys but the sites appeared mostly intact. The overall archeological potential for the Project is moderate to high.

8 Archeological Survey

After completing a slope analysis, it was determined that approximately 50 acres of the 120-acre APE contain slope in excess of 12%, which has a low archeological potential. Based on this analysis, about 70 acres of the 120-acre APE were tested. The remaining 70 acres had a moderate to high archeological potential, as well as a moderate precontact archeological sensitivity and a high historic archeological sensitivity. Shovel tests were laid out and excavated at 15 meter (50 ft) intervals in a grid pattern to achieve complete coverage of all remaining 70 acres.

8.1 Methodology

8.1.1 Shovel Testing

Shovel tests were excavated at a standard interval of 15 meters (50 ft). Each shovel test was 40 centimeters (16 in) in diameter. All excavated soil was passed through 0.25-inch hardware mesh and examined for both precontact (Native American) and historic artifacts. The stratigraphy of each test was recorded including the depth, Munsell color, soil description, and artifact content (Munsell Color 2000). The location of each shovel test was plotted on the project map. Test excavation was photographed.

8.1.2 Artifacts and Laboratory

As general procedure, all precontact (Native American) cultural material identified during the fieldwork are collected. Significant historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items are collected. Coal, ash, cinder, brick, and modern materials are noted. Any artifacts collected are placed in paper or plastic bags labeled by provenience and inventoried in a bag list. Bags are numbered in the field and transported to the Hartgen laboratory in the Town of North Greenbush, Rensselaer County, New York, for processing.

Shovel test records and other provenience information were entered into a Microsoft *Access* database (Appendix 1). Artifacts were cleaned and cataloged. Cataloging entailed entering artifact provenience information, counts, weights, and descriptive information into the database (Appendix 2).

8.2 Results

The Phase IB archeological field reconnaissance was conducted between November 12 and November 29, 2018. The field crew consisted of Jamie Penk, Tom Boyd, Cindy Jackson, Adam Gersten, Joe Rynasko, Drew David, Amy Wilson, and John Ham. Bradley Russell and Elizabeth Gregory served as Field Supervisors. Matthew J. Kirk was the Principal Investigator. The weather was variable, ranging from moderately chilly and clear to cold and rainy to snow. Excavations were not completed in severe weather, and so the weather did not affect visibility of soil stratigraphy or artifact recovery. Soils throughout the Project were poorly drained (Table 1), and many shovel tests contained water at the base. Some tests were located within wet areas, including some areas with deep standing water and, as such, were not excavated. A total of 1048 shovel tests were laid out at 50-ft intervals throughout the APE; a total of 1014 shovel tests were excavated (Appendix 1).

Map 2a

The westernmost portion of the Project, adjacent to the property of Lott Holding Corp., was largely disturbed (Map 2a). This correlated with the suspected disturbance seen on aerial photographs dating between 2006 and 2013. Soils were highly variable with a great deal of mottling. Level 1 soils ranged from a dark grey to a very

dark grayish brown to a very dark brown and were typically silty loam or silty sand. Level 2 was often inaccessible due to gravel and rocks, but when visible appeared as a yellowish brown silt, or a dark brown to dark grayish brown silty or loamy clay. In one area, Tests 451, 452, 488, 489, 491, and 493 contained large amounts of wood mulch, with Test 488 containing 50 cm consisting entirely of black mulch. Other tests in this area noted concrete inclusions, gravel, metal, plastic, and wood debris, primarily where dumping has occurred within and just south of the woods line. Concrete and steel pillars, visible on the orthoimage (Map 2a), were located near Test 160. Test 351 was located adjacent to a pile of building and construction rubble, including concrete parking barriers and aluminum siding. Black plastic geotextile fabric was noted in a few separate areas within the western section, generally accompanied by mottled soils in Level 1, and rocky soils or compact fill beneath the fabric.

The most typical soil profile in the intact areas of the westernmost portion of the Project was a dark grayish brown to very dark gray silty loam A Horizon to a depth of about 22-24 cm, underlain by a brown, olive brown, or yellowish brown silty loam or silty clay B Horizon.

Within the wood line was evidence of an old rock wall, with piles of cobbles visible in a line throughout this area. Two small streams, roughly parallel to one another, also ran through the wooded area alongside the rock wall. Some disturbance was noted throughout this area, though initially little evidence of the former roadway was visible on the surface. Upon closer examination, it appears that the two small parallel streams were drainage ditches on either side of the former roadway. The brush was quite dense in some spots in this wooded section.

The typical soil profile within the residential properties along Route 5S consisted of a very dark grayish brown silty loam A Horizon to a depth of around 30 cm, underlain by a dark grayish brown or yellowish brown silty loam or silty clay B Horizon (Map 2a). A gas utility pipe was located 3m north of Test 41, next to the driveway at 1733 Route 5S. Disturbance, including made land (a pathway wrapping around the southern portion of the man-made pond) was noted south of the house.

The wooded area came to a point south of the farm stand. Here, shovel tests 354, 360, 400, and 429-431 were positive for historic cultural materials. These positive tests were located nearby a stone foundation and a stone well. The artifacts collected in this vicinity included a strap hinge, likely a barn door hinge dating to the mid-late 19th century, and two pieces of unidentified wire hardware surface collected near the foundation remains. In addition to the surface artifacts, nearby shovel tests contained cut nails, handmade amber bottle glass, manganese solarized and embossed pale aqua vessel glass, faunal bone, and a variety of ceramics including redware, whiteware, salt-glazed Albany slip stoneware, and molded ironstone. The metal strap hinge, cut nails, salt-glazed Albany slip stoneware, molded ironstone, and handmade amber bottle glass can be approximately dated to the mid- to late-19th century, a time period consistent with the occupation of the house according to historic maps.

The parallel streams, rock wall, and former roadway continue through the area adjacent to the foundation and continue northeast, following the path of the former roadway as illustrated on historic maps. Here, the former roadway became evident upon closer examination of the small streams and strip of land between them.

Map 2b

Map 2b depicts the farm stand, its associated shed, and the house at 1711 Route 5S along with its associated outbuildings. The current owner of the property at 1711 Route 5S indicated the general location of a septic field to the field crew, evident in Tests 255, 256, 258, 259. Other tests in this vicinity also contained mottled soils. In the field south of 1711 Route 5S, the typical soil profile was approximately 35 cm of dark or very dark grayish brown silty loam, underlain by a brown to yellowish brown silty clay subsoil.

The field south of the wood line, towards the central and eastern portions of the Project, appeared to be intact according to historic aerials (Map 2b). In the area near Tests 504-529 and 579-620, the typical soil profile was a dark gray to dark grayish brown silty loam, to a depth of about 25-30 cm, underlain by a light olive brown to dark yellowish brown B Horizon. Exfoliating bedrock was noted along the ridge to the south of this section, and towards the ridge tests contained gravel and cobbles. All tests in this section were negative, with the exception of Test 515 which contained a stray historic artifact, a porcelain cup base.

Map 2c

The typical soil profile in this area (Tests 669-1009) appears as a brown to dark grayish brown silty loam or clay loam A Horizon to a depth of 30-35 cm, underlain by a brown to yellowish brown silty clay subsoil. A number of tests contained gravel and cobbles, and tests towards the ridge line often contained exfoliating bedrock. Along the ridge line in the eastern portion of the Project, bedrock was shallow and several tests were terminated at depths between 28- 40 cm due to bedrock. No artifacts or features were noted in this area.

The westernmost section of the APE (Tests 1040-1047) near the extant metal barn structure appeared somewhat disturbed around the structure, likely due to the clearing of the original barn, the pouring of the concrete pad foundation, and construction of the structure and associated driveway. Here the first level was a very dark grayish brown silty loam, with some gravel and cobbles present. Subsoil was not reached in any test due to an influx of water, or rock and compact soil impasses.

Map 2d

Map 2d depicts the southwestern section of the APE (Tests 533-578), located south of the unnamed tributary and north of I-90. The westernmost portion of this segment consisted of built land (Table 1; Map 3) and was not excavated. Portions of this section were avoided due to slope in excess of 12%.

The typical soil profile in this section was a 23-33 cm brown to dark grayish brown silty loam or silty clay Ap Horizon, underlain by a brown to dark yellowish brown silty clay or clay subsoil. No historic or precontact artifacts or features were noted in this section.

Map 2e

Map 2e depicts the south-central portion of the APE (Tests 621-668). The central part of this section was wet with areas of standing water, and contained cattails and other plants found in wet areas. The typical soil profile in this area was 33-45 cm dark to very dark grayish brown silty loam A Horizon, underlain by a brown to dark yellowish brown silty clay or loamy clay subsoil. Subsoil was not reached in the majority of tests in this low-lying area, due to rock impasses, or water infiltration from the wet area and the poor drainage of the soils here. No precontact or historic artifacts or features were noted in this area.

Summary

One archeological site consisting of a stone foundation, a stone well, and mixed historic artifacts, was identified during this survey. The locations of the foundation and well were mapped with GPS equipment, and the foundation appears to correlate with the structure labelled J. Hawke on the 1853 Geil map that was located within the APE of the current Project (MDS 1).

8.2.1 J. Houck Historic Site

Table 5. Summary of Archeological Site 1

Characteristic	**Site information**
Site Name	J. Houck Historic Site
Description	Historic site consisting of a stone foundation and well. Artifacts included a barn door hinge, two pieces of unidentified wire hardware, cut nails, handmade amber bottle glass, manganese solarized and embossed pale aqua vessel glass, faunal bone, and a variety of ceramics including redware, whiteware, salt-glazed Albany slip stoneware, and molded ironstone. The metal strap hinge, cut nails, salt-glazed Albany slip stoneware, molded ironstone, and handmade amber bottle glass can be approximately dated to the mid- to late-19th century, a time period consistent with the occupation of the house according to historic maps.
Date	c. 1830 to 1910
Function	Domestic site
Size	Approximately 1 acre

The foundation and well are associated with MDS 1, which first appears on the 1853 Geil Montgomery Co. map. On this map, both MDS 1 and MDS 2, located northeast of MDS 1, are connected by a dotted line and are labelled "J. Hawke," a misspelling of the family's name. The 1868 Nichols map corrects the name's spelling, labelling MDS 1 "J Houck" and a nearby residence (possibly still MDS 2) "J.H." The J. Houck Historic Site identified during the current survey appears to be associated with the previously identified Farm Complex 2 (Fossgate/Houck Farm) site (OPRHP 05704.000121/ NYSM 11242), located 320 feet north of the Project; it is likely that the residents of the Map-Documented Structures within the current Project (MDS 1 and MDS 2) were close relatives of the Houck family residing on the Fossgate/Houck Farm (05704.000121).

9 Recommendations

The J. Houck Historic Site was identified in the west-central portion of the APE, adjacent to the former alignment of NY Route 5S. The site consists of the remains of a foundation and well, and six shovel tests containing historic artifacts within an area measuring about 1 acre. Artifacts recovered in this vicinity suggest an occupation from c. 1830 through 1910. As avoidance is not feasible, Hartgen recommends that a Phase II archeological site evaluation be completed to determine if the site is National Register eligible.

Prior soil disturbance was noted in the westernmost section of the APE, likely associated with the installation of the Lott Holding Corp. parking area. With the exception of a stray historic artifact in Test 515, no other historic or precontact artifacts or features were noted in the APE. No further work is recommended in the remainder of the APE.

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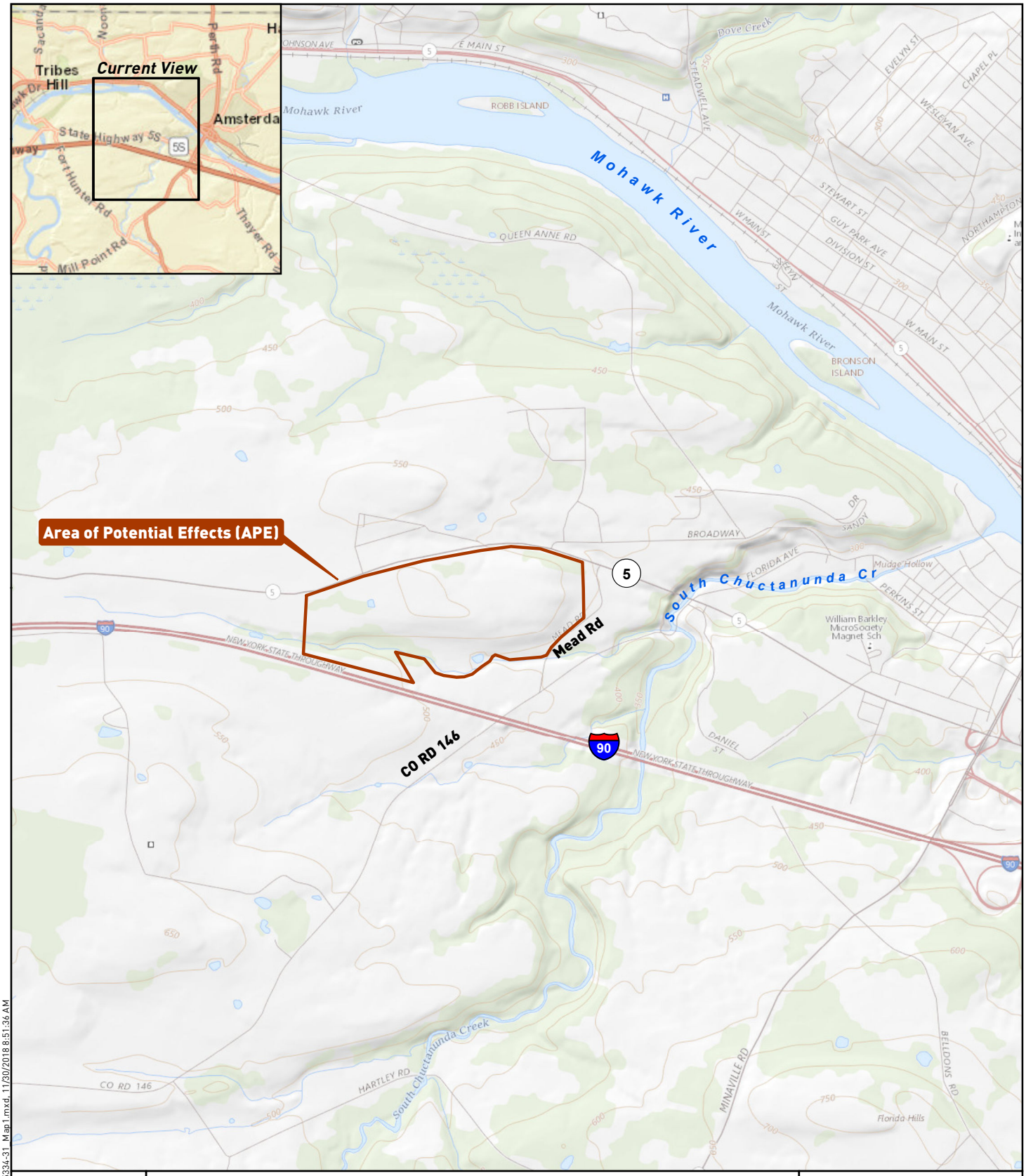
Maps



1,000 0 1,000 2,000 Feet

300 0 300 600 Meters

Note: Contour interval is 10 feet.

Project Location

GIS Services Accessed 12/4/2018:
Environmental Systems Research Institute, Inc., World Street Map
The National Map, USGS Topo Layer

HARTGEN archeological associates inc

Map 1

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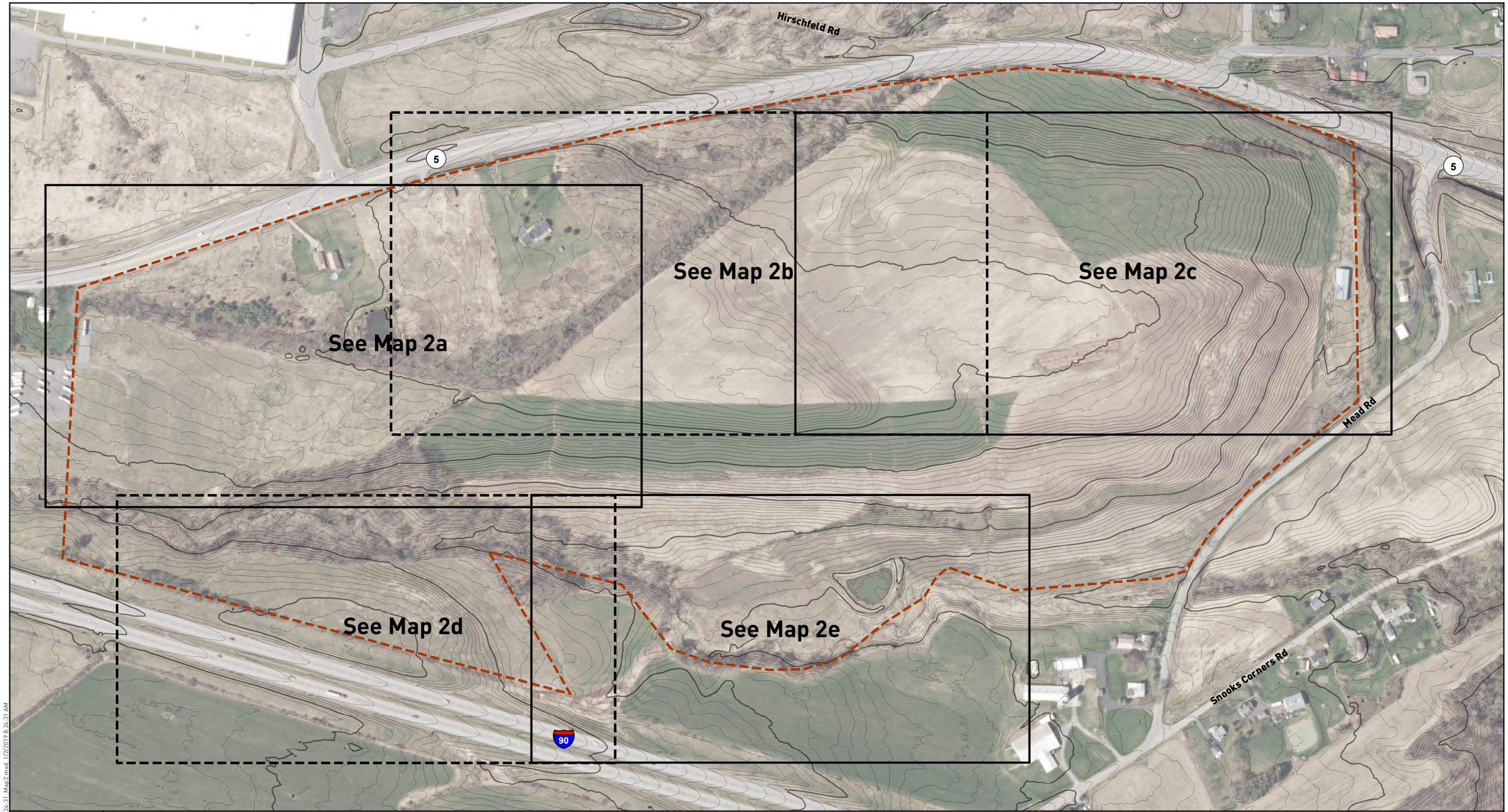

150 0 150 300 Feet

42 0 42 84 Meters

Note: Contour interval is 2 feet.

Legend

Area of Potential Effects (APE)

Project Map

Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2

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60 0 60 120 Feet
18 0 18 36 Meters
Note: Contour interval is 2 feet.

Legend

- Shovel Test (ST)
- Positive ST
- Photo Angle
- J. Hawke/J. Houck Historic Site
- Area of Potential Effects (APE)

Project Map

New York State Office of Information Technology Services, Montgomery County Contours, 2015; Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2a

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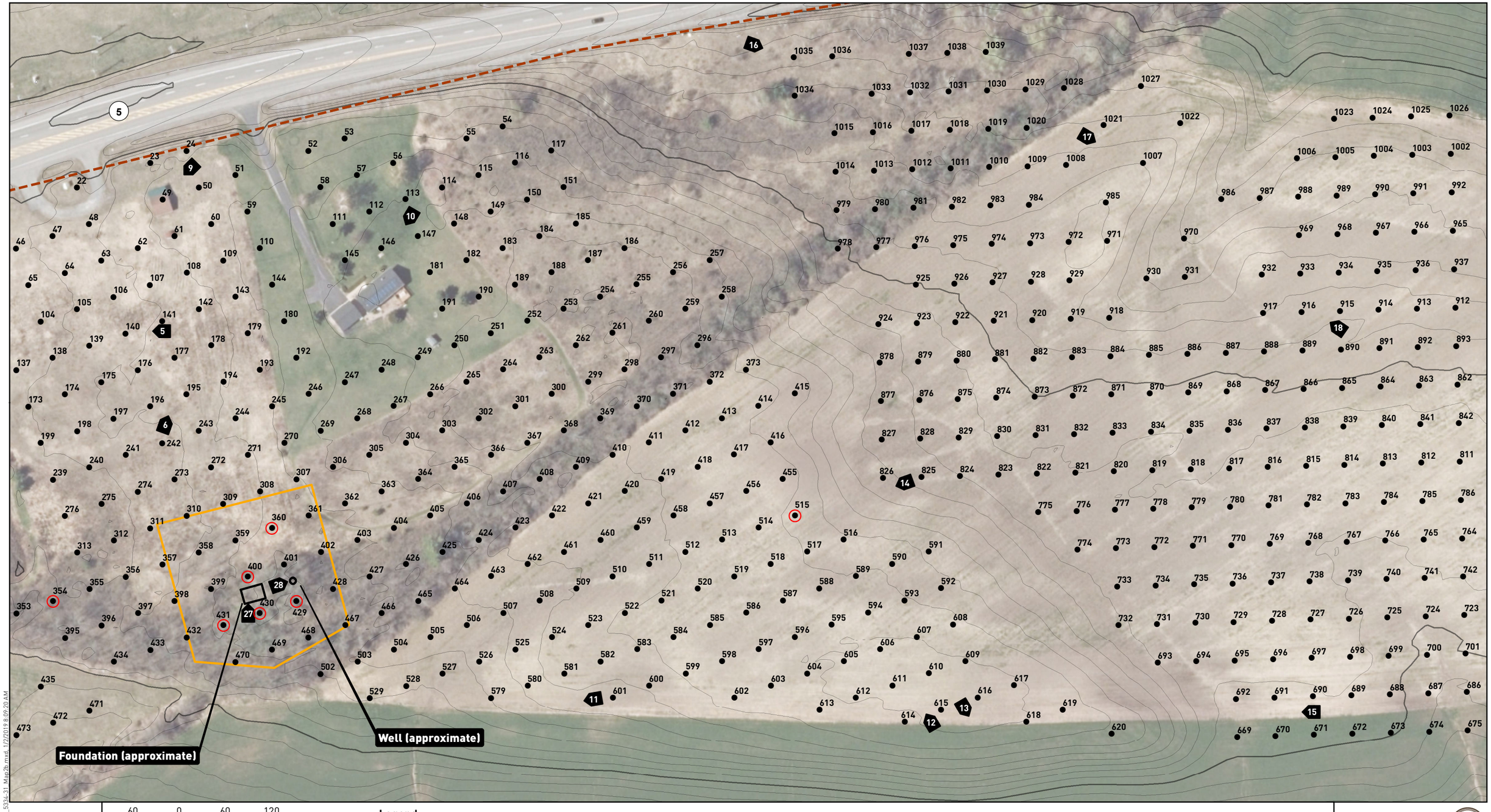

60 0 60 120 Feet

18 0 18 36 Meters

Note: Contour interval is 2 feet.

Legend

- Shovel Test (ST)
- Positive ST
- Photo Angle
- J. Hawke/J. Houck Historic Site
- Area of Potential Effects (APE)

Project Map

New York State Office of Information Technology Services, Montgomery County Contours, 2015; Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2b

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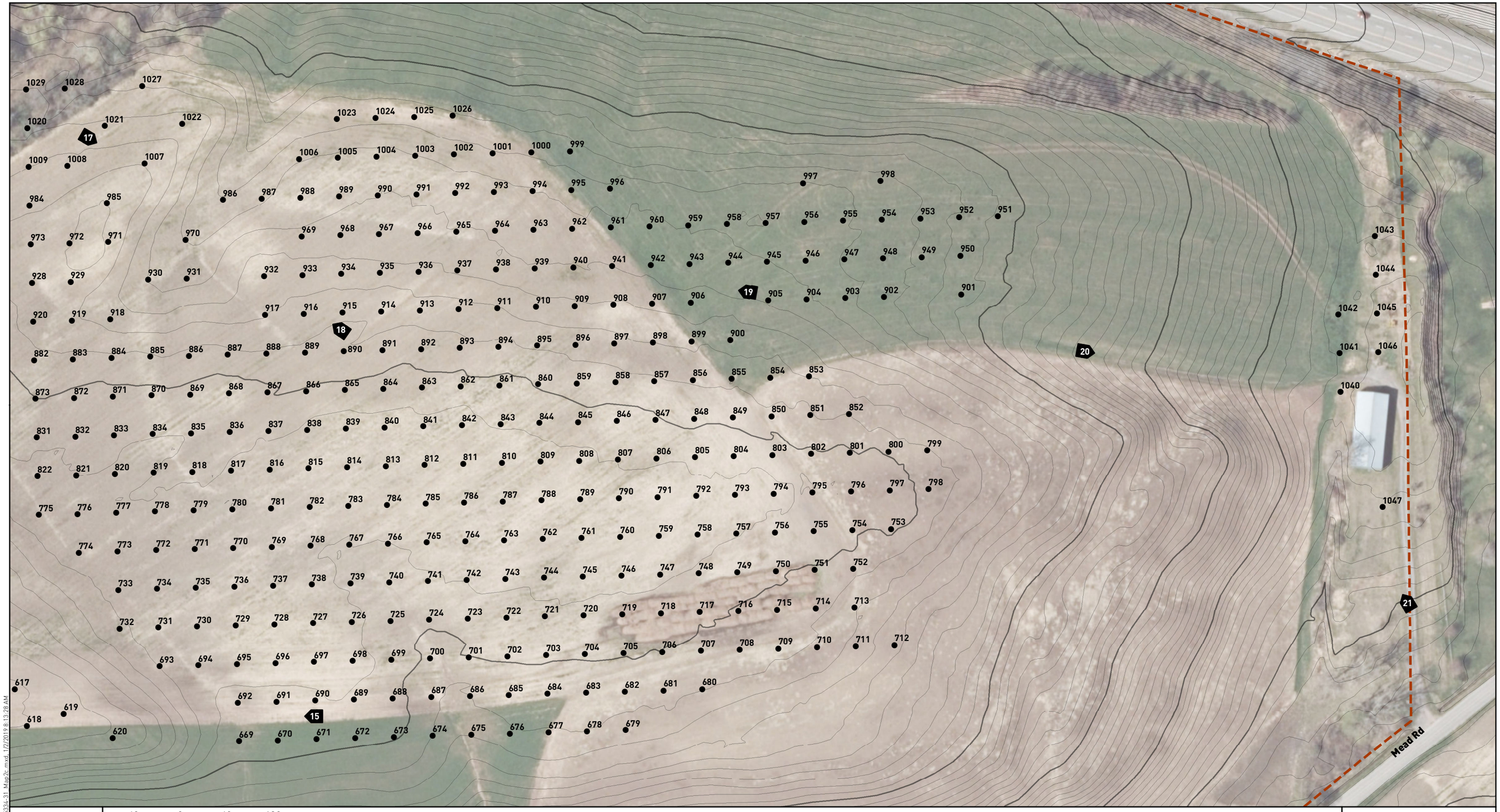

60 0 60 120 Feet

18 0 18 36 Meters

Note: Contour interval is 2 feet.

Legend

- Shovel Test (ST)
- Photo Angle
- Area of Potential Effects (APE)

Project Map

New York State Office of Information Technology Services, Montgomery County Contours, 2015; Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2c

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50 0 50 100 Feet

15 0 15 30 Meters

Note: Contour interval is 2 feet.

Legend

- Shovel Test (ST)
- Photo Angle
- Area of Potential Effects (APE)

Project Map

New York State Office of Information Technology Services, Montgomery County Contours, 2015; Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2d

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N

50 0 50 100 Feet

15 0 15 30 Meters

Note: Contour interval is 2 feet.

Legend

- Shovel Test (ST)
- Photo Angle
- Area of Potential Effects (APE)

Project Map

New York State Office of Information Technology Services, Montgomery County Contours, 2015; Environmental Systems Research Institute, Inc., World Imagery Accessed 1/2/2019

HARTGEN archeological associates inc

Map 2e

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Soil Map

Environmental Systems Research Institute, Inc., World Imagery Accessed 12/4/2018; U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Geographic Database 2017

HARTGEN archeological associates inc

Map 3

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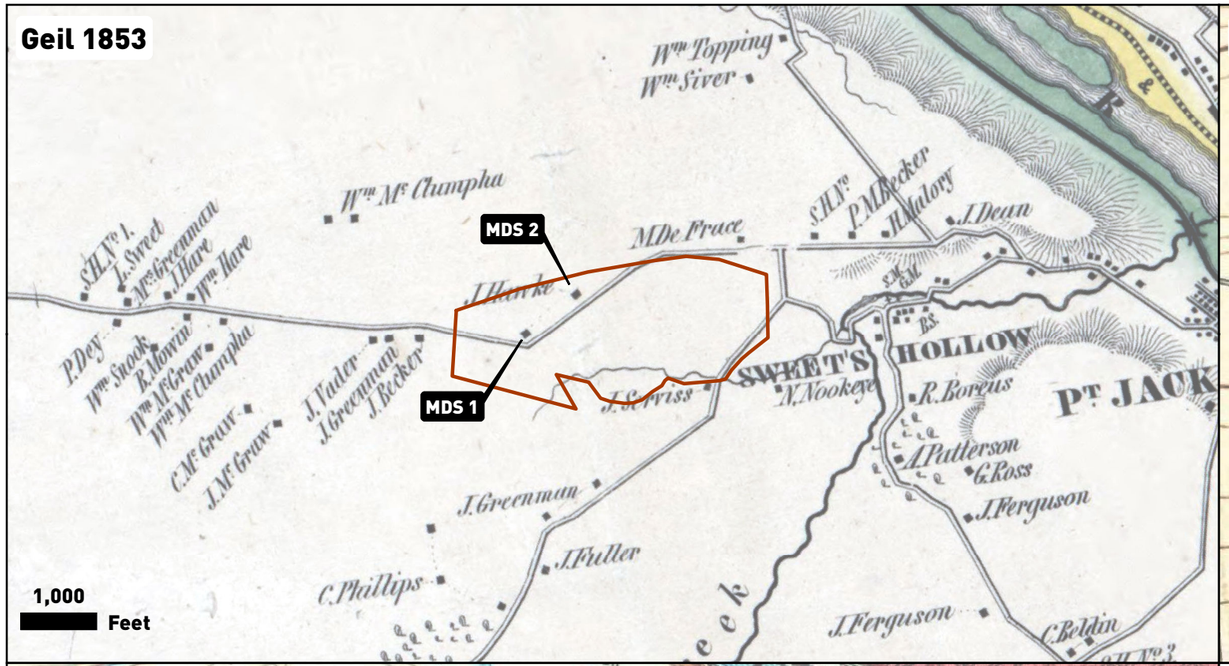
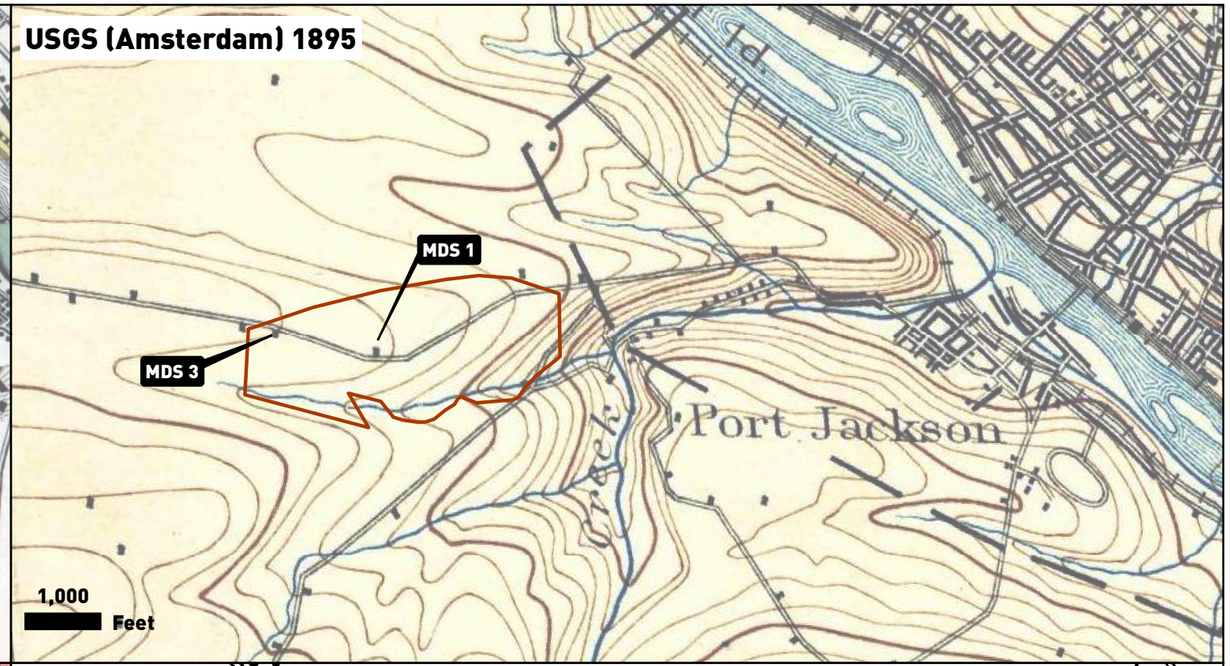
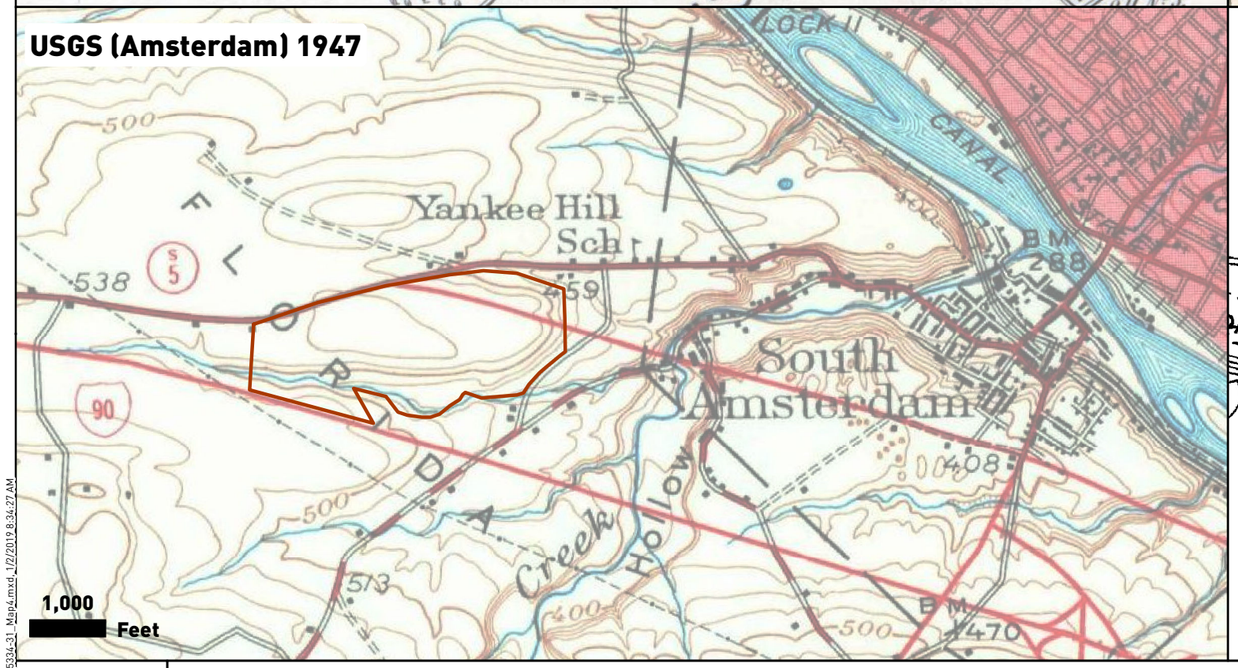
Geil 1853



USGS (Amsterdam) 1895



USGS (Amsterdam) 1947



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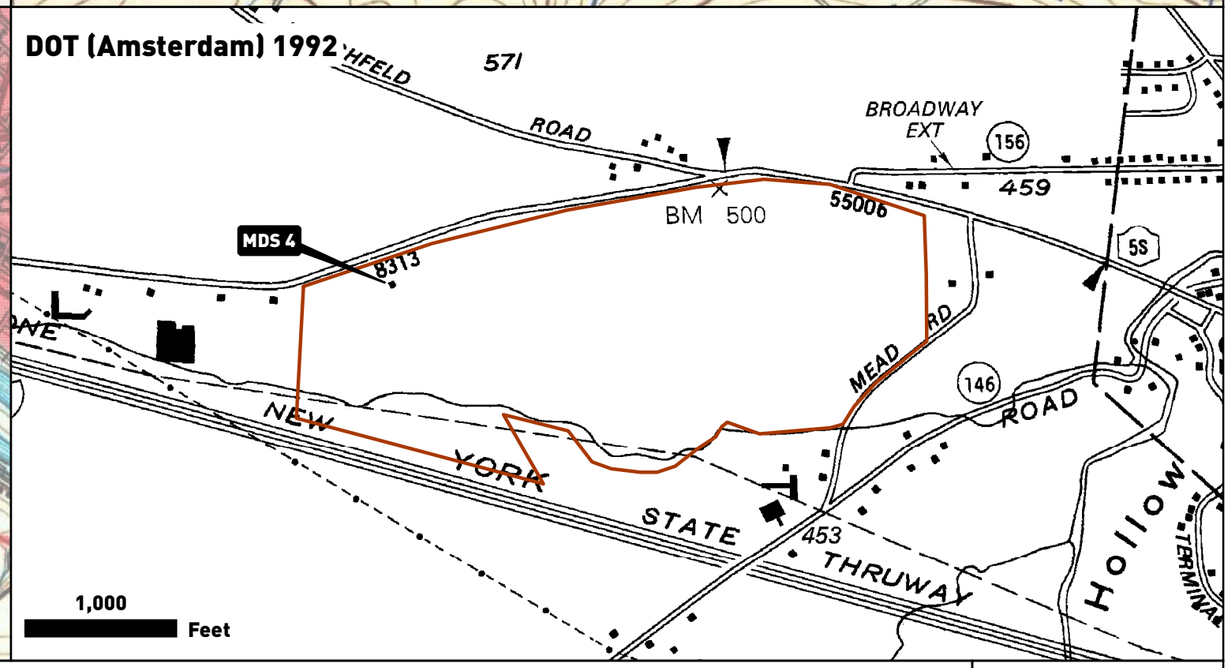

Legend

Area of Potential Effects (APE)

HARTGEN archeological associates inc

Historical Maps 1853-1915

Map 4

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Photographs



Photo 1. View of the graveled drive at the westernmost boundary of the Project. Historic aerial photographs show extensive disturbance throughout the grassy area after 1995, highly visible between 2006 and 2013. View looking east.



Photo 2. Remnants of extensive disturbance are visible on the ground surface, and are also visible on Map 2. View looking northeast.



Photo 3. View looking west in the V-shaped wooded area. Piles of large rocks are visible throughout this wooded area, which was the original path of the present-day Route 5S.



Photo 4. View looking southwest towards the house and associated garage at 1733 Route 5S.



Photo 5. View looking northwest in the north-central portion of the Project. The house at 1733 Route 5S is visible in the background, and the distribution center across the street is visible to the right of the photo.



Photo 6. View looking northeast in the north-central portion of the Project. The farm stand and shed along Route 5S are visible to the left in the photo, and part of the garage and house at 1711 Route 5S are visible to the right in the photo.



Photo 7. Several completed shovel tests are visible in the snow, in the western-central portion of the Project. View looking northeast.



Photo 8. View looking east toward a steeply sloping area near the central portion of the APE.



Photo 9. The wooden farm stand and associated metal shed (visible behind the building) were located between the two extant houses on Route 5S. View looking southwest.



Photo 10. The house and associated garage at 1711 Route 5S. View looking southwest.



Photo 11. Four archeologists excavate shovel tests towards the central portion of the Project. View looking west.



Photo 12. Pink flags mark shovel tests at 50-ft intervals in the central-eastern portion of the Project. View looking northwest.



Photo 13. The area south of Tests 529 to 620 was steeply sloped. View looking southeast.



Photo 14. Archeologists excavate shovel tests towards the eastern-central portion of the Project. View looking southwest.



Photo 15. Some portions of the Project contained large areas of standing water. View looking west.



Photo 16. View looking southeast in the northeastern portion of the Project. This section of the APE consisted of brush and trees, occasionally dense.



Photo 17. Slope was noted between transects in the northeastern portion of the Project. View looking southeast.



Photo 18. Slope was noted between transects in the northern portion of the Project. View looking southeast.



Photo 19. Archeologists excavate shovel tests in a corn field in the eastern portion of the Project. View looking west.



Photo 20. View looking east towards the western boundary of the Project. The metal barn/storage building see on Map 2c is visible at the base of the slope.



Photo 21. The gravel drive leading to the large metal barn/storage building is visible off of Mead Road. The area to the left of the barn is steeply sloped. View looking northwest.



Photo 22. Shovel tests are flagged in the southernmost portion of the APE, south of the unnamed tributary of the South Chuctanunda Creek. View looking southeast.



Photo 23. Portions of this southern section of the APE, south of the South Chuctanunda Creek, were steeply sloped. View looking northwest from Test 551.



Photo 24. Three shovel tests were excavated in the wooded area towards the central-southern portion of the APE. View looking east.



Photo 25. Cattails and other plants typical of wet areas were visible towards the central portion of this southern section of the APE. Areas of standing water were not excavated. View looking east.



Photo 26. View looking northwest from Test 668. This southern section of the APE was brushy, with sections of standing water. A steeply sloping area is visible in the background of the photo.



Photo 27. A stone foundation, consistent with the location of MDS 1, was observed in the wooded area along the former path of present-day Route 5S. View looking north.



Photo 28. A stone well was observed adjacent to the foundation. View looking northeast.

Appendix 1: Shovel Test Records

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
1	27	1	loam clay	gravel	10yr 3/2	very dark grayish brown	
	39	2	silt loam	gravel	10yr 4/2	dark grayish brown	water
2	23	1	silt loam	asphalt, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
3	16	1	silt loam	roots, shale	10yr 3/2	very dark grayish brown	
					10yr 6/3	pale brown	
	35	2	silt loam clay	roots	2.5y 4/2	dark grayish brown	subsoil
4	34	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
5	0	1					not excavated (water)
6	34	1	silt clay	gravel	10yr 5/2	grayish brown	
	47	2	clay		10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
7	0	1					not excavated (water)
8	0	1					not excavated (water)
9	0	1					not excavated (water)
10	0	1					not excavated (water)
11	29	1	silt loam		10yr 4/2	dark grayish brown	
	42	2	loam clay		10yr 6/2	light brownish gray	water
					10yr 5/6	yellowish brown	
12	0	1					not excavated (water)
13	35	1	silt clay		10yr 3/1	very dark gray	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
14	28	1	silt loam	gravel, crushed stone, shale	10yr 3/2	very dark grayish brown	impasse (compact soil)
					2.5y 3/1	very dark gray	
15	23	1	silt loam		10yr 3/2	very dark grayish brown	
	39	2	silt clay		10yr 4/3	brown	subsoil
16	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	52	2	loam clay	cobbles	10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
17	25	1	silt clay	gravel, cobbles	2.5y 4/2	dark grayish brown	impasse (rocks)
18	29	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	50	2	loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
19	29	1	silt loam		10yr 3/2	very dark grayish brown	
	47	2	silt clay		10yr 4/3	brown	subsoil
20	42	1	silt loam clay	gravel	2.5y 4/2	dark grayish brown	
	54	2	clay		2.5y 5/3	light olive brown	subsoil
21	33	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
22	23	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	45	2	silt clay		10yr 5/3	brown	subsoil
23	25	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	43	2	silt clay		10yr 5/4	yellowish brown	subsoil
24	29	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
25	34	1	silt clay	gravel, cobbles, crushed stone	10yr 2/1	black	
	97	2	silt clay	cobbles	10yr 4/4	dark yellowish brown	depth
					10yr 5/6	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
26	0	1					not excavated (water)
27	47	1	silt loam	roots	10yr 4/3	brown	
	75	2	silt clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 5/4	yellowish brown	
28	35	1	silt clay	gravel, roots	10yr 5/2	grayish brown	
	51	2	silt clay	gravel	2.5y 5/4	light olive brown	subsoil
					10yr 6/6	brownish yellow	
29	26	1	clay		10yr 5/1	gray	
	43	2	clay		10yr 5/2	grayish brown	subsoil
					10yr 5/3	brown	
30	29	1	silt clay	gravel	10yr 5/2	grayish brown	
	50	2	silt clay		2.5y 5/4	light olive brown	subsoil
31	21	1	silt clay		10yr 4/2	dark grayish brown	water
32	32	1	silt clay		10yr 4/2	dark grayish brown	
	45	2	clay		10yr 5/3	brown	subsoil
33	30	1	silt clay		10yr 3/2	very dark grayish brown	
	49	2	sand clay		10yr 4/3	brown	subsoil
					10yr 5/2	grayish brown	
34	24	1	silt clay		10yr 5/3	brown	
	43	2	clay		2.5y 5/2	grayish brown	subsoil
35	30	1	silt loam		10yr 4/2	dark grayish brown	
	40	2	clay		10yr 5/3	brown	subsoil
36	31	1	silt clay		10yr 5/2	grayish brown	water
37	31	1	loam clay		10yr 5/1	gray	water
38	0	1					not excavated (water)
39	0	1					not excavated (water)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
40	29	1	loam clay		10yr 3/2	very dark grayish brown	
	53	2	sand clay		10yr 5/3	brown	subsoil
41	21	1	silt loam	gravel, crushed stone	10yr 4/2	dark grayish brown	
					10yr 4/4	dark yellowish brown	
	43	2	silt loam	gravel, crushed stone	10yr 4/4	dark yellowish brown	impasse (rocks)
					10yr 4/2	dark grayish brown	
42	30	1	silt clay	cobbles	10yr 4/1	dark gray	water
43	36	1	loam clay	gravel	10yr 4/2	dark grayish brown	water
					10yr 5/6	yellowish brown	
44	29	1	silt clay	cobbles	10yr 4/1	dark gray	
	38	2	sand clay		10yr 4/4	dark yellowish brown	water
45	31	1	silt clay	gravel	10yr 4/2	dark grayish brown	water
46	33	1	loam clay		10yr 4/2	dark grayish brown	
	59	2	clay		10yr 5/1	gray	subsoil
					10yr 5/3	brown	
47	35	1	silt clay	gravel, cobbles	10yr 5/2	grayish brown	
	49	2	clay	cobbles	10yr 5/4	yellowish brown	subsoil
					10yr 4/1	dark gray	
48	24	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	50	2	loam clay	gravel	10yr 5/6	yellowish brown	subsoil
					10yr 5/4	yellowish brown	
49	0	1					not excavated (other)
50	28	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt loam clay		10yr 6/2	light brownish gray	water
					10yr 5/6	yellowish brown	
51	30	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
52	24	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	41	2	clay		10yr 5/3	brown	subsoil
53	38	1	silt loam clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/3	brown	subsoil
54	31	1	silt clay	roots	10yr 4/3	brown	water
55	36	1	silt clay	roots	10yr 4/3	brown	water
56	33	1	silt loam		10yr 4/2	dark grayish brown	water
57	28	1	silt loam		10yr 4/2	dark grayish brown	water
58	29	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
59	32	1	silt loam	crushed stone	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
60	26	1	silt loam		10yr 3/2	very dark grayish brown	
	47	2	silt clay		10yr 4/3	brown	subsoil
61	36	1	silt loam		10yr 4/2	dark grayish brown	
	50	2	clay		10yr 5/4	yellowish brown	subsoil
62	28	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	39	2	loam	gravel	10yr 5/4 10yr 6/2	yellowish brown light brownish gray	subsoil
63	29	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	water
64	34	1	silt clay		10yr 3/2	very dark grayish brown	water
65	30	1	silt loam		10yr 4/2	dark grayish brown	water
66	20	1	silt loam		10yr 4/1	dark gray	water

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Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
67	27	1	silt loam		10yr 4/2	dark grayish brown	
	33	2	loam clay	gravel	10yr 6/2	light brownish gray	water
					10yr 5/4	yellowish brown	
68	28	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	38	2	silt loam clay		10yr 6/2	light brownish gray	water
					10yr 5/6	yellowish brown	
69	33	1	silt clay		10yr 3/1	very dark gray	water
70	21	1	silt loam		10yr 4/1	dark gray	
	38	2	clay		10yr 5/3	brown	subsoil
71	0	1					not excavated (water)
72	25	1	silt clay	gravel, roots	10yr 5/2	grayish brown	
	38	2	loam clay		10yr 5/6	yellowish brown	subsoil
					10yr 6/2	light brownish gray	
73	41	1	silt clay	roots	10yr 3/2	very dark grayish brown	water
74	22	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
75	37	1	silt clay		10yr 3/2	very dark grayish brown	water
76	26	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	37	2	clay		10yr 5/4	yellowish brown	water
					10yr 5/2	grayish brown	
77	23	1	silt loam		10yr 4/1	dark gray	
	38	2	clay		10yr 5/3	brown	subsoil
78	24	1	silt loam		10yr 4/1	dark gray	
	36	2	clay		10yr 5/3	brown	subsoil
79	32	1	silt clay	roots	10yr 4/3	brown	water
80	26	1	silt loam	cobbles, roots	10yr 4/2	dark grayish brown	
	47	2	silt clay		2.5y 4/4	olive brown	subsoil

Shovel Test Records

		Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
81		0	1					not excavated (water)
82		38	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
		50	2	loam clay		2.5y 5/4	light olive brown	subsoil
83		20	1	silt clay	asphalt, crushed stone	10yr 2/2	very dark brown	impasse (made surface)
84	A	55	1	silt loam clay	cobbles, crushed stone	2.5y 4/4	olive brown	water
84	B	23	1	silt loam		10yr 3/2	very dark grayish brown	
		44	2	silt clay		10yr 5/6	yellowish brown	subsoil
85		22	1	silt loam	gravel	10yr 3/2	very dark grayish brown	
		40	2	clay		10yr 5/3	brown	subsoil
86		18	1	loam	gravel, shale	10yr 3/1	very dark gray	
		32	2	silt loam		2.5y 4/3	olive brown	subsoil
87		24	1	silt loam	gravel, cobbles, crushed stone	10yr 4/2	dark grayish brown	
		48	2	silt clay	gravel	2.5y 4/4	olive brown	subsoil
88		22	1	silt loam	gravel, cobbles, crushed stone	10yr 4/2	dark grayish brown	
		43	2	silt clay	gravel	2.5y 4/4	olive brown	subsoil
89		31	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
		49	2	silt clay	gravel	2.5y 5/3	light olive brown	subsoil
90		32	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
		48	2	silt clay	gravel, cobbles	2.5y 5/3	light olive brown	subsoil
91		25	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
		41	2	silt clay	gravel	2.5y 5/3	light olive brown	subsoil

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Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
92	36	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
	53	2	silt clay		2.5y 5/3	light olive brown	subsoil
93	30	1	silt clay	gravel	10yr 4/3	brown	
	54	2	clay		10yr 5/4	yellowish brown	subsoil
94	29	1	silt loam	roots	10yr 4/2	dark grayish brown	
	47	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
95	25	1	silt clay		10yr 4/3	brown	water
96	30	1	silt clay		10yr 3/2	very dark grayish brown	water
97	0	1					not excavated (water)
98	27	1	silt clay	gravel	10yr 4/3	brown	water
99	25	1	silt clay		10yr 5/2	grayish brown	
	47	2	clay		10yr 4/3	brown	subsoil
100	26	1	silt clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 5/2 10yr 5/3	grayish brown brown	subsoil
101	32	1	silt clay	gravel, crushed stone	10yr 3/2	very dark grayish brown	
	48	2	silt clay	gravel	10yr 5/4	yellowish brown	subsoil
102	35	1	silt clay		10yr 4/2	dark grayish brown	water
103	22	1	silt clay		10yr 4/2	dark grayish brown	water
104	25	1	silt clay		10yr 4/2	dark grayish brown	
	41	2	sand clay		10yr 5/2 10yr 6/1	grayish brown gray	water
105	1	1	silt clay	cobbles	10yr 4/1	dark gray	water
106	0	1					not excavated (water)

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
107	33	1	loam clay	gravel	10yr 5/1	gray	
	42	2	silt clay		10yr 4/4	dark yellowish brown	water
108	25	1	silt clay		10yr 4/2	dark grayish brown	
	42	2	clay		10yr 5/3	brown	water
109	32	1	silt clay	gravel	10yr 4/3	brown	water
110	27	1	silt clay	cobbles	10yr 5/2	grayish brown	
	47	2	clay		10yr 4/4	dark yellowish brown	subsoil
111	28	1	silt clay		10yr 4/2	dark grayish brown	
	38	2	sand clay		10yr 5/3	brown	water
112	40	1	loam clay	gravel	10yr 4/3	brown	water
113	31	1	silt loam	gravel	10yr 4/3	brown	
	51	2	silt clay		10yr 6/2	light brownish gray	subsoil
114	29	1	silt clay	gravel, cobbles	10yr 4/2	dark grayish brown	water
115	32	1	silt clay		10yr 4/3	brown	water
116	26	1	silt clay		10yr 4/2	dark grayish brown	
	40	2	clay		10yr 5/2	grayish brown	water
117	36	1	silt clay		10yr 3/2	very dark grayish brown	water
118	41	1	silt clay		10yr 4/2	dark grayish brown	water
119	30	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	40	2	silt clay		10yr 5/3	brown	water
120	0	1					not excavated (water)
121	28	1	silt clay	gravel	10yr 4/3	brown	water
122	17	1	silt		10yr 3/3	dark brown	
	32	2	loam clay		10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
123	24	1	silt	gravel	10yr 2/1	black	
	30	2	loam clay		10yr 4/3	brown	water
124	0	1					not excavated (other)
125	27	1	silt clay	gravel, roots	10yr 4/3	brown	water
126	24	1	silt clay		10yr 4/2	dark grayish brown	
	29	2	loam clay		10yr 4/3	brown	water
127	0	1					not excavated (water)
128	30	1	silt clay		10yr 4/3	brown	
	40	2	clay		10yr 5/4	yellowish brown	water
129	30	1	silt clay	gravel, roots	10yr 4/2	dark grayish brown	
	41	2	clay		10yr 5/4	yellowish brown	subsoil
130	30	1	loam	roots	10yr 4/2	dark grayish brown	water
131	31	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	44	2	clay		10yr 5/4 10yr 5/2	yellowish brown grayish brown	subsoil
132	24	1	loam clay	gravel	10yr 4/1	dark gray	
	49	2	clay		10yr 5/4	yellowish brown	subsoil
133	32	1	silt clay	gravel, crushed stone	10yr 4/2	dark grayish brown	
	45	2	clay		10yr 5/4	yellowish brown	subsoil
134	34	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
	55	2	silt loam clay	cobbles	10yr 6/3 10yr 5/6	pale brown yellowish brown	subsoil
135	32	1	silt loam clay		10yr 4/2	dark grayish brown	
	54	2	clay		10yr 5/4 10yr 5/2	yellowish brown grayish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
136	34	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
137	30	1	silt clay	gravel	10yr 4/3	brown	water
138	32	1	silt clay	cobbles	10yr 5/2	grayish brown	
	50	2	clay		10yr 6/3	pale brown	subsoil
139	29	1	silt loam		10yr 4/2	dark grayish brown	
	41	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
140	31	1	silt clay		10yr 4/3	brown	
	42	2	clay		10yr 5/4	yellowish brown	subsoil
141	20	1	silt clay		10yr 4/1	dark gray	water
142	29	1	silt loam		10yr 4/2	dark grayish brown	water
143	30	1	silt clay		10yr 4/2	dark grayish brown	water
144	32	1	silt loam clay	cobbles	10yr 4/3	brown	
	50	2	clay		10yr 5/2	grayish brown	water
					10yr 5/4	yellowish brown	
145	44	1	silt clay		10yr 4/3	brown	
	58	2	clay		10yr 6/4	light yellowish brown	subsoil
					10yr 5/6	yellowish brown	
146	24	1	loam clay	gravel	10yr 4/3	brown	
	48	2	silt clay		10yr 4/2	dark grayish brown	subsoil
147	33	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
148	30	1	silt clay		10yr 4/3	brown	
	42	2	clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
149	32	1	silt loam clay		10yr 4/3	brown	
	45	2	sand clay		10yr 5/3	brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
150	33	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
151	30	1	silt clay	gravel, roots	10yr 4/3	brown	water
152	37	1	silt clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water
153	28	1	silt loam	gravel, cobbles	10yr 3/3	dark brown	
					10yr 5/3	brown	
	31	2	silt clay		10yr 5/3	brown	
	46	3	silt clay		10yr 5/3	brown	water
154	45	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	water
155	24	1	silt loam clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water
					2.5y 5/4	light olive brown	
156	33	1	silt clay	cobbles, organics	10yr 4/2	dark grayish brown	
	54	2	clay		10yr 5/3	brown	subsoil
157	33	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	water
158	29	1	silt clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water
159	23	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
160	58	1	loam clay		10yr 4/3	brown	water
					10yr 5/3	brown	
161	20	1	silt loam		10yr 3/2	very dark grayish brown	
	40	2	silt clay		10yr 5/4	yellowish brown	subsoil
162	20	1	silt loam	roots	10yr 4/2	dark grayish brown	
	33	2	clay		2.5y 5/4	light olive brown	subsoil
163	35	1	silt loam		10yr 4/4	dark yellowish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
164	34	1	silt clay	roots	10yr 4/2	dark grayish brown	
	55	2	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/4	dark yellowish brown	
165	24	1	silt clay	roots	10yr 4/2	dark grayish brown	water
166	30	1	silt loam		10yr 3/2	very dark grayish brown	water
167	36	1	silt loam clay	gravel, cobbles, roots, shale	10yr 3/2	very dark grayish brown	water
					2.5y 5/3	light olive brown	
168	25	1	silt loam	exfoliating bedrock	10yr 2/2	very dark brown	bedrock
169	25	1	silt loam		10yr 3/2	very dark grayish brown	
	40	2	silt		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
170	34	1	silt clay		10yr 3/2	very dark grayish brown	water
171	26	1	silt loam		10yr 4/2	dark grayish brown	
	36	2	silt clay		10yr 5/2	grayish brown	water
172	20	1	silt loam	gravel	2.5y 4/3	olive brown	
	34	2	clay	gravel	2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
173	36	1	silt clay		10yr 4/3	brown	water
174	30	1	silt loam		10yr 4/4	dark yellowish brown	water
175	24	1	silt clay		10yr 4/3	brown	
	51	2	silt clay		10yr 5/4	yellowish brown	subsoil
176	30	1	silt loam	cobbles	10yr 4/4	dark yellowish brown	water
177	29	1	silt clay	roots	10yr 4/3	brown	subsoil
178	38	1	silt clay		10yr 3/3	dark brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
179	30	1	silt loam		10yr 3/2	very dark grayish brown	water
180	32	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	
	44	2	silt loam clay	gravel	2.5y 5/3	light olive brown	subsoil
					10yr 5/8	yellowish brown	
181	27	1	silt clay		10yr 4/2	dark grayish brown	
	40	2	silt clay		10yr 4/4	dark yellowish brown	water
182	24	1	silt loam		10yr 3/2	very dark grayish brown	
	48	2	silt clay		10yr 5/4	yellowish brown	subsoil
183	20	1	silt loam		10yr 3/2	very dark grayish brown	
	33	2	silt		10yr 5/6	yellowish brown	subsoil
184	30	1	silt clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 6/2	light brownish gray	
185	40	1	silt loam		10yr 3/2	very dark grayish brown	
	54	2	silt		2.5y 5/6	light olive brown	subsoil
186	28	1	silt clay		10yr 4/2	dark grayish brown	
	51	2	loam clay		10yr 3/2	very dark grayish brown	subsoil
187	32	1	silt loam	cobbles	10yr 4/3	brown	
	50	2	clay	cobbles	10yr 5/4	yellowish brown	subsoil
188	32	1	silt clay	roots	10yr 4/3	brown	
	43	2	clay	roots	10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
189	29	1	silt loam		10yr 4/2	dark grayish brown	
	45	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
190	32	1	silt clay	cobbles	10yr 5/3	brown	
	49	2	clay	cobbles	10yr 3/3	dark brown	subsoil
					10yr 4/1	dark gray	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
191	23	1	silt clay	roots	10yr 5/3	brown	
	42	2	loam clay		10yr 4/3	brown	water
					10yr 5/4	yellowish brown	
192	35	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
193	15	1	silt clay		10yr 4/3	brown	water
194	30	1	silt clay		10yr 4/3	brown	
	38	2	clay		10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
195	25	1	silt clay	roots	10yr 4/3	brown	
	48	2	clay		10yr 5/4	yellowish brown	subsoil
196	25	1	silt loam		10yr 4/2	dark grayish brown	
	41	2	loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
197	25	1	loam clay		10yr 5/3	brown	
	35	2	silt clay		10yr 5/4	yellowish brown	water
198	39	1	silt loam	cobbles	10yr 4/3	brown	
	58	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
199	30	1	silt clay	cobbles	10yr 4/3	brown	
	48	2	clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
200	30	1	silt clay		10yr 4/3	brown	
	45	2	clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
201	32	1	silt loam	cobbles, shale	10yr 4/2	dark grayish brown	
	50	2	silt loam clay		10yr 5/2	grayish brown	subsoil
202	22	1	silt clay		10yr 4/1	dark gray	
	36	2	clay		10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
203	20	1	silt loam clay	gravel, roots	10yr 2/2	very dark brown	
	33	2	loam clay		10yr 3/2	very dark grayish brown	water
					10yr 4/4	dark yellowish brown	
204	30	1	silt clay	gravel, roots	10yr 3/3	dark brown	
	42	2	clay		10yr 5/4	yellowish brown	subsoil
205	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
206	32	1	silt clay		10yr 4/2	dark grayish brown	
	50	2	clay		10yr 5/3	brown	subsoil
207	21	1	silt clay	cobbles, roots	10yr 5/2	grayish brown	
	35	2	silt clay	cobbles	10yr 5/3	brown	water
					10yr 5/6	yellowish brown	
208	31	1	silt clay	gravel, roots	10yr 4/2	dark grayish brown	
	42	2	clay	roots	10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
209	24	1	silt loam	roots	10yr 4/2	dark grayish brown	
	39	2	loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
210	24	1	silt loam	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
211	12	1	silt	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
212	8	1	silt loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
213	25	1	silt loam	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
214	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
215	23	1	silt sand	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
216	14	1	silt	gravel, cobbles, crushed stone	10yr 3/1	very dark gray	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
217	26	1	sand	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
218	30	1	silt clay	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	
	40	2	clay	gravel, cobbles	2.5y 5/3	light olive brown	water
219	31	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	other
220	8	1	silt	asphalt, crushed stone	10yr 4/1	dark gray	impasse (made surface)
221	19	1	silt sand	gravel, cobbles	10yr 2/2	very dark brown	other
222	28	1	silt sand	gravel, cobbles	2.5y 3/2	very dark grayish brown	water
223	30	1	silt loam	cobbles	10yr 3/2	very dark grayish brown	
	40	2	silt		10yr 5/6	yellowish brown	subsoil
224	29	1	sand	gravel, cobbles	10yr 3/2	very dark grayish brown	water
225	18	1	silt loam	cobbles, shale	10yr 2/1	black	impasse (rocks)
226	36	1	silt sand	gravel, cobbles	10yr 2/2	very dark brown	impasse (rocks)
227	27	1	sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
228	38	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
229	22	1	silt sand	gravel, cobbles	2.5y 3/2	very dark grayish brown	impasse (rocks)
					10yr 3/1	very dark gray	
230	23	1	silt clay	gravel, cobbles	10yr 2/1	black	impasse (rocks)
231	25	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	other
232	30	1	silt sand	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
233	21	1	sand	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
234	27	1	silt clay		10yr 4/3	brown	
	49	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/4	dark yellowish brown	
235	30	1	silt loam		10yr 3/2	very dark grayish brown	
	45	2	silt	roots	10yr 5/6	yellowish brown	subsoil
236	42	1	silt loam	roots	10yr 3/3	dark brown	water
237	37	1	loam clay	roots	10yr 4/3	brown	
	56	2	sand clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/4	dark yellowish brown	
238	27	1	silt loam		10yr 4/3	brown	
	40	2	silt clay		10yr 5/6	yellowish brown	subsoil
239	31	1	silt clay		10yr 4/3	brown	
	40	2	clay		10yr 5/4	yellowish brown	water
240	28	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
	40	2	silt clay	gravel	10yr 6/4	light yellowish brown	subsoil
					10yr 5/6	yellowish brown	
241	23	1	silt clay	roots	10yr 4/2	dark grayish brown	water
242	17	1	silt clay		10yr 4/2	dark grayish brown	water
243	47	1	silt loam		10yr 4/3	brown	water
244	30	1	silt clay		10yr 4/3	brown	
	45	2	clay		10yr 5/4	yellowish brown	water
245	37	1	silt clay		10yr 3/2	very dark grayish brown	water
246	32	1	silt loam		2.5y 3/2	very dark grayish brown	
	44	2	silt clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
247	31	1	silt loam		10yr 3/2	very dark grayish brown	water
248	31	1	silt clay		10yr 3/3	dark brown	water
249	27	1	silt loam		10yr 3/2	very dark grayish brown	
	40	2	silt		10yr 5/6	yellowish brown	subsoil
250	31	1	silt clay		10yr 4/2	dark grayish brown	
	46	2	silt clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 2/2	very dark brown	
251	26	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	39	2	clay		10yr 5/3	brown	subsoil
					10yr 6/4	light yellowish brown	
252	30	1	silt clay		10yr 4/2	dark grayish brown	
	36	2	clay		10yr 3/1	very dark gray	
	45	3	clay		10yr 4/4	dark yellowish brown	water
					10yr 5/1	gray	
253	34	1	silt loam		10yr 4/3	brown	subsoil
254	30	1	silt loam		10yr 4/3	brown	water
255	37	1	silt loam		10yr 4/3	brown	
	55	2	silt loam		10yr 5/3	brown	water
					10yr 4/2	dark grayish brown	
256	45	1	silt clay	roots	10yr 3/2	very dark grayish brown	
	68	2	silt loam clay		10yr 2/1	black	water
257	46	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	60	2	silt	gravel	10yr 2/1	black	water
258	40	1	silt loam	roots	10yr 3/2	very dark grayish brown	impasse (roots)
259	37	1	silt clay		10yr 4/2	dark grayish brown	water
					10yr 5/4	yellowish brown	

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
260	21	1	silt	roots	10yr 4/4	dark yellowish brown	water
261	27	1	silt clay	gravel, roots	10yr 4/3	brown	
	35	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
262	20	1	silt clay		10yr 4/3	brown	
	41	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
263	32	1	silt clay		10yr 4/2	dark grayish brown	water
264	29	1	loam clay		10yr 4/2	dark grayish brown	water
265	31	1	silt clay	gravel	10yr 4/3	brown	water
266	28	1	silt clay		10yr 4/3	brown	
	41	2	clay		10yr 5/4	yellowish brown	water
267	28	1	silt clay		10yr 4/2	dark grayish brown	
	35	2	clay		10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
268	36	1	silt loam		10yr 4/2	dark grayish brown	
	54	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
269	33	1	silt loam		10yr 4/4	dark yellowish brown	
	48	2	silt clay		10yr 5/2	grayish brown	subsoil
270	28	1	sand clay		10yr 4/3	brown	
	43	2	sand clay		10yr 4/4	dark yellowish brown	water
271	32	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
272	32	1	silt clay	gravel, roots	10yr 4/3	brown	
	40	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
273	32	1	silt clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
274	0	1					not excavated (water)
275	0	1					not excavated (water)
276	0	1					not excavated (water)
277	18	1	silt clay	gravel	10yr 4/4	dark yellowish brown	
	40	2	clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
278	26	1	loam clay	gravel, roots	10yr 4/2	dark grayish brown	
	41	2	silt clay		10yr 4/4	dark yellowish brown	water
279	34	1	silt loam	cobbles, roots	10yr 4/2	dark grayish brown	
	52	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
280	22	1	silt	roots	10yr 4/3	brown	
	40	2	silt clay		10yr 5/6	yellowish brown	subsoil
281	30	1	silt loam	gravel, cobbles, crushed stone	10yr 4/3	brown	impasse (rocks)
282	10	1	silt sand	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
283	24	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
284	13	1	silt	gravel, cobbles	10yr 3/2	very dark grayish brown	
	34	2	clay		10yr 5/4	yellowish brown	subsoil
285	15	1	sand loam		10yr 4/3	brown	impasse (rocks)
286	17	1	silt sand	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
287	26	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
288	20	1	silt sand	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
289	14	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	
	30	2	silt clay		2.5y 4/3	olive brown	subsoil
290	26	1	silt sand	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
291	20	1	silt sand	cobbles	10yr 3/2	very dark grayish brown	
	34	2	clay		10yr 3/3	dark brown	water
292	34	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	
	43	2	silt clay		2.5y 4/2	dark grayish brown	subsoil
293	30	1	silt sand	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
294	24	1	silt sand	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
295	21	1	silt sand	cobbles	10yr 3/2	very dark grayish brown	
	32	2	loam clay		10yr 4/2	dark grayish brown	impasse (rocks)
296	27	1	silt loam	gravel, roots	10yr 4/2	dark grayish brown	
	39	2	clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
297	31	1	loam clay	cobbles, roots	10yr 3/2	very dark grayish brown	
	46	2	clay		10yr 5/3	brown	subsoil
298	24	1	silt clay		10yr 4/3	brown	
	46	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/4	dark yellowish brown	
299	26	1	silt clay		10yr 4/3	brown	
	41	2	clay		10yr 5/2	grayish brown	subsoil
					10yr 5/6	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
300	29	1	silt clay		10yr 4/3	brown	
	37	2	clay		10yr 5/3	brown	water
					10yr 4/4	dark yellowish brown	
301	30	1	silt loam		10yr 4/4	dark yellowish brown	
	45	2	clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
302	32	1	silt clay		10yr 4/3	brown	
	39	2	clay		10yr 5/4	yellowish brown	water
					10yr 5/1	gray	
303	54	1	sand clay		10yr 6/3	pale brown	subsoil
					10yr 4/6	dark yellowish brown	
304	33	1	silt clay		10yr 4/2	dark grayish brown	water
305	27	1	silt loam	gravel, roots	10yr 4/3	brown	
	46	2	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
306	31	1	silt clay		10yr 3/3	dark brown	
	40	2	clay		10yr 5/4	yellowish brown	water
307	32	1	silt clay		10yr 4/3	brown	
	48	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
308	25	1	silt clay		10yr 4/2	dark grayish brown	water
309	14	1	silt clay		10yr 3/3	dark brown	water
310	15	1	silt loam		10yr 3/1	very dark gray	water
311	32	1	silt loam		10yr 3/1	very dark gray	water
312	23	1	silt		10yr 4/2	dark grayish brown	water
313	30	1	silt clay		10yr 4/2	dark grayish brown	
	45	2	silt sand clay		10yr 5/4	yellowish brown	subsoil
314	33	1	silt clay	roots	10yr 4/2	dark grayish brown	
	50	2	silt		10yr 6/6	brownish yellow	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
315	13	1	clay		2.5y 5/4	light olive brown	
					2.5y 4/4	olive brown	
	39	2	clay		2.5y 4/4	olive brown	subsoil
					10yr 4/6	dark yellowish brown	
316	21	1	silt clay	gravel	10yr 4/3	brown	
	43	2	clay		2.5y 5/4	light olive brown	subsoil
					10yr 4/6	dark yellowish brown	
317	26	1	loam clay		10yr 4/2	dark grayish brown	
	36	2	clay		10yr 4/3	brown	water
318	23	1	silt clay	cobbles	10yr 4/3	brown	
					10yr 5/4	yellowish brown	
	35	2	silt clay	cobbles	10yr 3/1	very dark gray	water
319	32	1	silt clay	cobbles	10yr 4/3	brown	
	53	2	clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
320	23	1	silt clay	gravel	10yr 4/3	brown	
	45	2	clay		2.5y 5/4	light olive brown	subsoil
					10yr 4/6	dark yellowish brown	
321	23	1	silt	gravel, organics	10yr 3/2	very dark grayish brown	water
322	8	1	silt clay	gravel, cobbles	10yr 4/3	brown	impasse (rocks)
323	15	1	loam clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
324	22	1	silt sand	gravel, cobbles	10yr 2/2	very dark brown	impasse (rocks)
325	30	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	other
326	28	1	sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
327	24	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	other
328	29	1	silt sand	gravel, cobbles	10yr 2/2	very dark brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
329	37	1	sand	gravel, cobbles, roots	2.5y 3/2	very dark grayish brown	impasse (rocks)
330	40	1	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	water
331	24	1	loam clay	gravel, cobbles	10yr 3/3	dark brown	
	47	2	loam clay		10yr 3/2	very dark grayish brown	impasse (compact soil)
					10yr 4/2	dark grayish brown	
332	10	1	silt	gravel, cobbles	10yr 4/3	brown	impasse (rocks)
333	9	1	silt	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
334	12	1	silt clay	gravel, cobbles	10yr 4/3	brown	impasse (rocks)
335	8	1	silt loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
336	21	1	silt loam	gravel, cobbles	10yr 4/3	brown	impasse (roots)
					10yr 5/4	yellowish brown	
337	6	1	silt	cobbles, organics	10yr 3/2	very dark grayish brown	impasse (rocks)
338	8	1	silt	gravel, cobbles	10yr 4/3	brown	impasse (rocks)
339	9	1	silt	gravel, cobbles, crushed stone	10yr 3/3	dark brown	impasse (rocks)
340	10	1	silt	cobbles	10yr 2/2	very dark brown	impasse (rocks)
341	16	1	silt loam	gravel, cobbles	10yr 4/3	brown	impasse (roots)
342	29	1	silt clay	gravel, cobbles	10yr 5/2	grayish brown	
					10yr 3/3	dark brown	
	47	2	clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (compact soil)
					10yr 4/1	dark gray	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
343	25	1	silt clay		10yr 4/2	dark grayish brown	
	42	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
344	22	1	silt clay		10yr 4/2	dark grayish brown	
	41	2	silt clay		10yr 4/2	dark grayish brown	
					10yr 5/3	brown	
	54	3	clay		10yr 5/3	brown	water
345	85	1	silt clay	cobbles	10yr 4/3	brown	water
					10yr 5/4	yellowish brown	
346	24	1	silt clay		10yr 4/2	dark grayish brown	
	48	2	sand clay	gravel	10yr 4/1	dark gray	
	63	3	sand clay		10yr 6/3	pale brown	subsoil
					10yr 5/4	yellowish brown	
347	4	1	silt clay		10yr 4/3	brown	
	41	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 6/3	pale brown	
348	11	1	silt clay		10yr 4/2	dark grayish brown	
	43	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
349	15	1	silt clay		10yr 4/3	brown	water
350	7	1	silt		10yr 3/2	very dark grayish brown	
	22	2	clay		10yr 4/4	dark yellowish brown	
	35	3	clay		10yr 4/3	brown	subsoil
351	54	1	sand clay	gravel	2.5y 4/2	dark grayish brown	water
					2.5y 5/3	light olive brown	
352	34	1	silt	roots	10yr 4/2	dark grayish brown	
	55	2	silt		10yr 5/8	yellowish brown	subsoil
353	24	1	loam clay	roots	10yr 4/3	brown	
	49	2	silt clay		10yr 4/6	dark yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
354	28	1	silt	roots	10yr 5/2	grayish brown	
	52	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 4/2	dark grayish brown	
355	33	1	silt clay	roots	10yr 4/2	dark grayish brown	
	57	2	clay	roots	10yr 5/1	gray	subsoil
					10yr 4/6	dark yellowish brown	
356	21	1	silt clay		10yr 4/2	dark grayish brown	
	43	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 5/2	grayish brown	
357	34	1	silt clay	cobbles	10yr 4/3	brown	
	52	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 5/2	grayish brown	
358	26	1	silt clay		10yr 4/3	brown	
	50	2	clay		10yr 4/6	dark yellowish brown	subsoil
359	35	1	silt clay	roots	10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
360	31	1	silt clay		10yr 3/2	very dark grayish brown	
	44	2	silt clay		10yr 6/4	light yellowish brown	water
361	22	1	silt		10yr 4/2	dark grayish brown	
	25	2	clay		10yr 4/3	brown	water
362	27	1	silt clay		10yr 3/2	very dark grayish brown	
	45	2	clay		10yr 5/3	brown	subsoil
363	37	1	silt clay		10yr 3/2	very dark grayish brown	
	43	2	silt clay		10yr 5/4	yellowish brown	water
364	34	1	silt clay		10yr 3/3	dark brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
365	35	1	silt clay	roots	10yr 4/2	dark grayish brown	
	51	2	sand clay		10yr 4/4	dark yellowish brown	subsoil
					10yr 3/4	dark yellowish brown	
366	21	1	silt clay		10yr 4/2	dark grayish brown	
	38	2	silt clay		10yr 4/6	dark yellowish brown	water
					10yr 5/2	grayish brown	
367	22	1	silt clay		10yr 5/2	grayish brown	
					10yr 5/8	yellowish brown	
	33	2	clay		10yr 5/2	grayish brown	water
					10yr 5/4	yellowish brown	
368	31	1	silt clay	roots	10yr 4/3	brown	
	35	2	clay	roots	10yr 4/6	dark yellowish brown	impasse (roots)
369	16	1	silt clay		10yr 4/2	dark grayish brown	
	32	2	clay		10yr 5/2	grayish brown	water
370	22	1	silt clay	cobbles, roots	10yr 4/2	dark grayish brown	impasse (rocks)
371	22	1	silt	roots	10yr 3/2	very dark grayish brown	
	41	2	clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
372	27	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
					10yr 5/4	yellowish brown	
	52	2	silt clay	cobbles	10yr 4/3	brown	water
					10yr 5/4	yellowish brown	
373	22	1	silt loam		10yr 4/3	brown	
	43	2	sand clay		10yr 5/3	brown	subsoil
					10yr 2/2	very dark brown	
374	39	1	silt clay	gravel, cobbles, crushed stone	10yr 2/2	very dark brown	water
					10yr 5/6	yellowish brown	
375	24	1	silt loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	
	36	2	silt sand loam	gravel, cobbles	10yr 5/4	yellowish brown	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
376	18	1	silt loam clay	gravel, cobbles, crushed stone, organics	2.5y 4/2	dark grayish brown	impasse (rocks)
					10yr 2/1	black	
377	35	1	silt sand loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
378	21	1	silt sand	gravel, cobbles	10yr 3/2	very dark grayish brown	water
379	26	1	sand	gravel, cobbles	2.5y 3/2	very dark grayish brown	impasse (rocks)
380	38	1	silt sand loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)
381	18	1	silt sand	gravel, cobbles	10yr 3/2	very dark grayish brown	water
382	28	1	silt sand loam	gravel, cobbles, crushed stone	10yr 3/2	very dark grayish brown	
	36	2	sand loam	gravel, cobbles	10yr 5/4	yellowish brown	impasse (rocks)
383	22	1	silt sand	gravel, cobbles	2.5y 3/2	very dark grayish brown	other
384	38	1	silt sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water
					10yr 5/6	yellowish brown	
385	27	1	silt loam	gravel, cobbles	10yr 3/3	dark brown	
	41	2	silt loam clay	cobbles	10yr 5/4	yellowish brown	subsoil
386	13	1	silt clay		2.5y 4/2	dark grayish brown	
	27	2	sand loam	gravel, cobbles	10yr 2/2	very dark brown	water
387	49	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
	73	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 5/6	yellowish brown	
388	37	1	silt sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water
389	35	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	
	45	2	loam clay		2.5y 5/3	light olive brown	subsoil
					2.5y 6/2	light brownish gray	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
390	27	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		2.5y 4/2	dark grayish brown	subsoil
					2.5y 5/4	light olive brown	
391	41	1	silt clay	cobbles	10yr 3/2	very dark grayish brown	water
392	42	1	silt clay	gravel	10yr 3/2	very dark grayish brown	water
393	29	1	silt loam		10yr 4/2	dark grayish brown	
	52	2	silt clay		2.5y 4/2	dark grayish brown	subsoil
					2.5y 5/4	light olive brown	
394	19	1	silt clay	gravel	2.5y 4/2	dark grayish brown	
	34	2	loam clay		2.5y 5/3	light olive brown	subsoil
					5y 4/4	olive	
395	30	1	silt loam	roots	10yr 4/2	dark grayish brown	
	45	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
396	46	1	silt clay	roots	10yr 4/2	dark grayish brown	water
397	25	1	silt loam	roots	10yr 4/2	dark grayish brown	
	38	2	clay		10yr 5/4	yellowish brown	subsoil
398	32	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
399	33	1	silt clay	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
400	53	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	water
					10yr 5/3	brown	
401	33	1	silt loam	cobbles, roots	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 5/6	yellowish brown	
402	38	1	silt clay	roots	10yr 4/2	dark grayish brown	water
403	32	1	silt loam	roots	10yr 4/2	dark grayish brown	
	50	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
404	31	1	silt clay	roots	10yr 4/2	dark grayish brown	
	49	2	silt clay		10yr 5/3	brown	subsoil
405	38	1	silt loam		10yr 4/2	dark grayish brown	
	55	2	silt loam clay		2.5y 4/4	olive brown	subsoil
					2.5y 5/2	grayish brown	
406	26	1	silt clay	roots	10yr 4/2	dark grayish brown	
	44	2	silt clay		10yr 5/3	brown	subsoil
407	26	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	44	2	silt loam clay		2.5y 4/4	olive brown	subsoil
					5y 5/2	olive gray	
408	21	1	silt loam	gravel, cobbles, roots	2.5y 3/1	very dark gray	
	33	2	silt loam clay	gravel	2.5y 4/4	olive brown	subsoil
409	35	1	silt clay	cobbles, roots	10yr 3/2	very dark grayish brown	water
410	27	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	48	2	silt loam clay		2.5y 4/4	olive brown	subsoil
					2.5y 5/2	grayish brown	
411	23	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/4	yellowish brown	subsoil
412	25	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	38	2	clay		10yr 5/4	yellowish brown	subsoil
413	38	1	silt clay		10yr 3/2	very dark grayish brown	water
414	42	1	silt loam		10yr 3/3	dark brown	impasse (rocks)
415	28	1	silt loam	exfoliating bedrock, shale	10yr 2/2	very dark brown	bedrock
416	28	1	loam clay		10yr 3/2	very dark grayish brown	
	53	2	silt clay		10yr 3/3	dark brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
417	32	1	silt clay		10yr 4/2	dark grayish brown	
	44	2	silt loam		10yr 2/1	black	water
418	27	1	silt clay		10yr 4/3	brown	
	46	2	silt clay		10yr 5/3	brown	subsoil
419	26	1	silt clay		10yr 4/3	brown	
	45	2	silt clay		10yr 5/3	brown	water
420	30	1	silt clay		10yr 4/2	dark grayish brown	
	45	2	clay		10yr 5/3	brown	subsoil
421	7	1	silt clay		10yr 4/3	brown	water
422	18	1	silt clay		10yr 4/3	brown	
	30	2	clay		10yr 5/3 10yr 4/6	brown dark yellowish brown	water
423	20	1	loam clay		10yr 4/3	brown	
	31	2	silt clay		10yr 4/3	brown	
	43	3	silt clay		10yr 5/3 10yr 4/6	brown dark yellowish brown	water
424	22	1	silt	cobbles, roots	10yr 3/2	very dark grayish brown	
	43	2	silt sand	cobbles	10yr 5/3	brown	subsoil
425	24	1	silt clay	roots	10yr 3/2	very dark grayish brown	
	43	2	silt clay		10yr 4/6	dark yellowish brown	subsoil
426	30	1	silt loam	roots	10yr 2/2	very dark brown	
	45	2	clay		10yr 5/4 10yr 5/2	yellowish brown grayish brown	subsoil
427	0	1					not excavated (water)
428	0	1					not excavated (water)

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
429	31	1	silt loam	roots	10yr 4/3	brown	
	54	2	clay		10yr 5/4	yellowish brown	water
					10yr 5/2	grayish brown	
430	27	1	silt loam	roots, rubble	10yr 4/2	dark grayish brown	
					10yr 5/3	brown	
	56	2	silt clay	roots	10yr 5/4	yellowish brown	impasse (roots)
					10yr 4/3	brown	
431	32	1	silt	roots	10yr 4/3	brown	
	51	2	clay		10yr 5/4	yellowish brown	subsoil
432	23	1	silt clay	roots	10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
433	21	1	silt clay		10yr 3/3	dark brown	
	32	2	silt clay		10yr 5/4	yellowish brown	water
434	29	1	silt	cobbles, roots	10yr 4/3	brown	
	45	2	silt clay	cobbles	10yr 5/4	yellowish brown	subsoil
435	8	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	32	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
436	43	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	65	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
437	50	1	silt clay		10yr 4/2	dark grayish brown	
					10yr 5/3	brown	
	62	2	clay		10yr 5/4	yellowish brown	water
438	22	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
					10yr 3/2	very dark grayish brown	
	38	2	clay		10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
439	6	1	silt clay		10yr 4/3	brown	
	23	2	clay		10yr 5/3	brown	water
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
440	18	1	silt		10yr 4/2	dark grayish brown	
	28	2	clay	gravel	10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
441	35	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/3	brown	water
442	21	1	silt clay		10yr 4/3	brown	
	43	2	silt clay		10yr 4/3	brown	
	51	3	clay		10yr 5/4	yellowish brown	water
443	50	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	65	2	clay		10yr 5/2	grayish brown	subsoil
					10yr 5/8	yellowish brown	
444	17	1	silt clay		10yr 4/3	brown	
	42	2	silt clay		10yr 3/3	dark brown	water
445	30	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	45	2	clay		10yr 5/2	grayish brown	subsoil
					10yr 5/6	yellowish brown	
446	12	1	silt clay	gravel, cobbles	10yr 3/3	dark brown	water
447	25	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	45	2	clay	cobbles	10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
448	18	1	sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
449	5	1	silt	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
450	16	1	sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
451	25	1	silt sand	gravel, cobbles, organics	10yr 2/2	very dark brown	impasse (rocks)
452	34	1	silt loam	gravel, cobbles	10yr 2/1	black	water
453	40	1	silt sand	gravel, cobbles	10yr 2/1	black	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
454	17	1	silt	gravel, cobbles	10yr 4/2	dark grayish brown	
	37	2	silt	gravel, cobbles	10yr 5/2	grayish brown	impasse (rocks)
					10yr 5/4	yellowish brown	
455	28	1	silt clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
456	27	1	silt loam		10yr 4/2	dark grayish brown	
	46	2	silt loam clay		10yr 5/3	brown	subsoil
457	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	47	2	silt clay	cobbles	10yr 5/3	brown	subsoil
458	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 5/2	grayish brown	subsoil
					10yr 5/6	yellowish brown	
459	23	1	silt loam	gravel	10yr 3/2	very dark grayish brown	water
460	29	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
461	25	1	silt loam		2.5y 4/2	dark grayish brown	
	33	2	silt loam clay		2.5y 5/3	light olive brown	water
					10yr 4/6	dark yellowish brown	
462	31	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	48	2	silt clay		10yr 5/4	yellowish brown	subsoil
463	30	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
464	34	1	silt loam	gravel, cobbles	2.5y 4/2	dark grayish brown	
	45	2	loam clay		2.5y 5/6	light olive brown	subsoil
					10yr 4/4	dark yellowish brown	
465	38	1	silt loam	roots	10yr 4/2	dark grayish brown	
	55	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
466	37	1	silt loam	roots	10yr 4/2	dark grayish brown	
	53	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/6	yellowish brown	
467	20	1	silt loam	roots	2.5y 3/2	very dark grayish brown	impasse (roots)
468	35	1	silt loam	roots	10yr 4/2	dark grayish brown	
	52	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
469	26	1	silt loam	roots	10yr 4/2	dark grayish brown	
	39	2	silt clay		10yr 5/4	yellowish brown	subsoil
470	32	1	silt loam	roots	10yr 4/2	dark grayish brown	
	51	2	silt sand clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
471	36	1	silt loam		10yr 3/2	very dark grayish brown	impasse (rocks)
472	37	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
					10yr 3/1	very dark gray	
473	27	1	silt clay		10yr 5/3	brown	
	36	2	silt loam		10yr 3/2	very dark grayish brown	impasse (rocks)
474	26	1	silt loam clay	gravel	2.5y 4/2	dark grayish brown	
					2.5y 5/4	light olive brown	
	39	2	silt loam	gravel, cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
475	36	1	silt loam		10yr 4/2	dark grayish brown	
	56	2	silt clay		10yr 5/3	brown	water
476	49	1	silt loam		10yr 4/2	dark grayish brown	
	62	2	silt clay		10yr 5/3	brown	subsoil
477	30	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
					2.5y 5/4	light olive brown	
478	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	39	2	silt clay	cobbles	10yr 5/3	brown	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
479	17	1	loam	gravel	10yr 2/2	very dark brown	
					10yr 4/2	dark grayish brown	
	26	2	loam clay	gravel	5y 6/2	light olive gray	water
					2.5y 5/2	grayish brown	
480	33	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	52	2	silt clay		10yr 5/3	brown	subsoil
481	51	1	silt loam	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
	63	2	silt		2.5y 4/4	olive brown	subsoil
482	36	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	51	2	silt clay	cobbles	10yr 5/3	brown	subsoil
483	32	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
	45	2	silt clay	cobbles	10yr 5/4	yellowish brown	water
484	46	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
485	24	1	sand	gravel, asphalt, cobbles, crushed stone	2.5y 3/2	very dark grayish brown	impasse (rubble)
486	19	1	silt loam	gravel	10yr 3/2	very dark grayish brown	impasse (rocks)
487	9	1	silt loam	gravel, crushed stone	10yr 3/2	very dark grayish brown	
	21	2	silt clay		10yr 5/4	yellowish brown	
	46	3	silt		10yr 3/1	very dark gray	impasse (rocks)
488	50	1	silt sand	gravel, cobbles	10yr 2/2	very dark brown	impasse (rocks)
489	66	1	silt	organics	10yr 3/1	very dark gray	water
490	29	1	loam clay	gravel, cobbles, crushed stone	2.5y 4/2	dark grayish brown	impasse (rocks)
					2.5y 5/6	light olive brown	
491	68	1	silt	cobbles, crushed stone, organics	10yr 3/2	very dark grayish brown	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
492	17	1	silt sand	cobbles	10yr 2/2	very dark brown	
	27	2	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	impasse (compact soil)
493	46	1	silt	cobbles, crushed stone, organics	10yr 3/2	very dark grayish brown	impasse (rocks)
494	23	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
495	30	1	silt loam	gravel, cobbles	10yr 3/1	very dark gray	
	45	2	silt sand loam		10yr 5/4	yellowish brown	subsoil
496	30	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/3	brown	subsoil
497	33	1	silt loam clay	gravel, cobbles	2.5y 3/2	very dark grayish brown	impasse (rocks)
					2.5y 5/4	light olive brown	
498	40	1	silt loam		10yr 4/2	dark grayish brown	
	56	2	silt clay		10yr 5/3	brown	subsoil
499	35	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	51	2	silt clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
500	29	1	silt loam	gravel, cobbles	2.5y 4/2	dark grayish brown	
	40	2	silt loam clay	gravel	2.5y 4/4	olive brown	subsoil
					10yr 3/1	very dark gray	
501	37	1	silt loam		10yr 4/2	dark grayish brown	
	58	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
502	34	1	silt clay	gravel, cobbles	2.5y 4/1	dark gray	impasse (rocks)
503	30	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt clay		10yr 5/3	brown	subsoil
504	24	1	silt loam	gravel, cobbles	2.5y 4/3	olive brown	
	38	2	silt clay	gravel	2.5y 5/4	light olive brown	subsoil
					10yr 4/4	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
505	25	1	silt loam		2.5y 3/1	very dark gray	
	39	2	silt sand clay	gravel	2.5y 5/3	light olive brown	subsoil
506	35	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt clay		10yr 5/3	brown	subsoil
507	27	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
508	31	1	silt sand		2.5y 4/1	dark gray	
	43	2	sand clay		2.5y 5/3	light olive brown	subsoil
509	24	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt clay		2.5y 4/2	dark grayish brown	subsoil
510	30	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	42	2	loam clay		2.5y 5/4 10yr 4/4	light olive brown dark yellowish brown	subsoil
511	24	1	silt loam	gravel, cobbles	2.5y 3/1	very dark gray	
	40	2	silt clay		2.5y 5/3	light olive brown	subsoil
512	26	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	42	2	silt clay		10yr 5/3 10yr 4/6	brown dark yellowish brown	subsoil
513	28	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	38	2	loam clay		2.5y 4/4 10yr 5/3	olive brown brown	subsoil
514	26	1	silt loam		2.5y 3/1	very dark gray	
	39	2	silt clay		2.5y 5/3	light olive brown	subsoil
515	29	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
516	29	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt clay		10yr 5/3 10yr 4/6	brown dark yellowish brown	subsoil
517	40	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	59	2	clay		10yr 5/4	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
518	30	1	silt clay		10yr 3/2	very dark grayish brown	
	45	2	clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
519	30	1	silt loam		10yr 4/3	brown	water
520	26	1	silt loam		10yr 5/2	grayish brown	water
521	25	1	silt loam		10yr 4/2	dark grayish brown	
	42	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
522	29	1	silt loam	gravel, cobbles	2.5y 3/1	very dark gray	
	42	2	silt clay		2.5y 5/3	light olive brown	subsoil
523	34	1	silt clay	cobbles	10yr 4/3	brown	
	57	2	clay		10yr 5/4	yellowish brown	subsoil
524	30	1	sand clay		10yr 4/3	brown	
	43	2	silt clay		2.5y 5/4	light olive brown	subsoil
					2.5y 4/6	dark yellowish brown	
525	30	1	silt loam		10yr 5/2	grayish brown	water
526	38	1	silt loam		10yr 4/2	dark grayish brown	
	53	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
527	27	1	silt loam	gravel, cobbles	2.5y 4/2	dark grayish brown	water
528	22	1	silt loam		10yr 5/2	grayish brown	water
529	32	1	silt loam	gravel, cobbles	2.5y 3/1	very dark gray	
	45	2	silt clay		2.5y 5/3	light olive brown	subsoil
530	35	1	silt clay		2.5y 4/1	dark gray	
	47	2	clay		2.5y 5/3	light olive brown	subsoil
531	31	1	silt clay		10yr 4/1	dark gray	
	44	2	clay		2.5y 5/3	light olive brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
532	33	1	loam clay	cobbles	10yr 4/3	brown	
	50	2	silt clay	gravel, cobbles	10yr 2/1	black	impasse (rocks)
533	30	1	silt sand	cobbles	10yr 4/3	brown	
	52	2	silt sand		10yr 5/2	grayish brown	subsoil
534	29	1	silt clay	gravel	10yr 4/3	brown	
	45	2	clay		2.5y 5/4	light olive brown	subsoil
535	29	1	silt loam		10yr 5/2	grayish brown	water
536	27	1	silt clay	cobbles	2.5y 4/2	dark grayish brown	
	51	2	sand clay		2.5y 5/3	light olive brown	subsoil
					10yr 4/6	dark yellowish brown	
537	33	1	silt loam		10yr 5/2	grayish brown	water
538	32	1	silt sand		10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	45	2	sand clay		10yr 5/6	yellowish brown	water
					10yr 5/2	grayish brown	
539	30	1	sand clay		10yr 4/3	brown	
	41	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 2/1	black	
540	28	1	silt clay		10yr 4/3	brown	
	46	2	clay		10yr 5/4	yellowish brown	water
					10yr 4/1	dark gray	
541	23	1	silt loam		10yr 4/3	brown	
	30	2	silt		10yr 5/4	yellowish brown	subsoil
542	33	1	silt	exfoliating bedrock	10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	55	2	clay	exfoliating bedrock	10yr 2/1	black	bedrock
543	24	1	silt clay		10yr 4/3	brown	
	50	2	loam clay	exfoliating bedrock	10yr 2/1	black	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
544	26	1	silt loam		10yr 4/3	brown	
	37	2	silt		10yr 2/1	black	subsoil
545	32	1	silt clay		10yr 3/2	very dark grayish brown	
	57	2	silt clay	exfoliating bedrock	10yr 2/1	black	bedrock
546	28	1	silt	exfoliating bedrock	10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	47	2	sand clay	exfoliating bedrock	10yr 5/4	yellowish brown	
					10yr 2/1	black	
	58	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil
547	26	1	silt clay		10yr 4/3	brown	
	46	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
548	28	1	silt loam		10yr 4/3	brown	
	50	2	silt clay		10yr 2/1	black	water
549	34	1	silt clay		10yr 3/3	dark brown	
	47	2	silt clay		10yr 5/4	yellowish brown	water
550	28	1	silt clay	gravel	10yr 3/2	very dark grayish brown	
	43	2	clay		10yr 5/4	yellowish brown	subsoil
551	45	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	60	2	clay		10yr 5/4	yellowish brown	subsoil
552	27	1	silt clay		10yr 4/3	brown	
	48	2	sand clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
553	29	1	silt clay		10yr 4/2	dark grayish brown	
	49	2	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/1	gray	
554	31	1	silt clay		10yr 3/3	dark brown	
	54	2	clay		10yr 5/4	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
555	36	1	silt clay		10yr 3/2	very dark grayish brown	
	53	2	silt clay		10yr 5/4	yellowish brown	subsoil
556	28	1	silt loam		10yr 4/3	brown	water
557	26	1	silt loam		10yr 4/3	brown	
	36	2	silt		10yr 5/4	yellowish brown	subsoil
558	26	1	silt loam		10yr 4/3	brown	
	36	2	silt		10yr 5/6	yellowish brown	subsoil
559	44	1	silt	cobbles	10yr 4/2	dark grayish brown	
	61	2	sand clay		10yr 5/4	yellowish brown	subsoil
560	28	1	silt	cobbles	10yr 4/2	dark grayish brown	
	44	2	clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
561	50	1	sand clay	roots	10yr 3/2	very dark grayish brown	
	60	2	clay		2.5y 5/4	light olive brown	subsoil
562	23	1	silt loam		10yr 4/3	brown	
	30	2	silt clay		10yr 5/6	yellowish brown	subsoil
563	21	1	sand clay		10yr 4/3	brown	
	42	2	silt clay		2.5y 5/4	light olive brown	subsoil
564	24	1	silt clay	gravel	10yr 4/3	brown	
	45	2	clay		2.5y 5/4	light olive brown	subsoil
565	20	1	clay		10yr 4/2	dark grayish brown	
	45	2	clay		10yr 4/6	dark yellowish brown	subsoil
566	28	1	silt loam		10yr 4/3	brown	
	34	2	silt		10yr 5/6	yellowish brown	subsoil
567	34	1	silt clay		10yr 4/2	dark grayish brown	
	55	2	clay		10yr 5/3	brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
568	25	1	clay		10yr 4/2	dark grayish brown	
	43	2	clay		10yr 5/3	brown	subsoil
569	37	1	silt loam		10yr 4/3	brown	
	45	2	silt		10yr 2/1	black	
	60	3	silt		10yr 4/6	dark yellowish brown	subsoil
570	32	1	sand clay		10yr 3/2	very dark grayish brown	
	45	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
571	42	1	silt clay	exfoliating bedrock	10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	62	2	clay	exfoliating bedrock	10yr 2/1	black	subsoil
572	35	1	clay		10yr 3/2	very dark grayish brown	
	62	2	silt clay		10yr 2/2	very dark brown	water
573	50	1	silt clay	gravel	10yr 3/2	very dark grayish brown	
	60	2	silt		10yr 3/2	very dark grayish brown	water
574	22	1	silt loam		10yr 4/3	brown	
	39	2	silt		10yr 5/4	yellowish brown	subsoil
575	35	1	silt		10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	53	2	silt clay	exfoliating bedrock	10yr 2/1	black	subsoil
576	37	1	clay		10yr 4/2	dark grayish brown	
	61	2	silt clay	cobbles	10yr 3/3	dark brown	water
577	30	1	silt loam		10yr 4/3	brown	
	60	2	silt		10yr 2/1	black	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
578	36	1	silt clay	gravel	10yr 4/2	dark grayish brown	
					10yr 2/1	black	
	60	2	silt clay	gravel, exfoliating bedrock	10yr 2/1	black	subsoil
579	30	1	sand clay	gravel, cobbles	10yr 4/3	brown	
	50	2	silt clay	gravel, cobbles	2.5y 5/4	light olive brown	subsoil
580	35	1	silt clay	cobbles	10yr 4/3	brown	
	60	2	sand clay		10yr 5/2	grayish brown	subsoil
					10yr 5/4	yellowish brown	
581	34	1	silt loam		10yr 4/2	dark grayish brown	
	61	2	silt loam	exfoliating bedrock	10yr 3/1	very dark gray	subsoil
582	28	1	silt loam	gravel	2.5y 4/3	olive brown	water
583	36	1	loam clay		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/4	yellowish brown	subsoil
584	32	1	silt loam		10yr 5/2	grayish brown	
	51	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
585	29	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	48	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
586	35	1	loam clay		10yr 4/2	dark grayish brown	
	46	2	clay		10yr 5/4	yellowish brown	water
587	27	1	silt loam		10yr 4/2	dark grayish brown	
	46	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 4/6	dark yellowish brown	
588	33	1	silt clay	cobbles	10yr 4/3	brown	water
589	37	1	loam clay		10yr 3/3	dark brown	
	50	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 5/4	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
590	32	1	silt clay		10yr 4/3	brown	
	44	2	clay		10yr 5/4	yellowish brown	
	56	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil
591	48	1	silt sand loam		10yr 3/2	very dark grayish brown	
	57	2	silt loam	exfoliating bedrock	10yr 4/1	dark gray	water
592	29	1	silt clay	cobbles	10yr 3/2	very dark grayish brown	water
593	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	water
594	26	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	37	2	clay	gravel	10yr 5/4	yellowish brown	subsoil
595	26	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	41	2	clay		10yr 5/3	brown	subsoil
596	30	1	loam clay	gravel	10yr 4/3	brown	water
597	26	1	silt loam		10yr 4/2	dark grayish brown	water
598	29	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	36	2	loam	gravel	2.5y 6/3	light yellowish brown	subsoil
599	30	1	silt loam clay	cobbles	10yr 4/2	dark grayish brown	water
600	16	1	silt clay	roots	10yr 4/2	dark grayish brown	water
601	35	1	loam clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil
602	47	1	loam clay	gravel, exfoliating bedrock	10yr 4/2	dark grayish brown	
	61	2	clay	exfoliating bedrock	10yr 5/4	yellowish brown	water
					10yr 3/3	dark brown	
603	21	1	silt clay	cobbles	10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
604	30	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	40	2	clay		10yr 5/2	grayish brown	water
					10yr 5/4	yellowish brown	
605	33	1	loam clay		10yr 4/2	dark grayish brown	
	42	2	clay		10yr 5/4	yellowish brown	
	55	3	clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	subsoil
606	30	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
607	33	1	silt clay	cobbles	10yr 4/2	dark grayish brown	water
608	24	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	39	2	clay		10yr 5/3	brown	subsoil
609	51	1	silt loam	cobbles	10yr 4/2	dark grayish brown	water
610	32	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	40	2	clay		10yr 5/4	yellowish brown	
					10yr 5/2	grayish brown	
	52	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil
611	26	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	43	2	silt clay		10yr 5/3	brown	water
					10yr 4/6	dark yellowish brown	
612	23	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	38	2	clay		10yr 5/3	brown	subsoil
613	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	53	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
614	34	1	silt loam	cobbles	10yr 3/2	very dark grayish brown	
	49	2	silt sand	exfoliating bedrock	2.5y 3/1	very dark gray	bedrock
615	39	1	silt clay		10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
616	32	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	
	40	2	silt loam	exfoliating bedrock	2.5y 3/1	very dark gray	bedrock
617	36	1	silt clay		10yr 3/2	very dark grayish brown	
	52	2	clay	exfoliating bedrock	10yr 2/1	black	subsoil
618	25	1	loam clay	exfoliating bedrock	10yr 3/1	very dark gray	bedrock
619	37	1	silt loam		10yr 3/2	very dark grayish brown	
	53	2	silt sand loam	exfoliating bedrock	10yr 4/1	dark gray	subsoil
					10yr 5/3	brown	
620	28	1	silt	exfoliating bedrock	10yr 3/1	very dark gray	bedrock
621	35	1	silt loam	roots	10yr 2/2	very dark brown	impasse (rocks)
622	43	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	55	2	silt loam clay		10yr 5/2	grayish brown	water
623	24	1	silt loam	roots	10yr 3/1	very dark gray	impasse (roots)
624	45	1	loam clay		10yr 3/2	very dark grayish brown	
	68	2	silt loam		10yr 3/2	very dark grayish brown	water
625	33	1	silt loam	roots	10yr 4/2	dark grayish brown	
	52	2	silt loam clay		10yr 5/3	brown	subsoil
626	43	1	silt loam		10yr 4/2	dark grayish brown	
	53	2	silt loam clay		10yr 5/3	brown	water
627	45	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	54	2	silt loam clay		10yr 5/3	brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
628	45	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	57	2	silt loam clay	cobbles	10yr 5/3	brown	water
629	41	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	55	2	silt loam clay		10yr 5/3	brown	subsoil
630	39	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	53	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
631	43	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	60	2	silt loam clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
632	55	1	silt loam	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
633	49	1	silt loam	cobbles	10yr 4/2	dark grayish brown	impasse (rocks)
634	60	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	water
					10yr 4/4	dark yellowish brown	
635	40	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	water
636	22	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	water
637	31	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	impasse (rocks)
638	33	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
					2.5yr 3/4	dusky red	
639	0	1					not excavated (water)
640	21	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
641	28	1	silt loam	cobbles	2.5y 3/2	very dark grayish brown	impasse (rocks)
642	0	1					not excavated (water)

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
643	0	1					not excavated (water)
644	36	1	silt loam		10yr 2/1	black	water
645	50	1	silt loam		10yr 2/1	black	water
646	36	1	silt loam		10yr 2/1	black	water
647	40	1	silt loam		10yr 2/1	black	water
648	34	1	silt loam		10yr 2/1	black	water
649	38	1	silt loam		10yr 2/1	black	water
650	34	1	silt loam		10yr 2/1	black	water
651	30	1	silt loam		10yr 2/1	black	water
652	38	1	silt loam		10yr 2/1	black	water
653	40	1	silt loam		10yr 2/1	black	water
654	30	1	silt loam		10yr 2/1	black	water
655	60	1	silt loam		10yr 3/1	very dark gray	water
656	40	1	silt loam		10yr 2/1	black	water
657	30	1	silt loam	cobbles	10yr 2/1	black	water
658	65	1	silt loam		10yr 3/1	very dark gray	water
659	51	1	silt loam		10yr 3/1	very dark gray	bedrock
660	48	1	silt loam		10yr 3/1	very dark gray	bedrock
661	72	1	silt loam		10yr 3/2	very dark grayish brown	water
662	70	1	silt loam		10yr 3/1	very dark gray	bedrock
663	63	1	silt loam		10yr 3/1	very dark gray	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
664	41	1	loam clay		10yr 3/1	very dark gray	
	76	2	loam clay	exfoliating bedrock	10yr 2/2	very dark brown	bedrock
665	39	1	loam clay		10yr 3/1	very dark gray	
	68	2	loam clay	gravel, cobbles	10yr 2/2	very dark brown	water
					10yr 4/6	dark yellowish brown	
666	41	1	loam clay		10yr 3/1	very dark gray	
	95	2	loam	cobbles	10yr 2/2	very dark brown	depth
667	30	1	loam clay		10yr 3/1	very dark gray	
	61	2	loam clay	gravel, cobbles	10yr 2/2	very dark brown	impasse (rocks)
					10yr 5/4	yellowish brown	
668	47	1	loam clay		10yr 2/2	very dark brown	impasse (rocks)
669	29	1	loam clay		10yr 3/3	dark brown	water
670	23	1	sand clay		10yr 3/2	very dark grayish brown	
	52	2	silt clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 3/3	dark brown	
671	28	1	silt	gravel	10yr 4/2	dark grayish brown	
	39	2	clay		10yr 5/6	yellowish brown	subsoil
672	25	1	silt loam		10yr 4/2	dark grayish brown	
	39	2	clay		10yr 5/3	brown	subsoil
673	35	1	silt clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	
	46	2	clay	exfoliating bedrock	10yr 2/1	black	bedrock
674	27	1	loam clay		10yr 3/3	dark brown	
	45	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/1	gray	
675	30	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	40	2	sand clay	cobbles	10yr 5/2	grayish brown	impasse (rocks)
					10yr 5/4	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
676	32	1	sand clay	cobbles	10yr 4/3	brown	water
677	23	1	loam clay	gravel	10yr 4/2	dark grayish brown	water
678	27	1	loam clay		10yr 3/3	dark brown	
	50	2	clay	gravel	10yr 5/4	yellowish brown	subsoil
679	27	1	silt clay	exfoliating bedrock	10yr 4/2	dark grayish brown	
	37	2	clay	exfoliating bedrock	10yr 2/1	black	bedrock
680	30	1	silt loam		10yr 3/2	very dark grayish brown	
	58	2	silt loam	exfoliating bedrock	10yr 4/1	dark gray	water
681	20	1	silt loam		10yr 4/2	dark grayish brown	water
682	35	1	silt loam		10yr 4/2	dark grayish brown	
	53	2	silt clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
683	30	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	41	2	silt clay		10yr 5/6	yellowish brown	water
684	29	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	40	2	clay		10yr 4/6 2.5y 5/4	dark yellowish brown light olive brown	subsoil
685	28	1	silt loam	gravel	10yr 3/1	very dark gray	
	40	2	silt clay		10yr 5/4	yellowish brown	subsoil
686	28	1	silt loam		10yr 4/2	dark grayish brown	
	42	2	silt clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	water
687	35	1	silt loam	roots	10yr 4/2	dark grayish brown	water
688	32	1	silt loam		10yr 3/2	very dark grayish brown	
	48	2	silt loam	exfoliating bedrock	10yr 3/1	very dark gray	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
689	33	1	silt loam	gravel, cobbles	10yr 4/3	brown	
	43	2	silt loam clay	gravel	2.5y 6/4	light yellowish brown	subsoil
690	38	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	54	2	silt clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
691	24	1	silt loam	roots	10yr 4/2	dark grayish brown	
	49	2	silt clay		7.5yr 5/6	strong brown	subsoil
692	10	1	silt loam	roots	10yr 4/2	dark grayish brown	water
693	41	1	silt loam	gravel, cobbles	10yr 3/1	very dark gray	
	53	2	clay		10yr 5/2	grayish brown	subsoil
694	38	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	48	2	clay		10yr 5/3	brown	subsoil
695	32	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	45	2	clay		10yr 5/4	yellowish brown	subsoil
696	30	1	silt loam		10yr 4/1	dark gray	
	40	2	clay		10yr 5/3	brown	subsoil
697	26	1	silt loam		10yr 4/2	dark grayish brown	
	39	2	clay		10yr 5/3	brown	subsoil
698	30	1	silt loam	gravel, cobbles	10yr 4/2	dark grayish brown	
	42	2	clay		10yr 5/3	brown	subsoil
699	40	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	58	2	silt clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
700	36	1	loam clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
701	37	1	silt clay	cobbles	10yr 4/3	brown	
	55	2	clay		10yr 5/6	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
702	27	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	39	2	clay		10yr 5/3	brown	subsoil
703	28	1	clay		10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/4	yellowish brown	subsoil
704	29	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
705	20	1	clay		10yr 5/3	brown	water
706	28	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
707	28	1	clay		10yr 3/2	very dark grayish brown	
	40	2	clay		10yr 4/6	dark yellowish brown	
					10yr 5/4	yellowish brown	
	53	3	clay	exfoliating bedrock	10yr 2/2	very dark brown	subsoil
708	25	1	silt clay		10yr 4/1	dark gray	water
709	28	1	silt clay	gravel	10yr 3/1	very dark gray	water
710	40	1	silt clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
711	26	1	silt clay	exfoliating bedrock	10yr 4/2	dark grayish brown	
	45	2	clay	exfoliating bedrock	10yr 5/3	brown	subsoil
712	30	1	clay		10yr 3/3	dark brown	
	57	2	silt clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	subsoil
					10yr 5/4	yellowish brown	
713	28	1	sand clay		10yr 3/1	very dark gray	water

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
714	28	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	
	32	2	silt	exfoliating bedrock	2.5y 3/1	very dark gray	bedrock
715	0	1					not excavated (water)
716	0	1					not excavated (water)
717	17	1	silt clay		10yr 2/2	very dark brown	water
718	22	1	clay		2.5yr 4/4	dusky red	water
719	25	1	silt loam	cobbles	10yr 4/2	dark grayish brown	water
720	33	1	clay	gravel	2.5y 4/2	dark grayish brown	impasse (compact soil)
721	26	1	silt loam		10yr 4/2	dark grayish brown	water
722	16	1	sand clay		10yr 5/2	grayish brown	water
723	24	1	silt clay	cobbles, roots	10yr 4/2	dark grayish brown	water
724	17	1	silt loam clay	gravel, cobbles	2.5y 4/2	dark grayish brown	water
725	24	1	sand clay	gravel	10yr 4/2	dark grayish brown	water
726	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	water
727	29	1	silt loam	gravel	2.5y 4/3	olive brown	
	41	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 5/4	yellowish brown	
728	24	1	sand clay	gravel	10yr 5/2	grayish brown	water
729	9	1	silt loam		10yr 4/2	dark grayish brown	water
730	0	1					not excavated (water)
731	13	1	silt loam		10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
732	38	1	loam clay	gravel, roots	10yr 3/2	very dark grayish brown	water
733	32	1	silt clay		10yr 4/3	brown	
	52	2	clay		10yr 5/6	yellowish brown	subsoil
734	20	1	silt loam		10yr 4/1	dark gray	water
735	34	1	silt loam	cobbles	10yr 4/1	dark gray	
	46	2	clay		10yr 5/3	brown	subsoil
736	28	1	silt clay		10yr 4/2	dark grayish brown	
	42	2	clay		10yr 5/6	yellowish brown	water
737	36	1	clay		10yr 4/2	dark grayish brown	
	54	2	clay		10yr 5/4	yellowish brown	subsoil
738	31	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	48	2	silt clay		10yr 5/3 10yr 4/6	brown dark yellowish brown	subsoil
739	35	1	silt clay		10yr 4/2	dark grayish brown	
	55	2	clay		10yr 5/4	yellowish brown	subsoil
740	0	1					not excavated (water)
741	30	1	silt loam	gravel, cobbles	10yr 4/1	dark gray	
	40	2	clay		10yr 5/3	brown	subsoil
742	19	1	silt loam clay		10yr 4/2	dark grayish brown	
	43	2	silt clay		10yr 5/3	brown	subsoil
743	29	1	loam clay		10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/4	yellowish brown	subsoil
744	31	1	silt loam	gravel	10yr 4/1	dark gray	
	46	2	clay		10yr 5/3	brown	subsoil
745	0	1					not excavated (water)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
746	28	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	53	2	silt clay		10yr 5/3	brown	subsoil
747	30	1	loam clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 5/4	yellowish brown	subsoil
748	30	1	silt clay		10yr 4/3	brown	
	47	2	clay		7.5yr 4/4	brown	water
749	31	1	clay loam		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/4	yellowish brown	subsoil
750	30	1	loam clay	gravel	10yr 3/2	very dark grayish brown	
	40	2	clay	gravel	10yr 5/3	brown	subsoil
751	31	1	loam clay		10yr 3/2	very dark grayish brown	
	54	2	silt clay	exfoliating bedrock	10yr 2/1	black	bedrock
752	51	1	silt loam clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	
	55	2	silt		10yr 3/6	dark yellowish brown	
	71	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil
753	31	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	48	2	silt loam		10yr 5/3 10yr 3/2	brown very dark grayish brown	subsoil
754	24	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	
	38	2	silt		2.5y 4/1	dark gray	subsoil
755	39	1	silt loam	gravel, exfoliating bedrock	10yr 3/2	very dark grayish brown	impasse (rocks)
756	27	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	
	37	2	silt loam clay	gravel	2.5y 4/4	olive brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
757	33	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt clay		10yr 5/3	brown	subsoil
758	33	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
759	31	1	silt loam		2.5y 4/2	dark grayish brown	
	42	2	clay		10yr 5/4	yellowish brown	subsoil
760	16	1	silt loam		10yr 4/2	dark grayish brown	
	41	2	silt clay		10yr 5/3	brown	subsoil
761	27	1	silt loam clay	gravel	2.5y 4/3	olive brown	water
762	26	1	silt clay		10yr 4/3	brown	water
763	25	1	silt loam		10yr 4/2	dark grayish brown	
	35	2	silt clay		10yr 5/6	yellowish brown	water
764	8	1	sand clay		10yr 5/3	brown	water
765	19	1	silt clay	gravel	2.5y 4/2	dark grayish brown	
	32	2	clay		10yr 5/4	yellowish brown	subsoil
766	23	1	silt loam		10yr 4/2	dark grayish brown	water
767	0	1					not excavated (water)
768	26	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
769	0	1					not excavated (water)
770	22	1	silt clay	gravel	10yr 5/2	grayish brown	water
771	16	1	silt loam	gravel	2.5y 4/3	olive brown	water
772	26	1	silt loam		10yr 4/2	dark grayish brown	water
773	0	1					not excavated (water)
774	17	1	silt loam		10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
775	30	1	silt sand clay	gravel	10yr 3/3	dark brown	water
776	37	1	silt clay		10yr 4/2	dark grayish brown	
	54	2	clay		10yr 4/6	dark yellowish brown	subsoil
777	10	1	clay		10yr 4/2	dark grayish brown	water
778	10	1	clay		10yr 4/2	dark grayish brown	water
779	32	1	silt clay		10yr 4/2	dark grayish brown	
	43	2	clay		10yr 5/3	brown	subsoil
780	35	1	loam clay	gravel, cobbles	10yr 4/3	brown	
	56	2	loam clay		2.5y 5/4	light olive brown	subsoil
781	32	1	silt clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
782	34	1	silt clay		10yr 4/2	dark grayish brown	
	52	2	clay		7.5yr 5/4	brown	subsoil
783	27	1	silt loam		10yr 4/2	dark grayish brown	
	35	2	silt clay	gravel	10yr 3/2	very dark grayish brown	
	48	3	clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
784	32	1	silt clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil
785	24	1	silt clay	cobbles	10yr 4/2	dark grayish brown	
	40	2	clay		7.5yr 4/4	brown	water
786	32	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	47	2	silt clay	gravel, cobbles, exfoliating bedrock	10yr 2/1	black	subsoil
787	30	1	clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 6/1	gray	subsoil
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
788	23	1	silt clay		10yr 4/2	dark grayish brown	
	45	2	clay		10yr 5/4	yellowish brown	subsoil
789	30	1	clay		10yr 4/2	dark grayish brown	water
790	37	1	sand clay	gravel	2.5y 4/2	dark grayish brown	water
791	26	1	silt clay		10yr 4/3	brown	
	45	2	clay		10yr 5/2	grayish brown	water
792	29	1	silt clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
793	20	1	silt clay	gravel	10yr 5/3	brown	
	32	2	clay	gravel	10yr 4/3	brown	
	45	3	clay	gravel, cobbles	2.5y 5/6	light olive brown	subsoil
					10yr 5/4	yellowish brown	
794	23	1	silt sand other	exfoliating bedrock	10yr 4/3	brown	
					10yr 2/1	black	
	45	2	silt clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
795	22	1	sand clay		10yr 3/3	dark brown	
	36	2	loam clay		10yr 4/6	dark yellowish brown	
					10yr 5/4	yellowish brown	
	70	3	silt clay	exfoliating bedrock	10yr 2/1	black	subsoil
796	35	1	silt loam	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
797	28	1	sand clay	gravel, cobbles	10yr 3/2	very dark grayish brown	
	43	2	loam clay	gravel, cobbles, exfoliating bedrock	10yr 2/1	black	subsoil
798	32	1	sand clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
799	29	1	silt loam	cobbles	10yr 4/3	brown	
	45	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
800	31	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	
	43	2	clay	gravel	2.5y 5/3	light olive brown	subsoil
					2.5y 6/4	light yellowish brown	
801	28	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	44	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
802	25	1	silt loam	gravel, cobbles	2.5y 4/3	olive brown	
	33	2	clay	gravel	2.5y 5/4	light olive brown	water
803	18	1	silt loam		10yr 4/2	dark grayish brown	
	39	2	silt loam	gravel, exfoliating bedrock	10yr 4/1	dark gray	impasse (rocks)
804	31	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	47	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
805	22	1	silt loam	gravel, cobbles	2.5y 4/3	olive brown	water
806	29	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt loam clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
807	25	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	36	2	loam clay	gravel	2.5y 5/3	light olive brown	subsoil
					10yr 5/6	yellowish brown	
808	28	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt loam clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
809	24	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	31	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
810	27	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	silt loam clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
811	26	1	silt loam clay	gravel, cobbles	2.5y 4/2	dark grayish brown	impasse (rocks)
812	28	1	silt loam		10yr 4/2	dark grayish brown	
	34	2	silt loam clay		10yr 5/3	brown	water
					10yr 4/6	dark yellowish brown	
813	34	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	45	2	clay		7.5yr 5/4	brown	subsoil
814	25	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt clay		10yr 5/3	brown	subsoil
815	24	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
816	29	1	silt loam		10yr 4/2	dark grayish brown	
	37	2	silt clay		10yr 5/3	brown	water
817	25	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	37	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
818	30	1	silt loam		10yr 4/2	dark grayish brown	
	39	2	silt clay		10yr 5/3	brown	water
819	22	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
820	32	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	
	43	2	clay		2.5y 5/3	light olive brown	subsoil
821	30	1	silt loam		10yr 3/2	very dark grayish brown	water
822	19	1	silt loam		10yr 3/2	very dark grayish brown	water
823	33	1	silt loam		10yr 4/2	dark grayish brown	
	52	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
824	35	1	silt loam	gravel	10yr 3/2	very dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
825	44	1	silt loam		10yr 3/2	very dark grayish brown	water
826	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	53	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
827	32	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt sand		10yr 5/3	brown	subsoil
828	36	1	silt clay		10yr 3/3	dark brown	
	51	2	clay		10yr 5/4	yellowish brown	water
829	10	1	loam clay	gravel	10yr 3/1	very dark gray	water
830	33	1	silt clay		10yr 3/1	very dark gray	
	50	2	clay		10yr 5/4	yellowish brown	subsoil
831	35	1	silt clay	gravel	10yr 3/1	very dark gray	water
832	37	1	silt clay		10yr 3/3	dark brown	
	48	2	clay		10yr 5/4	yellowish brown	water
833	30	1	silt clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	water
834	27	1	loam clay	gravel	10yr 4/3	brown	
	40	2	clay		10yr 5/4	yellowish brown	subsoil
835	22	1	clay		10yr 4/2	dark grayish brown	water
836	15	1	clay		10yr 4/2	dark grayish brown	water
837	31	1	silt clay		10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
838	12	1	silt clay		10yr 5/3	brown	water
839	27	1	silt loam		10yr 5/4	yellowish brown	
	45	2	silt clay	gravel, cobbles	10yr 5/4	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
840	25	1	silt clay		10yr 5/2	grayish brown	
	40	2	clay		7.5yr 5/4	brown	water
841	38	1	silt clay		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/4	yellowish brown	subsoil
842	30	1	silt clay		10yr 5/2	grayish brown	
	45	2	silt sand		10yr 5/6 10yr 5/2	yellowish brown grayish brown	subsoil
843	27	1	silt clay		10yr 4/3	brown	
	35	2	silt sand		10yr 5/4 10yr 5/2	yellowish brown grayish brown	water
844	29	1	silt clay		10yr 4/2	dark grayish brown	water
845	23	1	silt loam		10yr 4/2	dark grayish brown	
	36	2	sand clay	gravel, cobbles	10yr 4/2	dark grayish brown	
	43	3	clay	gravel, cobbles	2.5y 5/4	light olive brown	subsoil
846	30	1	loam clay	gravel, cobbles, exfoliating bedrock	10yr 4/2	dark grayish brown	
	36	2	clay	gravel, cobbles, exfoliating bedrock	10yr 2/1	black	impasse (rocks)
847	32	1	silt clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
848	27	1	silt clay		10yr 4/3	brown	
	47	2	clay		10yr 5/3	brown	subsoil
849	30	1	silt clay	gravel, cobbles	10yr 4/3	brown	
	45	2	clay	gravel, cobbles	10yr 5/4 10yr 5/6	yellowish brown yellowish brown	subsoil
850	20	1	silt loam	exfoliating bedrock	10yr 4/2	dark grayish brown	
	33	2	silt	exfoliating bedrock	10yr 5/4	yellowish brown	
	40	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
851	32	1	silt clay	cobbles, exfoliating bedrock	10yr 4/2	dark grayish brown	
	45	2	silt	cobbles, exfoliating bedrock	10yr 5/3	brown	
	56	3	clay		10yr 2/1	black	subsoil
852	36	1	silt clay		10yr 3/3	dark brown	
	57	2	silt clay	exfoliating bedrock	10yr 2/2	very dark brown	bedrock
853	32	1	silt	cobbles	10yr 4/3	brown	
	52	2	silt sand		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
854	21	1	clay	gravel, cobbles	10yr 4/2	dark grayish brown	
	36	2	clay	gravel, cobbles	10yr 5/4	yellowish brown	subsoil
855	31	1	silt clay	exfoliating bedrock	10yr 3/3	dark brown	
	49	2	silt clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 2/2	very dark brown	
856	25	1	silt clay		10yr 3/2	very dark grayish brown	
	43	2	silt clay	gravel	10yr 5/4	yellowish brown	subsoil
857	30	1	silt clay		10yr 4/3	brown	
	40	2	silt clay		10yr 5/4	yellowish brown	
	47	3	clay		10yr 2/1	black	subsoil
858	24	1	silt clay		10yr 4/2	dark grayish brown	
	32	2	silt clay		10yr 5/4	yellowish brown	
	47	3	clay		10yr 2/1	black	bedrock
859	37	1	loam clay	gravel	10yr 4/2	dark grayish brown	water
860	34	1	silt clay	cobbles	10yr 4/3	brown	
	52	2	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
861	38	1	silt clay		10yr 4/2	dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
862	30	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	40	2	silt clay		10yr 5/4	yellowish brown	subsoil
863	32	1	clay		10yr 4/2	dark grayish brown	
	51	2	sand clay		10yr 5/4	yellowish brown	subsoil
864	33	1	silt clay		10yr 4/3	brown	
	52	2	sand clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
865	28	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	40	2	clay	gravel, cobbles	10yr 5/4	yellowish brown	subsoil
					10yr 4/3	brown	
866	33	1	silt clay		10yr 4/2	dark grayish brown	
	50	2	silt clay		10yr 5/4	yellowish brown	subsoil
867	0	1					not excavated (water)
868	30	1	loam clay	gravel	10yr 4/3	brown	
	42	2	silt clay		2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
869	34	1	silt		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/4	yellowish brown	
870	37	1	silt clay		10yr 4/2	dark grayish brown	
	48	2	silt sand clay		10yr 5/4	yellowish brown	water
					10yr 4/6	dark yellowish brown	
871	30	1	silt clay		10yr 3/2	very dark grayish brown	
	41	2	sand clay		10yr 5/4	yellowish brown	subsoil
872	28	1	loam clay		10yr 3/3	dark brown	
	50	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 6/2	light brownish gray	
873	34	1	silt	cobbles	10yr 3/2	very dark grayish brown	
	53	2	clay		10yr 5/4	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
874	40	1	loam clay	gravel	10yr 3/1	very dark gray	water
875	33	1	loam clay		10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/4	yellowish brown	subsoil
876	31	1	silt clay		10yr 3/2	very dark grayish brown	
	47	2	clay		10yr 5/2	grayish brown	subsoil
877	27	1	silt clay		10yr 3/1	very dark gray	water
878	30	1	silt loam		10yr 3/2	very dark grayish brown	water
879	28	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	45	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
880	21	1	silt loam		2.5y 4/2	dark grayish brown	water
881	27	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	45	2	silt clay		10yr 5/4	yellowish brown	subsoil
882	21	1	silt loam		10yr 3/2	very dark grayish brown	
	35	2	silt clay		10yr 4/3	brown	subsoil
883	24	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
884	29	1	silt loam		10yr 4/2	dark grayish brown	
	48	2	clay		10yr 5/4	yellowish brown	subsoil
885	33	1	silt loam		10yr 3/2	very dark grayish brown	
	45	2	silt clay		10yr 4/3	brown	subsoil
					10yr 5/6	yellowish brown	
886	32	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	43	2	clay		2.5y 5/4	light olive brown	subsoil
887	26	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 5/6	yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
888	21	1	silt loam		10yr 3/2	very dark grayish brown	water
889	22	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
890	28	1	silt loam		10yr 4/2	dark grayish brown	
	45	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
891	32	1	silt loam		10yr 3/2	very dark grayish brown	water
892	27	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	39	2	clay		10yr 5/4 2.5y 4/4	yellowish brown olive brown	subsoil
893	40	1	silt loam		10yr 3/2	very dark grayish brown	water
894	32	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	54	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
895	36	1	silt loam		10yr 3/2	very dark grayish brown	water
896	36	1	silt loam		10yr 4/2	dark grayish brown	
	55	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
897	27	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
898	36	1	silt loam		10yr 3/2	very dark grayish brown	water
899	23	1	silt loam		10yr 4/2	dark grayish brown	
	45	2	silt loam clay		10yr 6/2 10yr 5/6	light brownish gray yellowish brown	subsoil
900	31	1	silt loam clay	gravel	2.5y 4/2	dark grayish brown	
	36	2	silt clay	gravel	2.5y 5/4	light olive brown	water
901	55	1	silt sand		10yr 3/2	very dark grayish brown	
	68	2	silt clay	gravel, cobbles, exfoliating bedrock	10yr 2/1	black	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
902	44	1	silt clay		10yr 3/3	dark brown	
	74	2	silt clay		10yr 2/2	very dark brown	water
903	40	1	silt clay	cobbles	10yr 3/2	very dark grayish brown	
	60	2	clay		10yr 5/4	yellowish brown	subsoil
904	35	1	silt loam	gravel	10yr 2/2	very dark brown	
	48	2	clay		10yr 5/4	yellowish brown	subsoil
905	34	1	silt clay		10yr 3/3	dark brown	
	48	2	sand clay		10yr 5/4	yellowish brown	subsoil
906	18	1	silt loam		10yr 3/2	very dark grayish brown	water
907	24	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
908	20	1	silt loam		10yr 3/2	very dark grayish brown	water
909	28	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
910	30	1	silt loam		10yr 3/2	very dark grayish brown	water
911	25	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
912	27	1	silt loam		10yr 3/2	very dark grayish brown	water
913	22	1	silt loam clay	gravel	2.5y 4/2	dark grayish brown	
	35	2	clay		7.5yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
914	25	1	silt loam		10yr 4/3	brown	
	40	2	silt clay		10yr 5/4	yellowish brown	subsoil
915	36	1	silt loam	gravel	2.5y 4/2	dark grayish brown	
	43	2	clay		2.5y 6/4	light yellowish brown	water
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
916	24	1	silt loam		10yr 4/3	brown	water
917	18	1	silt loam		10yr 4/3	brown	water
918	24	1	silt loam	gravel	2.5y 3/2	very dark grayish brown	water
919	20	1	silt loam		10yr 4/3	brown	water
920	25	1	silt loam		10yr 4/3	brown	water
921	27	1	silt loam	gravel, cobbles	2.5y 4/2	dark grayish brown	
	38	2	clay	gravel	2.5y 5/3 10yr 4/6	light olive brown dark yellowish brown	subsoil
922	27	1	silt loam		10yr 4/3	brown	subsoil
923	38	1	silt loam	gravel	2.5y 4/2	dark grayish brown	water
924	29	1	silt loam		10yr 4/3	brown	water
925	30	1	sand clay	gravel	10yr 3/2	very dark grayish brown	
	46	2	silt clay		10yr 5/4 10yr 4/3	yellowish brown brown	subsoil
926	32	1	silt		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/4 10yr 5/2	yellowish brown grayish brown	subsoil
927	28	1	silt clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 5/4	yellowish brown	subsoil
928	30	1	silt		10yr 3/2	very dark grayish brown	
	35	2	clay		10yr 5/2 10yr 5/4	grayish brown yellowish brown	water
929	25	1	loam clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
930	37	1	silt clay	gravel, cobbles	10yr 3/2	very dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
931	30	1	silt		10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
932	30	1	clay	gravel	10yr 4/3	brown	
	46	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
933	31	1	silt clay		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/4	yellowish brown	water
934	30	1	silt	cobbles	10yr 4/2	dark grayish brown	
	45	2	silt sand		10yr 5/2	grayish brown	subsoil
					10yr 5/4	yellowish brown	
935	31	1	silt clay		10yr 4/2	dark grayish brown	
	54	2	sand clay		10yr 5/4	yellowish brown	subsoil
936	43	1	silt loam	gravel, cobbles	10yr 4/3	brown	water
937	25	1	silt		10yr 4/2	dark grayish brown	
	45	2	silt sand		10yr 5/2	grayish brown	subsoil
					10yr 5/4	yellowish brown	
938	24	1	silt clay		10yr 4/2	dark grayish brown	
	47	2	sand clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
939	36	1	silt loam	gravel	10yr 3/2	very dark grayish brown	water
940	15	1	silt		10yr 4/2	dark grayish brown	water
941	40	1	silt	cobbles	10yr 4/2	dark grayish brown	
	55	2	silt clay		10yr 5/4	yellowish brown	water
942	8	1	silt	gravel	10yr 3/1	very dark gray	water
943	24	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
944	21	1	silt loam		10yr 4/2	dark grayish brown	
	45	2	silt clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
945	20	1	silt loam		10yr 4/2	dark grayish brown	
	39	2	silt loam clay		10yr 5/3	brown	subsoil
946	26	1	silt loam		10yr 4/2	dark grayish brown	
	50	2	loam clay		10yr 5/3	brown	subsoil
947	31	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	48	2	silt loam clay		10yr 5/3	brown	water
948	33	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt loam clay		10yr 5/3	brown	subsoil
949	37	1	silt loam		10yr 4/2	dark grayish brown	
	54	2	silt loam clay		10yr 5/3	brown	subsoil
950	37	1	loam clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
					10yr 2/1	black	
951	29	1	loam clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
952	33	1	loam clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	bedrock
953	30	1	loam clay	exfoliating bedrock	10yr 3/2	very dark grayish brown	
	40	2	loam clay other	exfoliating bedrock	10yr 2/1	black	bedrock
954	25	1	loam clay		10yr 3/2	very dark grayish brown	
	38	2	sand loam	exfoliating bedrock	10yr 2/1	black	bedrock
955	24	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	42	2	loam clay	cobbles, exfoliating bedrock	10yr 6/4	light yellowish brown	subsoil
956	25	1	silt	cobbles	10yr 4/2	dark grayish brown	
	40	2	silt sand		10yr 5/4	yellowish brown	water
957	29	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	48	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
958	27	1	silt loam		10yr 4/3	brown	
	41	2	loam clay		10yr 5/6	yellowish brown	subsoil
959	29	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	47	2	silt loam clay		10yr 6/2	light brownish gray	subsoil
					10yr 5/6	yellowish brown	
960	27	1	silt clay		10yr 4/2	dark grayish brown	
	45	2	clay		7.5yr 4/3	brown	subsoil
961	27	1	silt loam	exfoliating bedrock	10yr 4/2	dark grayish brown	
	40	2	loam clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
962	30	1	silt		10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/4	yellowish brown	water
					10yr 5/2	grayish brown	
963	32	1	silt clay		10yr 4/2	dark grayish brown	
	42	2	clay		7.5yr 5/2	brown	water
964	25	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt clay		10yr 5/3	brown	subsoil
965	30	1	silt		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
966	26	1	silt loam		10yr 4/2	dark grayish brown	
	53	2	silt clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
967	33	1	silt		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
968	28	1	silt loam		10yr 4/2	dark grayish brown	
	43	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
969	34	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	56	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	

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Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
970	50	1	silt		10yr 4/2	dark grayish brown	water
971	28	1	silt loam		10yr 4/3	brown	
	45	2	silt loam clay	cobbles	10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
972	35	1	silt	cobbles	10yr 4/3	brown	
	43	2	clay	exfoliating bedrock	10yr 5/6	yellowish brown	
					10yr 5/2	grayish brown	
	47	3	clay	exfoliating bedrock	10yr 2/1	black	subsoil
973	31	1	silt loam		10yr 4/2	dark grayish brown	
	52	2	silt loam clay		10yr 5/3	brown	subsoil
					10yr 4/6	dark yellowish brown	
974	35	1	silt	cobbles	10yr 4/2	dark grayish brown	
	45	2	clay	exfoliating bedrock	10yr 5/2	grayish brown	water
					10yr 5/6	yellowish brown	
975	33	1	silt loam		10yr 4/2	dark grayish brown	
	51	2	silt clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
976	28	1	silt	cobbles	10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	
977	33	1	silt	cobbles, roots	10yr 4/2	dark grayish brown	
	58	2	silt loam clay		10yr 6/3	pale brown	subsoil
					10yr 5/6	yellowish brown	
978	27	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	41	2	silt loam clay		2.5y 3/3	dark olive brown	subsoil
979	30	1	silt loam	gravel, roots	10yr 3/1	very dark gray	water
980	23	1	loam clay	gravel, cobbles, roots	10yr 3/2	very dark grayish brown	impasse (roots)

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Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
981	30	1	silt clay	gravel, cobbles, roots	10yr 4/2	dark grayish brown	
	46	2	clay	gravel	10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
982	20	1	loam clay		10yr 4/2	dark grayish brown	
	48	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
983	30	1	sand clay	gravel, cobbles	10yr 4/2	dark grayish brown	
	42	2	clay	gravel	2.5y 5/4	light olive brown	subsoil
					10yr 5/6	yellowish brown	
984	28	1	loam clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
985	27	1	silt loam	gravel, cobbles	10yr 5/4	yellowish brown	
	41	2	clay		10yr 4/3	brown	subsoil
					10yr 3/1	very dark gray	
986	38	1	loam clay		10yr 3/3	dark brown	
	59	2	clay		10yr 5/4	yellowish brown	subsoil
987	40	1	silt clay	gravel	10yr 4/2	dark grayish brown	water
988	26	1	silt clay		10yr 4/2	dark grayish brown	
	51	2	clay		10yr 5/3	brown	subsoil
989	28	1	silt clay		10yr 4/2	dark grayish brown	
	52	2	clay		10yr 4/6	dark yellowish brown	subsoil
990	12	1	silt clay	gravel, cobbles	10yr 6/4	light yellowish brown	
	36	2	clay	gravel	10yr 5/4	yellowish brown	subsoil
991	18	1	silt clay		10yr 6/3	pale brown	
	40	2	clay		10yr 5/4	yellowish brown	subsoil
992	26	1	silt clay		10yr 4/2	dark grayish brown	
	50	2	sand clay		10yr 4/6	dark yellowish brown	subsoil

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Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
993	28	1	silt clay	gravel	10yr 4/3	brown	
	38	2	clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
994	30	1	loam clay		10yr 4/2	dark grayish brown	
	47	2	clay		10yr 5/4	yellowish brown	subsoil
995	25	1	clay		10yr 4/2	dark grayish brown	water
996	21	1	clay		10yr 4/2	dark grayish brown	water
997	23	1	clay	gravel	10yr 4/3	brown	
	43	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/4	yellowish brown	
998	27	1	loam clay	exfoliating bedrock	10yr 3/3	dark brown	
	52	2	sand clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
999	24	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	44	2	loam clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
1000	25	1	silt loam	exfoliating bedrock	10yr 4/2	dark grayish brown	water
1001	32	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	42	2	loam clay	exfoliating bedrock	10yr 5/3	brown	subsoil
					10yr 5/4	yellowish brown	
1002	32	1	silt loam		10yr 4/3	brown	
	43	2	loam clay	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
1003	30	1	silt loam		10yr 4/2	dark grayish brown	
	42	2	silt loam		10yr 5/4	yellowish brown	subsoil
1004	33	1	silt loam		10yr 4/2	dark grayish brown	
	47	2	silt loam clay	exfoliating bedrock	10yr 5/6	yellowish brown	subsoil

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
1005	27	1	silt loam	gravel, cobbles	2.5y 4/2	dark grayish brown	
	40	2	loam clay	gravel	2.5y 5/3	light olive brown	subsoil
					10yr 4/4	dark yellowish brown	
1006	20	1	silt loam		10yr 4/3	brown	
	36	2	silt clay		10yr 5/4	yellowish brown	subsoil
1007	37	1	silt loam	gravel, cobbles	2.5y 4/3	olive brown	impasse (rocks)
1008	26	1	silt loam		10yr 4/3	brown	
	42	2	silt clay		10yr 5/4	yellowish brown	subsoil
1009	33	1	silt loam		10yr 4/3	brown	water
1010	22	1	silt loam	gravel	10yr 4/2	dark grayish brown	
	34	2	loam clay	gravel	2.5y 6/4	light yellowish brown	subsoil
					10yr 4/6	dark yellowish brown	
1011	24	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	49	2	silt clay		10yr 5/4	yellowish brown	subsoil
1012	30	1	silt loam	gravel	10yr 3/3	dark brown	water
1013	23	1	silt loam	gravel, cobbles	2.5y 3/2	very dark grayish brown	water
1014	35	1	silt loam		10yr 4/3	brown	water
1015	10	1	silt loam		10yr 3/1	very dark gray	water
1016	30	1	silt sand	roots	10yr 4/2	dark grayish brown	water
1017	27	1	silt loam	cobbles	10yr 4/2	dark grayish brown	
	35	2	silt clay		10yr 5/3	brown	water
					10yr 4/6	dark yellowish brown	
1018	24	1	silt clay	gravel	10yr 4/2	dark grayish brown	
	45	2	clay	gravel	2.5y 5/4	light olive brown	subsoil
1019	27	1	silt	cobbles, roots	10yr 4/1	dark gray	impasse (rocks)

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
1020	20	1	silt loam	gravel, cobbles, roots	2.5y 3/2	very dark grayish brown	
	27	2	silt loam clay	gravel, cobbles	2.5y 5/4	light olive brown	impasse (rocks)
1021	30	1	silt loam		10yr 4/3	brown	
	42	2	silt clay		10yr 5/4	yellowish brown	subsoil
1022	29	1	silt loam	gravel	10yr 4/3	brown	
	45	2	silt loam clay		10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
1023	30	1	silt loam		10yr 4/3	brown	water
1024	16	1	silt loam	gravel, cobbles	2.5y 4/3	olive brown	
	30	2	silt loam clay	gravel	2.5y 5/3	light olive brown	subsoil
					10yr 4/6	dark yellowish brown	
1025	29	1	silt loam		10yr 4/3	brown	
	39	2	silt clay		10yr 5/4	yellowish brown	subsoil
1026	35	1	silt loam		10yr 4/2	dark grayish brown	
	49	2	silt loam	exfoliating bedrock	10yr 5/4	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
1027	21	1	silt loam		7.5yr 4/3	brown	
	43	2	clay		7.5yr 4/6	strong brown	subsoil
1028	20	1	silt loam	cobbles, roots	10yr 3/2	very dark grayish brown	
	33	2	loam	cobbles	10yr 5/4	yellowish brown	subsoil
1029	32	1	loam clay		10yr 4/2	dark grayish brown	
	54	2	clay		10yr 5/3	brown	subsoil
1030	27	1	silt loam	gravel, cobbles, roots	10yr 4/3	brown	
	36	2	silt clay	gravel	10yr 5/4	yellowish brown	subsoil
1031	25	1	loam clay	roots	10yr 4/2	dark grayish brown	
	46	2	loam clay	roots	10yr 5/3	brown	subsoil
1032	27	1	loam clay	roots	10yr 4/2	dark grayish brown	water

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
1033	34	1	loam clay		10yr 4/2	dark grayish brown	
	57	2	loam clay		10yr 5/3	brown	subsoil
1034	29	1	loam clay	roots	10yr 4/2	dark grayish brown	
	49	2	clay		10yr 5/3	brown	subsoil
1035	28	1	silt loam	cobbles, roots	10yr 4/2	dark grayish brown	
	38	2	silt clay		10yr 5/4	yellowish brown	water
1036	28	1	silt loam	roots	10yr 4/3	brown	
	40	2	silt clay		10yr 5/6	yellowish brown	water
1037	25	1	silt loam	roots	10yr 4/3	brown	
	35	2	silt clay		10yr 5/4	yellowish brown	water
1038	29	1	silt loam	roots	10yr 4/3	brown	
	41	2	silt sand		10yr 5/2	grayish brown	water
					10yr 5/4	yellowish brown	
1039	27	1	silt loam	cobbles, roots	10yr 4/3	brown	
	30	2	silt sand		10yr 5/6	yellowish brown	water
1040	36	1	silt loam	gravel	10yr 3/1	very dark gray	water
1041	22	1	silt loam clay		2.5y 3/2	very dark grayish brown	water
1042	30	1	silt loam		10yr 3/2	very dark grayish brown	water
1043	40	1	silt loam	cobbles	10yr 3/2	very dark grayish brown	impasse (rocks)
1044	14	1	loam clay	crushed stone, exfoliating bedrock	10yr 3/2	very dark grayish brown	
	18	2	clay	gravel, crushed stone	10yr 3/3	dark brown	
					10yr 5/4	yellowish brown	
	30	3	clay	cobbles, crushed stone	10yr 4/1	dark gray	
	41	4	sand clay	gravel, cobbles	10yr 4/6	dark yellowish brown	impasse (compact soil)
					10yr 4/3	brown	

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
1045	15	1	silt sand	gravel, cobbles, crushed stone	10yr 3/1	very dark gray	
	27	2	sand	gravel, cobbles	2.5y 5/4	light olive brown	impasse (rocks)
1046	13	1	silt loam	crushed stone	10yr 4/2	dark grayish brown	
	19	2	silt loam clay		10yr 4/2	dark grayish brown	
					10yr 5/6	yellowish brown	
	23	3	silt clay	exfoliating bedrock	10yr 5/6	yellowish brown	
	35	4	silt loam clay		10yr 4/2	dark grayish brown	impasse (rocks, compact soil)
1047	24	1	silt loam	gravel, crushed stone	10yr 3/2	very dark grayish brown	impasse (rocks)

Appendix 2: Artifact Inventory

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
SC 1			8	1	1	unidentified hardware	iron alloy	190.0
SC 2			9	1	1	strap hinge	iron alloy	1,265.0
SC 3			10	1	1	unidentified hardware	iron alloy	140.0
STP 354	1		7	1	1	nail	iron alloy	8.8
STP 354	1		7	2	3	unidentified	iron alloy	1.0
STP 360	1		1	1	1	redware	coarse earthenware	0.9
STP 360	1		1	2	1	whiteware	refined earthenware	1.8
STP 360	1		1	3	1	buff/pink bodied stoneware	stoneware	3.5
STP 400	1		2	1	7	whiteware	refined earthenware	5.7
STP 400	1		2	2	1	ironstone	refined earthenware	4.5
STP 400	1		2	3	6	bottle	glass	64.8
				3.1	*6*	*bottle, oval-shaped, base, glass, paneled, amber, handmade, fragment*		*64.8*
STP 400	1		2	4	2	vessel	glass	3.5
				4.1	*1*	*vessel, glass, manganese solarized*		*3.0*
				4.2	*1*	*vessel, glass, embossed, pale aqua*		*0.5*
STP 400	1		2	5	6	window	glass	6.9
STP 400	1		2	6	3	nail	iron alloy	17.4
STP 400	1		2	7	3	shell	shell	8.9
STP 400	1		2	8	1	faunal bone	bone	1.1
STP 429	1		3	1	2	nail	iron alloy	15.4
STP 429	1		3	2	2	unidentified hardware	iron alloy	47.9

533431: Phase IB Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
STP 430	1		4	1	1	whiteware	refined earthenware	3.6
STP 430	1		4	2	2	window	glass	3.6
STP 430	1		4	3	1	faunal bone	bone	0.2
STP 431	1		5	1	3	whiteware	refined earthenware	2.2
STP 431	1		5	2	2	nail	iron alloy	23.5
STP 515	1		6	1	1	porcelain	porcelain	8.7

PHASE II SITE EVALUATION

Winstanley Distribution Center

New York State Bicycle Route 5 and Mead Rd.
Town of Florida
Montgomery County, New York

HAA # 5334-41
OPRHP Not Yet Assigned

Submitted to:
WE Acquisitions, LLC
300 George Street
New Haven, CT 06511

Prepared by:
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March 2019

MANAGEMENT SUMMARY

SHPO Project Review Number: *Not yet assigned*
Involved State and Federal Agencies: *Not yet assigned*
Phase of Survey: *Phase II Site Evaluation*

LOCATION INFORMATION

Municipality: *Town of Florida*
County: *Montgomery County*

SURVEY AREA

Length: *207 feet (63 meters)*
Width: *195 feet (60 meters)*
Acres: *0.85 acres*

RESULTS OF ARCHEOLOGICAL SITE EVALUATION

Site Name and Site Number: *J. Houck Historic Site*
Cultural Affiliation: *Historic*
Site Size: *3,437 m^2 (37,000 ft^2)*
Number of Shovel Tests: *64*
Number of Units Excavated: *9*
Total Area Excavated: *8.5 m^2*
Number of Sites Recommended Eligible for National Register: *One (1)*

RECOMMENDATIONS

The J. Houck Historic Site contains significant archaeological data in undisturbed contexts. The property was owned by the locally important Houck family over several generations who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family. If the site cannot be avoided, phase III data recovery is recommended. In particular, additional units should be placed near the structure to more completely understand the form and construction history of the building and acquire a more robust sample of contemporary artifacts from good contexts. Those goals would also be served by digging a sump to lower the level of local ground water and allow excavation within the basement hole. The well should be bisected with a backhoe trench to determine if useful data can be acquired from below the layer of field cobbles currently preventing sampling. An area of approximately 20 meters around the house and well should be mechanically stripped of soil in order to identify features such as middens or privies. If encountered, these features should be studied and sampled.

Report Authors: *Bradley W. Russell, Ph.D. and Elizabeth Gregory*
Date of Report: *March 2019*

ABSTRACT

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase II archeological site evaluation of the J. Houck Historic Site, which is located within the Area of Potential Effects (APE) for the proposed Winstanley Distribution Center project in the Town of Florida, Montgomery County, New York. The J. Hawke/J. Houck site was identified during Hartgen's earlier Phase I Archeological Investigation (Hartgen Archeological Associates 2019). The name J. Houck is also associated with another property farther east on Route 5S which was previously investigated by Hartgen before the main residential structure was dismantled (Hartgen Archeological Associates 2008a, b). The house is known to have belonged to Jacob and Christina Houck. Several generations of Houck's occupied the main house originally owned by Jacob and Christina. They also owned an adjacent tenant house that they rented to a series of individuals. The residence at the J. Houck site under study here, also appears to have been a rental property. The objective of this study was to delineate the boundaries of the J. Hawke/J. Houck Historic Site and evaluate if it meets the criteria for inclusion on the National Register of Historic Places.

Shovel tests indicated that the site stratigraphy was reasonable uniform with an A horizon consisting of a dark grey silt loam with an approximate depth of between 20 and 55 cm. The B horizon was a yellowish or greyish brown clay silt mix. The soils were rather poorly drained owing to the clay in the B horizon. Units 2, 4 and 6 contained a man-made layer of floor slabs/cobbles that were likely placed on the existing surface at the time of construction which have since accumulated enough soil to be buried just below the present day surface.

Our initial indication of the date of the structure came from a sample of the collapsed bricks located along the west side of the structure whose attributes suggested a manufacturing date of ~1820 (between 1810 and 1830). However, the best archaeological indications of the chronology for the features come from two artifacts with clear dates. Three refitted ironstone ceramic sherds featuring an embossed lily of the valley motif dating from the 1850's or 60's was recovered in Level 3 of Unit 3 alongside the west foundation wall in a context that suggests it was deposited in the construction trench when the foundation was built. We know from the Geil map that the main structure was present by 1853, suggesting this would be an early example of the style. Feature 2, the floor in the structure's addition is securely dated as having been constructed sometime after 1888, the date on an Indian head penny located immediately below a large floor slab in unit 2, just south of the foundation wall. We know that the structure was still present at the time that the 1905 century map was published and that it was demolished before the creation of the 1920's midden deposit in the cellar hole. Possibly not coincidentally, its owner Jacob Houck died in 1905.

The artifacts collected during our investigation are consistent with an occupation lasting from the early to mid-19th century until the early 20th. There are two distinct midden deposits on the site, one from the 1920's and the other from the 1930's that postdate the occupation phase. There is no indication of disturbance of the site, suggesting that the site retains its integrity and has the potential to provide useful data. The artifact distribution is quite restricted with almost all recovered materials from both Phases I and II being restricted to a 33 meter (110 feet) radius around the structure foundations. The collection is a typical domestic assemblage including ceramics, glass and food remains.

The significance of the J. Houck Historic Site is assessed according to the National Park Service's *Guidelines for Registering and Evaluating Archeological Properties* (Little, et al. 2000). The site meets eligibility Criteria B "are associated with the lives of persons significant in our past" and D for the National Register and has "yielded, or may be likely to yield, information important in prehistory or history."

TABLE *of* CONTENTS

PHASE II ARCHEOLOGICAL SITE EVALUATION 1
1 Introduction 1
2 Background 1
2.1 Environmental Setting 2
2.2 Geomorphological Context 2
2.3 Historical/Cultural Context 2
3 Archeological Site Evaluation 9
3.1 Methodology 9
3.1.1 Shovel Testing 9
3.1.2 Unit Excavation 9
3.1.3 Artifacts and Laboratory 9
3.2 Results 10
3.2.1 Site Boundaries within APE 13
3.2.2 Site stratigraphy and Chronology 13
3.2.3 Archeological Features 13
3.2.4 Artifact Analysis 14
4 Interpretation 15
5 Significance Assessment 15
5.1 Significant research topics that can be addressed by site 16
5.2 Integrity 16
6 Recommendations 16
7 Bibliography 18

Maps
Photographs
Appendix 1: Shovel Test Records
Appendix 2: Artifact Inventory
Figures

Map List

Map 1. Project Location (USGS 2015)

Map 2. Project Map (Esri Inc. 2015)

Map 3a. Historic Maps (Bleeker 1766; Dewitt 1790; Geil and Hunter 1853; Nichols 1868; Sauthier 1779; United States Geological Survey (USGS) 1895)

Map 3b. Historic Maps (Century Map Company 1905; New York State Department of Transportation (NYSDOT) 1992; United States Geological Survey (USGS) 1895, 1931, 1947)

Photograph List

Photo 1. View facing west showing foundations and cellar hole.

Photo 2. View facing southwest showing foundations and cellar hole.

Photo 3. View facing south showing foundations and cellar hole.

Photo 4. View facing east showing well.

Photo 5. View facing north showing well.

Photo 6. View facing northeast showing stone wall along roadway.

Photo 7. View facing northeast showing stone wall along roadway.

Photo 8. View facing west showing roadway. Snow on the right is in the drainage ditch defining side of the road.

Photo 9. View facing south showing roadway. Water in the foreground is in the drainage ditch defining the side of road.

Photo 10. Surface of Unit 7 with midden deposit at the top.

Photo 11. Location of Unit 1 before clearing of overburden cobbles.

Photo 12. Exposed surface showing top of midden deposit (including glass bottles, a glass pitcher and stoneware jug) in Unit 1.

Photo 13. Bottom of Unit 1, terminated due to flooding before original floor level was encountered.

Photo 14. Salt glazed Stoneware jug with molded floral pattern and cobalt blue glaze (Unit 1, Surface) (Bag 39, Item 5.1).

Photo 15. Albany slipped stoneware jug (Unit 1, Surface) (Bag 39, Item 5.2).

Photo 16. Sample of whiteware (Unit 1, Surface) (Bag 39, Item 1).

Photo 17. Sample of yellowware (Unit 1, Level 1) (Bag 40, Item 4).

Photo 18. Decorated ironstone dishes (Unit 1, Level 1) (Bag 40, Items 2.1 and 2.2).

Photo 19. Semi-porcelain plate with makers mark (Unit 1, Level 3) (Bag 40, Item 3).

Photo 20. Porcelain vessel with green transfer print decoration (Unit 1, Surface) (Bag 30, Item 4).

Photo 21. Embossed bottles from Watkins Face Cream (Unit 1, Surface) (Bag 39, Item 8.4) and Easy Bright Polish (Unit 1, Level 1) (Bag 40, Item Items

Photo 22. Molded glass pitcher (Unit 1, Surface) (Bag 39, Item 7) with refit base (Unit 1, Level 1) (Bag 40, Item 11).

Photo 23. Lamp chimney glass (Unit 1, Surface) (Bag 39, Item 11).

Photo 24. Sample of nails, (Unit 1 Level 1) (Bag 40, Item 15).

Photo 25. Sample of faunal bone (Unit 1, Level 1) (Bag 40, Item 30).

Photo 26. Sample of clam shell (Unit 1 Level 1) (Bag 40, Item 29).

Photo 27. Metal spoon (Unit 1, Level 1) (Bag 40, Item 19).

Photo 28. Pocket knife with bone decoration (Unit 1, Level 1) (Bag 40, Item 21).

Photo 29. Zinc alloy Mason jar lids with porcelain liners (Unit 1, Level 1) (Bag 40, Item 22).

Photo 30. Rear roadster horseshoe for draft horse with a toe calk for traction, medial heel calk and a lateral heel trailer to correct a flawed gait (Unit 1, Level 2) (Bag 41, Item 17).

Photo 31. Porcelain doll head (Unit 1, Level 1) (Bag 40, Item 8).
Photo 32. Carbon Rods from batteries (unit 1, Level 1) (Bag 40, Item 24).
Photo 33. Base of a Dietz D-Lite oil lamp with a TPQ of 1923 (Unit 1, Level 1) (Bag 40, Item 23).
Photo 34. Photos facing north of Unit 2, Level 1 showing exterior of structure foundation and large paving stone slab.
Photo 35. Photo facing north of Unit 2, Level 2 showing exterior of structure foundation.
Photo 36. Front of 1888 Indian head penny (Unit 2, Level 2) (Bag 43, Item 4).
Photo 37. Rear of 1888 Indian head penny (Unit 2, Level 2) (Bag 43, Item 4).
Photo 38. Sample of shell edge pearlware (Unit 2, Level 1) (Bag 42, Item 1).
Photo 39. Sample of Whiteware (Unit 2, Level 2) (Bag 43, Item 2).
Photo 40. Ironstone fragment with embossed foliage motif with TPQ of 1850 (Unit 2, Level 1) (Bag 42, Item 3).
Photo 41. Sample of nails (Unit 2, Level 1) (Bag 42, Item 15).
Photo 42. Hammered iron alloy spike (Unit 2, Level 1) (Bag 42, Item 14).
Photo 43. Metal button (Unit 2, Level1) (Bag 42, Item 11).
Photo 44. Fragment of metal fork (Unit 2, Level 1) (Bag 42, Item12).
Photo 45. Bone and iron alloy utensil handle with copper rivets (Unit 2, Level 1) (Bag 42, Item9).
Photo 46. View facing north of Level 1 of Unit 3 with adjacent foundation to the left.
Photo 47. View facing east of the base (Level 4) of Unit 3.
Photo 48. Fragment of salt glazed stoneware (Unit 3, Level 3) (Bag 45, Item 5).
Photo 49. Sample of whiteware (Unit 3, Level 2) (Bag 45, Item 1).
Photo 50. Sample of Ironstone (Unit 3, Level 2) (Bag 45, Item 3).
Photo 51. Fragment of American majolica (Unit 3, Level 2) (Bag 45, Item 4).
Photo 52. Sample of porcelain (Unit 3, Level 2) (Bag 45, Item 6).
Photo 53. Sample of iron alloy nails (Unit 3, Level 2) (Bag 45, Item 22).
Photo 54. Sample of faunal bone (unit 3, Level 2) (Bag 45, Item 26.6)
Photo 55. Metal caster (unit 3, Level 2) (Bag 45, Item 23)
Photo 56. Musterole jar with TPQ of 1926 (Unit 3, Level 1) (Bag 44, Item 2).
Photo 57. Fragment of ironstone plate with lily of the valley design which has a TPQ of 1850 (Unit 3, Level 3) (Bag 46, Item 3).
Photo 58. Photo facing west of the base of Unit 4, Level 2.
Photo 59. Glass mug/jug handle (Unit 4, Level 1) (Bag 47, Item 3).
Photo 60. Sample of faunal bone (Unit 4, Level 1) (Bag 47, Item 15).
Photo 61. Bone button (Unit 4, Level 1) (Bag 47, Item 6).
Photo 62. View facing north of Unit 5 containing large cut stone which may mark the south wall of the structure addition (note quarrying marks still visible below the surface).
Photo 63. Fragment of porcelain (Unit 5, Level 1) (Bag 48, Item 1).
Photo 64. Sample of iron alloy nails (Unit 5, Level 1) (Bag 48, Item 3).
Photo 65. Sample of faunal bone (Unit 5, Level 1) (Bag 48, Item 5).
Photo 66. Photo facing east of base of level 1, Unit 6 showing pavement slabs.
Photo 67. Photo facing south of base of Unit 6 (with Unit 8 to the left).
Photo 68. Sample of whiteware (Unit 6, Level 1) (Bag 49, Item 1).
Photo 69. Fragment of aqua glass bottle (Unit 6, Level 1) (Bag 49, Item 2).
Photo 70. Portion of iron allow horseshoe with heel calk (Unit 6, Level 1) (Bag 49, Item 6).
Photo 71. Sample of faunal bone (Unit 6, Level 2) (Bag 50, Item 11).
Photo 72. View of base of Unit 7 facing south.
Photo 73. View of Unit 7 facing west.

Photo 74. RCA Cunningham radio vacuum tubes with a TPQ of 1935 (Unit 7, Level 1) (Bag 51, Item 37)
Photo 75. Ironstone saucer manufacture by Maddock and Co. (Unit 7, Level 1) (Bag 51, Item 1.1).
Photo 76. Fragments of a Hires Household Extract bottle (Unit 7, Level 1) (Bag 51, Item 6.1).
Photo 77. Fragment of E.J. Dossin bottle (Unit 7, Level 1) (Bag 51, Item 6.8).
Photo 78. Bottle of "Hair-Groom" with iron alloy razor blade stored inside (Unit 7, Level 1) (Bag 51, Item 7.1).
Photo 79. Cast iron car (possibly a Ford Model A taxi) with remnants of yellow paint (Unit 7, Level 1) (Bag 51, Item 16).
Photo 80. Orange and white glass marble (Unit 7, Level 1) (Bag 51, Item 13).
Photo 81. Iron alloy scissors (Unit 7, Level 1) (Bag 51, Item 29).
Photo 82. Screw top cap from a bottle marked American Medicinal Spirits Company (Unit 7, Level 1) (Bag 51, Item 32).
Photo 83. Champion X sparkplug, the type used in the Ford Model T ((Unit 7, Level 1) (Bag 51, Item 36).
Photo 84. Photo facing south of Units 6 (right) and 8 (left).
Photo 85. Photo facing south of Units 6 (right) and 8 (left).
Photo 86. Sample of whiteware with red transfer print (Unit 8, Level 3) (Bag 55, Item1).
Photo 87. Sample of iron alloy nails (Unit 8, Level 2) (Bag 54, Item 4).
Photo 88. Bronze bell (Unit 8, Level 1) (Bag 53, Item 2).
Photo 89. Sample of faunal bone (Unit 8, Level 2) (Bag 54, Item 6).
Photo 90. Sample of faunal bone (Unit 8, Level 3) (Bag 55, Item 4).
Photo 91. Base of Unit 9 facing east.
Photo 92. Sample of pearlware, some shell edged (Unit 9, Level 1) (Bag 56, Item 1).
Photo 93. Sample of semi-porcelain (Unit 9, Level 1) (Bag 56, Item 4).
Photo 94. Sample of faunal bone (Unit 9, Level 1) (Bag 56, Item 11).

Table List

Table 1. Summary of archeological site information collected during the Phase I survey 1
Table 2. Summarized Houck family genealogy 3
Table 3. Summary of archeological site information collected during the Phase I survey 5
Table 4. Summary of archeological site information collected during the Phase I survey 8
Table 5. Summary of Phase II field investigations 13
Table 6. Summary of archeological features 14
Table 7. Summary of archeological site information collected during the Phase I and II studies 15

PHASE II ARCHEOLOGICAL SITE EVALUATION

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase II archeological site evaluation of the J. Houck Historic Site, which is located within the Area of Potential Effects (APE) for the proposed Winstanley Distribution Center project in the Town of Florida, Montgomery County, New York.

This investigation was conducted to comply with Section 14.09 of the State Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

The J. Hawke/J. Houck site (Maps 1 and 2) was identified during Hartgen's earlier Phase I Archeological Investigation (Hartgen Archeological Associates 2019). During the Phase IB shovel testing, a total of 1014 tests were excavated. Seven of those tests were positive for historic artifacts. Six of the positives were located in close proximity to a cut stone foundation (Photos 1-3) and well (Photos 4 and 5) also recorded during the study (Figure 1). The location matched the position of the J. Houck property first identified during the Phase IA study. This property was originally shown on maps in 1856 and 1866 (Geil and Hunter 1853; Nichols 1868). Earlier maps do not list individual properties. The site is likely older than 1853. It was depicted on maps through the 1905 Century map after which it disappears (Century Map Company 1905). The name J. Houck is also associated with another property (Figure 5) farther east on Route 5S which was previously investigated by Hartgen before the main residential structure was dismantled (Hartgen Archeological Associates 2008a, b). The house is known to have belonged to Jacob and Christina Houck. Several generations of Houck's occupied the main house originally owned by Jacob and Christina. They also owned an adjacent tenant house that they rented to a series of individuals. The residence at the J. Houck site under study here, also appears to have been a rental property.

The objective of this study was to delineate the boundaries of the J. Hawke/J. Houck Historic Site and evaluate if it meets the criteria for inclusion on the National Register of Historic Places.

Note: As we know that the correct spelling of the owner's name is Houck, we will be dropping the Hawke designation which reflects a misspelling on one historic map.

2 Background

The following summarizes the available site information prior to the Phase II site evaluation.

Table 1. Summary of archeological site information collected during the Phase I survey

Characteristic	Site information
OPRHP Site No.	Not yet assigned
Site Name	J. Houck Historic Site
Description	Historic site consisting of a stone foundation and well. Artifacts included: The artifacts collected in this vicinity included a strap hinge, likely a barn door hinge dating to the mid-late 19th century, and two pieces of unidentified wire hardware surface collected near the foundation remains. In addition to the surface artifacts, nearby shovel tests contained cut nails, handmade amber bottle glass, manganese solarized and embossed pale aqua vessel glass, faunal bone, and a variety of ceramics including redware, whiteware, salt-glazed Albany slip stoneware, and molded ironstone. The metal strap hinge, cut nails, salt-glazed Albany slip stoneware, molded ironstone, and handmade amber bottle glass can be approximately dated to the mid- to late-19th century, a time period consistent with the occupation of the house according to historic maps.

Characteristic	Site information
Date	~1830-1910
Function	Residential
Size	~0.85 acres
Location	NAD 83, UTM Zone 18, 562724 Easting, 4753742 Northing

2.1 Environmental Setting

The site is located in a wooded section of the APE. Historic aerial photos from the 1950's show the entire area around the site cleared of trees. A small plot surrounding the foundations remained wooded. The effect of this can be seen in the tree line today. The trees surrounding the features are notably larger and older than those in adjacent areas. The brush is quite dense in some spots in this wooded section.

Within the wood line there is evidence of an old rock wall (Photos 6 and 7), with piles of cobbles visible in a line throughout this area. Two small streams, roughly parallel to one another, also run through the wooded area alongside the rock wall. Historic maps of the area show the Houck property located just to the north of a roadway that has since been rerouted. The former roadway became evident upon closer examination of the small streams and strip of land between them. It appears that the two small parallel streams were drainage ditches on either side of the former roadway (Photo 7-9). The parallel streams, rock wall, and former roadway continue through the area adjacent to the foundation and continue northeast, following the path of the former roadway as illustrated on historic maps.

The soils in the area are quite poorly drained, with standing water in many locations and water common in test pits and units. The most typical soil profile is a dark grayish brown to very dark gray silty loam A Horizon to a depth of about 22-24 cm, underlain by a brown, olive brown, or yellowish brown silty loam or silty clay B Horizon. It is not clear if the depth of the water table has changed over time. However, it is likely that it was lower at the time that the basement foundation was constructed. Unit 1 in the southwest corner of the foundation reached water quite rapidly, apparently before we reached the floor level. That suggests that either the water table was lower in the past or that the basement would have experienced regular flooding issues.

There are two significant midden deposits associated with the foundations. Both appear to have been created post-abandonment of the structure. Within the foundations, there is a dense deposit of materials dating to the 1920's. Some of that material is at the surface (Photo 2). But, much of it is buried below rounded cobbles, which seem to have been cleared from nearby agricultural fields and discarded in the basement hole sometime after the 1920's. The bulk of these cobbles are in the southeast and southwest corners of the feature. Additional cobbles have been disposed of inside the well. The second midden is located on the surface to the southwest of the foundation (Photo 10). This deposit contains artifacts dating to the 1930's.

2.2 Geomorphological Context

The site sits on a ridge top at the highest point in the APE, with an altitude of 540 feet above sea level (Map 1). South of the site, the terrain slopes down to 450 feet along a creek flowing east into South Chuctanunda Creek. East of the site, the terrain also slopes down to 450 feet. Beyond the Project Area on the west and north, the terrain is relatively level with a small downward slope. There is a small rise back up to 570 feet not far to the north. The pond associated with the property at 1733 Route 5S which is located to the northeast of the site is manmade. Historic aerial photos indicate that it was constructed sometime between 1995 and 2005.

2.3 Historical/Cultural Context

Historic maps indicate that development occurred throughout the region, beginning prior to 1850 (Maps 3a and 3b). Five early- to mid-19th c. archeological sites have been recorded within one mile of the current Project, two located within 500 feet (Farm Complex 2, Fossgate/Houck Farm (The Jacob and Christina Houck House) (05704.000121) and Farm Complex 1, DeForest/Pettengill/Lohmeyer Farm (05704.000120)). Three other reported farm sites are located north of the Project. All of these farm houses are visible on the 1853 Geil Montgomery Co. map (Geil and Hunter 1853). The property under study was owned by Charles Williams in

the years immediately following the Revolutionary War (Dewitt 1790, 1802) and was referred to as "Warrensborough" (Sauthier 1779).

The National Register Eligible (NRE) Jacob and Christina Houck House (Hartgen Archeological Associates 2008a, b) was located at the intersection of Hirschfield Rd and NY State Highway 5S. The earlier Fossgate designation has been dropped as later research has revealed that the association was an error. Hirschfeld Road, which was once located near the intersection of Broadway and NY Rt. 5S, across the street from the current Project, was removed sometime after 2003. It was replaced by "Nutritious Pl." and the distribution center complex. The Beech-Nut Relocation Project was located just north of the current Project, on the opposite side of NY-Route 5S.

Maps indicate additional historic developments in the Phase I Project Area. Late 19th- to mid-20th century maps, dating between 1895 and 1947, depict a historic road through the APE (Old Route 5S), which appears to follow the current V-shaped tree line containing the features under investigation. On late 19th to early 20th-century maps, two map-documented structures appear along this road (MDS 1 and 2). They were incorrectly labeled "J. Hawke". Both are first visible on the 1853 map by Geil (Geil and Hunter 1853). It appears that MDS 1, which is located at the southern point of the angle in the highway, is the structure currently being investigated. Surface survey has not located any structure in the location of MDS 2 as shown on the Geil map, nor have shovel tests produced remains in the vicinity. It is probable that the structure shown actually represents the Jacob and Christina Houck house, which is located farther east along the same roadway and is missing from its correct location on the map despite being a very prominent and well known structure (See Figure 5). MDS 1 is depicted on maps through 1924 (Century Map Company 1905; Nichols 1868), after which it is absent. It is likely that the house had been demolished prior to 1924, as a series of topo maps from 1895 to 1924 look virtually identical and were apparently not updated. The next available 1931 map (the first to not depict the structure) shows a number of major differences and clearly represents new, updated mapping. However, it appears that the structure was definitely still present as of 1905 (Century Map Company 1905). MDS 2, The Jacob and Christina Houck house, continues to be shown our most recent maps (New York State Department of Transportation (NYSDOT) 1992). It was carefully dismantled in 2008 with plans to re-erect it in another location (Hartgen Archeological Associates 2008a, b). Topo maps indicate that ROUTE 5S was rerouted to its current configuration by 1947 (present-day NYS Bicycle Route 5) (United States Geological Survey (USGS) 1947)and two houses were constructed on lots north of the former roadway. The Old Route 5S ran along the properties' southern boundaries, along or through what is currently a tree line.

Research on the Houck properties is somewhat complicated by the repeated use of certain family names generation after generation. The first Jacob Houck was born between 1770 and 1780 as was his wife Christina. Jacob had a brother by the name of Peter. Jacob and Christina had four children, Isaac, Jacob, Catherine and Christina. Isaac, who was born in 1803, went on to marry a woman who was also called Christina. He inherited his father's house and remained there until his death in 1850. The couple had two sons, Jacob and Peter. Jacob, who was born in 1833, went on to inherit the house and remained there until his death in 1905. This is the "J. Hawke/J. Houck" whose name is associated with the property in the available historic maps. He and his wife Adeline had no children of their own. But, they adopted Jennie Miller (later Houck), his brother Peter's daughter. A forth Jacob, Jacob TenEyck, also shows up in various records. He appears to be the son of Christina, widowed daughter of the original Jacob and Isaac's sister.

Table 2. Summarized Houck family genealogy

Generation	First name	Last Name	Birth date	Death Date	Relationship	Children	Residence
1	Jacob (1)	Houck	1770-1780	1839	Husband to Christina (married 1799)	Isaac, Jacob (2), Catherine (1) and Christine (2)	Jacob and Christina House
1	Christina (1)	Entis	1770-1780	1849	Wife of Jacob (1) (married 1799)	Isaac, Jacob (2) 2 daughters	Jacob and Christina House
1	Peter (1)	Houck			Brother of Jacob	?	

2	Isaac	Houck	1803	1850	Son of Jacob (1) and Christina	Jacob, Peter, Maria (?)	Jacob and Christina House (owner as of 1840)
2	Catherine (Katie)		1810-1813	1890	Wife of Isaac	Jacob, Peter, Maria (?)	
2	Jacob (2)	Houck			Son of Jacob (1) and Christina	?	
2	Catherine (1)				Daughters of Jacob (1)		
2	Christina (2)				Daughters of Jacob (1)		
3	Jacob (3)	Houck	1833	1905	Son of Isaac and Catherine/Grandson of Jacob (1)	Adopted Jennie Miller	Jacob and Christina House (owner from 1850-1905)
3	Adeline	Van Horn	1833	1903	Wife of Jacob (3)	Adopted Jennie Miller	
3	Peter (2)	Houck	1839		Son of Isaac and Catherine/Grandson of Jacob (1)	Jennie (Jane) Miller	
3	Jacob	TenEyck			Son of Catherine (1) (?)/Grandson of Jacob (1)		
3	Catherine (2)	TenEyck (?)			Daughter of Catherine		
3	Christina (3)	TenEyck (?)			Daughter of Catherine		
3	Elizabeth	TenEyck (?)			Daughter of Catherine		
4	Jennie (Jane)	Miller	1866		Daughter of Peter (2) adopted by Jacob (3)		

Hartgen performed deed research to reconstruct the ownership history of the property under study. The first deed found for this property equaling ± 200 acres was between brothers Peter and Jacob Houck, grantees and John Watts, grantor in 1793. This property was described in the deed as follows:

> as a part of a tract of land called Warrensborough and included within that tract therof which was heretofore sold and conveyed by Henry Gage & Susanna his wife & their trustees to the said party of the first part and is known in a map of the subdivision thereof made by John R. Bleecker Surveyor, in the year 1766, by Lot No. one hundred and forty seven…(Montgomery County Clerk 1793).

This area was referred to as Warrensborough in the eighteenth century (Sauthier 1779). Sometime between 1793 and 1839 Peter Houck granted his portion of this property to his brother Jacob Houck, although no deed has been found describing this transaction.

Jacob Houck married Christina Entis on January 27, 1799 according to a Dutch Reformed Church marriage record (Ancestry.com 2019a). Jacob died in 1839 granting this property to his eldest son, Isaac Houck. This transaction is described in great detail in his will executed on March 7, 1839. Also, in this will, Jacob Houck conveyed another piece of land to his two sons, Jacob and Isaac. The land was described as:

> A certain piece of land situated in Florida which has been for some years past in possession of James Greenman, Esq. containing about eighteen acres of Land, and bounded as follows, north by lands belonging to me, east by the George Servoss farm, south by the highway and west by James Greenmans land, the said Jacob and Isaac or the survivor of them shall whenever they shall deem it desired and proper to do to sell and convey the said land in fee simple, and out of the proceeds of said sale shall educate, support and maintain my grandson, Jacob A. TenEyck and if there be any surplus left pay the same to him when he arrives at the age of twenty one years. I give to my said grandson Jacob my silver watch, and it is my desire and I hereby request that my sons Jacob & Isaac shall take care of and provide of my said grandson until he shall arrive to an age when he shall be capable of taking care of himself. I do also order & direct that my son Isaac shall give my grandson Jacob a house when he arrives of age to be worth sixty or seventy dollars…(Ancestry.com 2019b).

This description fits the property under study perfectly when correlated with historic maps identifying the adjacent property owners. While the will specified that the sons can sell the land if wished, the fact that it remains identified as belonging to the Houck's into the 20th century indicates that they did not. It is unclear where the house that Jacob wanted constructed for his grandson Jacob TenEyck was located, or if it was even built. However, it does not appear to be the house being investigated. Indications are that the house under study was built near the time of the property transfer. But, it is not clear if it was before or after. Jacob Ten Eyck does not appear in census records relating to the property.

Isaac Houck and his wife, Catherine had two sons, Jacob and Peter. After the death of Isaac in 1850, this property was transferred to Isaac's son, Jacob Houck, although no deed or will record could be located explaining this transaction (Montgomery County History and Archives n.d.). Given the range of possible dates for the house under study, Jacob may have built it when he received the property. Jacob Houck maintained the ownership of this property from 1850 until his death in 1905. Jacob and his wife, Adeline had no children of their own. But, they are known to have adopted Jennie (Jane) Miller. A will for Jacob Houck was found which was executed on September 8, 1905 (Ancestry.com 2019c). Interestingly, their adopted daughter is not listed as a beneficiary.

The following table lists the chain of ownership for the project area from before 1793 to 1905.

Table 3. Summary of archeological site information collected during the Phase I survey

Date	Rec'd Date	Grantee	Grantor	Book, Page	Acres	$	Notes
Unknown	Unknown	John Watts	Henry and Susanna Gage				This transaction is described in Deed 4: Liber 257 when John Watts sold the property to Peter and Jacob Houck
21 September 1793	17 October-1793	Peter and Jacob Houck	John Watts	4:257	±200	800 pounds	
7 March 1839	7 March 1839	Jacob Houck	Isaac Houck				By will
8 September 1905	8 September 1905	Jacob A. TenEyck, Anna C. Hills, Ira Mann, Sophia Van Vechten, Remelia Young, Chester Lerudrum, Catherine Diety	Jacob Houck				By will, John P. Miller was executor; Isaac Van Vechten was administrator of goods

Census records have been consulted to determine the individuals present in both the Jacob and Christina Houck house. In addition, they provide critical information on tenants that would have occupied the rental properties owned by the Houck family. The first population record for Jacob Houck was in 1810 when he was between 25 and 45 years of age. At this time, he was living in the Jacob and Christina Houck House, east of the J. Houck Historic site. He was listed in the population census as living with one woman of the same age, four children and two slaves (United States Census Bureau 1810). By 1820, the population record listed him as living with one woman, five children/young adults, two slaves (one adult male and one young adult female), and one free African American female under the age of fourteen (United States Census Bureau 1820). This is the last census that shows the family owning any slaves. However, labor provided by African Americans remained important to the family's income. In 1830, Jacob Houck was between 50 and 60 years of age and lived with one woman of the same age, two young adult men, one boy, one young adult female, one girl, and one free African American male between 10 and 23 years of age (United States Census Bureau 1830). According to cemetery records, Jacob Houck died in 1839 (Montgomery County History and Archives n.d.).

By 1840, the ownership of the Jacob and Christina Houck House was transferred to Jacob's son Isaac Houck. In the 1840 population census, Isaac Houck was listed as the head of the family between the age of 30 and 40. He lived with one female the same age, four boys, 1 young adult female, three girls, and one female between 50-60 years of age (United States Census Bureau 1840). Christina Houck, the wife of Jacob and the mother of Isaac died in 1847 according to cemetery records (Montgomery County History and Archives n.d.).

In 1850, Isaac Houck was recorded at age 47 and living with his wife, Catherine, age 37. They had two sons, Jacob and Peter. 64 year old Maria Houck was living with them in this year (United States Census Bureau 1850b). Perhaps Maria Houck was Jacob's sister, but no documentation was found to support that assumption. In this year, Isaac Houck's farm was valued at $10,000 and he farmed 170 acres of land. His main crops were oats, rye, and corn. He had 9 horses, 4 milk cows, 9 beef cattle, 2 oxen, 34 sheep and 9 pigs. His livestock was valued at $718 (United States Census Bureau 1850a).

According to cemetery records, Isaac Houck died in 1850 (Montgomery County History and Archives n.d.). His son, Jacob, acquired the property of the Houck estate and was listed as the head of the household in the 1860 population census at the age of 27, living with his wife, Adeline. His brother, Peter, and his mother, Catherine also resided with him. An African American 16 year old boy named James Dennis, most likely a farm laborer also was listed in the household. After the analysis of the 1860 population census record, it was determined that African American John Miller and his wife Jane were living in the house at the J. Houck Historic Site. It is believed that John Miller who was listed as a farm laborer in the population census living directly adjacent positioned west of the Jacob and Christina Houck House, was working for Jacob Houck and living in this house on the Houck estate (United States Census Bureau 1860b). According to the 1860 agricultural census, the amount of land farmed increased to 264 acres, and the value of the farm increased to $16,000. The main crops in this year were oats and corn. The value of livestock increased to $1,400 which included 5 8 horses, milk cows, 20 beef cattle, 4 oxen, 45 sheep, and 5 pigs. John Miller was not listed in the agricultural census of this year considering only landowners appear to be recorded at this time (United States Census Bureau 1860a).

By 1870, James Dennis no longer lived at the household, but Jennie (Jane) Miller, a four year old girl lived with the family. It is believed that this child, Peter's daughter and later adopted daughter of Jacob, was a relation to John and Jane Miller who lived next door in 1860 (most likely the granddaughter of Jane Miller). John and Jane Miller were listed as living in a different area of the town of Florida according to the population census for that year. After an examination of the 1870 population records, it is thought that farmer, Loronzo Lisdell rented farm land from Jacob Houck as well as the house which stood at the J. Houck Historic Site. He was age 23 in 1870 and lived with his young wife, Anna and their daughter, Minnie. He is not recorded as owning any real estate in the population census, but having $100 for his personal estate. There is another young farmer who lived directly next door. 25 year old, Jay Burt was also most likely renting farmland from Jacob Houck. It is probable that he lived in what is known as the Houck Tenant Farmhouse which was situated directly west of the Jacob and Christina Houck House. Jay Burt lived with his young wife, Lydia and their 2 year old daughter, Amy (United States Census Bureau 1870b). Neither Loronzo Lisdell nor Jay Burt were listed in the 1870

agricultural census because they were not property owners. According to the agricultural census of this year, the Houck farm decreased in acreage down to 180 acres, but maintained the same value most likely because Houck was renting out approximately 85 acres of farmland. The main crop continued to be oats, with an increase on their wheat crop. The farm was still heavy with livestock maintaining 10 horses, 6 milk cows, 6 beef cattle, 2 working oxen, 23 sheep, 3 pigs, and 210 chickens (United States Census Bureau 1870a).

After the analysis of an 1875 state census record, it became clear that Jennie (Jane) Miller who was listed in the 1860 population census living with the Houck family was in fact Peter Houck's daughter (New York State Census Bureau 1875), likely with a daughter of John and Jane Miller. She is listed in the records as Jacob's niece. She was eventually adopted by Jacob and Adeline who had no children of their own, changing her name to Houck and eventually being buried in the family cemetery. By 1880, Peter and Jennie did not live at the Jacob and Christina Houck House. In this year, Jacob Houck and his wife, Adeline continued to live in the main house with Jacob's mother, Catherine. They had a female servant from Prussia living with them and two male farm laborers. It is believed that the two male farm laborers were living in the tenant farmhouse. Living directly next door to Jacob Houck was farmer, Timothy Fero and his family. It is very possible that the Fero family lived in the house which used to stand at the J. Houck Historic Site. In 1880, Timothy Fero was listed at age 44 and his wife, Dorcas, was recorded as age 48. The couple had two teenage children (United States Census Bureau 1880b). According to the 1880 agricultural census, Timothy Fero was renting 85 acres of farmland in that year. It is believed that Fero was renting farmland from Jacob Houck while living at the J. Houck Historic Site. 1880 was the first year that the census recorded if a farmer was the owner or renter.

Jacob Houck's farm increased in value between 1870 and 1880 by $6,000. His main crop was still oats, but did increase his buckwheat and corn crop. His wheat crop diminished from 200 bushels down to 18 bushels in that year. Houck had 6 horses, 5 milk cows, 7 beef cattle, 2 working oxen, 30 sheep, 5 pigs, and 120 chickens. Recorded immediately adjacent to Jacob Houck, was Timothy Fero in the 1880 agricultural census. Fero rented 86 acres of farmland from Houck in that year and his farm was valued at $9,000. His main crop was also oats, with his next largest crop being corn. He had 2 horses, 6 milk cows, 9 beef cattle, and 12 chickens. There are no later agricultural censuses available after 1880 (United States Census Bureau 1880a).

According to the 1892 state census, Jacob Houck and his wife Adeline were both 60 years old in that year, and his mother Catherine was 81. They had a seventeen year old female servant living with them, and an eighteen year old male laborer possibly living at the tenant farmhouse. It is believed that African American Benjamin Havens and his wife Grace Havens lived at the house at the J. Houck Historic site in this year. The state census does not distinguish between households as the federal census does, so it is unclear if they lived in a separate house from the Houck family (New York State Census Bureau 1892).

Catherine Houck died in 1898 reported by the New York State Death Index (Ancestry.com 2019d). In 1900, Jacob and Adeline Houck continued to occupy the Jacob and Christina Houck House. Living with them in this year was a young female servant and a young male farm laborer. Recorded living next door in the population census was John and Kate Miller. John Miller was listed as a 32 year old farm laborer who rented out the house which he occupied. It is supposed that he and his wife were living in the Houck Tenant Farmhouse at this time. William Sanders and his family was recorded living next to the Miller's. William Sanders was documented as a 40 year old farmer who rented out a house. Living with him was his wife, Amelia and their four sons. It is believed that the Sander family was renting out the house which used to be situated at the J. Houck Historic Site.

According to cemetery records, Adeline Houck, wife of Jacob Houck died in 1903 at the age of 70 and Jacob Houck died in 1905 at the age of 72 (Montgomery County History and Archives n.d.).

After the analysis of historical maps, it has been determined that the house which used to be situated at the J. Houck Historic site was demolished between 1905 and 1931, probably closer to the earlier date (Century Map Company 1905; USGS 1931).

The following table summarizes the known (or suspected) identities of the tenants renting either the Houck Tenant Farmhouse adjacent to the main house or the J. Houck Historic Site home that is the focus of this study

between 1860 and 1900. Due to the timing of censuses, it is likely that additional renters were present in the two properties which were not recorded.

Table 4. Summary of archeological site information collected during the Phase I survey

First Name	Last Name	Residence	Age	Census year	Occupation	Note
John	Miller	J. Houck Historic Site	45	1860	Farm laborer	African American
Jane	Miller	J. Houck Historic Site	45	1860		African American
Loronzo	Lisdell	J. Houck Historic Site	23	1870	Farmer	
Anna	Lisdell	J. Houck Historic Site	19	1870	Keeping house	
Minnie	Lisdell	J. Houck Historic Site	2	1870		
Jay	Burt	Houck Tennant Farmhouse	25	1870	Farmer	
Lydia	Loranzo	Houck Tennant Farmhouse	19	1870	Keeping house	
Amy	Burt	Houck Tennant Farmhouse	2	1870		
Benjamin	Haven	Houck Tennant Farmhouse	27	1880	Laborer	Presumably the same as the Benjamin "Havens" identified as an African American laborer in the 1892 census
John	Bickford	Houck Tennant Farmhouse	18	1880	Laborer	
Timothy	Fero	J. Houck Historic Site	44	1880	Farmer	
Dorcas	Fero	J. Houck Historic Site	48	1880	Keeping house	
Frank	Fero	J. Houck Historic Site	14	1880	At home	
Josephine	Fero	J. Houck Historic Site	12	1880	At home	
James	Dence	Houck Tennant Farmhouse	19	1892	Laborer	
Benjamin	Havens	J. Houck Historic Site	41	1892	Laborer	African American
Grace	Havens	J. Houck Historic Site	31	1892	Dress maker	African American
John	Miller	Houck Tennant Farmhouse	32	1900	Farm laborer	
Kate	Miller	Houck Tennant Farmhouse	30	1900		
William	Sanders	J. Houck Historic Site	40	1900	Farmer	

Amelia	Sanders	J. Houck Historic Site	39	1900		
Howard	Sanders	J. Houck Historic Site	14	1900	Farm Laborer	
Seymore	Sanders	J. Houck Historic Site	12	1900	At school	
Morris	Sanders	J. Houck Historic Site	9	1900	At school	
Erving	Sanders	J. Houck Historic Site	2	1900		

3 Archeological Site Evaluation

3.1 Methodology

3.1.1 Shovel Testing

Fifty-eight shovel tests were excavated at 8-meter (26 ft) intervals in the vicinity of the foundations and positive tests from Phase IB survey work with the goal of defining the site boundaries (Map 2). An additional 6 were excavated at 2 meter (6.5 ft) intervals in an attempt to locate a privy or other features north of the main structure. Each shovel test was 40 centimeters (16 in) in diameter. All excavated soil was passed through 0.25-inch hardware mesh and examined for both precontact (Native American) and historic artifacts. The stratigraphy of each test was recorded including the depth, Munsell color, soil description, and artifact content (Munsell Color 2000). The location of each shovel test was plotted on the project map. Test excavation was photographed.

3.1.2 Unit Excavation

A total of 9 units were excavated during Phase II study (Map 2 inset). Units were rectangular with dimensions of 1-by-1, 1-by-0.5 or 2-by-0.5 meters (3.3 by 3.3, 3.3 by 1.6 or 6.6 by 1.6 ft). Soil levels were excavated separately, and all excavated soil was passed through 0.25-inch hardware mesh and examined for both precontact (Native American) and historic artifacts. Soil depths, Munsell colors, textures, artifact content, and other relevant observations were recorded (Munsell Color 2000). Profiles and plan views were drawn when appropriate. The location of each unit was mapped with a Trimble GeoXH GPS unit and plotted on the project map. Unit excavation fieldwork and unit wall stratigraphy was photographed.

Units 1-3 were placed to provide information on the form and function of the visible foundations and an associated brick concentration along their west side. Unit 4 was located east of the visible foundations to examine a possible stone alignment. It indicated the possibility of a later addition extending beyond the visible foundations. As a result, we chose to place Units 5, 6 and 8 in locations that would help us define the boundaries of that possible addition. Unit 7 was placed at a surface midden southwest of the visible foundations, to determine if, like the midden materials inside of the main foundation, they indicated the position of an additional structure or other feature. Unit 9 was placed on the centerline of what we believe to be the rear of the structure in an attempt to detect a privy or other outbuildings.

3.1.3 Artifacts and Laboratory

As general procedure, all precontact (Native American) cultural material identified during the fieldwork are collected. Significant historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items are collected. Coal, ash, cinder, brick, and modern materials are noted. Any artifacts collected are placed in paper or plastic bags labeled by provenience and inventoried in a bag list. Bags are numbered in the field and transported to the Hartgen laboratory in the Town of North Greenbush, Rensselaer County, New York, for processing.

Shovel test records and other provenience information were entered into a Microsoft *Access* database (Appendix 1). Artifacts were cleaned and cataloged. Cataloging entailed entering artifact provenience information, counts, weights, and descriptive information into the database (Appendix 2).

3.2 Results

The Phase II site evaluation was conducted Between December 24, 2018 and January 8, 2019. The field crew consisted of Thomas Boyd, Adam Gersten, John Ham, David Wendell and Amy Wilson. The weather was generally cold and dry, with occasional light snow. It did not negatively impact visibility, artifact recovery, etc.

Surface finds – A single large strap hinge (probably from a barn door) dating from the mid to late 19th century was recovered as a surface find during the Phase IB reconnaissance. An additional two, matching hinges were recovered during the Phase II investigations. All three were found in association with the foundation. However, it is unclear if they belonged to a structure on the site or were part of the post-occupational midden material found within the foundation. A large amount of midden material was found inside of the foundation as well as to the southwest of the structure. It was readily apparent from bottles within the two deposits that the first dates to the 1920's and the second to the 1930's. These findings were supported by additional material collected from Units 1 and 7.

Shovel Testing - A total of 64 additional shovel tests were excavated during Phase II. Fifty-eight of those were placed at 8 meter (26 foot) intervals surrounding the foundation, well and previous positive tests. Six tests at 2 meter intervals were excavated in a line extending north from the centerline of the stone foundations in hopes of locating a privy or other structure associated with the foundations. Twenty-nine planned tests located to the west of the area tested were not excavated as we judged that we had established the western boundary of the site with the tests that were already excavated.

Tests were excavated to an average depth of 42 cm. The typical stratigraphy was a dark brown or dark grey brown AP horizon silt loam plow zone (ranging from 20 to 53 cm deep) over a greyish or yellowish brown clay loam subsoil. Twenty-six of the tests were positive for historic materials including ceramics, glass, construction hardware, faunal bone, and shell among other items. The majority of the positive tests were located on the south side of the foundation and the well, in what we believe to be the front of the structure. Those tests located north of the features were generally all located within 16 meters of them. Phase I testing indicated that the site did not extend past the old path of Route 5S running east to west roughly 25 meters south of the structures. Based on the shovel testing the site is 56 meters long and 43 meters wide. The latest *terminus post quem* (TPQ) date of artifacts recovered from STP's was 1920 from a piece of colorless, embossed "Turner Brothers Co." glass bottle from Utica, N.Y.

Unit 1 – Unit was placed inside of the southwest corner of the foundation with the intention of identifying the floor level of the basement. Loose cobbles were removed from the surface of the location until a level containing midden artifacts was exposed (Photos 11-12). At that point, the unit was placed and that level was treated as the surface. It was excavated to an average depth of 27 cm in 2 arbitrary levels, until the unit filled with water and became unworkable (Photo 13).

The material recovered from unit 1 contained ceramics (including salt glazed stoneware, redware, whiteware, yellowware, ironstone, semi-porcelain and porcelain), Glass (window, bottle, vessel, lamp chimney and tableware), iron alloy nails (cut and wire), faunal bone (much showing cutting, sawing and other evidence of butchering), clam shell (some cut) and a variety of other artifacts including a metal spoon, a pocket knife, wire, Mason jar lids, a horseshoe, a porcelain doll head and carbon rods from alkaline batteries (Photos 14-32).

Much of the midden material appear to have been discarded in the 1920's based on the latest level 1/surface TPQ of 1923 from a kerosene lamp base (Photo 33). The deposit also contained a significant amount of earlier material with TPQ's as early as 1805 coming from grey bodied stoneware. These may have deposited at an earlier date, suggesting a long accumulation of material. However, based on their clear association with later materials, it seems more likely that they had been curated for some time before being discarded in a midden formed after the house was demolished. The cobbles above those materials were deposited sometime after the

formation of the 1920's midden deposit. The material from level 2 appears to be slightly earlier with the latest TPQ being 1905, the same year that the house was last shown on reliable historic maps. This suggests that the basement hole began being used as a dump soon after the structure was demolished. A large cut stone, fallen from the wall was also found in Level 2. Due to the flooding of the unit, we were not able to definitively identify the floor or define its depth below the surface.

Unit 2 – Unit 2 was placed outside of the southeast corner slightly overlapping the edge of the foundation wall to provide data on its construction and recover artifacts dating to the period of the structure's occupation (Figure 2). This unit, like Unit 3 was placed along the outside of the foundation, in what would have been an excavated construction trench. Excavation revealed the exterior of the foundation wall (Photos 34 and 35). Unlike the flat cut interior, the exterior was not finished. A large flat slab was located just below the surface. It appears that the slab is part of a pavement/floor also seen in Unit 6. This feature was constructed at a date later than the foundation itself, a fact supported by the recovery of an Indian head penny dated 1888 just below the slab (Photos 36 and 37). We currently hypothesize that this was the floor of an "L" shaped addition to the east and south sides of the existing structure. The unit was excavated to an average depth of 37 cm 1 cultural (to the depth of the slab) and one arbitrary level.

A well-provenienced sample of artifacts dating to the occupation period of the house was recovered from both above and below the slab floor. These included ceramics (including salt glazed stoneware, pearlware, whiteware and ironstone), Glass (window and bottle), iron alloy nails (cut and wire), a hand hammered iron alloy spike, faunal bone (some showing evidence of butchering), clam shell and other artifacts such as ball lay pipe fragments, a metal button, a fork, an iron alloy drawer pull, a bone utensil handle and the 1888 Indian head penny mentioned above (Photos 36-45).

Unit 3 – Unit 3 was placed along the exterior of the west wall over a concentration of collapsed brick and deteriorated mortar to determine the form of the fireplace, whether its chimney was exterior to the house or there was a flat fireback flush with the wall foundation. This unit, like Unit 2, was placed along the outside of the foundation, in what would have been an excavated construction trench. The first level of collapsed brick was difficult to remove, being frozen into the cold ground. Once this was removed, excavation was much easier. It was terminated in sterile subsoil (Level 4). The unit was excavated to an average depth of 68 cm in three arbitrary and one natural level. No external foundation was present below the brick pile, indicating that the fireplace and chimney would have been internal to the structure, exiting through the roof. One possible design, known as a Rumford fireplace, had a tall shallow firebox that both heated efficiently and reduced the smokiness of earlier designs. They were popular from their introduction in 1796 until the early 20th century.

A sample of artifacts was also collected from below the collapsed brick. This material included ceramics (including Salt glazed stoneware, whiteware, ironstone, America majolica and porcelain), Glass (window, bottle, jar and lamp chimney), iron alloy nails (cut), other iron alloy hardware (screw and bolt), faunal bone (some sawed), clam shell and a various other artifacts including ball clay pipe fragments, an iron alloy bracket, an iron alloy caster and wire fragments (Photos 48-55).

Because the bricks were associated with the hearth which appears to be original to the structure, we believe that the bricks themselves are good evidence for the initial construction date of the structure. Hartgen's architectural historian Walter Wheeler has examined a sample of complete bricks from the collapse feature and determined that they likely date between 1810 and 1830 based on the, dimensions, uniformity and quality of firing. The excavated artifacts also give us some idea of the construction date since they are from the construction trench. If we assume that a "Musterole" bottle (Photo 56) found near the surface is part of the post-occupation 1920's midden based on its 1926 TPQ, the oldest TPQ is in the 1850's from three fragments of refitting ironstone with a lily of the valley embossed motif (Photo 57).

Unit 4 - Unit 4 was placed to the east of the foundation to sample materials in a possible activity area between it and the well. We decided to place the unit in that specific location because it would expose a shallowly buried wall line which we believed may represent either a patio or an outer wall of a later house addition. At the unit was excavated, it was confirmed that the stones were the edge of a floor or patio, in this case, constructed of rounded cobbles, rather than flat slabs (Figure 3 and Photo 58). This floor was exposed in a single level

averaging 12 cm deep. The fill west of the rounded cobble edge was composed of angular limestone blocks. The southeast corner beyond the edge of the floor was excavated down to 46 cm.

A sample of artifacts was collected containing ceramics (whiteware), glass, (bottle and window), iron alloy nails, cut and wire), other iron alloy hardware (bolt and washer), faunal (some cut, burnt and/or calcined), clam shell, and other artifacts such as a .22 caliber copper alloy shell, a bone button and wire fragments (Photos 59-61).

Unit 5 – Unit 5 was placed to the south of the foundation and Unit 2 with the intent of locating the south wall of a possible patio or addition to the structure (Figure 3 and Photo 62). It contained a large, rectangular, cut, limestone block which we believe represents the south wall of the hypothesized addition. However, there were no stone paving slabs north of it, raising the possibility that it is not in situ. Work was terminated after a single arbitrary level reaching an average depth of 20 cm. A limited number of artifacts were recovered from the unit. These included a porcelain rim fragment, window glass, iron alloy nails (cut and wire), faunal bone (some cut) and clam shell (Photos 63-65).

Unit 6 – Unit 6 was placed to the east of the foundation and Unit 2 with the intent of defining the east wall of the possible patio or addition (Figure 4 and Photos 66 - 67). A layer of flat paving stones were exposed at about 20 cm deep. These stones covered the entire unit and it was not clear if we had exposed the edge. So, Unit 8 was placed along the east wall of the unit. Excavation of that unit showed that the edge of the pavement was contained to this excavation. Once documented, several of the slabs were removed and a second level was excavate below to acquire a sample of artifacts predating its construction.

Artifacts recovered from the unit included ceramics (redware, whiteware and porcelain), glass (window, bottle and vessel), iron alloy nails (cut and wire), a horseshoe fragment, iron alloy screw, faunal bone (some sawed), clam shell, as well as, an iron alloy strap and rod (Photos 68-71).

Unit 7 – Unit 7 was placed southwest of the foundation over a surface midden deposit, to test if that midden indicated the location of another historic structure (Figure 5 and Photos 72-73). The 1905 map indicated two structures in the area, likely a house and a barn. Previous surface survey did not locate a second structure. However, since the existing foundation had been used as a dump after the structure was abandoned, we hypothesized that the second midden may indicate the position of a second structure. The unit was placed half outside of the deposit and half inside in hopes of detecting any buried foundation. It was excavated to an average depth of 30 cm in two arbitrary levels. It was not excavated any deeper, because sterile subsoil had been encountered intact with no indication of features. It appears that this midden was created in the 1930's based on a TPQ of 1934 obtained from two RCA Cunningham radio vacuum tubes (Photo 74).

A sample of diagnostic artifacts was collected from the midden. It contained ceramics (including salt glazed stoneware, redware, whiteware, yellowware, ironstone and semi-porcelain), glass (window, bottle and vessel), iron alloy nails (cut), faunal bone (some sawed, burnt and/or calcined) and a variety of other artifacts including a cast iron toy car, an orange and white glass marble, Ball Mason jar lids, several leather shoes and boots (both male and female styles), a pair of scissors, a pair of pliers, iron chain and a Champion X spark plug of the type used in the Model T Ford (Photos 75-83).

Unit 8 – Unit 8 was placed immediately adjacent to Unit 6 to determine if a level of stone floor slabs continued to the east (Figure 4 and Photos 84-85). No additional paving was encountered. However the unit was excavated to an average depth of 55 cm in three arbitrary levels. A mix of artifacts were recovered which included ceramics (redware, whiteware and semi-porcelain), iron alloy nails (cut and wire), a bronze bell faunal bone (some sawed) and clam shells (Photos 86-90).

Unit 9 – Unit 9 was located along the centerline of the foundation on its north, presumed rear side of the structure in hopes of locating a privy or other outbuilding (Figure 5 and Photo 91). It was excavated to an average depth of 40 cm in two arbitrary levels. It was stopped at that depth because it had filled with water. No additional features were discovered. However, a sample of artifacts were recovered. These included ceramics (pearlware, whiteware, ironstone and semi-porcelain), glass (bottle, vessel and window), and sawed faunal bone (Photos 91-94).

Table 5. Summary of Phase II field investigations

Field method	Qty/Area	Rationale	Results
Shovel tests	64 tests	Conducted to determine the site boundaries and chronology	Site boundaries were established based in drop-off of archeological materials. TPQ dates had large range from 1780 to 1920 suggesting long term use of the site before and after residence was present.
Units	9/8.5 m^2	Conducted to investigate structure form, function and chronology	Some ambiguity remains about the form of the structure. Excavations suggested the visible foundation and cellar hole were the original structure dating between ~1820 and 1853 when it appears on the Geil map. It appears to have had at least one addition wrapping around the east and south sides added sometime after 1888.

3.2.1 Site Boundaries within APE

Shovel testing established site boundaries for the J. Houck historic site. It measures 56 meters long by 43 meters wide with a total area of 0.5 acres. See Map 1 for specific position within overall APE.

3.2.2 Site stratigraphy and Chronology

Shovel tests indicated that the site stratigraphy was reasonable uniform with an A horizon consisting of a dark grey silt loam with an approximate depth of between 20 and 55 cm. The B horizon was a yellowish or greyish brown clay silt mix. The soils were rather poorly drained owing to the clay in the B horizon. Units 2, 4 and 6 contained a man-made layer of floor slabs/cobbles that were likely placed on the existing surface at the time of construction which have since accumulated enough soil to be buried just below the present day surface.

Our initial indication of the date of the structure came from a sample of the collapsed bricks located along the west side of the structure whose attributes suggested a manufacturing date of ~1820 (between 1810 and 1830). However, the best archaeological indications of the chronology for the features come from two artifacts with clear dates. Three refitted ironstone ceramic sherds featuring an embossed lily of the valley motif dating from the 1850's or 60's was recovered in Level 3 of Unit 3 alongside the west foundation wall in a context that suggests it was deposited in the construction trench when the foundation was built. We know from the Geil map that the main structure was present by 1853, suggesting this would be an early example of the style. Feature 2, the floor in the structure's addition is securely dated as having been constructed sometime after 1888, the date on an Indian head penny located immediately below a large floor slab in unit 2, just south of the foundation wall.

We know that the structure was still present at the time that the 1905 century map was published and that it was demolished before the creation of the 1920's midden deposit in the cellar hole. Possibly not coincidentally, its owner Jacob Houck died in 1905.

3.2.3 Archeological Features

Table 6. Summary of archeological features

Feature	Function	Date	Integrity	Artifact content	Soil samples
1	Foundation/cellar hole	~1820-1853	Good	Early 20th century midden deposit	None
2	Floor (east and south side addition)	Post 1888	Good	Mix of typical domestic artifacts including ceramics, glass and faunal bone. Dated 1888 Indian head penny was found immediately below floor slab in Unit 2.	None
3	Well	~1820-1853	Good	Undetermined	None

Feature 1 was a readily visible cut stone building foundation and cellar hole (Figure 1). It measures 15' 8" by 16' 8" feet at the outside corners and is 1' 8" thick. It consists of irregular, cut limestone blocks. The interior surface has been dressed leaving an even flat wall. The exposed outer surface is irregular (Figure 2). A hearth or hearth support it set into the west wall extending like a shelf into the interior space. An adjacent concentration of bricks and mortar represents the collapsed chimney.

Feature 2 was a floor for what is currently believed to be a later "L" shaped addition to the structure which runs the length of the east side of the foundation (Feature 1) and wraps around the south side of the structure. It was first encountered in Unit 2 where it consisted of a large flat slab extending south from the foundation (Figure 2). The same flat slab construction was seen in Unit 6 (Figure 5). Unit 4 also contains a floor whose outside edge runs along the same line at the floor in Unit 6. However, its construction differs, consisting of a level layer of rounded cobbles forming the outer line with more irregular stone fill inside (Figure 3). This may indicate that the two sections were built at different times or had a different function (i.e. one being an internal floor surface and the other an external patio space). It is not currently known where one section ends and the other begins.

Feature 3 was a roughly 3 foot diameter well located ~ 40 feet northeast of the Feature 1 foundation and 30 feet northeast of the Feature 2 floor (Map 2). Attempts to collect a column sample of sediment and artifacts from the bottom failed because we encountered an obstruction. The well had been partially filled with the same cleared field cobbles found inside the main foundation up to a depth of about 5 feet below the surface.

3.2.4 Artifact Analysis

The artifacts collected during our investigation are consistent with an occupation lasting from the early to mid-19th century until the early 20th. There are two distinct midden deposits on the site, one from the 1920's and the other from the 1930's that postdate the occupation phase. There is no indication of disturbance of the site, suggesting that the site retains its integrity and has the potential to provide useful data. The artifact distribution is quite restricted with almost all recovered materials from both Phases I and II being restricted to a 33 meter (110 feet) radius around the structure foundations.

The collection is a typical domestic assemblage including ceramics, glass and food remains. The ceramic materials contain a mix of types including salt glazed stoneware, redware, yellowware, whiteware, ironstone and porcelain. The vessel forms are dominated by serving wares although some storage items such as jugs and crocks are also present. Much of the glass artifacts collected are bottles, from food and beverages, as well as, medicines/beauty products. There were also a significant number of glass serving wares in the collection. Construction materials (nails, hardware and window glass) were also well represented in the collection. The faunal collection contains many large mammal (cow and pig) bones with evidence of butchering and cooking. Interestingly, the elements that are present are generally not from the meatiest "best cuts" which may be a reflection of lower socio-economic status of the occupants, who sources indicate were renting the property from the Houck family. A number of commensal species (primarily rodents) were also recovered.

4 Interpretation

Table 7. Summary of archeological site information collected during the Phase I and II studies

Characteristic	Site information	Source of information
OPRHP Site No.	Not yet assigned	
Site Name	J. Houck Historic Site	
Description	Historic site consisting of a stone foundation and well. Artifacts included: The artifacts collected in this vicinity included 3 strap hinges, likely barn door hinges dating to the mid-late 19th century, and two pieces of unidentified wire hardware surface collected near the foundation remains. In addition to the surface artifacts, nearby shovel tests contained cut nails, handmade amber bottle glass, manganese solarized and embossed pale aqua vessel glass, faunal bone, and a variety of ceramics including redware, yellowware, whiteware, salt-glazed Albany slip stoneware, molded ironstone and porcelain. The metal strap hinge, cut nails, salt-glazed Albany slip stoneware, molded ironstone, and handmade amber bottle glass can be approximately dated to the mid- to late-19th century, a time period consistent with the occupation of the house according to historic maps. A 1888 dated Indian head penny recovered immediately below a floor slab provides a TQP date for construction of an addition to the original house. Some earlier artifacts such as ball clay pipe fragments suggests use of the site prior to construction of the foundations under study. Two midden deposits, one from the 1920's and the other from the 1930's were created after the demolition of the residential structure. The structure appears on historic maps from 1853-1905.	Historic maps, documentary research, artifact analysis and stratigraphy
Date	~1830-1905	Historic maps and artifact analysis
Function	Residential	Artifact analysis and architectural form
Size	0.5 acres	
Location	NAD 83, UTM Zone 18, 562724 Easting, 4753742 Northing	

5 Significance Assessment

The significance of the J. Houck Historic Site is assessed according to the National Park Service's *Guidelines for Registering and Evaluating Archeological Properties* (Little, et al. 2000). The site meets eligibility Criteria B "are

associated with the lives of persons significant in our past" and D for the National Register and has "yielded, or may be likely to yield, information important in prehistory or history."

The Houck family had significant local historic importance. They were important in the settlement and early development of the community of Florida, New York. The Houck family had its roots in Holland and by the late 18th century became successful farmers. The NRE Jacob and Christina Houck House was one of the largest and most costly in the town. The home was accompanied by a small family cemetery. This Jacob, the grandfather of our "J. Houck", moved from Schoharie to the Town of Florida in 1793 and served in several official positions in the community (Frothingham 1892). Jacob the grandson was born in Florida in 1832 and inherited the property from his father Isaac upon his death in 1850. Jacob's brother, Peter, who spent many years living at the Jacob and Christina House, served as a First Lieutenant in New York's 153rd Infantry Regiment during the civil war.

Several generations of Houck's owned and occupied the house while renting out two additional homes to tenant farmers, some of whom apparently worked for the Houck family. The J. Houck Historic Site was one of these rental properties. Examination of ceramics, food remains and other material found at this this site offers to the opportunity to explore comparisons and contrasts between life in the main house and life as a Houck tenant and laborer, specifically the chance to examine issues of economic production and consumption as well as social status and how it related to ethnicity. The existence of documentary sources, such as a series of agricultural censuses listing specific details about these farm properties, will allow an even more detailed and holistic analysis of these questions.

5.1 Significant research topics that can be addressed by site

The J. Houck Historic Site possesses data relevant historical development of the region. It has the potential to yield important information relating to household economics, in particular it offers the opportunity to reconstruct patterns of tenant household production and consumption. These patterns can be compared to those for the main, higher status, Houck property and other contemporary farmstead sites such as the nearby property belonging to the McClumpha family that was investigated by Ed Curtin (Curtin 2001, 2003), thereby providing a wider regional perspective. Additionally, as many of the documented tenants were African Americans, it can provide data useful in examining social organization of rural communities in the mid to late 19th century, in particular, questions relating to household status and ethnicity.

5.2 Integrity

The site retains important aspects of its integrity such as location, design and structure, physical setting, materials, workmanship, historical sense or feeling, and association between data and important research questions (Little, et al. 2000:35-38). The J. Houck Historic Site retains integrity with respect to the association between artifacts and important research questions. Despite the accumulation of midden deposits post-dating the occupation of the site, there is no indication of disturbance of the remains.

6 Recommendations

The J. Houck Historic Site contains significant archaeological data in undisturbed contexts. The property was owned by the locally important Houck family over several generations who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family. If the site cannot be avoided, phase III data recovery is recommended. In particular, additional units should be placed near the structure to more completely understand the form and construction history of the building and acquire a more robust sample of contemporary artifacts from good contexts. Those goals would also be served by digging a sump to lower the level of local ground water and allow excavation within the basement hole. The well should be bisected with a backhoe trench to determine if useful data can be acquired from below the layer of field cobbles currently preventing sampling. An area of approximately 20 meters around the house and well

should be mechanically stripped of soil in order to identify features such as middens or privies. If encountered, these features should be studied and sampled.

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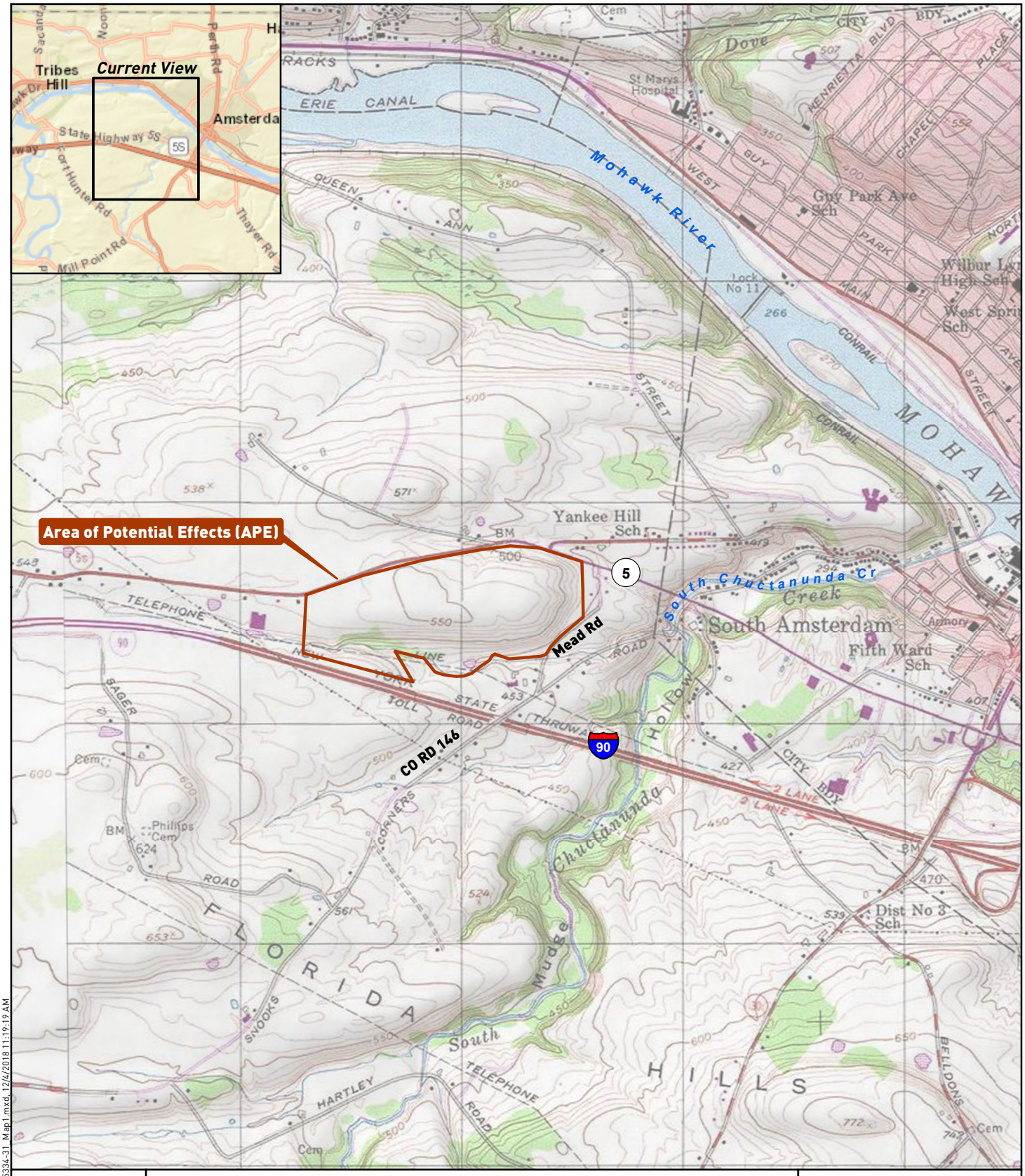
Maps



N

1,000 0 1,000 2,000 Feet

300 0 300 600 Meters

Note: Contour interval is 10 feet.

Project Location

GIS Services Accessed 3/19/2019: Environmental Systems Research Institute, Inc., World Street Map; National Geographic Society USA Topo Maps Layer

HARTGEN archeological associates inc

Map 1

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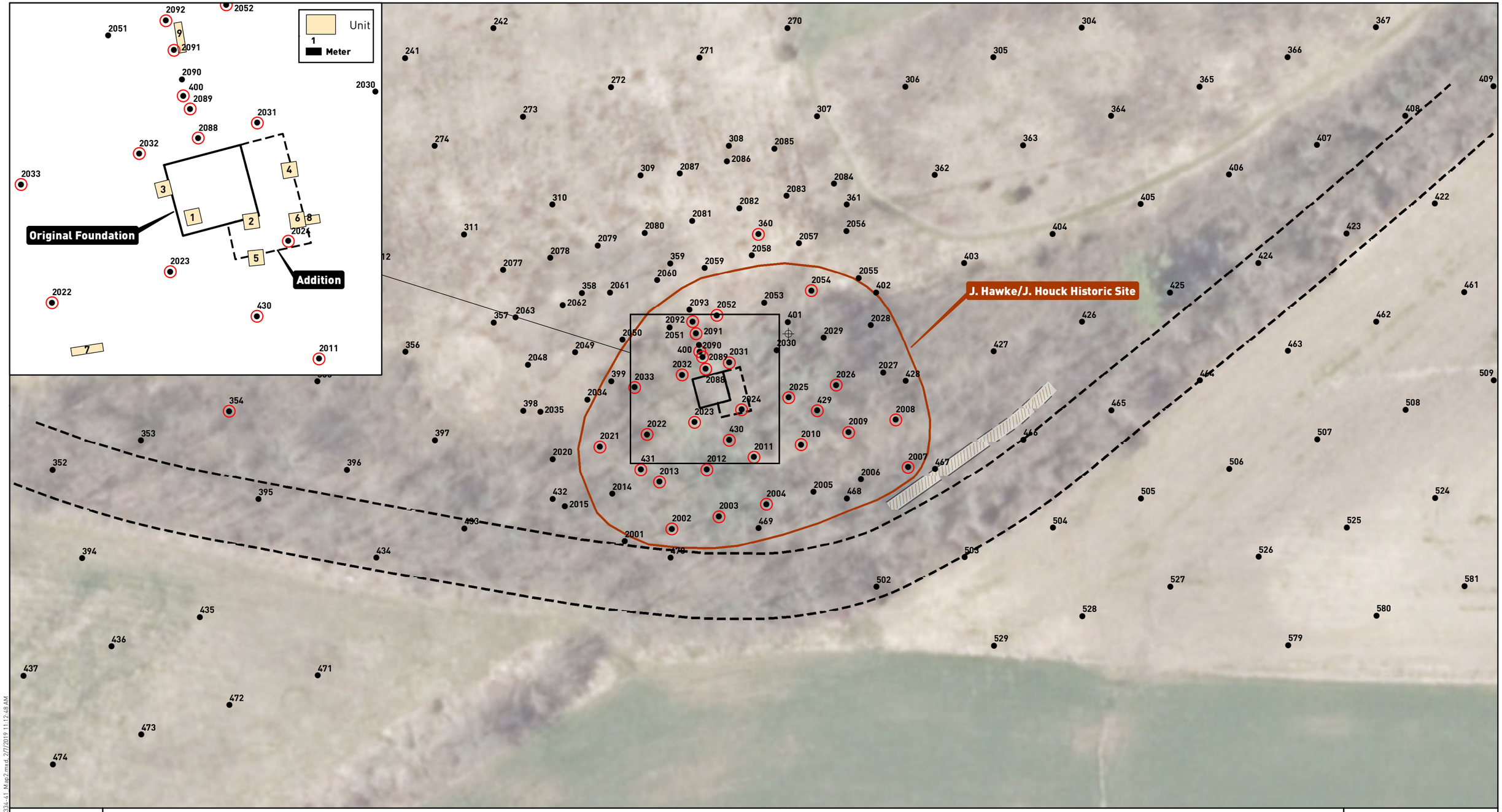

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25 0 25 50 Feet

6 0 6 12 18 Meters

Legend

- Shovel Test (ST)
- Positive ST (historic)
- Photo Angle
- Well
- Stone Wall
- Original Route 55

Project Map

Environmental Systems Research Institute, Inc.,
World Imagery Accessed 2/7/2019

HARTGEN archeological associates inc

Map 2

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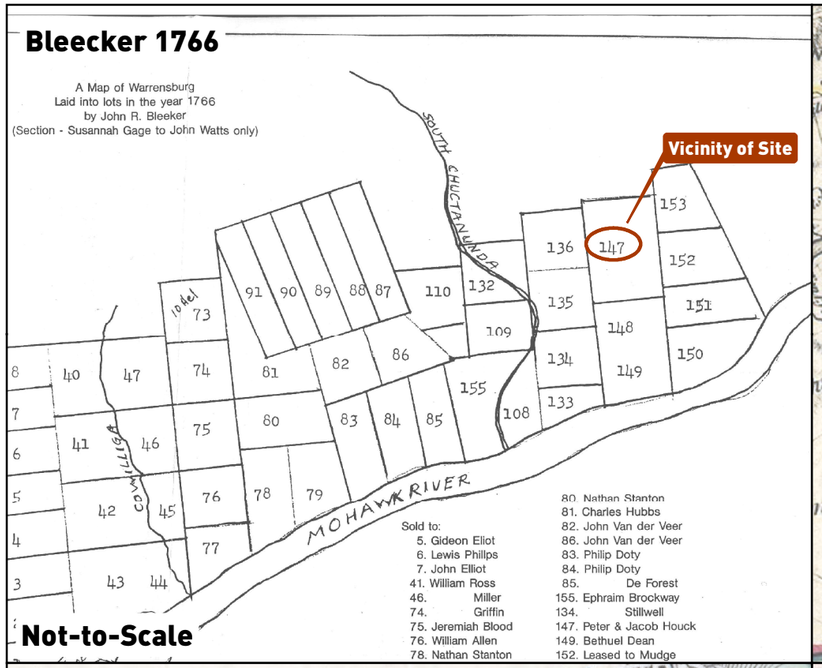
Bleecker 1766



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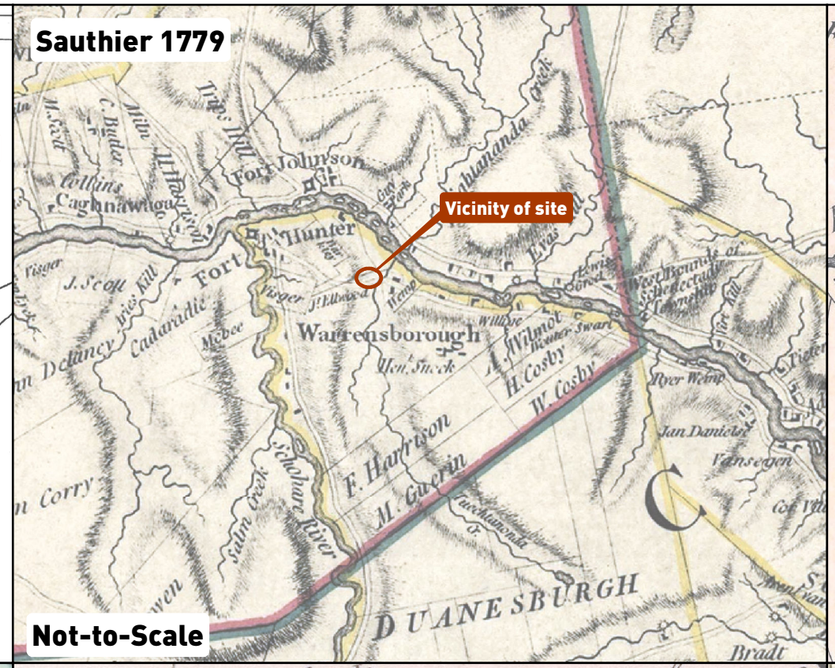
Sauthier 1779



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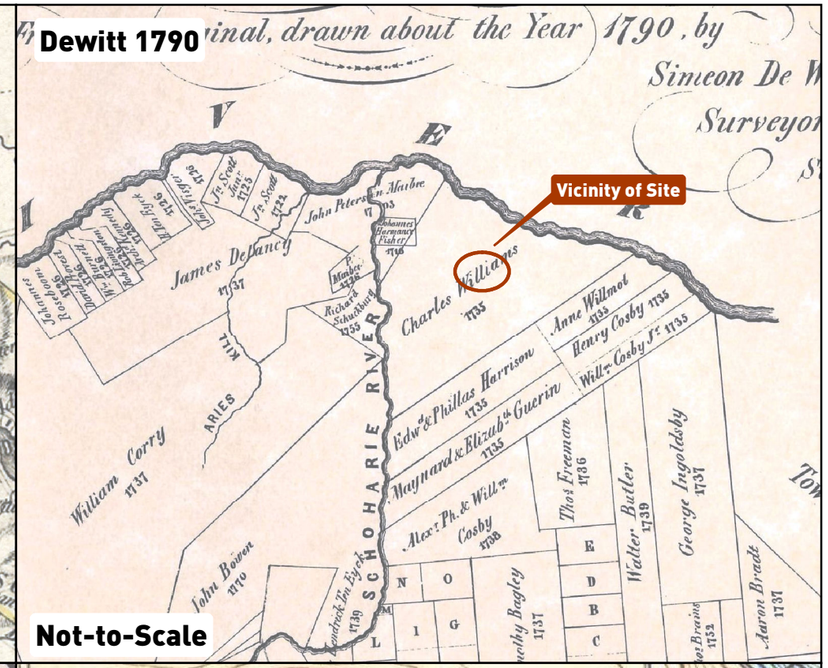
Dewitt 1790



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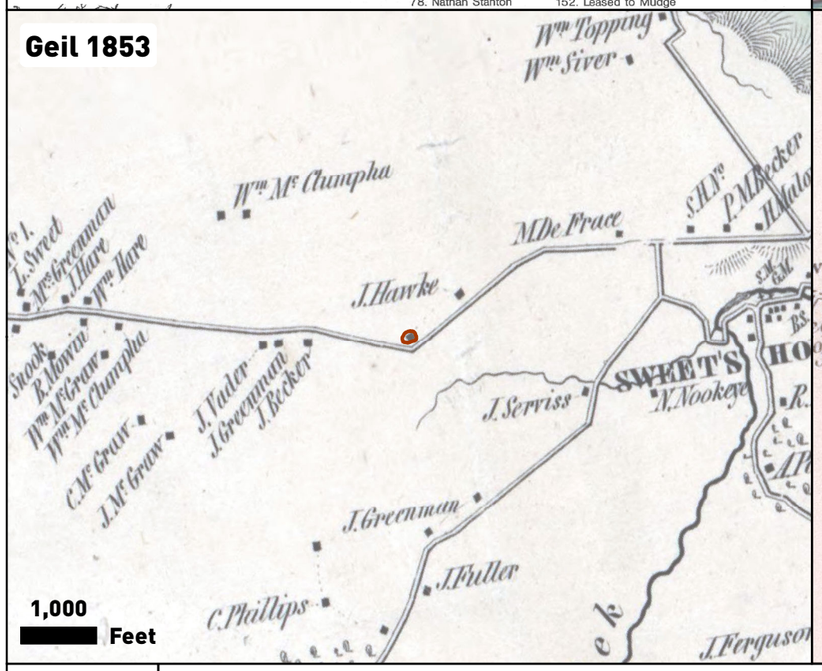

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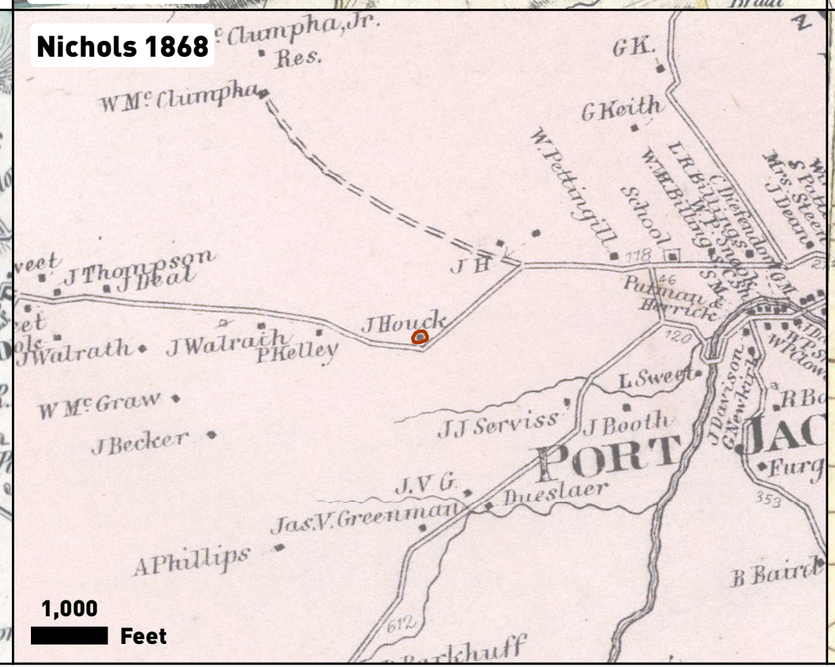
Nichols 1868



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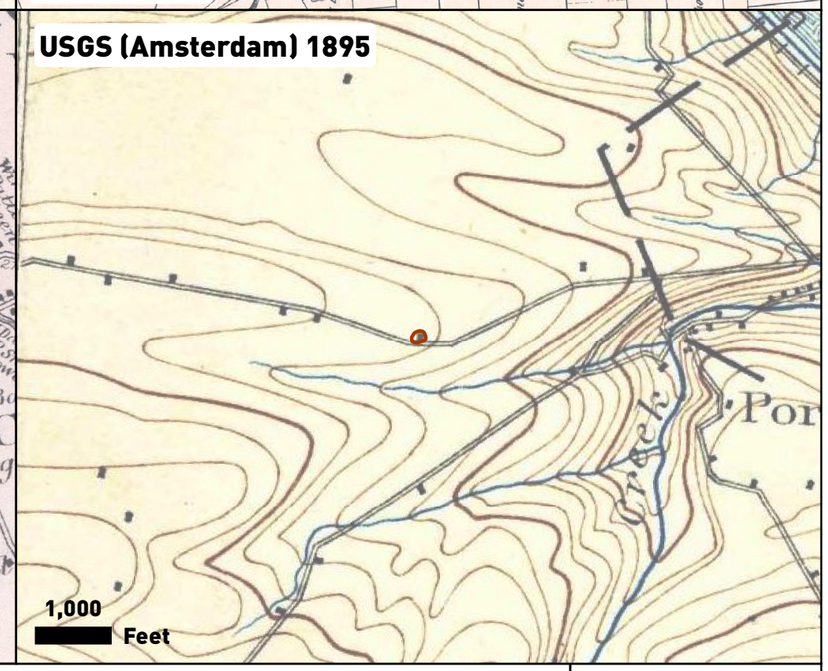

1,000 Feet

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Legend

J. Hawke/J. Houck Historic Site

Historical Maps 1766-1895

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Map 3a

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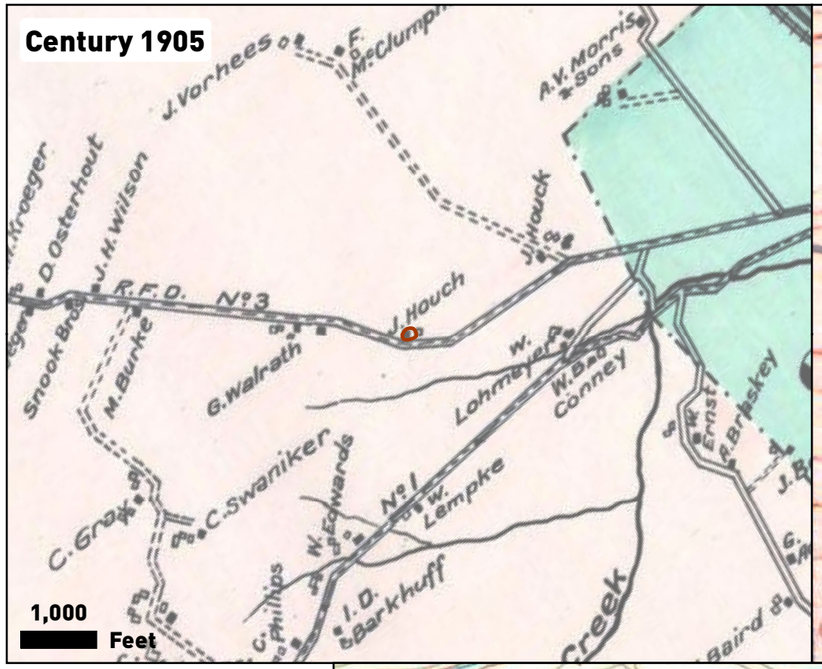

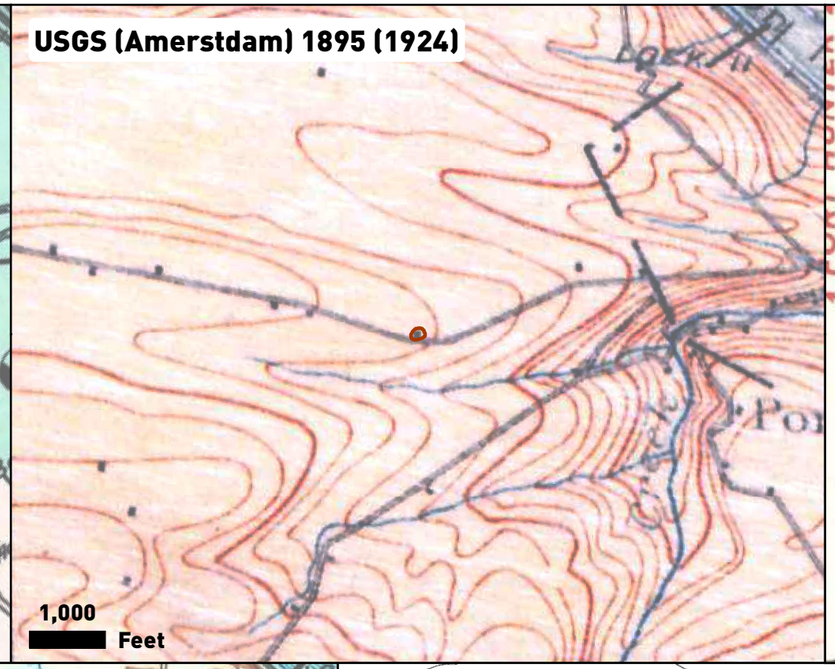

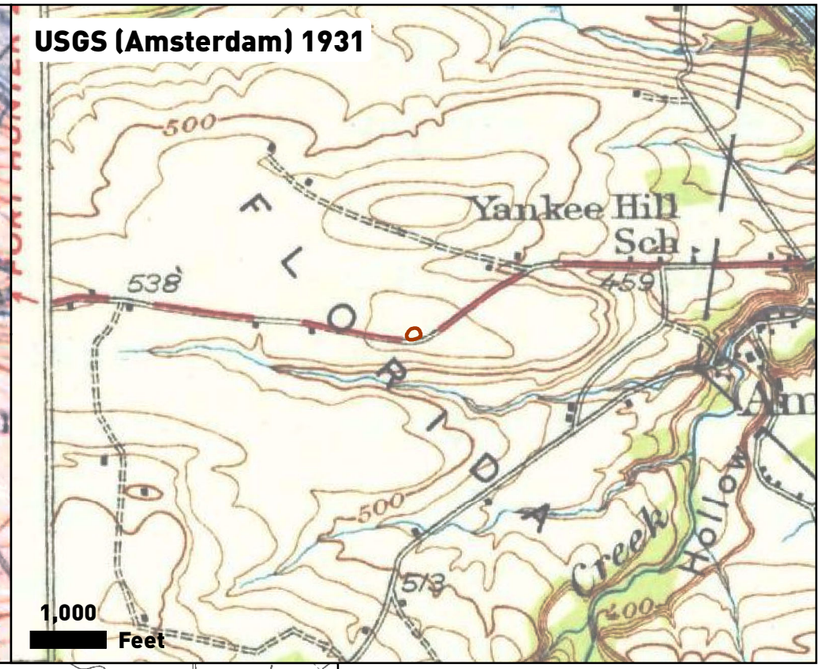

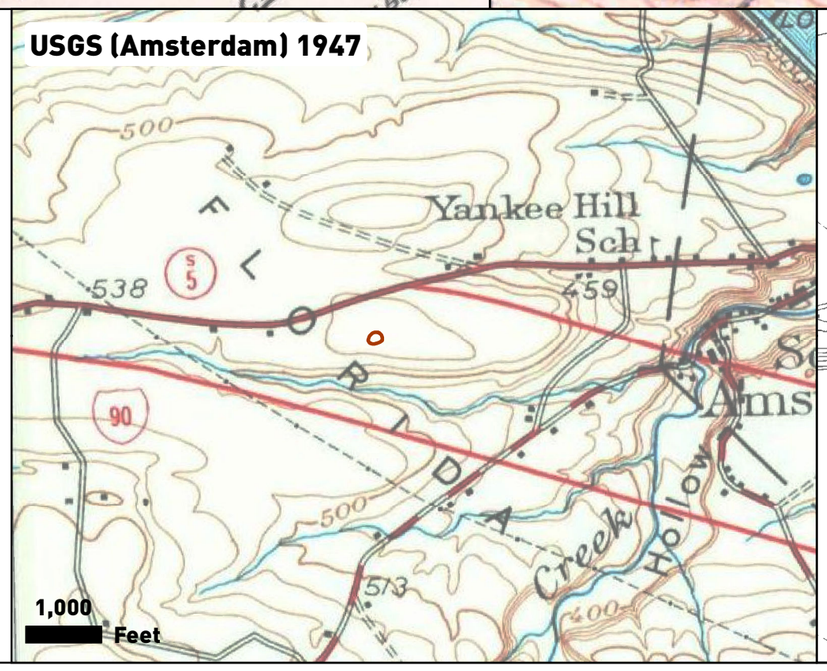

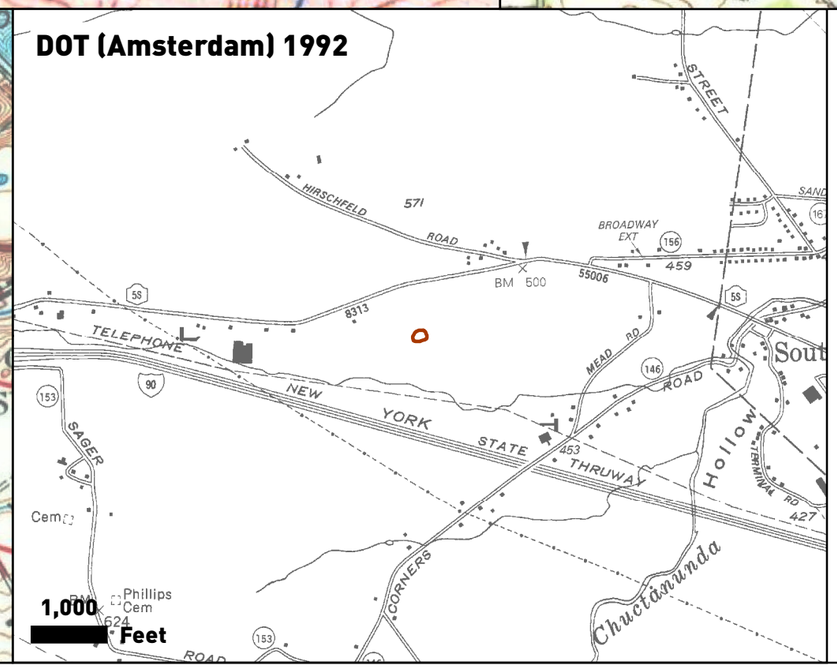

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Historical Maps 1905-1992

Map 3b

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Photographs



Photo 1. View facing west showing foundations and cellar hole.



Photo 2. View facing southwest showing foundations and cellar hole.



Photo 3. View facing south showing foundations and cellar hole.



Photo 4. View facing east showing well.



Photo 5. View facing north showing well.



Photo 6. View facing northeast showing stone wall along roadway.



Photo 7. View facing northeast showing stone wall along roadway.



Photo 8. View facing west showing roadway. Snow on the right is in the drainage ditch defining side of the road.



Photo 9. View facing south showing roadway. Water in the foreground is in the drainage ditch defining the side of road.



Photo 10. Surface of Unit 7 with midden deposit at the top.



Photo 11. Location of Unit 1 before clearing of overburden cobbles.



Photo 12. Exposed surface showing top of midden deposit (including glass bottles, a glass pitcher and stoneware jug) in Unit 1.



Photo 13. Bottom of Unit 1, terminated due to flooding before original floor level was encountered.



Photo 14. Salt glazed Stoneware jug with molded floral pattern and cobalt blue glaze (Unit 1, Surface) (Bag 39, Item 5.1).



Photo 15. Albany slipped stoneware jug (Unit 1, Surface) (Bag 39, Item 5.2).



Photo 16. Sample of whiteware (Unit 1, Surface) (Bag 39, Item 1).



Photo 17. Sample of yellowware (Unit 1, Level 1) (Bag 40, Item 4).



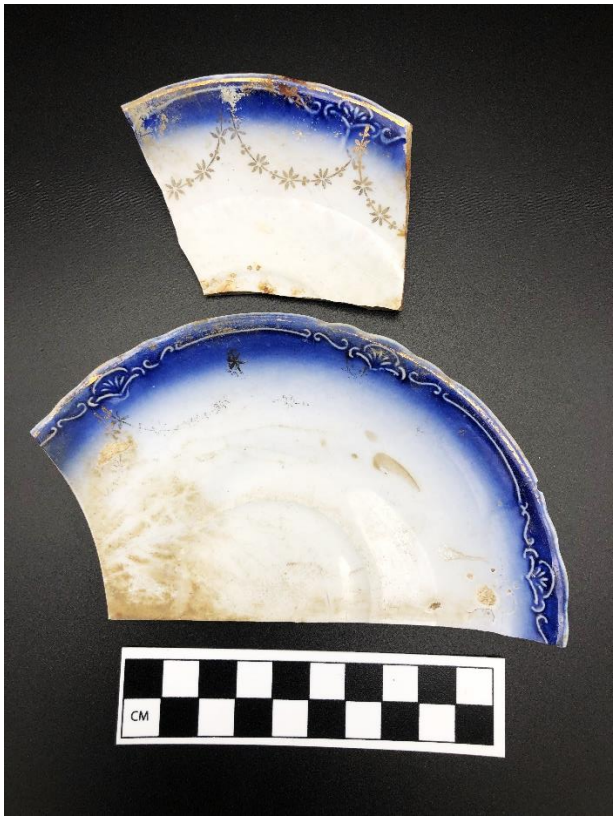


Photo 18. Decorated ironstone dishes (Unit 1, Level 1) (Bag 40, Items 2.1 and 2.2).

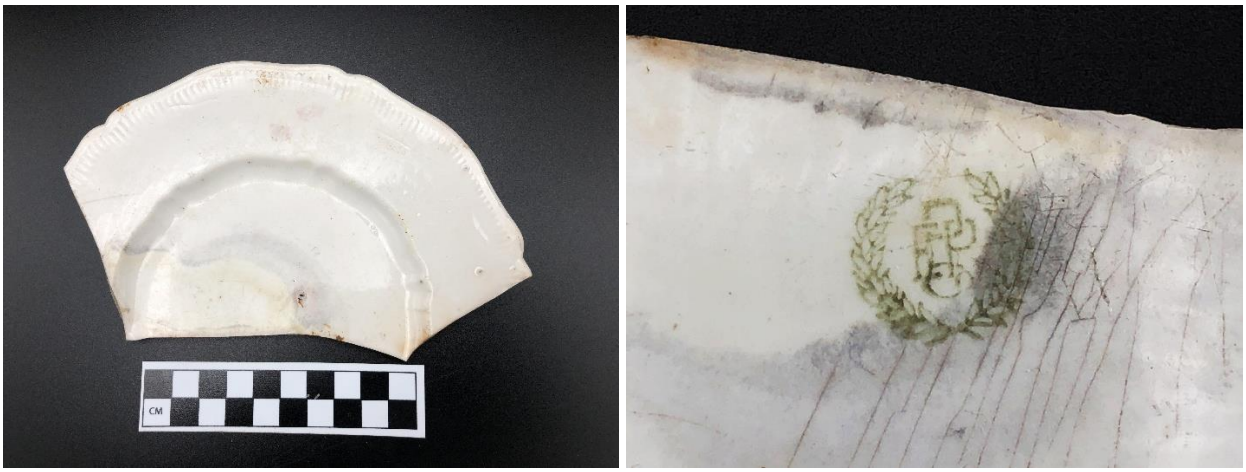


Photo 19. Semi-porcelain plate with makers mark (Unit 1, Level 3) (Bag 40, Item 3).



Photo 20. Porcelain vessel with green transfer print decoration (Unit 1, Surface) (Bag 30, Item 4).

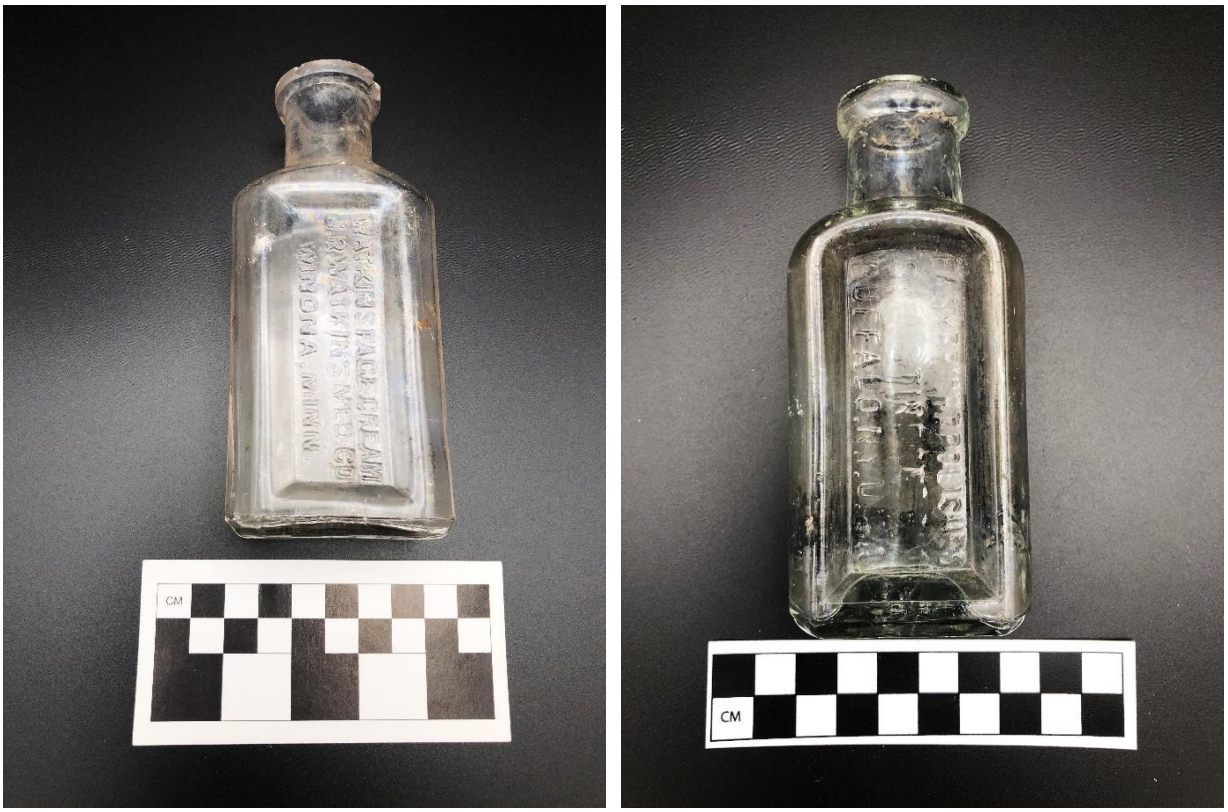


Photo 21. Embossed bottles from Watkins Face Cream (Unit 1, Surface) (Bag 39, Item 8.4) and Easy Bright Polish (Unit 1, Level 1) (Bag 40, Item Items



Photo 22. Molded glass pitcher (Unit 1, Surface) (Bag 39, Item 7) with refit base (Unit 1, Level 1) (Bag 40, Item 11).



Photo 23. Lamp chimney glass (Unit 1, Surface) (Bag 39, Item 11).



Photo 24. Sample of nails, (Unit 1 Level 1) (Bag 40, Item 15).



Photo 25. Sample of faunal bone (Unit 1, Level 1) (Bag 40, Item 30).



Photo 26. Sample of clam shell (Unit 1 Level 1) (Bag 40, Item 29).



Photo 27. Metal spoon (Unit 1, Level 1) (Bag 40, Item 19).



Photo 28. Pocket knife with bone decoration (Unit 1, Level 1) (Bag 40, Item 21).



Photo 29. Zinc alloy Mason jar lids with porcelain liners (Unit 1, Level 1) (Bag 40, Item 22).



Photo 30. Rear roadster horseshoe for draft horse with a toe calk for traction, medial heel calk and a lateral heel trailer to correct a flawed gait (Unit 1, Level 2) (Bag 41, Item 17).



Photo 31. Porcelain doll head (Unit 1, Level 1) (Bag 40, Item 8).



Photo 32. Carbon Rods from batteries (unit 1, Level 1) (Bag 40, Item 24).



Photo 33. Base of a Dietz D-Lite oil lamp with a TPQ of 1923 (Unit 1, Level 1) (Bag 40, Item 23).



Photo 34. Photos facing north of Unit 2, Level 1 showing exterior of structure foundation and large paving stone slab.



Photo 35. Photo facing north of Unit 2, Level 2 showing exterior of structure foundation.



Photo 36. Front of 1888 Indian head penny (Unit 2, Level 2) (Bag 43, Item 4).



Photo 37. Rear of 1888 Indian head penny (Unit 2, Level 2) (Bag 43, Item 4).



Photo 38. Sample of shell edge pearlware (Unit 2, Level 1) (Bag 42, Item 1).



Photo 39. Sample of Whiteware (Unit 2, Level 2) (Bag 43, Item 2).



Photo 40. Ironstone fragment with embossed foliage motif with TPQ of 1850 (Unit 2, Level 1) (Bag 42, Item 3).



Photo 41. Sample of nails (Unit 2, Level 1) (Bag 42, Item 15).



Photo 42. Hammered iron alloy spike (Unit 2, Level 1) (Bag 42, Item 14).



Photo 43. Metal button (Unit 2, Level1) (Bag 42, Item 11).



Photo 44. Fragment of metal fork (Unit 2, Level 1) (Bag 42, Item12).



Photo 45. Bone and iron alloy utensil handle with copper rivets (Unit 2, Level 1) (Bag 42, Item9).



Photo 46. View facing north of Level 1 of Unit 3 with adjacent foundation to the left.



Photo 47. View facing east of the base (Level 4) of Unit 3.



Photo 48. Fragment of salt glazed stoneware (Unit 3, Level 3) (Bag 45, Item 5).



Photo 49. Sample of whiteware (Unit 3, Level 2) (Bag 45, Item 1).



Photo 50. Sample of Ironstone (Unit 3, Level 2) (Bag 45, Item 3).



Photo 51. Fragment of American majolica (Unit 3, Level 2) (Bag 45, Item 4).

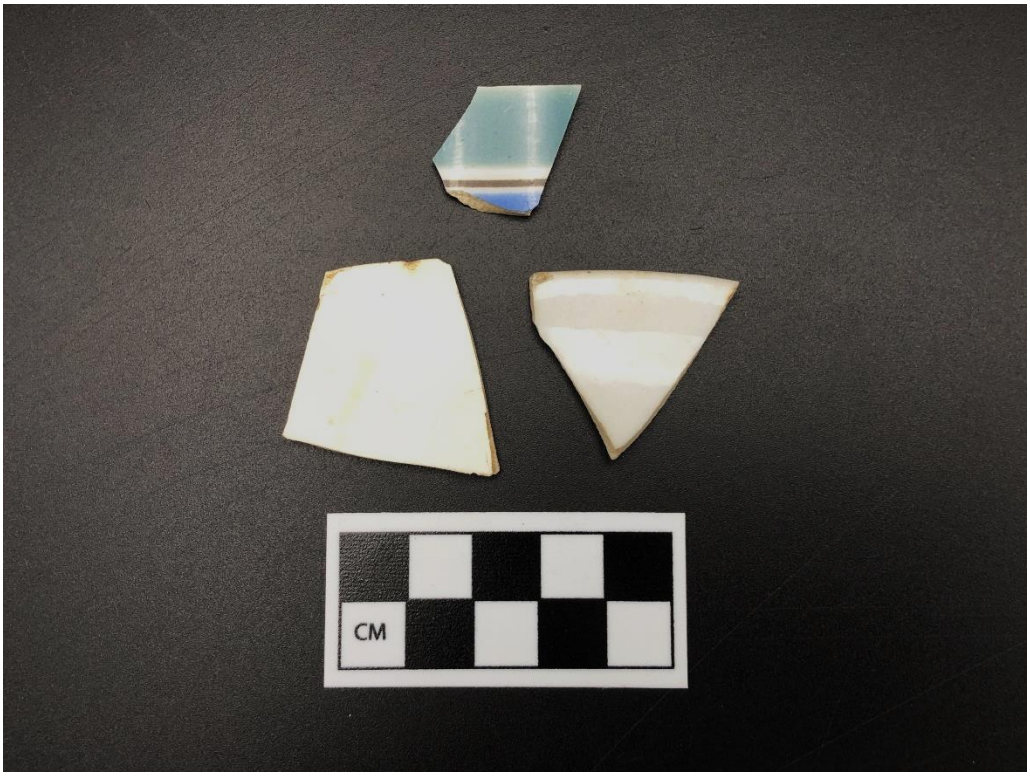


Photo 52. Sample of porcelain (Unit 3, Level 2) (Bag 45, Item 6).



Photo 53. Sample of iron alloy nails (Unit 3, Level 2) (Bag 45, Item 22).



Photo 54. Sample of faunal bone (unit 3, Level 2) (Bag 45, Item 26.6)



Photo 55. Metal caster (unit 3, Level 2) (Bag 45, Item 23)



Photo 56. Musterole jar with TPQ of 1926 (Unit 3, Level 1) (Bag 44, Item 2).



Photo 57. Fragment of ironstone plate with lily of the valley design which has a TPQ of 1850 (Unit 3, Level 3) (Bag 46, Item 3).



Photo 58. Photo facing west of the base of Unit 4, Level 2.



Photo 59. Glass mug/jug handle (Unit 4, Level 1) (Bag 47, Item 3).



Photo 60. Sample of faunal bone (Unit 4, Level 1) (Bag 47, Item 15).



Photo 61. Bone button (Unit 4, Level 1) (Bag 47, Item 6).



Photo 62. View facing north of Unit 5 containing large cut stone which may mark the south wall of the structure addition (note quarrying marks still visible below the surface).

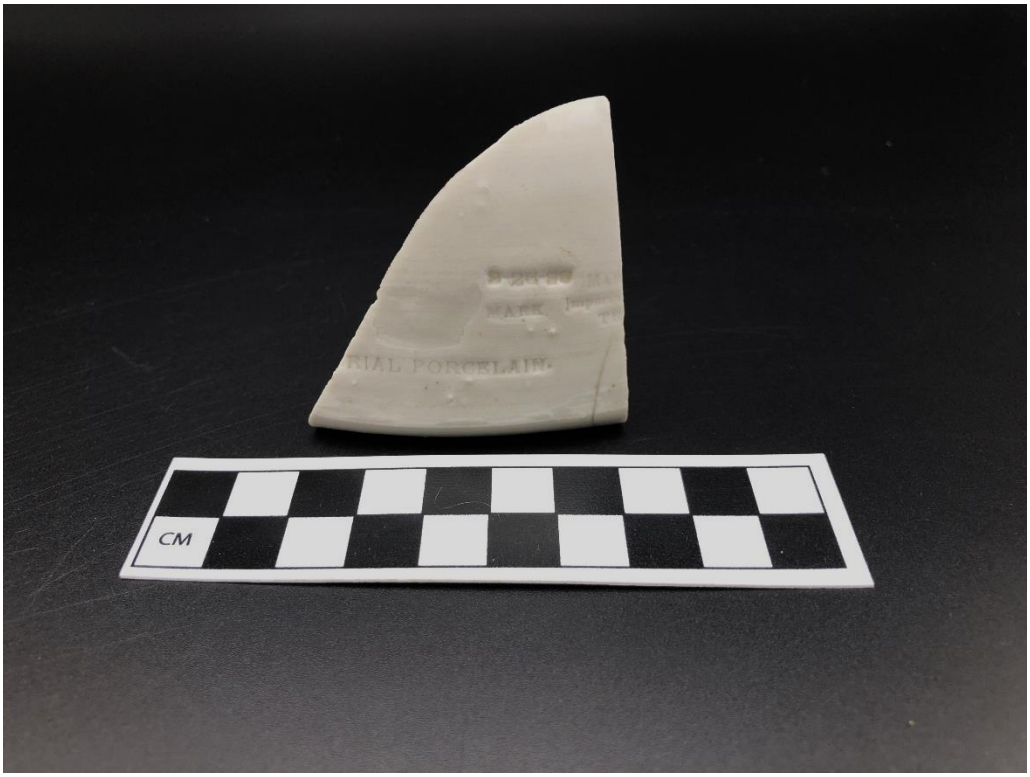


Photo 63. Fragment of porcelain (Unit 5, Level 1) (Bag 48, Item 1).



Photo 64. Sample of iron alloy nails (Unit 5, Level 1) (Bag 48, Item 3).



Photo 65. Sample of faunal bone (Unit 5, Level 1) (Bag 48, Item 5).



Photo 66. Photo facing east of base of level 1, Unit 6 showing pavement slabs.



Photo 67. Photo facing south of base of Unit 6 (with Unit 8 to the left).



Photo 68. Sample of whiteware (Unit 6, Level 1) (Bag 49, Item 1).

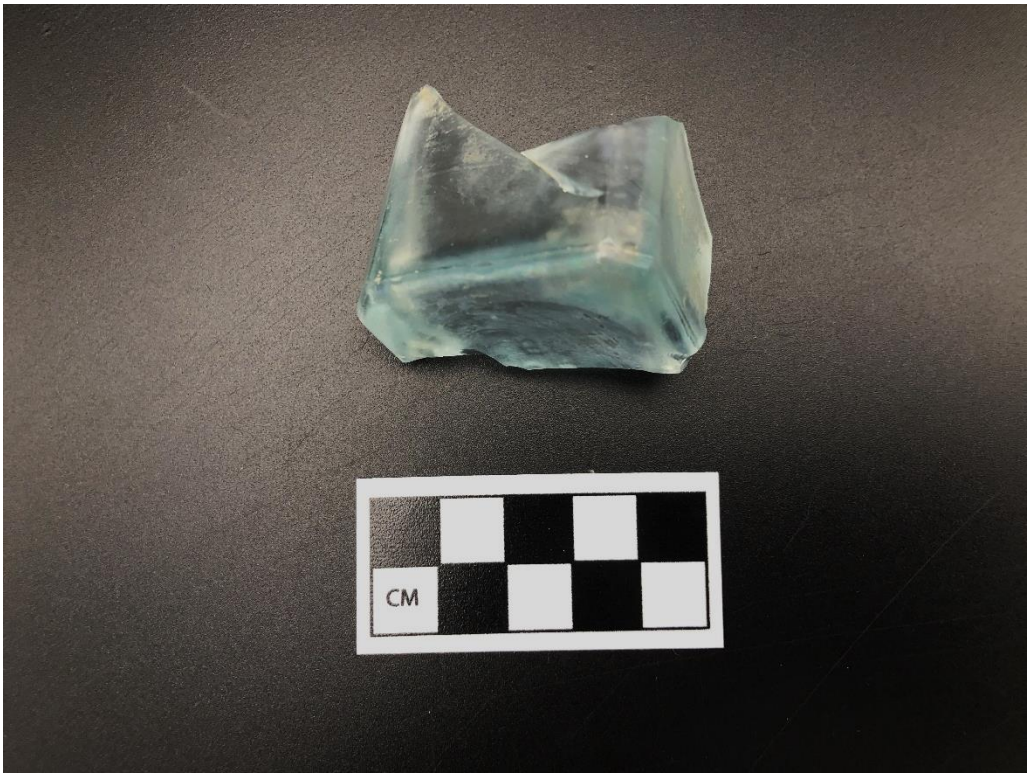


Photo 69. Fragment of aqua glass bottle (Unit 6, Level 1) (Bag 49, Item 2).



Photo 70. Portion of iron allow horseshoe with heel calk (Unit 6, Level 1) (Bag 49, Item 6).



Photo 71. Sample of faunal bone (Unit 6, Level 2) (Bag 50, Item 11).



Photo 72. View of base of Unit 7 facing south.



Photo 73. View of Unit 7 facing west.



Photo 74. RCA Cunningham radio vacuum tubes with a TPQ of 1935 (Unit 7, Level 1) (Bag 51, Item 37)

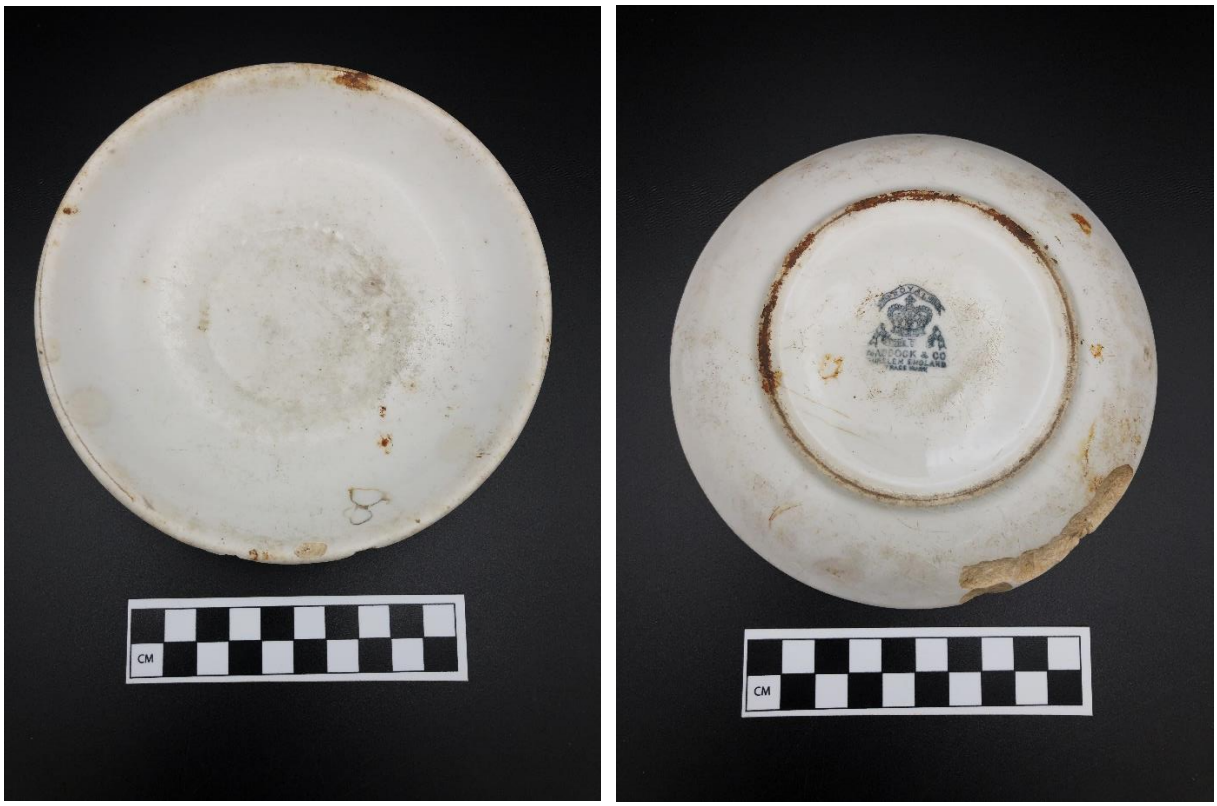


Photo 75. Ironstone saucer manufacture by Maddock and Co. (Unit 7, Level 1) (Bag 51, Item 1.1).



Photo 76. Fragments of a Hires Household Extract bottle (Unit 7, Level 1) (Bag 51, Item 6.1).



Photo 77. Fragment of E.J. Dossin bottle (Unit 7, Level 1) (Bag 51, Item 6.8).



Photo 78. Bottle of "Hair-Groom" with iron alloy razor blade stored inside (Unit 7, Level 1) (Bag 51, Item 7.1).



Photo 79. Cast iron car (possibly a Ford Model A taxi) with remnants of yellow paint (Unit 7, Level 1) (Bag 51, Item 16).



Photo 80. Orange and white glass marble (Unit 7, Level 1) (Bag 51, Item 13).



Photo 81. Iron alloy scissors (Unit 7, Level 1) (Bag 51, Item 29).



Photo 82. Screw top cap from a bottle marked American Medicinal Spirits Company (Unit 7, Level 1) (Bag 51, Item 32).



Photo 83. Champion X sparkplug, the type used in the Ford Model T ((Unit 7, Level 1) (Bag 51, Item 36).



Photo 84. Photo facing south of Units 6 (right) and 8 (left).



Photo 85. Photo facing south of Units 6 (right) and 8 (left).



Photo 86. Sample of whiteware with red transfer print (Unit 8, Level 3) (Bag 55, Item1).



Photo 87. Sample of iron alloy nails (Unit 8, Level 2) (Bag 54, Item 4).



Photo 88. Bronze bell (Unit 8, Level 1) (Bag 53, Item 2).



Photo 89. Sample of faunal bone (Unit 8, Level 2) (Bag 54, Item 6).



Photo 90. Sample of faunal bone (Unit 8, Level 3) (Bag 55, Item 4).



Photo 91. Base of Unit 9 facing east.



Photo 92. Sample of pearlware, some shell edged (Unit 9, Level 1) (Bag 56, Item 1).

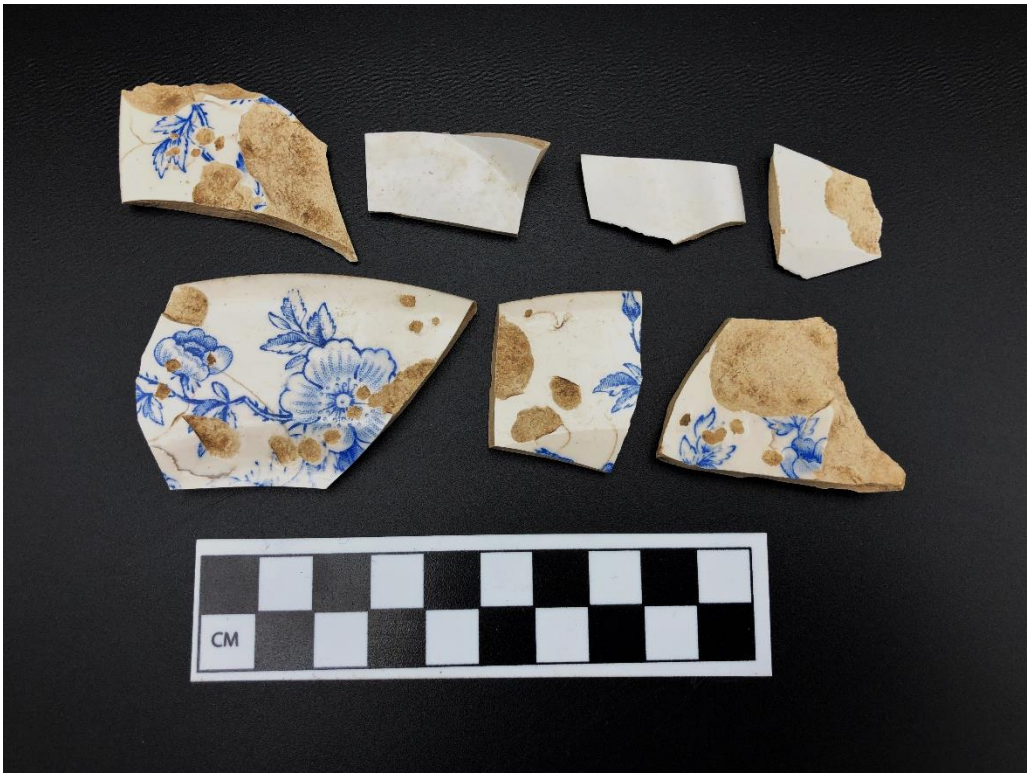


Photo 93. Sample of semi-porcelain (Unit 9, Level 1) (Bag 56, Item 4).



Photo 94. Sample of faunal bone (Unit 9, Level 1) (Bag 56, Item 11).

Appendix 1: Shovel Test Records

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2001	30	1	silt loam	roots	10yr 2/2	very dark brown	
	42	2	silt clay	cobbles	10yr 5/4	yellowish brown	water
2002	23	1	loam clay	gravel, roots	10yr 4/3	brown	
	47	2	clay	gravel, cobbles, roots	10yr 5/4	yellowish brown	subsoil
2003	25	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	44	2	silt clay	cobbles	10yr 5/4	yellowish brown	subsoil
2004	29	1	loam clay	gravel, roots	10yr 4/2	dark grayish brown	
	44	2	clay	gravel, roots	10yr 5/4	yellowish brown	subsoil
2005	27	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	44	2	silt clay	cobbles	10yr 5/4	yellowish brown	subsoil
2006	28	1	silt loam	gravel, roots	10yr 3/1	very dark gray	
	42	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 4/6	dark yellowish brown	
2007	31	1	silt loam clay	roots	10yr 3/1	very dark gray	
	43	2	loam		10yr 5/2	grayish brown	subsoil
					10yr 5/8	yellowish brown	
2008	30	1	silt loam		10yr 3/2	very dark grayish brown	
	50	2	silt		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2009	30	1	silt loam		10yr 3/2	very dark grayish brown	
	52	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2010	30	1	silt loam		10yr 3/2	very dark grayish brown	
	51	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2011	20	1	loam clay	roots	10yr 3/2	very dark grayish brown	
	50	2	silt clay	roots	10yr 5/6	yellowish brown	subsoil
					10yr 5/2	grayish brown	

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2012	44	1	loam clay	roots	2.5y 3/3	dark olive brown	
	68	2	silt clay	roots	2.5y 5/4	light olive brown	subsoil
2013	27	1	loam clay	roots	10yr 3/3	dark brown	
	49	2	silt clay		10yr 5/2	grayish brown	subsoil
2014	23	1	loam clay	roots	10yr 3/2	very dark grayish brown	
	47	2	silt clay	roots	10yr 4/6	dark yellowish brown	subsoil
					10yr 5/3	brown	
2015	32	1	silt loam	roots	10yr 4/2	dark grayish brown	
	48	2	silt clay	roots	10yr 5/2	grayish brown	
					10yr 4/3	brown	
	66	3	silt clay		10yr 5/4	yellowish brown	subsoil
					10yr 6/2	light brownish gray	
2016	0	1					not excavated
2017	0	1					not excavated
2018	0	1					not excavated
2019	0	1					not excavated
2020	19	1	loam clay	roots	10yr 3/3	dark brown	
	50	2	clay		10yr 4/6	dark yellowish brown	subsoil
					10yr 4/3	brown	
2021	30	1	loam		10yr 3/2	very dark grayish brown	
	48	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2022	45	1	silt loam clay	gravel, roots	2.5y 3/2	very dark grayish brown	water
					10yr 4/2	dark grayish brown	
2023	30	1	silt loam		10yr 3/2	very dark grayish brown	impasse (rubble)

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2024	23	1	silt loam	gravel, roots	10yr 3/2	very dark grayish brown	
	36	2	loam clay		10yr 5/3	brown	subsoil
					2.5y 4/2	dark grayish brown	
2025	30	1	silt loam	roots	2.5y 3/1	very dark gray	
	42	2	loam clay	roots	2.5y 5/2	grayish brown	subsoil
2026	27	1	silt loam		10yr 3/2	very dark grayish brown	
	40	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2027	31	1	silt loam	roots	2.5y 4/1	dark gray	
	43	2	loam clay		2.5y 5/2	grayish brown	subsoil
					2.5y 5/4	light olive brown	
2028	30	1	silt loam	roots	2.5y 4/1	dark gray	
	41	2	loam clay		10yr 5/2	grayish brown	subsoil
2029	28	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	42	2	loam clay		10yr 5/2	grayish brown	subsoil
2030	40	1	silt loam	gravel, roots	10yr 3/2	very dark grayish brown	impasse (roots)
2031	53	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	69	2	silt clay		10yr 5/2	grayish brown	subsoil
					10yr 5/2	grayish brown	
2032	29	1	loam clay	roots	10yr 3/2	very dark grayish brown	
	52	2	silt clay	roots	10yr 5/4	yellowish brown	subsoil
					10yr 5/2	grayish brown	
2033	30	1	silt loam	roots	10yr 4/1	dark gray	
	43	2	loam clay		10yr 5/3	brown	subsoil
2034	24	1	silt loam	roots	10yr 4/1	dark gray	
	36	2	loam clay		10yr 5/3	brown	subsoil
2035	26	1	silt loam	roots	10yr 4/1	dark gray	
	40	2	loam clay		10yr 5/3	brown	subsoil

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2036	0	1					not excavated
2037	0	1					not excavated
2038	0	1					not excavated
2039	0	1					not excavated
2040	0	1					not excavated
2041	0	1					not excavated
2042	0	1					not excavated
2043	0	1					not excavated
2044	0	1					not excavated
2045	0	1					not excavated
2046	0	1					not excavated
2047	0	1					not excavated
2048	28	1	silt loam	roots	10yr 4/1	dark gray	
	40	2	loam clay		10yr 5/3	brown	subsoil
2049	30	1	silt loam	roots	10yr 4/2	dark grayish brown	
	47	2	silt clay		10yr 5/4	yellowish brown	subsoil
2050	30	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	45	2	silt clay		10yr 5/4	yellowish brown	subsoil
2051	42	1	silt loam	roots	10yr 3/2	very dark grayish brown	water

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2052	33	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	52	2	silt clay		10yr 5/4	yellowish brown	subsoil
2053	35	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	52	2	silt clay		10yr 5/4	yellowish brown	subsoil
2054	30	1	silt loam	roots	10yr 2/2	very dark brown	
	41	2	silt clay		10yr 5/6	yellowish brown	water
2055	0	1					not excavated (water)
2056	27	1	loam clay	gravel, roots	10yr 3/1	very dark gray	
	34	2	clay	roots	10yr 5/4	yellowish brown	water
2057	41	1	loam clay	gravel, roots	10yr 3/2	very dark grayish brown	water
2058	26	1	loam clay	gravel, roots	10yr 3/1	very dark gray	
	44	2	clay	gravel	2.5y 4/2 10yr 4/4	dark grayish brown dark yellowish brown	subsoil
2059	24	1	loam clay	gravel, roots	10yr 3/2	very dark grayish brown	
	33	2	clay		10yr 4/4	dark yellowish brown	water
2060	21	1	loam clay	roots	10yr 4/1	dark gray	
	33	2	clay	roots	10yr 4/4	dark yellowish brown	subsoil
2061	19	1	loam clay	roots	10yr 3/2	very dark grayish brown	impasse (roots)
2062	25	1	loam clay	gravel, roots	10yr 4/2	dark grayish brown	water
2063	28	1	silt loam	roots	10yr 3/2	very dark grayish brown	
	48	2	silt clay		10yr 4/4	dark yellowish brown	subsoil
2064	0	1					not excavated

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2065	0	1					not excavated
2066	0	1					not excavated
2067	0	1					not excavated
2068	0	1					not excavated
2069	0	1					not excavated
2070	0	1					not excavated
2071	0	1					not excavated
2072	0	1					not excavated
2073	0	1					not excavated
2074	0	1					not excavated
2075	0	1					not excavated
2076	0	1					not excavated
2077	25	1	silt loam	roots	10yr 4/1	dark gray	
	37	2	loam clay		10yr 5/3	brown	subsoil
2078	0	1					not excavated
2079	29	1	silt loam	roots	10yr 2/2	very dark brown	water
2080	28	1	silt loam	gravel, roots	10yr 4/1	dark gray	
	41	2	loam clay		10yr 5/3	brown	subsoil
2081	22	1	loam clay	gravel, roots	10yr 4/2	dark grayish brown	
	38	2	sand clay	gravel	10yr 5/3	brown	subsoil

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Shovel Test Records

	Ending Depth (cm)	Level	Soil Type	Soil Inclusions	Munsell Color		Termination Reason
2082	27	1	silt loam	roots	10yr 2/2	very dark brown	
	46	2	silt clay		10yr 4/4	dark yellowish brown	subsoil
2083	40	1	loam clay	gravel, roots	10yr 3/2	very dark grayish brown	water
2084	34	1	loam clay	gravel, roots	10yr 3/2	very dark grayish brown	water
2085	19	1	silt sand	roots	10yr 4/2	dark grayish brown	subsoil
2086	33	1	silt loam	roots	10yr 2/2	very dark brown	subsoil
2087	22	1	silt loam	roots	10yr 2/2	very dark brown	water
2088	41	1	sand clay	cobbles, roots	10yr 3/3	dark brown	
	67	2	sand clay	roots	10yr 4/6	dark yellowish brown	subsoil
2089	36	1	silt loam	roots	10yr 3/3	dark brown	
	55	2	silt clay		10yr 5/4	yellowish brown	subsoil
2090	30	1	silt loam		10yr 4/3	brown	
	50	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
2091	31	1	silt loam		2.5y 4/1	dark gray	
	46	2	loam clay		2.5y 4/3	olive brown	subsoil
					2.5y 5/3	light olive brown	
2092	29	1	silt loam		10yr 4/3	brown	
	48	2	clay		10yr 5/6	yellowish brown	subsoil
					10yr 5/6	yellowish brown	
2093	30	1	silt loam		2.5y 4/1	dark gray	
	45	2	loam clay		2.5y 4/3	olive brown	subsoil
					2.5y 5/3	light olive brown	

Appendix 2: Artifact Inventory

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
SC 201			27	1	2	brick	brick	3,180.0
				1.1	*1*	*brick, nearly complete, brick, with concrete inclusion, L 20.7, W 10.0, T 5.0 cm*		*1,615.0*
				1.2	*1*	*brick, complete, brick, L 20.5, W 9.6, T 5.0 cm*		*1,565.0*
SC 202			28	1	2	strap hinge	iron alloy	2,770.0
				1.1	*1*	*strap hinge, complete, iron alloy, bent, with bolts, L 87.5, W 3.0, T 0.7 cm*		*1,520.0*
				1.2	*1*	*strap hinge, iron alloy, fragment, with bolts, bent*		*1,250.0*
SC 202			28	2	1	unidentified hardware	iron alloy	1,040.0
				2.1	*1*	*unidentified hardware, complete, iron alloy, bent, with nails and bolts*		*1,040.0*
STP 2002	1		29	1	6	nail	iron alloy	40.0
				1.1	*4*	*nail, iron alloy, cut*		*18.8*
				1.2	*2*	*nail, iron alloy, indeterminate*		*21.2*
STP 2002	1		29	2	2	wire	iron alloy	70.5
				2.1	*2*	*wire, iron alloy, bent*		*70.5*
STP 2003	1		30	1	1	buff/pink bodied stoneware	stoneware	15.5
				1.1	*1*	*buff/pink bodied stoneware, stoneware, Albany slip & salt-glazed, TPQ 1805*		*15.5*
STP 2003	1		30	2	1	window	glass	0.8
				2.1	*1*	*window, glass, pale aqua*		*0.8*
STP 2003	1		30	3	1	nail	iron alloy	12.2
				3.1	*1*	*nail, iron alloy, indeterminate*		*12.2*
STP 2004	1		31	1	1	nail	iron alloy	10.8
				1.1	*1*	*nail, iron alloy, cut*		*10.8*
STP 2007	1		11	1	5	ironstone	refined earthenware	20.9
				1.1	*5*	*ironstone, flatware, footring and base, refined earthenware, some fragments mend*		*20.9*
STP 2007	1		11	2	2	wire	iron alloy	20.1
				2.1	*2*	*wire, iron alloy, bent*		*20.1*
STP 2008	1		12	1	1	bottle	glass	53.4

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*bottle, body, glass, manganese solarized, TPQ 1880*		*53.4*
STP 2009	1		13	1	1	ironstone	refined earthenware	6.5
				1.1	*1*	*ironstone, foot, refined earthenware*		*6.5*
STP 2010	1		14	1	1	redware	coarse earthenware	2.8
				1.1	*1*	*redware, coarse earthenware, unglazed*		*2.8*
STP 2010	1		14	2	1	nail	iron alloy	2.6
				2.1	*1*	*nail, iron alloy, indeterminate*		*2.6*
STP 2011	1		15	1	1	whiteware	refined earthenware	0.2
STP 2011	1		15	2	1	furniture element	porcelain and iron alloy	1.4
STP 2011	1		15	3	1	bolt	iron alloy	17.2
				3.1	*1*	*bolt, head, iron alloy, fragment*		*17.2*
STP 2011	1		15	4	1	nut and bolt	iron alloy	41.8
				4.1	*1*	*nut and bolt, iron alloy, fragment*		*41.8*
STP 2011	1		15	5	3	unidentified hardware	iron alloy	20.3
				5.1	*3*	*unidentified hardware, iron alloy, fragment*		*20.3*
STP 2011	1		15	6	1	faunal bone	bone	0.0
				6.1	*1*	*faunal bone, indeterminate, bone, fragment*		*0.0*
STP 2012	1		16	1	9	whiteware	refined earthenware	12.5
				1.1	*6*	*whiteware, refined earthenware*		*8.8*
				1.2	*1*	*whiteware, flatware, refined earthenware*		*2.7*
				1.3	*2*	*whiteware, refined earthenware, transfer printed underglaze, cobalt blue, fragments mend*		*1.0*
STP 2012	1		16	2	4	ironstone	refined earthenware	40.2
				2.1	*1*	*ironstone, cup, base, refined earthenware, Diam 5 cm*		*33.7*
				2.2	*3*	*ironstone, foot, refined earthenware*		*6.5*
STP 2012	1		16	3	1	window	glass	1.0
				3.1	*1*	*window, glass, pale aqua*		*1.0*
STP 2012	1		16	4	1	nail	iron alloy	6.2

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				4.1	*1*	*nail, iron alloy, T-head*		*6.2*
STP 2012	1		16	5	2	unidentified hardware	iron alloy	13.7
STP 2012	1		16	6	2	coal, clinker, slag	coal	12.3
STP 2013	1		17	1	1	bottle	glass	473.5
				1.1	*1*	*bottle, beverage, complete, glass, embossed, colorless, machine made, Turner Brothers Co., "Utica, N.Y.", L 24.5, Diam 6.7 cm, TPQ 1920*		*473.5*
STP 2013	1		17	2	2	vessel	glass	28.3
				2.1	*2*	*vessel, glass, colorless*		*28.3*
STP 2021	1		18	1	1	bottle	glass	58.0
				1.1	*1*	*bottle, base, glass, manganese solarized, "C22", Diam 6.3 cm, TPQ 1880*		*58.0*
STP 2022	1		19	1	1	buff bodied	coarse earthenware	2.7
				1.1	*1*	*buff bodied, coarse earthenware, lead glaze*		*2.7*
STP 2022	1		19	2	1	indeterminate	glass	0.6
STP 2022	1		19	3	3	nail	iron alloy	20.6
				3.1	*1*	*nail, iron alloy, cut*		*3.7*
				3.2	*2*	*nail, iron alloy, indeterminate*		*16.9*
STP 2022	1		19	4	1	concretion	indeterminate	3.6
STP 2023	1		20	1	2	porcelain	porcelain	3.2
				1.1	*1*	*porcelain, flatware, rim, porcelain*		*2.5*
				1.2	*1*	*porcelain, flatware, rim, porcelain, gilt, gold*		*0.7*
STP 2023	1		20	2	5	window	glass	7.3
				2.1	*5*	*window, glass, pale aqua*		*7.3*
STP 2023	1		20	3	1	nail	iron alloy	7.6
				3.1	*1*	*nail, iron alloy, cut*		*7.6*
STP 2023	1		20	4	1	shell	shell	6.0
				4.1	*1*	*shell, clam, shell*		*6.0*
STP 2023	1		20	5	1	coal	coal	1.0

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
STP 2023	1		20	6	1	mineral sample	limestone	6.2
STP 2024	1		21	1	1	whiteware	refined earthenware	1.1
STP 2024	1		21	2	7	window	glass	20.7
				2.1	*7*	*window, glass, pale aqua*		*20.7*
STP 2024	1		21	3	1	tobacco pipe	ball clay-white	2.5
				3.1	*1*	*tobacco pipe, bowl, ball clay-white, molded decoration, "D...T"*		*2.5*
STP 2024	1		21	4	3	faunal bone	bone	4.0
				4.1	*3*	*faunal bone, small mammal, long bone, bone*		*4.0*
STP 2025	1		33	1	1	whiteware	refined earthenware	6.3
				1.1	*1*	*whiteware, flatware, rim, refined earthenware*		*6.3*
STP 2025	1		33	2	1	ironstone	refined earthenware	3.3
STP 2025	1		33	3	1	grey bodied stoneware	stoneware	57.7
				3.1	*1*	*grey bodied stoneware, crock, rim, stoneware, burned, slipped on interior*		*57.7*
STP 2025	1		33	4	1	porcelain	porcelain	4.0
				4.1	*1*	*porcelain, hollowware, base, porcelain, molded decoration*		*4.0*
STP 2026	1		23	1	1	pearlware	refined earthenware	1.2
				1.1	*1*	*pearlware, flatware, rim, refined earthenware, painted, shell edge, cobalt blue, TPQ 1780*		*1.2*
STP 2026	1		23	2	1	bottle	glass	6.1
				2.1	*1*	*bottle, glass, amber, with patina*		*6.1*
STP 2030	1		24	1	3	whiteware	refined earthenware	2.4
STP 2030	1		24	2	2	nail	iron alloy	9.7
				2.1	*1*	*nail, iron alloy, cut*		*1.7*
				2.2	*1*	*nail, iron alloy, wire*		*8.0*
STP 2030	1		24	3	1	faunal bone	bone	3.4
				3.1	*1*	*faunal bone, small mammal, long bone, bone*		*3.4*
STP 2030	1		24	4	3	shell	shell	8.9

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				4.1	*2*	*shell, clam, shell, fragments mend*		*6.7*
				4.2	*1*	*shell, clam, shell*		*2.2*
STP 2031	1		25	1	7	ironstone	refined earthenware	33.6
				1.1	*4*	*ironstone, flatware, refined earthenware*		*10.8*
				1.2	*3*	*ironstone, flatware, base, refined earthenware, transfer printed underglaze, blue*		*22.8*
STP 2031	1		25	2	1	window	glass	0.8
				2.1	*1*	*window, glass, pale aqua*		*0.8*
STP 2031	1		25	3	1	brick	brick	0.8
STP 2031	1		25	4	7	nail	iron alloy	41.5
				4.1	*5*	*nail, iron alloy, cut*		*36.3*
				4.2	*2*	*nail, iron alloy, indeterminate*		*5.2*
STP 2031	1		25	5	1	bolt	iron alloy	25.1
STP 2031	1		25	6	2	faunal bone	bone	1.0
				6.1	*2*	*faunal bone, indeterminate, bone*		*1.0*
STP 2031	1		25	7	1	shell	shell	49.6
				7.1	*1*	*shell, clam, nearly complete, shell*		*49.6*
STP 2032	1		26	1	2	whiteware	refined earthenware	3.6
				1.1	*2*	*whiteware, plate, rim, refined earthenware, transfer printed underglaze, black*		*3.6*
STP 2032	1		26	2	2	vessel	glass	9.2
				2.1	*2*	*vessel, glass, colorless*		*9.2*
STP 2032	1		26	3	4	window	glass	28.1
				3.1	*4*	*window, glass*		*28.1*
STP 2032	1		26	4	1	shell	shell	0.7
STP 2032	1		26	5	3	brick	brick	29.7
STP 2032	1		26	6	1	unidentified hardware	iron alloy	12.1
STP 2032	1		26	7	1	wire	iron alloy	8.9
				7.1	*1*	*wire, iron alloy, twisted, L 17.4 cm*		*8.9*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
STP 2033	1		34	1	1	whiteware	refined earthenware	0.8
STP 2033	1		34	2	1	porcelain	porcelain	3.1
				2.1	*1*	*porcelain, porcelain, molded decoration*		*3.1*
STP 2033	1		34	3	1	nail	iron alloy	6.8
				3.1	*1*	*nail, iron alloy, indeterminate*		*6.8*
STP 2052	1		35	1	3	whiteware	refined earthenware	3.1
				1.1	*2*	*whiteware, refined earthenware, undecorated*		*1.5*
				1.2	*1*	*whiteware, refined earthenware, transfer printed underglaze, brown*		*1.6*
STP 2054	1		36	1	1	porcelain	porcelain	0.9
STP 2054	1		36	2	1	vessel	glass	1.0
				2.1	*1*	*vessel, glass, colorless*		*1.0*
STP 2088	1		37	1	4	whiteware	refined earthenware	3.7
				1.1	*1*	*whiteware, rim, refined earthenware, undecorated*		*0.6*
				1.2	*1*	*whiteware, hollowware, rim, refined earthenware, hand painted, polychrome*		*3.0*
				1.3	*2*	*whiteware, refined earthenware, transfer printed underglaze, blue*		*0.1*
STP 2088	1		37	2	1	buff/pink bodied stoneware	stoneware	18.9
				2.1	*1*	*buff/pink bodied stoneware, crock, rim, stoneware, Albany slip & salt-glazed, TPQ 1805*		*18.9*
STP 2088	1		37	3	2	vessel	glass	1.7
				3.1	*1*	*vessel, glass, olive*		*1.2*
				3.2	*1*	*vessel, glass, colorless*		*0.5*
STP 2088	1		37	4	2	window	glass	2.2
				4.1	*2*	*window, glass, pale aqua*		*2.2*
STP 2088	1		37	5	1	tobacco pipe	ball clay-white	2.6
				5.1	*1*	*tobacco pipe, bowl, ball clay-white, molded decoration*		*2.6*
STP 2088	1		37	6	2	nail	iron alloy	7.3
				6.1	*2*	*nail, iron alloy, cut*		*7.3*
STP 2088	1		37	7	1	faunal bone	bone	1.8
				7.1	*1*	*faunal bone, mammal, epiphysis, bone*		*1.8*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
STP 2088	1		37	8	9	shell	shell	11.9
				8.1	*9*	*shell, clam, shell*		*11.9*
STP 2089	1		32	1	11	whiteware	refined earthenware	7.5
				1.1	*6*	*whiteware, refined earthenware, undecorated*		*4.7*
				1.2	*5*	*whiteware, refined earthenware, flow transfer print, cobalt blue*		*2.8*
STP 2089	1		32	2	2	vessel	glass	5.6
				2.1	*1*	*vessel, glass*		*1.4*
				2.2	*1*	*vessel, glass, textured*		*4.2*
STP 2089	1		32	3	5	window	glass	6.8
				3.1	*3*	*window, glass, pale aqua*		*6.0*
				3.2	*2*	*window, glass, colorless*		*0.8*
STP 2091	1		38	1	1	buff bodied	coarse earthenware	14.4
				1.1	*1*	*buff bodied, coarse earthenware, lead glaze*		*14.4*
STP 2091	1		38	2	1	vessel	glass	2.5
				2.1	*1*	*vessel, rim, glass, colorless*		*2.5*
STP 2092	1		22	1	1	porcelain	porcelain	5.1
				1.1	*1*	*porcelain, hollowware, rim, porcelain*		*5.1*
Surface								
U 1			39	1	13	whiteware	refined earthenware	122.3
				1.1	*3*	*whiteware, refined earthenware, undecorated*		*16.9*
				1.2	*2*	*whiteware, plate, rim, refined earthenware, sponged, blue, fragments mend*		*42.0*
				1.3	*2*	*whiteware, refined earthenware, transfer printed underglaze, green*		*13.0*
				1.4	*1*	*whiteware, flatware, refined earthenware, transfer printed underglaze, blue*		*9.5*
				1.5	*1*	*whiteware, plate, full profile, refined earthenware, decal missing*		*14.4*
				1.6	*3*	*whiteware, hollowware, full profile, refined earthenware, gilt, gold*		*21.7*
				1.7	*1*	*whiteware, refined earthenware, decorated, cobalt blue, gold gilt*		*4.8*
U 1			39	2	8	ironstone	refined earthenware	132.9

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				2.1	*1*	*ironstone, plate, rim, refined earthenware*		*19.5*
				2.2	*5*	*ironstone, hollowware, refined earthenware, some fragments mend*		*101.1*
				2.3	*1*	*ironstone, hollowware, refined earthenware, molded decoration*		*6.9*
				2.4	*1*	*ironstone, flatware, refined earthenware*		*5.4*
U 1			39	3	4	semi-porcelain	refined earthenware	21.8
				3.1	*1*	*semi-porcelain, refined earthenware*		*5.8*
				3.2	*2*	*semi-porcelain, flatware, rim, refined earthenware, decal, molded decoration, decal missing*		*9.3*
				3.3	*1*	*semi-porcelain, flatware, rim, refined earthenware, decorated, edged, cobalt blue*		*6.7*
U 1			39	4	3	porcelain	porcelain	132.0
				4.1	*1*	*porcelain, hollowware, base, porcelain, transfer printed underglaze, green*		*99.6*
				4.2	*2*	*porcelain, flatware, base, porcelain, fragments mend*		*32.4*
U 1			39	5	3	grey bodied stoneware	stoneware	725.2
				5.1	*1*	*grey bodied stoneware, pitcher, nearly complete, stoneware, salt-glazed, molded decoration, cobalt blue, relief molded floral decoration, painted, L 16.5, W 4.5, T 0.5 cm*		*547.7*
				5.2	*1*	*grey bodied stoneware, jug, finish, stoneware, Albany slip, slipped interior and exterior, TPQ 1805*		*121.9*
				5.3	*1*	*grey bodied stoneware, stoneware, glazed*		*55.6*
U 1			39	6	1	buff/pink bodied stoneware	stoneware	24.2
				6.1	*1*	*buff/pink bodied stoneware, saucer, full profile, stoneware, molded decoration*		*24.2*
U 1			39	7	2	vessel	glass	1,255.4
				7.1	*1*	*vessel, pitcher, nearly complete, glass, embossed, colorless, mold made, missing handle and base, ribbed spout, W 12.5, T 0.9 cm*		*1,240.0*
				7.2	*1*	*vessel, glass, embossed, colorless*		*15.4*
U 1			39	8	15	bottle	glass	1,221.7

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				8.1	*1*	*bottle, rectangular, base, glass, embossed, colorless, mold made, "135", TPQ 1855*		*98.1*
				8.2	*2*	*bottle, pharmaceutical, base and body, glass, embossed, colorless, mold made, J.R. Watkins, Trial Mark, W 3, T 1 3/4 in, TPQ 1869*		*131.2*
				8.3	*1*	*bottle, pharmaceutical, nearly complete, glass, embossed, colorless, mold made, J.R. Watkins, missing finish, "WATKINS/CONTAINER MADE IN U.S.A.", W 2 1/4, T 1 1/4 in*		*155.4*
				8.4	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, tooled finish, partially handmade, "WATKINS FACE CREAM/J.R.WATKINS MED. CO/WINONA, MINN.", L 5 1/4, W 2 3/8, T 1 3/4 in, TPQ 1885*		*171.6*
				8.5	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, tooled finish, "1 OUNCE", L 3 9/16, W 1 3/8, T 7/8 in*		*40.6*
				8.6	*1*	*bottle, pharmaceutical, finish, glass, embossed, colorless, tooled finish, "3i…3/6…"*		*15.0*
				8.7	*1*	*bottle, finish, glass, colorless, tooled finish, mouth diameter: 1"*		*54.7*
				8.8	*1*	*bottle, body, glass, embossed, colorless, mold made, "M.../CAPACIT…/…E FULL O…"*		*34.4*
				8.9	*1*	*bottle, blacking/ink, base and body, glass, embossed, colorless, mold made, Black Cat Stove Polish, "...BLACK CAT/...LISH COMPANY/…BUFFALO, N.Y.", TPQ 1870*		*71.1*
				8.10	*1*	*bottle, round, complete, glass, brown, tooled finish, TPQ 1910*		*119.4*
				8.11	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, machine made, Owens Bottle Co., "3viii", TPQ 1919*		*218.5*
				8.12	*3*	*bottle, finish, glass, machine molded, brown, pale aqua, and colorless, TPQ 1899*		*111.7*
U 1			39	9	1	jar	glass	26.1
				9.1	*1*	*jar, full profile, glass, white*		*26.1*
U 1			39	10	1	window	glass	150.4
				10.1	*1*	*window, privacy glass, glass, ribbed*		*150.4*
U 1			39	11	1	lamp chimney	glass	17.9
				11.1	*1*	*lamp chimney, top, glass, crimped, TPQ 1850*		*17.9*
U 1			39	12	1	tableware	glass	148.7
				12.1	*1*	*tableware, bowl, rim, glass, colorless, pressed*		*148.7*
U 1			39	13	15	shell	shell	153.8
				13.1	*1*	*shell, clam, complete, shell*		*21.2*
				13.2	*14*	*shell, clam, shell*		*132.6*
U 1			39	14	1	faunal bone	bone	18.4
				14.1	*1*	*faunal bone, large mammal, bone*		*18.4*
U 1	1		40	1	1	redware	coarse earthenware	1.9
U 1	1		40	2	42	ironstone	refined earthenware	881.8

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				2.1	*2*	*ironstone, flatware, full profile, refined earthenware, decal, molded decoration, polychrome, fragments mend, "Etruria-Mellor & Co."*		*102.9*
				2.2	*8*	*ironstone, flatware, full profile, refined earthenware, gilt, molded decoration, cobalt blue, some fragments mend*		*208.8*
				2.3	*1*	*ironstone, saucer, full profile, refined earthenware, gilt, molded decoration, cobalt blue*		*12.3*
				2.4	*4*	*ironstone, tea pot, full profile, refined earthenware, gilt, cobalt blue, some fragments mend*		*74.4*
				2.5	*1*	*ironstone, flatware, rim, refined earthenware, transfer printed underglaze, molded decoration, blue*		*10.1*
				2.6	*3*	*ironstone, hollowware, rim, refined earthenware, transfer printed underglaze, edged, green, some fragments mend*		*19.9*
				2.7	*2*	*ironstone, flatware, base, refined earthenware, sponged, blue*		*43.8*
				2.8	*2*	*ironstone, flatware, rim, refined earthenware, gilt*		*62.0*
				2.9	*1*	*ironstone, flatware, rim, refined earthenware, decal, polychrome*		*29.6*
				2.10	*9*	*ironstone, flatware, rim, refined earthenware, undecorated*		*172.7*
				2.11	*3*	*ironstone, hollowware, rim, refined earthenware, gilt, molded decoration, some fragments mend, possible tureen*		*52.5*
				2.12	*2*	*ironstone, tea cup, rim, refined earthenware, gilt*		*43.6*
				2.13	*2*	*ironstone, tea cup, rim and handle, refined earthenware, molded decoration*		*16.5*
				2.14	*1*	*ironstone, tea cup, rim, refined earthenware*		*12.9*
				2.15	*1*	*ironstone, hollowware, base, refined earthenware*		*19.8*
U 1	1		40	3	2	semi-porcelain	refined earthenware	117.8
				3.1	*2*	*semi-porcelain, plate, full profile, refined earthenware, decal, molded decoration, polychrome, decals mostly missing*		*117.8*
U 1	1		40	4	3	yellowware	refined earthenware	37.0
U 1	1		40	5	2	grey bodied stoneware	stoneware	48.2
				5.1	*1*	*grey bodied stoneware, rim, stoneware, salt-glazed, mottled slip on interior*		*26.1*
				5.2	*1*	*grey bodied stoneware, stoneware, glazed*		*22.1*
U 1	1		40	6	3	buff/pink bodied stoneware	stoneware	49.2
				6.1	*2*	*buff/pink bodied stoneware, hollowware, stoneware, glazed, molded decoration, cattail motif, no slip on interior*		*34.9*
				6.2	*1*	*buff/pink bodied stoneware, stoneware, Albany slip, TPQ 1805*		*14.3*
U 1	1		40	7	2	porcelain	porcelain	10.4
				7.1	*2*	*porcelain, hollowware, rim, porcelain, decal and gilt, polychrome*		*10.4*
U 1	1		40	8	1	doll part	porcelain	25.8
				8.1	*1*	*doll part, head, porcelain*		*25.8*
U 1	1		40	9	15	bottle	glass	1,274.4

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				9.1	*1*	*bottle, nearly complete, glass, embossed, colorless, tooled finish, "WATKINS", L 6 1/4, W 2 1/4, T 1 1/4 in, TPQ 1868*		*140.9*
				9.2	*1*	*bottle, base, glass, embossed, colorless, machine made, Illinois Glass Co., "WATK…", T 1 1/4 in, TPQ 1915*		*72.5*
				9.3	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, tooled finish, J.T. & A. Hamilton Co., "2 OZ", L 4 1/4, W 1 3/4, T 1 1/8 in, TPQ 1900*		*56.2*
				9.4	*1*	*bottle, pharmaceutical, complete, glass, embossed, green, tooled finish, patinated, "…SON", L 4 3/8, W 1 3/4, T 1 1/8 in*		*83.5*
				9.5	*1*	*bottle, finish, glass, colorless, tooled finish, brandy finish*		*59.1*
				9.6	*1*	*bottle, finish, glass, colorless, tooled finish, with stopper, ground shank and finish*		*112.9*
				9.7	*1*	*bottle, finish, glass, embossed, pale aqua, tooled finish, "MEAS…", double ring finish*		*48.4*
				9.8	*1*	*bottle, rectangular, base, glass, embossed, colorless, machine made, Illinois Glass Co., W 2 1/8, T 1 1/4 in, TPQ 1915*		*63.6*
				9.9	*1*	*bottle, round, complete, glass, embossed, colorless, machine made, Owens Bottle Co., with cork, L 4 1/2, Diam 1.75 in, TPQ 1919*		*98.6*
				9.10	*1*	*bottle, blacking/ink, complete, glass, embossed, colorless, machine made, "EASY BRIGHT POLISHES/B.F. STINSON/BUFFALO, N.Y., U.S.A.", Owens scar, L 4 5/8, W 2, T 1 3/8 in, TPQ 1905*		*157.5*
				9.11	*1*	*bottle, round, complete, glass, embossed, pale aqua, machine made, "2 1/2 FLUID OZ", L 3 11/16, Diam 2 in, TPQ 1905*		*133.2*
				9.12	*1*	*bottle, round, complete, glass, pale aqua, machine made, patinated, L 4 1/2, Diam 1.75 in, TPQ 1905*		*119.6*
				9.13	*1*	*bottle, finish, glass, colorless, machine made, TPQ 1905*		*32.4*
				9.14	*1*	*bottle, base, glass, embossed, aquamarine, mold made, "9"*		*69.0*
				9.15	*1*	*bottle, base, glass, embossed, brown, mold made, patinated, "1862", Diam 2.25 in*		*27.0*
U 1	1		40	10	3	vial	glass	44.8
				10.1	*2*	*vial, square, complete, glass, colorless, tooled finish, patinated, L 2, W 1 5/8, T 1 5/8 cm*		*27.9*
				10.2	*1*	*vial, round, complete, glass, brown, applied finish, patinated, L 1 3/4, Diam 1.75 in*		*16.9*
U 1	1		40	11	4	tableware	glass	461.1
				11.1	*1*	*tableware, base, glass, colorless, patinated, Diam 4 in*		*212.8*
				11.2	*3*	*tableware, dish, rim, glass, colorless, pressed, some fragments mend*		*248.3*
U 1	1		40	12	2	jar	glass	80.4
				12.1	*1*	*jar, rim, glass, manganese solarized, ground, opening diameter: 8cm, TPQ 1880*		*59.5*
				12.2	*1*	*jar, rim, glass, colorless, ground*		*20.9*
U 1	1		40	13	5	carnival glass	glass	106.8
				13.1	*5*	*carnival glass, glass, orange, pressed, some fragments mend, TPQ 1905*		*106.8*
U 1	1		40	14	1	unidentified	glass	2.2
				14.1	*1*	*unidentified, glass, white, convex, with apex*		*2.2*
U 1	1		40	15	5	nail	iron alloy	94.5

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				15.1	*1*	*nail, iron alloy, cut, split*		*60.3*
				15.2	*2*	*nail, iron alloy, cut*		*22.2*
				15.3	*1*	*nail, iron alloy, wire*		*6.8*
				15.4	*1*	*nail, iron alloy, indeterminate*		*5.2*
U 1	1		40	16	2	wire	iron alloy	11.4
				16.1	*2*	*wire, iron alloy, twisted*		*11.4*
U 1	1		40	17	2	unidentified hardware	iron alloy	6.7
				17.1	*2*	*unidentified hardware, iron alloy, corroded, likely wires or nails*		*6.7*
U 1	1		40	18	1	furniture element	porcelain and iron alloy	18.2
				18.1	*1*	*furniture element, drawer pull, complete, porcelain and iron alloy*		*18.2*
U 1	1		40	19	1	spoon	aluminum	9.0
				19.1	*1*	*spoon, bowl, aluminum*		*9.0*
U 1	1		40	20	1	bottle closure	iron alloy	4.5
				20.1	*1*	*bottle closure, cap, complete, iron alloy*		*4.5*
U 1	1		40	21	1	pocket knife	iron and synthetic	13.2
				21.1	*1*	*pocket knife, complete, iron and synthetic, L 6.4, W 1.5 cm*		*13.2*
U 1	1		40	22	2	jar lid and liner	zinc alloy and glass	97.0
				22.1	*1*	*jar lid and liner, complete, zinc alloy and glass, Boyd's Genuine Porcelain Lined Cap, white glass liner*		*46.0*
				22.2	*1*	*jar lid and liner, complete, zinc alloy and glass*		*51.0*
U 1	1		40	23	1	lamp	unidentified metal	268.0
				23.1	*1*	*lamp, oil, base and top, unidentified metal, Dietz, Dietz D-Lite Kerosene Lantern, Diam 6.5 in, TPQ 1923*		*268.0*
U 1	1		40	24	2	carbon rod	carbon	10.1
				24.1	*2*	*carbon rod, carbon, corroded, L 5.7, Diam 0.8 cm*		*10.1*
U 1	1		40	25	2	unidentified	aluminum	4.3
				25.1	*2*	*unidentified, aluminum, molded decoration, with floral motif*		*4.3*
U 1	1		40	26	1	hook	iron alloy	167.6
				26.1	*1*	*hook, complete, iron alloy*		*167.6*
U 1	1		40	27	2	bracket	iron alloy	31.6
U 1	1		40	28	1	architectural element	iron alloy	141.2
U 1	1		40	29	21	shell	shell	257.8

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				29.1	*5*	*shell, clam, complete, shell*		*118.5*
				29.2	*16*	*shell, clam, shell, some fragments mend*		*139.3*
U 1	1		40	30	17	faunal bone	bone	134.9
				30.1	*1*	*faunal bone, rodent, jaw, bone, nearly complete*		*3.0*
				30.2	*2*	*faunal bone, bird, femur, bone, fragments mend, both left, complete*		*2.1*
				30.3	*1*	*faunal bone, bird, femur, bone, left*		*1.5*
				30.4	*1*	*faunal bone, bird, tibia, bone, left*		*1.3*
				30.5	*2*	*faunal bone, bird, scapula, bone*		*0.5*
				30.6	*1*	*faunal bone, bird, vertebra, bone*		*0.4*
				30.7	*1*	*faunal bone, bird, rib, bone*		*0.1*
				30.8	*1*	*faunal bone, large mammal, humerus, bone*		*43.2*
				30.9	*1*	*faunal bone, large mammal, scapula, bone*		*15.0*
				30.10	*1*	*faunal bone, large mammal, epiphysis, bone, sawn*		*32.1*
				30.11	*1*	*faunal bone, large mammal, epiphysis, bone*		*4.2*
				30.12	*1*	*faunal bone, large mammal, unidentified, bone, sawn*		*11.3*
				30.13	*2*	*faunal bone, large mammal, unidentified, bone*		*14.4*
				30.14	*1*	*faunal bone, mammal, bone, calcined*		*5.8*
U 1	2		41	1	1	redware	coarse earthenware	3.6
U 1	2		41	2	13	whiteware	refined earthenware	85.5
				2.1	*1*	*whiteware, hollowware, rim, refined earthenware, transfer printed underglaze, green*		*17.2*
				2.2	*5*	*whiteware, plate, full profile, refined earthenware, gilt, molded decoration, cobalt blue, fragments mend, Diam 16 cm*		*0.0*
				2.3	*2*	*whiteware, flatware, full profile, refined earthenware, gilt, molded decoration, cobalt blue*		*29.5*
				2.4	*1*	*whiteware, tea cup, rim, refined earthenware, gilt, cobalt blue*		*15.4*
				2.5	*1*	*whiteware, hollowware, base, refined earthenware*		*13.3*
				2.6	*1*	*whiteware, flatware, rim, refined earthenware, sponged, cobalt blue*		*5.0*
				2.7	*2*	*whiteware, refined earthenware, decorated, cobalt blue*		*5.1*
U 1	2		41	3	2	semi-porcelain	refined earthenware	108.6
				3.1	*1*	*semi-porcelain, plate, full profile, refined earthenware, decal, molded decoration, polychrome, East Morrisania China Works, TPQ 1895*		*105.5*
				3.2	*1*	*semi-porcelain, flatware, rim, refined earthenware, decal*		*3.1*
U 1	2		41	4	1	grey bodied stoneware	stoneware	22.2
				4.1	*1*	*grey bodied stoneware, stoneware, glazed*		*22.2*
U 1	2		41	5	3	buff/pink bodied stoneware	stoneware	216.3

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*2*	*buff/pink bodied stoneware, hollowware, rim, stoneware, glazed, molded decoration, fragments mend, cattail motif, no slip on interior*		*81.2*
				5.2	*1*	*buff/pink bodied stoneware, jug, base, stoneware, Albany slip, slip on both interior and exterior, no slip on base, TPQ 1805*		*135.1*
U 1	2		41	6	1	vial	glass	15.3
				6.1	*1*	*vial, complete, glass, brown, tooled finish, patinated, "F/1582/1/8", L 1 5/8, Diam 1.75 in*		*15.3*
U 1	2		41	7	9	bottle	glass	494.8
				7.1	*1*	*bottle, finish, glass, brown, applied finish*		*71.2*
				7.2	*1*	*bottle, finish, glass, embossed, manganese solarized, tooled finish, TPQ 1880*		*43.3*
				7.3	*1*	*bottle, finish, glass, colorless, tooled finish*		*48.4*
				7.4	*1*	*bottle, base, glass, colorless, mold made, patinated, diamond-shaped, W 2 1/2, T 1 1/2 in*		*130.5*
				7.5	*1*	*bottle, pharmaceutical, base, glass, embossed, pale aqua, machine made, Fletcher's Castoria, "Chas. H…/CASTORIA", laxative, W 1 7/8, T 15/16 cm, TPQ 1905*		*103.7*
				7.6	*1*	*bottle, pharmaceutical, body, glass, embossed, pale aqua, mold made, Fletcher's Castoria, "CASTORIA", TPQ 1893*		*21.4*
				7.7	*1*	*bottle, pharmaceutical, body, glass, embossed, pale aqua, mold made, Fletcher's Castoria, "...FLETCHER'S", TPQ 1893*		*6.2*
				7.8	*1*	*bottle, finish, glass, colorless, machine made, TPQ 1905*		*29.1*
				7.9	*1*	*bottle, finish, glass, colorless, machine made, patinated, TPQ 1905*		*41.0*
U 1	2		41	8	1	vessel	glass	45.6
				8.1	*1*	*vessel, glass, white*		*45.6*
U 1	2		41	9	1	tableware	glass	49.8
				9.1	*1*	*tableware, hollowware, base, glass, colorless, pressed, diameter: 2 3/8"*		*49.8*
U 1	2		41	10	4	jar lid liner	glass	61.6
				10.1	*1*	*jar lid liner, complete, glass, translucent, pale aqua, Diam 2.5 in*		*35.1*
				10.2	*3*	*jar lid liner, glass, translucent, fragments mend, pale aqua, Diam 2.5 in*		*26.5*
U 1	2		41	11	2	jar	glass	57.8
				11.1	*1*	*jar, rim, glass, manganese solarized, TPQ 1880*		*34.6*
				11.2	*1*	*jar, rim, glass, colorless, ground*		*23.2*
U 1	2		41	12	2	lamp chimney	glass	16.0
				12.1	*1*	*lamp chimney, rim, glass, coggled/piecrust edge*		*10.0*
				12.2	*1*	*lamp chimney, rim, glass, pearl top*		*6.0*
U 1	2		41	13	2	wire	iron alloy	23.0
U 1	2		41	14	4	unidentified hardware	iron alloy	29.7
				14.1	*4*	*unidentified hardware, iron alloy, likely wire or nails*		*29.7*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 1	2		41	15	2	sheet metal	iron alloy	12.8
U 1	2		41	16	1	jar lid and liner	zinc alloy and glass	51.9
				16.1	*1*	*jar lid and liner, nearly complete, zinc alloy and glass, Diam 3 in*		*51.9*
U 1	2		41	17	1	horseshoe	iron alloy	522.2
				17.1	*1*	*horseshoe, roadster, complete, iron alloy, asymmetrical, L 6 3/8, W 5 1/2 in*		*522.2*
U 1	2		41	18	1	agricultural tool	iron alloy	700.0
				18.1	*1*	*agricultural tool, nearly complete, iron alloy, possible horse nail pliers, L 12 in*		*700.0*
U 1	2		41	19	1	indeterminate	iron alloy	5.0
U 1	2		41	20	1	carbon rod	carbon	4.6
				20.1	*1*	*carbon rod, carbon, corroded, L 5.7, Diam 0.8 cm*		*4.6*
U 1	2		41	21	10	shell	shell	100.1
				21.1	*10*	*shell, clam, shell, some fragments mend*		*100.1*
U 1	2		41	22	20	faunal bone	bone	319.4
				22.1	*1*	*faunal bone, large mammal, tibia, bone, split*		*154.9*
				22.2	*1*	*faunal bone, large mammal, humerus, bone, sawn*		*35.9*
				22.3	*1*	*faunal bone, large mammal, rib, bone, cut, iron stain*		*30.4*
				22.4	*2*	*faunal bone, large mammal, vertebra, bone*		*33.4*
				22.5	*1*	*faunal bone, large mammal, scapula, bone, sawn*		*14.2*
				22.6	*1*	*faunal bone, large mammal, phalanx, bone*		*4.4*
				22.7	*1*	*faunal bone, pig, mandible, bone, with incisors*		*7.0*
				22.8	*1*	*faunal bone, pig, premaxilla, bone*		*17.4*
				22.9	*1*	*faunal bone, tusk, bone*		*1.9*
				22.10	*1*	*faunal bone, bird, carpometacarpus, bone*		*4.6*
				22.11	*1*	*faunal bone, bird, innominate, bone*		*0.6*
				22.12	*1*	*faunal bone, mammal, long bone, bone, weathered*		*5.5*
				22.13	*1*	*faunal bone, small mammal, long bone, bone*		*0.8*
				22.14	*6*	*faunal bone, mammal, bone*		*8.4*
U 2	1		42	1	7	pearlware	refined earthenware	52.1
				1.1	*1*	*pearlware, plate, rim, refined earthenware, painted, shell edge, green, TPQ 1780*		*8.6*
				1.2	*6*	*pearlware, plate, rim, refined earthenware, painted, shell edge, blue, some fragments mend, TPQ 1780*		*43.5*
U 2	1		42	2	17	whiteware	refined earthenware	45.3

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				2.1	*3*	*whiteware, refined earthenware, undecorated*		*14.3*
				2.2	*2*	*whiteware, flatware, refined earthenware, hand painted, polychrome*		*10.9*
				2.3	*1*	*whiteware, refined earthenware, banded, polychrome*		*1.4*
				2.4	*1*	*whiteware, refined earthenware, cat's eye, polychrome*		*1.8*
				2.5	*1*	*whiteware, flatware, rim, refined earthenware, transfer printed underglaze, mulberry*		*1.0*
				2.6	*4*	*whiteware, flatware, rim and body, refined earthenware, transfer printed underglaze, brown*		*6.4*
				2.7	*4*	*whiteware, refined earthenware, transfer printed underglaze, blue*		*7.2*
				2.8	*1*	*whiteware, hollowware, base, refined earthenware, transfer printed underglaze, blue*		*2.3*
U 2	1		42	3	2	ironstone	refined earthenware	30.4
				3.1	*2*	*ironstone, plate, rim, refined earthenware, molded decoration, foliage motif*		*30.4*
U 2	1		42	4	1	grey bodied stoneware	stoneware	23.0
				4.1	*1*	*grey bodied stoneware, stoneware, Albany slip & salt-glazed, iron oxide dip, TPQ 1805*		*23.0*
U 2	1		42	5	1	porcelain	porcelain	1.5
				5.1	*1*	*porcelain, porcelain, hand painted, cobalt blue*		*1.5*
U 2	1		42	6	1	bottle	glass	2.7
				6.1	*1*	*bottle, glass, amber*		*2.7*
U 2	1		42	7	11	window	glass	31.7
				7.1	*2*	*window, glass, aquamarine*		*3.2*
				7.2	*9*	*window, glass, pale aqua*		*28.5*
U 2	1		42	8	2	tobacco pipe	ball clay-white	2.6
				8.1	*1*	*tobacco pipe, mouthpiece, ball clay-white, 6/64 in*		*1.9*
				8.2	*1*	*tobacco pipe, bowl, ball clay-white*		*0.7*
U 2	1		42	9	1	handle	bone, copper, and iron alloy	26.6
				9.1	*1*	*handle, bone, copper, and iron alloy, fragment, with copper pins, possibly to a utensil, L 7.6, W 1.6, T 1.3*		*26.6*
U 2	1		42	10	1	knife	iron alloy	46.6
				10.1	*1*	*knife, iron alloy, fragment, likely domestic, L 13.0, W 2.2 cm*		*46.6*
U 2	1		42	11	1	button	iron alloy and copper	0.9
				11.1	*1*	*button, four hole sew through, iron alloy and copper, Diam 1.6 cm*		*0.9*
U 2	1		42	12	1	fork	iron alloy	9.5
				12.1	*1*	*fork, tine and neck, iron alloy, W 1.7 cm*		*9.5*
U 2	1		42	13	1	furniture element	iron alloy	17.9
				13.1	*1*	*furniture element, drawer pull, iron alloy, L 6.5, T 0.5 cm*		*17.9*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 2	1		42	14	1	spike	iron alloy	146.5
				14.1	*1*	*spike, complete, iron alloy, L 14.0, W 2.3 cm*		*146.5*
U 2	1		42	15	21	nail	iron alloy	216.0
				15.1	*20*	*nail, iron alloy, cut*		*212.4*
				15.2	*1*	*nail, iron alloy, wire*		*3.6*
U 2	1		42	16	1	strap	iron alloy	77.1
				16.1	*1*	*strap, iron alloy, W 3.1, T 0.4 cm*		*77.1*
U 2	1		42	17	1	concrete	concrete	10.2
U 2	1		42	18	5	shell	shell	119.0
				18.1	*5*	*shell, clam, shell*		*119.0*
U 2	1		42	19	8	faunal bone	bone	34.6
				19.1	*1*	*faunal bone, small mammal, scapula, bone*		*1.2*
				19.2	*1*	*faunal bone, medium mammal, rib, bone*		*3.3*
				19.3	*1*	*faunal bone, medium mammal, long bone, bone, cut*		*4.2*
				19.4	*1*	*faunal bone, medium mammal, epiphysis, bone*		*2.9*
				19.5	*1*	*faunal bone, large mammal, mandible, bone*		*7.5*
				19.6	*3*	*faunal bone, mammal, unidentified, bone*		*15.5*
U 2	2		43	1	5	pearlware	refined earthenware	15.5
				1.1	*1*	*pearlware, refined earthenware, decorated, cobalt blue, TPQ 1775*		*0.6*
				1.2	*3*	*pearlware, plate, rim, refined earthenware, edged, shell edge, cobalt blue, TPQ 1780*		*2.5*
				1.3	*1*	*pearlware, flatware, base, refined earthenware, transfer printed underglaze, cobalt blue, TPQ 1783*		*12.4*
U 2	2		43	2	12	whiteware	refined earthenware	24.8
				2.1	*5*	*whiteware, refined earthenware, undecorated*		*14.4*
				2.2	*5*	*whiteware, refined earthenware, hand painted, polychrome*		*7.2*
				2.3	*1*	*whiteware, refined earthenware, transfer printed underglaze, black*		*0.8*
				2.4	*1*	*whiteware, flatware, rim, refined earthenware, flow transfer print, black*		*2.4*
U 2	2		43	3	2	window	glass	2.7
				3.1	*1*	*window, glass, aquamarine*		*1.2*
				3.2	*1*	*window, glass, pale aqua*		*1.5*
U 2	2		43	4	1	coin	copper alloy	2.9
				4.1	*1*	*coin, US one-cent, copper alloy, Indian Head Penny, Diam 1.9 cm, TPQ 1888*		*2.9*
U 2	2		43	5	1	tobacco pipe	ball clay-white	1.2

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*1*	*tobacco pipe, stem, ball clay-white, 5/64 in, TPQ 1720*		*1.2*
U 2	2		43	6	7	nail	iron alloy	59.3
				6.1	*6*	*nail, iron alloy, cut*		*48.1*
				6.2	*1*	*nail, iron alloy, indeterminate*		*11.2*
U 2	2		43	7	1	strap	copper alloy	0.6
U 2	2		43	8	5	faunal bone	bone	17.5
				8.1	*1*	*faunal bone, rodent, tooth, bone*		*0.4*
				8.2	*1*	*faunal bone, large mammal, vertebra, bone*		*7.3*
				8.3	*1*	*faunal bone, mammal, epiphysis, bone*		*1.2*
				8.4	*2*	*faunal bone, mammal, unidentified, bone*		*8.6*
U 2	2		43	9	2	shell	shell	3.1
				9.1	*2*	*shell, clam, shell*		*3.1*
U 3	1		44	1	1	whiteware	refined earthenware	2.8
U 3	1		44	2	2	jar	glass	40.4
				2.1	*2*	*jar, pharmaceutical, base, glass, embossed, white, machine molded, Musterole Co., fragments mend, "MUSTEROLE CLEVELAND", TPQ 1926*		*40.4*
U 3	1		44	3	2	bottle	glass	9.1
				3.1	*1*	*bottle, glass, pale aqua, mold made*		*8.1*
				3.2	*1*	*bottle, glass, amber*		*1.0*
U 3	1		44	4	5	vessel	glass	12.7
				4.1	*3*	*vessel, glass, colorless*		*6.7*
				4.2	*1*	*vessel, rim, glass, ribbed, colorless*		*1.4*
				4.3	*1*	*vessel, glass, paneled, colorless, mold made, embossed with floral motif*		*4.6*
U 3	1		44	5	4	window	glass	18.2
				5.1	*4*	*window, glass, patinated*		*18.2*
U 3	1		44	6	2	nail	iron alloy	10.0
				6.1	*2*	*nail, iron alloy, cut*		*10.0*
U 3	1		44	7	1	lamp chimney	glass	0.4
U 3	1		44	8	1	mortar sample	mortar	147.4
U 3	1		44	9	1	brick	brick	1,740.0
				9.1	*1*	*brick, brick, handmade, mortar inclusions, L 20.5, W 9.3, T 4.6 cm*		*1,740.0*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 3	1		44	10	1	faunal bone	bone	2.3
				10.1	*1*	*faunal bone, long bone, bone*		*2.3*
U 3	1		44	11	1	shell	shell	8.7
				11.1	*1*	*shell, clam, shell*		*8.7*
U 3	2		45	1	15	whiteware	refined earthenware	20.6
				1.1	*11*	*whiteware, refined earthenware, undecorated*		*12.5*
				1.2	*1*	*whiteware, refined earthenware, undecorated, burned*		*1.8*
				1.3	*1*	*whiteware, rim, refined earthenware, decorated, green*		*2.6*
				1.4	*1*	*whiteware, rim, refined earthenware, decorated, blue*		*1.5*
				1.5	*1*	*whiteware, flatware, foot, refined earthenware, flow transfer print, cobalt blue*		*2.2*
U 3	2		45	2	3	white bodied	refined earthenware	3.1
				2.1	*1*	*white bodied, refined earthenware*		*0.6*
				2.2	*2*	*white bodied, refined earthenware, burned*		*2.5*
U 3	2		45	3	9	ironstone	refined earthenware	59.7
				3.1	*5*	*ironstone, refined earthenware*		*21.5*
				3.2	*1*	*ironstone, plate, full profile, refined earthenware*		*16.1*
				3.3	*1*	*ironstone, tea cup, base, refined earthenware, Diam 5 cm*		*18.0*
				3.4	*1*	*ironstone, hollowware, rim, refined earthenware, molded decoration*		*2.5*
				3.5	*1*	*ironstone, hollowware, rim, refined earthenware*		*1.6*
U 3	2		45	4	1	American "majolica"	refined earthenware	1.0
				4.1	*1*	*American "majolica", refined earthenware, decorated, molded decoration, polychrome, TPQ 1851*		*1.0*
U 3	2		45	5	1	buff/pink bodied stoneware	stoneware	57.8
				5.1	*1*	*buff/pink bodied stoneware, stoneware, Albany slip & salt-glazed, TPQ 1805*		*57.8*
U 3	2		45	6	3	porcelain	porcelain	10.0
				6.1	*2*	*porcelain, porcelain, undecorated*		*8.3*
				6.2	*1*	*porcelain, porcelain, banded, polychrome*		*1.7*
U 3	2		45	7	4	bottle	glass	23.2
				7.1	*2*	*bottle, glass, embossed, pale aqua, mold made*		*14.2*
				7.2	*2*	*bottle, glass, pale aqua, mold made*		*9.0*
U 3	2		45	8	1	vial	glass	3.9
				8.1	*1*	*vial, finish, glass, mold blown*		*3.9*
U 3	2		45	9	1	stopper	glass	12.6

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				9.1	*1*	*stopper, nearly complete, glass, colorless, patinated, Diam 2.5 cm*		*12.6*
U 3	2		45	10	7	vessel	glass	8.6
				10.1	*3*	*vessel, glass, pale aqua, patinated*		*3.6*
				10.2	*4*	*vessel, glass, colorless, patinated*		*5.0*
U 3	2		45	11	40	window	glass	96.1
				11.1	*1*	*window, glass, aquamarine, T 0.1 cm*		*1.2*
				11.2	*27*	*window, glass, pale aqua, majority is patinated*		*79.9*
				11.3	*12*	*window, glass, colorless, majority is patinated*		*15.0*
U 3	2		45	12	5	lamp chimney	glass	3.2
				12.1	*4*	*lamp chimney, body, glass, TPQ 1850*		*1.7*
				12.2	*1*	*lamp chimney, rim, glass, edged, petal top*		*1.5*
U 3	2		45	13	1	unidentified	glass	1.4
U 3	2		45	14	1	tobacco pipe	ball clay-white	2.5
				14.1	*1*	*tobacco pipe, stem, ball clay-white, 5/64 in, TPQ 1720*		*2.5*
U 3	2		45	15	1	plaster	plaster	1.1
U 3	2		45	16	1	brick	brick	0.5
				16.1	*1*	*brick, brick, burned*		*0.5*
U 3	2		45	17	2	coal, clinker, slag	coal	4.0
U 3	2		45	18	1	screw	iron alloy	6.6
U 3	2		45	19	1	bolt	iron alloy	16.2
U 3	2		45	20	1	bracket	iron alloy	20.5
				20.1	*1*	*bracket, complete, iron alloy, W 4.2 cm*		*20.5*
U 3	2		45	21	1	wire	iron alloy	3.0
				21.1	*1*	*wire, iron alloy, twisted*		*3.0*
U 3	2		45	22	26	nail	iron alloy	121.5
				22.1	*25*	*nail, iron alloy, cut*		*120.0*
				22.2	*1*	*nail, iron alloy, indeterminate*		*1.5*
U 3	2		45	23	1	caster	iron alloy	104.6
U 3	2		45	24	1	unidentified	cast iron	5.4
U 3	2		45	25	6	shell	shell	36.5

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				25.1	*4*	*shell, clam, shell*		*32.8*
				25.2	*2*	*shell, shell*		*3.7*
U 3	2		45	26	18	faunal bone	bone	67.5
				26.1	*2*	*faunal bone, ungulate, mandible, bone, fragments mend*		*20.1*
				26.2	*1*	*faunal bone, mandible, bone*		*3.7*
				26.3	*3*	*faunal bone, long bone, bone, sawn, some fragments mend*		*3.5*
				26.4	*1*	*faunal bone, long bone, bone*		*2.0*
				26.5	*1*	*faunal bone, small mammal, phalanx, bone*		*0.3*
				26.6	*2*	*faunal bone, unidentified, bone*		*30.6*
				26.7	*8*	*faunal bone, unidentified, bone*		*7.3*
U 3	3		46	1	1	whiteware	refined earthenware	0.5
U 3	3		46	2	3	ironstone	refined earthenware	25.4
				2.1	*3*	*ironstone, plate, rim, refined earthenware, molded decoration, frags. were mended, foliage motif, lily of the valley, TPQ 1860*		*25.4*
U 3	3		46	3	3	porcelain	porcelain	42.0
				3.1	*1*	*porcelain, finial, porcelain, molded decoration*		*20.4*
				3.2	*1*	*porcelain, hollowware, rim, porcelain*		*13.3*
				3.3	*1*	*porcelain, base, porcelain*		*8.3*
U 3	3		46	4	1	window	glass	2.2
U 3	3		46	5	1	brick	brick	2.8
U 3	3		46	6	2	nail	iron alloy	12.9
				6.1	*2*	*nail, iron alloy, cut*		*12.9*
U 3	3		46	7	1	sheet metal	iron alloy	1.5
U 3	3		46	8	2	faunal bone	bone	7.9
				8.1	*1*	*faunal bone, medium mammal, phalanx, bone*		*2.5*
				8.2	*1*	*faunal bone, unidentified, bone*		*5.4*
U 3	3		46	9	1	shell	shell	14.9
				9.1	*1*	*shell, clam, shell*		*14.9*
U 4	1		47	1	3	white bodied	refined earthenware	5.5
				1.1	*3*	*white bodied, refined earthenware, burned*		*5.5*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 4	1		47	2	14	bottle	glass	108.0
				2.1	*1*	*bottle, glass, embossed, colorless, mold made, "FLASK"*		*17.1*
				2.2	*1*	*bottle, base, glass, colorless*		*17.3*
				2.3	*12*	*bottle, glass, colorless*		*73.6*
U 4	1		47	3	1	handle	glass	29.3
				3.1	*1*	*handle, nearly complete, glass, colorless, T 0.9 cm*		*29.3*
U 4	1		47	4	9	window	glass	16.9
U 4	1		47	5	2	indeterminate	glass	5.2
U 4	1		47	6	1	button	bone	0.9
				6.1	*1*	*button, four hole sew through, complete, bone, T 0.2, Diam 1.8 cm*		*0.9*
U 4	1		47	7	1	mortar	mortar	11.7
U 4	1		47	8	1	staple	iron alloy	6.9
U 4	1		47	9	1	bolt	iron alloy	18.9
U 4	1		47	10	1	washer	iron alloy	47.4
				10.1	*1*	*washer, complete, iron alloy, inner diameter: 2.2 cm, outer diameter: 6.0 cm*		*47.4*
U 4	1		47	11	67	nail	iron alloy	334.6
				11.1	*38*	*nail, iron alloy, cut*		*205.4*
				11.2	*15*	*nail, iron alloy, wire*		*94.4*
				11.3	*14*	*nail, iron alloy, indeterminate, corroded*		*34.8*
U 4	1		47	12	3	unidentified hardware	iron alloy	214.8
U 4	1		47	13	1	cartridge case	copper alloy	0.8
				13.1	*1*	*cartridge case, .22 caliber, copper alloy*		*0.8*
U 4	1		47	14	4	shell	shell	38.0
				14.1	*1*	*shell, clam, complete, shell*		*29.1*
				14.2	*3*	*shell, clam, shell, fragment*		*8.9*
U 4	1		47	15	23	faunal bone	bone	122.3

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				15.1	*6*	*faunal bone, bird, long bone, bone*		*9.2*
				15.2	*1*	*faunal bone, bird, long bone, bone, sawn*		*2.0*
				15.3	*3*	*faunal bone, large mammal, rib, bone, sawn, some fragments mend*		*26.2*
				15.4	*2*	*faunal bone, mammal, long bone, bone, sawn*		*46.2*
				15.5	*1*	*faunal bone, mammal, long bone, bone*		*3.3*
				15.6	*1*	*faunal bone, large mammal, phalanx, bone*		*7.0*
				15.7	*1*	*faunal bone, metapodial, bone, small*		*0.3*
				15.8	*1*	*faunal bone, bone, calcined, burned*		*0.5*
				15.9	*1*	*faunal bone, large mammal, carpals/tarsals, bone*		*10.9*
				15.10	*6*	*faunal bone, unidentified, bone*		*16.7*
U 5	1		48	1	1	porcelain	porcelain	41.9
				1.1	*1*	*porcelain, rim, porcelain, "9-26-99/MAN…/MARK Imperia…/TR…/…RIAL PORCELAIN"*		*41.9*
U 5	1		48	2	5	window	glass	6.6
U 5	1		48	3	4	nail	iron alloy	34.8
				3.1	*3*	*nail, iron alloy, cut*		*24.9*
				3.2	*1*	*nail, iron alloy, wire*		*9.9*
U 5	1		48	4	1	shell	shell	11.3
				4.1	*1*	*shell, clam, shell*		*11.3*
U 5	1		48	5	5	faunal bone	bone	53.6
				5.1	*1*	*faunal bone, rodent, mandible, bone*		*2.3*
				5.2	*1*	*faunal bone, medium mammal, long bone, bone, cut*		*10.3*
				5.3	*3*	*faunal bone, mammal, unidentified, bone*		*41.0*
U 6	1		49	1	3	whiteware	refined earthenware	4.6
				1.1	*2*	*whiteware, refined earthenware, undecorated*		*4.4*
				1.2	*1*	*whiteware, refined earthenware, transfer printed underglaze, brown*		*0.2*
U 6	1		49	2	2	bottle	glass	34.4
				2.1	*2*	*bottle, square, base, glass, embossed, pale aqua, mold made, fragments mend, patinated*		*34.4*
U 6	1		49	3	2	vessel	glass	3.6
U 6	1		49	4	10	window	glass	25.0
				4.1	*8*	*window, glass, pale aqua*		*22.8*
				4.2	*2*	*window, glass, colorless*		*2.2*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 6	1		49	5	7	nail	iron alloy	83.4
				5.1	*1*	*nail, iron alloy, cut, split, L 15.2 cm*		*44.3*
				5.2	*4*	*nail, iron alloy, cut*		*23.3*
				5.3	*2*	*nail, iron alloy, wire*		*15.8*
U 6	1		49	6	1	horseshoe	iron alloy	140.7
U 6	1		49	7	1	strap	iron alloy	150.5
				7.1	*1*	*strap, iron alloy, with nails*		*150.5*
U 6	1		49	8	2	faunal bone	bone	20.0
				8.1	*1*	*faunal bone, large mammal, rib, bone, sawn*		*12.8*
				8.2	*1*	*faunal bone, large mammal, unidentified, bone*		*7.2*
U 6	2		50	1	1	redware	coarse earthenware	2.0
				1.1	*1*	*redware, flower pot, base, coarse earthenware*		*2.0*
U 6	2		50	2	3	whiteware	refined earthenware	4.1
				2.1	*2*	*whiteware, refined earthenware, undecorated*		*1.9*
				2.2	*1*	*whiteware, refined earthenware, transfer printed underglaze, blue*		*2.2*
U 6	2		50	3	2	porcelain	porcelain	4.9
				3.1	*1*	*porcelain, porcelain, undecorated*		*3.0*
				3.2	*1*	*porcelain, rim, porcelain, hand painted, cobalt blue*		*1.9*
U 6	2		50	4	1	vessel	glass	5.3
				4.1	*1*	*vessel, glass, colorless, patinated*		*5.3*
U 6	2		50	5	1	window	glass	0.3
U 6	2		50	6	1	rod	iron alloy	35.9
				6.1	*1*	*rod, square, iron alloy*		*35.9*
U 6	2		50	7	1	screw	iron alloy	3.6
U 6	2		50	8	7	nail	iron alloy	25.3
				8.1	*7*	*nail, iron alloy, cut*		*25.3*
U 6	2		50	9	1	clinker	clinker	0.6
U 6	2		50	10	1	shell	shell	3.9
				10.1	*1*	*shell, clam, shell*		*3.9*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 6	2		50	11	3	faunal bone	bone	31.3
				11.1	*1*	*faunal bone, large mammal, epiphysis, bone, sawn*		*26.9*
				11.2	*1*	*faunal bone, medium mammal, rib, bone*		*2.8*
				11.3	*1*	*faunal bone, bird, tarsometatarsus, bone*		*1.6*
U 7	1		51	1	31	ironstone	refined earthenware	633.3
				1.1	*1*	*ironstone, saucer, nearly complete, refined earthenware, John Maddock & Sons Ltd., ROYAL/STONE CHINA/MADDOCK & CO/BURSLEM EMGLAND/TRADE MARK, Diam 15.5 cm, TPQ 1906*		*224.2*
				1.2	*1*	*ironstone, flatware, base, refined earthenware, Mount Clemens Pottery Co.*		*17.9*
				1.3	*4*	*ironstone, saucer, full profile, refined earthenware, fragments mend, Diam 15.5 cm*		*134.5*
				1.4	*2*	*ironstone, flatware, full profile, refined earthenware, fragments mend, Diam 14 cm*		*72.4*
				1.5	*1*	*ironstone, saucer, rim, refined earthenware*		*34.0*
				1.6	*5*	*ironstone, saucer, full profile, refined earthenware, some fragments mend, overglaze decoration missing*		*78.2*
				1.7	*2*	*ironstone, flatware, rim, refined earthenware, fragments mend, decal missing*		*30.8*
				1.8	*1*	*ironstone, flatware, rim, refined earthenware, gilt, gold*		*4.2*
				1.9	*14*	*ironstone, refined earthenware*		*37.1*
U 7	1		51	2	8	semi-porcelain	refined earthenware	88.5
				2.1	*2*	*semi-porcelain, soup plate, full profile, refined earthenware, edged, polychrome, decal missing*		*66.7*
				2.2	*1*	*semi-porcelain, hollowware, handle, refined earthenware*		*3.8*
				2.3	*5*	*semi-porcelain, refined earthenware*		*18.0*
U 7	1		51	3	2	white bodied	refined earthenware	7.3
U 7	1		51	4	2	buff bodied	coarse earthenware	94.9
				4.1	*2*	*buff bodied, hollowware, rim, coarse earthenware, slip decorated, molded decoration, green, floral motif*		*94.9*
U 7	1		51	5	10	buff/pink bodied stoneware	stoneware	274.7
				5.1	*10*	*buff/pink bodied stoneware, jug, stoneware, Albany slip, some fragments mend, rim, handle, and body; slip on both interior and exterior, TPQ 1805*		*274.7*
U 7	1		51	6	16	bottle	glass	1,686.1

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				6.1	*4*	*bottle, food, base and body, glass, embossed, colorless, The Charles E. Hires Co., some fragments mend, "HIRES HOUSEHOLD EXTRACT/MANUFACTURED BY THE CHARLES E. HIRES Co./…HIA, P.A./U.S.A.", TPQ 1905*		*88.7*
				6.2	*1*	*bottle, milk, finish, glass, embossed, colorless, machine made, TPQ 1910*		*174.7*
				6.3	*1*	*bottle, rectangular, base, glass, embossed, colorless, machine made, Illinois Glass Co., 1915-1929, TPQ 1915*		*12.9*
				6.4	*1*	*bottle, jug, complete, glass, embossed, colorless, machine made, Hazel-Atlas Glass Co., L 8, W 2 5/8 in, TPQ 1923*		*389.4*
				6.5	*1*	*bottle, base, glass, paneled, colorless, machine made, Hazel-Atlas Glass Co., Diam 2 in, TPQ 1923*		*59.8*
				6.6	*1*	*bottle, round, base, glass, embossed, colorless, machine made, Owens Bottle Co., TPQ 1926*		*62.3*
				6.7	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, machine made, Owens-Illinois Glass Co., "3iii", TPQ 1929*		*107.0*
				6.8	*1*	*bottle, soda, base, glass, embossed, colorless, machine made, E. J. Dossin, ""THE TASTE TELLS'/REGISTERED CAPACITY 1…/E. J. DOSSIN/EJD/DETROIT, MICH.", TPQ 1922*		*83.7*
				6.9	*1*	*bottle, rectangular, complete, glass, embossed, colorless, machine made, L 7 1/4, W 2 3/4, T 1 3/4 in, TPQ 1905*		*366.0*
				6.10	*1*	*bottle, base, glass, embossed, colorless, machine made, "8", TPQ 1905*		*112.2*
				6.11	*1*	*bottle, finish, glass, colorless, machine made, TPQ 1905*		*28.3*
				6.12	*1*	*bottle, body, glass, embossed, pale aqua, mold made, "…ALE/BOTTLING CO./WORCESTER, MASS./CONTENTS/1 PINT 8.12 FLU…"*		*183.0*
				6.13	*1*	*bottle, pharmaceutical, body, glass, embossed, colorless, mold made, "DR. H. C. LE…/FAMILY ME…"*		*18.1*
U 7	1		51	7	10	jar	glass	569.6
				7.1	*2*	*jar, cosmetic, complete, glass, white, machine made, "HAIR GROOM", with metal lids, 1 with razor blade inside, L 2 3/4, Diam 2 in, TPQ 1905*		*268.6*
				7.2	*1*	*jar, rectangular, complete, glass, embossed, colorless, machine made, ground rim, with metal lid, L 2 1/4, W 1, T 1 cm, TPQ 1905*		*29.5*
				7.3	*1*	*jar, complete, glass, embossed, colorless, machine made, Owens Bottle Co., L 2.5, W 1 1/2, T 3/4 in, TPQ 1923*		*27.8*
				7.4	*1*	*jar, pharmaceutical, complete, glass, embossed, colorless, machine made, Bayer, Owens Bottle Co., with metal lid, L 3 7/8, W 2, T 1 1/4 in, TPQ 1925*		*82.4*
				7.5	*1*	*jar, cosmetic, complete, glass, embossed, white, machine made, Pond's, with green metal lid, L 2, W 1 3/4, T 1 3/8 in*		*89.6*
				7.6	*2*	*jar, salve pot, complete, glass, white, diameter: 1 13/16 in*		*61.1*
				7.7	*1*	*jar, food, finish, glass, colorless, threaded, "FRUIT-A-TIVES", with metal lid*		*5.3*
				7.8	*1*	*jar, finish, glass, colorless, threaded*		*5.3*
U 7	1		51	8	1	jar closure	glass	46.0
				8.1	*1*	*jar closure, lightning type, complete, glass, colorless, diameter: 2 1/4 in*		*46.0*
U 7	1		51	9	1	jar lid liner	glass	4.8
				9.1	*1*	*jar lid liner, glass, white, Mason*		*4.8*
U 7	1		51	10	1	funnel	glass	27.2

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				10.1	*1*	*funnel, glass, molded decoration, dendritic pattern*		*27.2*
U 7	1		51	11	8	vessel	glass	87.5
				11.1	*4*	*vessel, glass, colorless, pressed*		*30.0*
				11.2	*1*	*vessel, glass, embossed, colorless*		*5.1*
				11.3	*1*	*vessel, rim, glass, colorless*		*31.6*
				11.4	*1*	*vessel, glass, ribbed, colorless*		*7.5*
				11.5	*1*	*vessel, base, glass, molded decoration, colorless*		*13.3*
U 7	1		51	12	3	window	glass	6.5
U 7	1		51	13	1	marble	glass	6.2
				13.1	*1*	*marble, glass, polychrome, white and orange, Diam 1.6 cm*		*6.2*
U 7	1		51	14	1	buckle	brass and iron	10.0
				14.1	*1*	*buckle, complete, brass and iron, with iron prong, L 2.9, W 2.7 cm*		*10.0*
U 7	1		51	15	1	adornment	lead alloy	19.0
				15.1	*1*	*adornment, lead alloy, flower, T 0.3, Diam 2.8 cm*		*19.0*
U 7	1		51	16	1	toy car	iron alloy	192.0
				16.1	*1*	*toy car, iron alloy, yellow paint missing, Ford Model A, L 9.4, W 3.1 cm, TPQ 1928*		*192.0*
U 7	1		51	17	7	nail	iron alloy	150.1
				17.1	*2*	*nail, iron alloy, cut*		*58.0*
				17.2	*5*	*nail, iron alloy, indeterminate, corroded*		*92.1*
U 7	1		51	18	1	bolt and washer	iron alloy	60.7
U 7	1		51	19	2	bolt	iron alloy	78.9
U 7	1		51	20	1	bolt and nut	stainless steel	78.6
U 7	1		51	21	1	tube	copper alloy	12.2
U 7	1		51	22	1	hinge	iron alloy	297.3
				22.1	*1*	*hinge, complete, iron alloy, L 5 3/4, W 2 1/4 in*		*297.3*
U 7	1		51	23	1	lock/lock part	iron and copper	185.0
U 7	1		51	24	2	handle	iron alloy	449.8
				24.1	*1*	*handle, milk can, complete, iron alloy, with hinge, L 4, W 2 1/2 in*		*249.1*
				24.2	*1*	*handle, milk can, complete, iron alloy, L 4 1/2, W 2 1/4 cm*		*200.7*
U 7	1		51	25	3	spring	iron alloy	107.1

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 7	1		51	26	1	chain	iron alloy	47.9
U 7	1		51	27	1	plate	iron alloy	214.8
				27.1	*1*	*plate, complete, iron alloy, with nail*		*214.8*
U 7	1		51	28	1	furniture element	stainless steel	75.0
				28.1	*1*	*furniture element, complete, stainless steel*		*75.0*
U 7	1		51	29	1	scissors	iron alloy	29.9
U 7	1		51	30	1	wrench	iron alloy	29.7
U 7	1		51	31	1	unidentified hardware	iron alloy	143.2
U 7	1		51	32	1	bottle closure	aluminum	1.6
				32.1	*1*	*bottle closure, pharmaceutical, complete, aluminum, The American Medicinal Spirits Company, Prohibition-era medicinal alcohol, Diam 2.9 cm, TPQ 1920*		*1.6*
U 7	1		51	33	1	bottle closure	iron alloy	3.3
U 7	1		51	34	1	jar lid and liner	zinc alloy and glass	43.3
				34.1	*1*	*jar lid and liner, complete, zinc alloy and glass, Ball, white liner, "GENUINE ZINC CAP/FOR BALL MASON JARS", Diam 3 in, TPQ 1930*		*43.3*
U 7	1		51	35	1	rivet	aluminum	1.1
				35.1	*1*	*rivet, aluminum, "U-C.F. CORP., Diam 1.2 cm*		*1.1*
U 7	1		51	36	1	machine part	ceramic and iron alloy	83.6
				36.1	*1*	*machine part, spark plug, ceramic and iron alloy, Champion, "CHAMPION X/REG. U.S. PAT. OFF.", for Ford cars, TPQ 1911*		*83.6*
U 7	1		51	37	2	vacuum tube	composite	91.2
				37.1	*1*	*vacuum tube, radio, complete, composite, RCA Cunningham, "RCA/F 4/Cunningham Radiotron", TPQ 1934*		*39.9*
				37.2	*1*	*vacuum tube, complete, composite, RCA Cunningham, "RCA/F 5/Cunningham Radiotron", TPQ 1934*		*51.3*
U 7	1		51	38	10	faunal bone	bone	26.0
				38.1	*8*	*faunal bone, bone*		*21.6*
				38.2	*2*	*faunal bone, bone, calcined*		*4.4*
U 7	2		52	1	2	redware	coarse earthenware	19.3
				1.1	*2*	*redware, coarse earthenware, fragments mend*		*19.3*
U 7	2		52	2	3	whiteware	refined earthenware	4.2
				2.1	*3*	*whiteware, refined earthenware, hand painted, polychrome*		*4.2*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 7	2		52	3	5	ironstone	refined earthenware	45.7
				3.1	*2*	*ironstone, plate, rim, refined earthenware, fragments mend*		*26.0*
				3.2	*3*	*ironstone, refined earthenware*		*19.7*
U 7	2		52	4	4	semi-porcelain	refined earthenware	13.4
				4.1	*2*	*semi-porcelain, plate, rim, refined earthenware, edged, fragments mend*		*9.4*
				4.2	*1*	*semi-porcelain, flatware, rim, refined earthenware*		*3.1*
				4.3	*1*	*semi-porcelain, refined earthenware*		*0.9*
U 7	2		52	5	1	yellowware	refined earthenware	6.2
				5.1	*1*	*yellowware, flatware, rim, refined earthenware, banded, blue*		*6.2*
U 7	2		52	6	2	grey bodied stoneware	stoneware	20.6
				6.1	*1*	*grey bodied stoneware, stoneware, Albany slip & salt-glazed, TPQ 1805*		*13.5*
				6.2	*1*	*grey bodied stoneware, base, stoneware, Albany slip, glaze missing, TPQ 1805*		*7.1*
U 7	2		52	7	1	window	glass	1.6
U 7	2		52	8	1	nail	iron alloy	10.0
				8.1	*1*	*nail, iron alloy, cut*		*10.0*
U 7	2		52	9	1	bolt	iron alloy	75.9
U 7	2		52	10	4	faunal bone	bone	27.3
				10.1	*2*	*faunal bone, unidentified, bone*		*4.7*
				10.2	*1*	*faunal bone, unidentified, bone, calcined*		*3.7*
				10.3	*1*	*faunal bone, large mammal, unidentified, bone*		*18.9*
U 8	1		53	1	4	window	glass	10.7
U 8	1		53	2	1	bell	bronze	32.2
				2.1	*1*	*bell, desk bell, dome, bronze*		*32.2*
U 8	1		53	3	34	nail	iron alloy	158.8
				3.1	*29*	*nail, iron alloy, cut*		*138.7*
				3.2	*1*	*nail, iron alloy, wire*		*5.4*
				3.3	*4*	*nail, iron alloy, indeterminate*		*14.7*
U 8	1		53	4	1	unidentified hardware	iron alloy	76.9
U 8	1		53	5	1	shell	shell	2.6
				5.1	*1*	*shell, clam, shell*		*2.6*

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

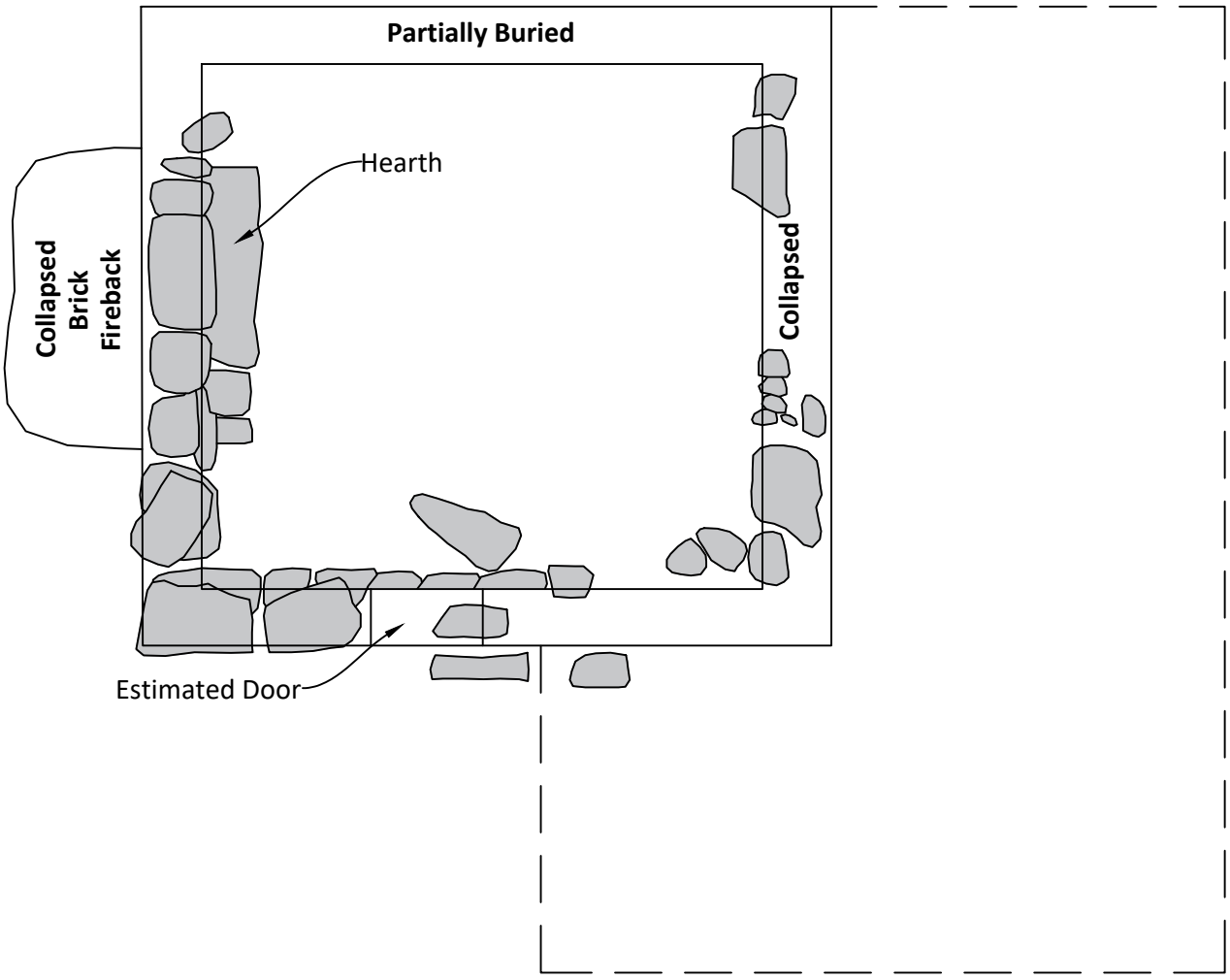
Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 8	1		53	6	1	faunal bone	bone	2.6
				6.1	*1*	*faunal bone, small mammal, long bone, bone*		*2.6*
U 8	2		54	1	2	redware	coarse earthenware	21.6
				1.1	*2*	*redware, flower pot, full profile, coarse earthenware, fragments mend*		*21.6*
U 8	2		54	2	1	whiteware	refined earthenware	1.4
				2.1	*1*	*whiteware, hollowware, refined earthenware, transfer printed underglaze, blue*		*1.4*
U 8	2		54	3	1	semi-porcelain	refined earthenware	6.7
				3.1	*1*	*semi-porcelain, rim, refined earthenware, weathered*		*6.7*
U 8	2		54	4	10	nail	iron alloy	194.4
				4.1	*10*	*nail, iron alloy, cut*		*194.4*
U 8	2		54	5	1	shell	shell	42.4
				5.1	*1*	*shell, clam, shell*		*42.4*
U 8	2		54	6	18	faunal bone	bone	259.4
				6.1	*1*	*faunal bone, large mammal, pelvis/pelvic, bone, sawn*		*119.8*
				6.2	*4*	*faunal bone, large mammal, rib, bone, sawn, some fragments mend*		*71.7*
				6.3	*2*	*faunal bone, large mammal, long bone, bone, sawn, fragments mend*		*15.1*
				6.4	*7*	*faunal bone, mammal, unidentified, bone, sawn*		*30.6*
				6.5	*1*	*faunal bone, mammal, long bone, bone*		*16.1*
				6.6	*1*	*faunal bone, medium mammal, rib, bone*		*2.0*
				6.7	*1*	*faunal bone, large mammal, phalanx, bone*		*2.9*
				6.8	*1*	*faunal bone, bird, unidentified, bone*		*1.2*
U 8	3		55	1	3	whiteware	refined earthenware	1.6
				1.1	*3*	*whiteware, flatware, rim, refined earthenware, transfer printed underglaze, edged, red, fragments mend*		*1.6*
U 8	3		55	2	1	nail	iron alloy	12.3
				2.1	*1*	*nail, iron alloy, cut*		*12.3*
U 8	3		55	3	1	indeterminate	iron alloy	3.1
U 8	3		55	4	9	faunal bone	bone	46.5

533441: Phase II Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				4.1	*1*	*faunal bone, large mammal, scapula, bone, sawn, chopped*		*8.9*
				4.2	*1*	*faunal bone, large mammal, bone, sawn*		*18.9*
				4.3	*1*	*faunal bone, large mammal, rib, bone*		*9.9*
				4.4	*1*	*faunal bone, mammal, unidentified, bone, sawn*		*3.1*
				4.5	*5*	*faunal bone, mammal, unidentified, bone*		*5.7*
U 9	2		56	1	9	pearlware	refined earthenware	24.7
				1.1	*4*	*pearlware, plate, rim, refined earthenware, painted, shell edge, cobalt blue, TPQ 1780*		*18.0*
				1.2	*5*	*pearlware, refined earthenware, TPQ 1775*		*6.7*
U 9	2		56	2	5	whiteware	refined earthenware	14.2
				2.1	*3*	*whiteware, refined earthenware, undecorated*		*7.2*
				2.2	*2*	*whiteware, flatware, rim, refined earthenware, hand painted, polychrome*		*7.0*
U 9	2		56	3	7	ironstone	refined earthenware	25.7
				3.1	*2*	*ironstone, flatware, base, refined earthenware*		*15.0*
				3.2	*1*	*ironstone, hollowware, base, refined earthenware*		*3.7*
				3.3	*1*	*ironstone, flatware, rim, refined earthenware, molded decoration*		*4.7*
				3.4	*3*	*ironstone, base, refined earthenware, fragments mend, "Dieu et mon Droit Ironstone China"*		*2.3*
U 9	2		56	4	12	semi-porcelain	refined earthenware	49.5
				4.1	*3*	*semi-porcelain, refined earthenware, undecorated*		*7.9*
				4.2	*7*	*semi-porcelain, plate, full profile, refined earthenware, transfer printed underglaze, blue, some fragments mend*		*40.7*
				4.3	*2*	*semi-porcelain, refined earthenware*		*0.9*
U 9	2		56	5	1	white bodied	refined earthenware	1.7
				5.1	*1*	*white bodied, refined earthenware, burned*		*1.7*
U 9	2		56	6	1	bottle	glass	10.8
				6.1	*1*	*bottle, glass, pale aqua*		*10.8*
U 9	2		56	7	2	vessel	glass	3.3
U 9	2		56	8	2	window	glass	5.7
U 9	2		56	9	2	unidentified hardware	iron alloy	80.3
U 9	2		56	10	1	strap	iron alloy	95.6
U 9	2		56	11	2	faunal bone	bone	12.4
				11.1	*2*	*faunal bone, mammal, unidentified, bone, sawn*		*12.4*

Figures



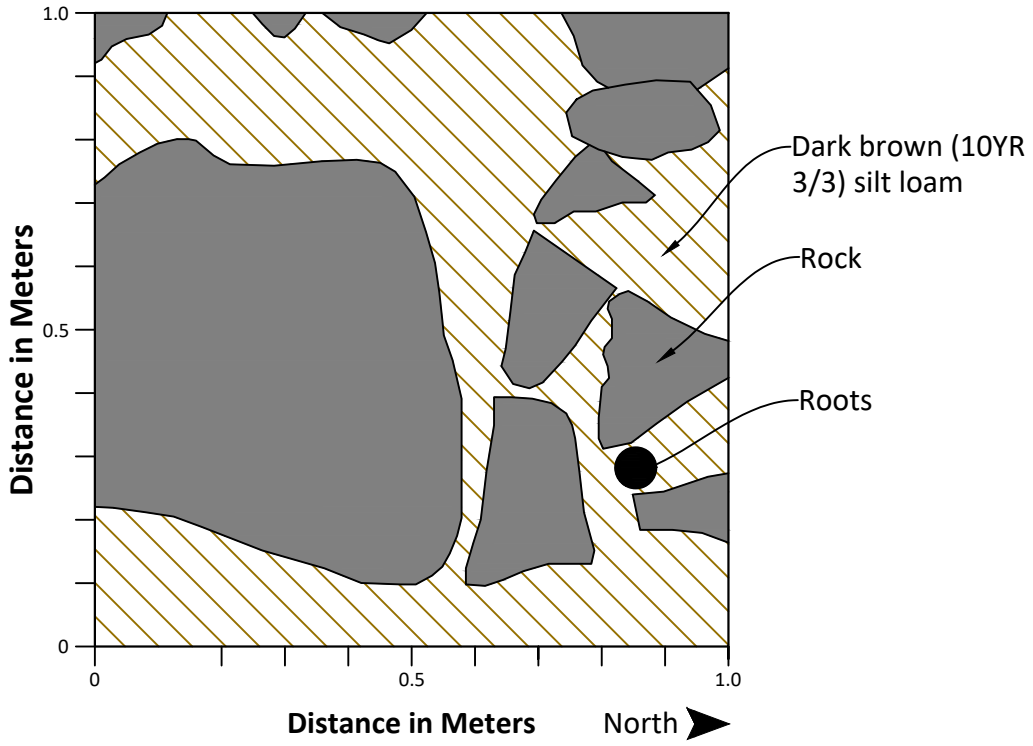
Scale 1:60

J. Houck Historic Site Residence Floor Plan

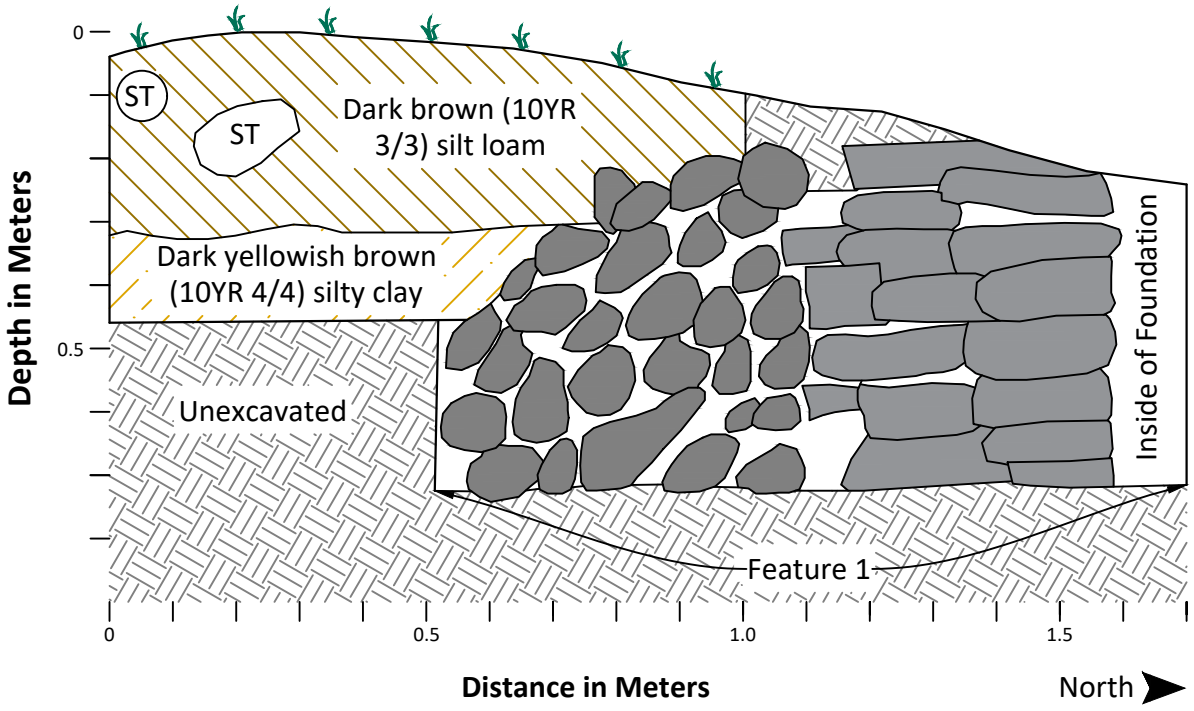
HARTGEN archeological associates inc

Figure 1

Plan View



Profile View



ST = Shovel Test

Scale 1:30

Unit 2 Plan and West Profile

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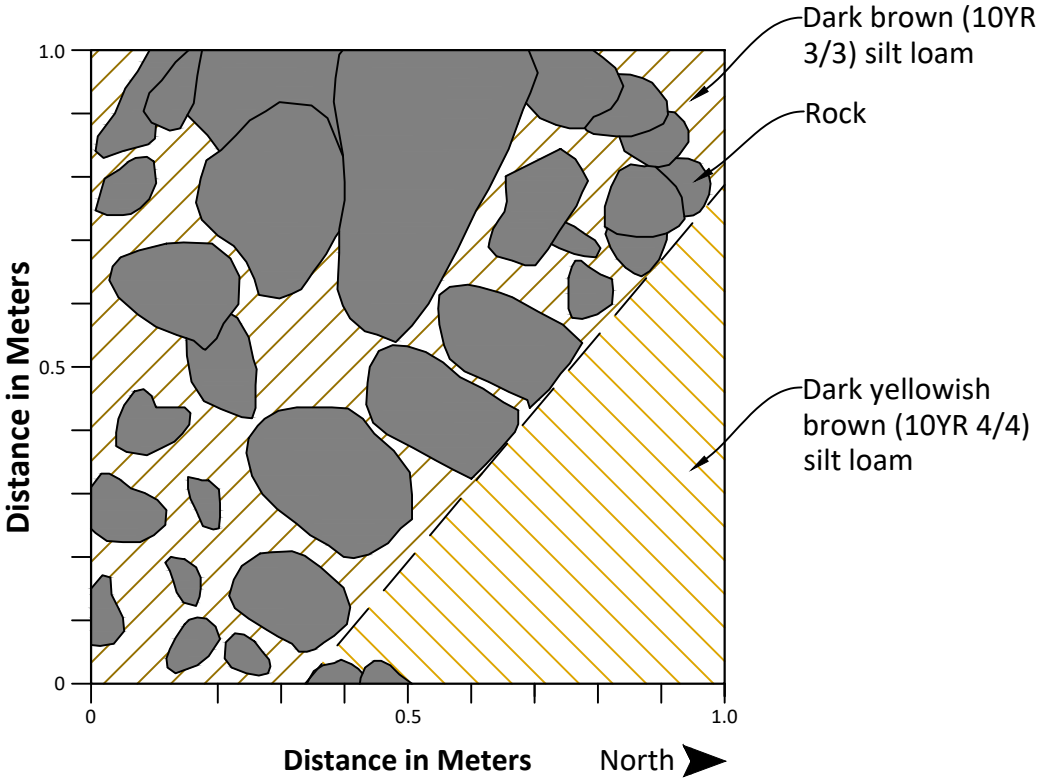
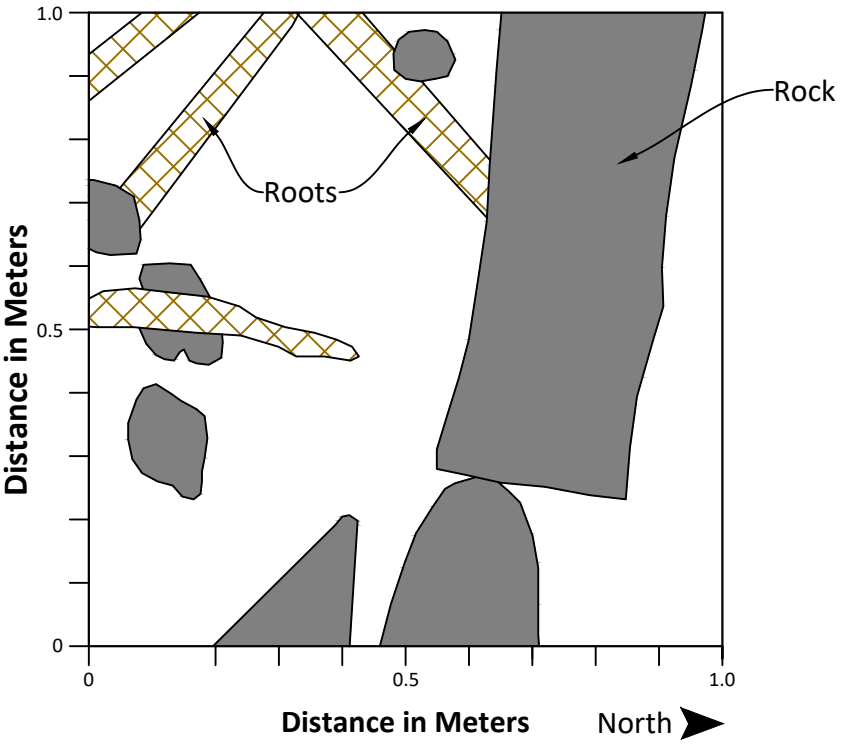
Figure 2

Unit 4 Plan View



Unit 5 Plan View



Scale 1:30

Units 4 and 5 Plan View

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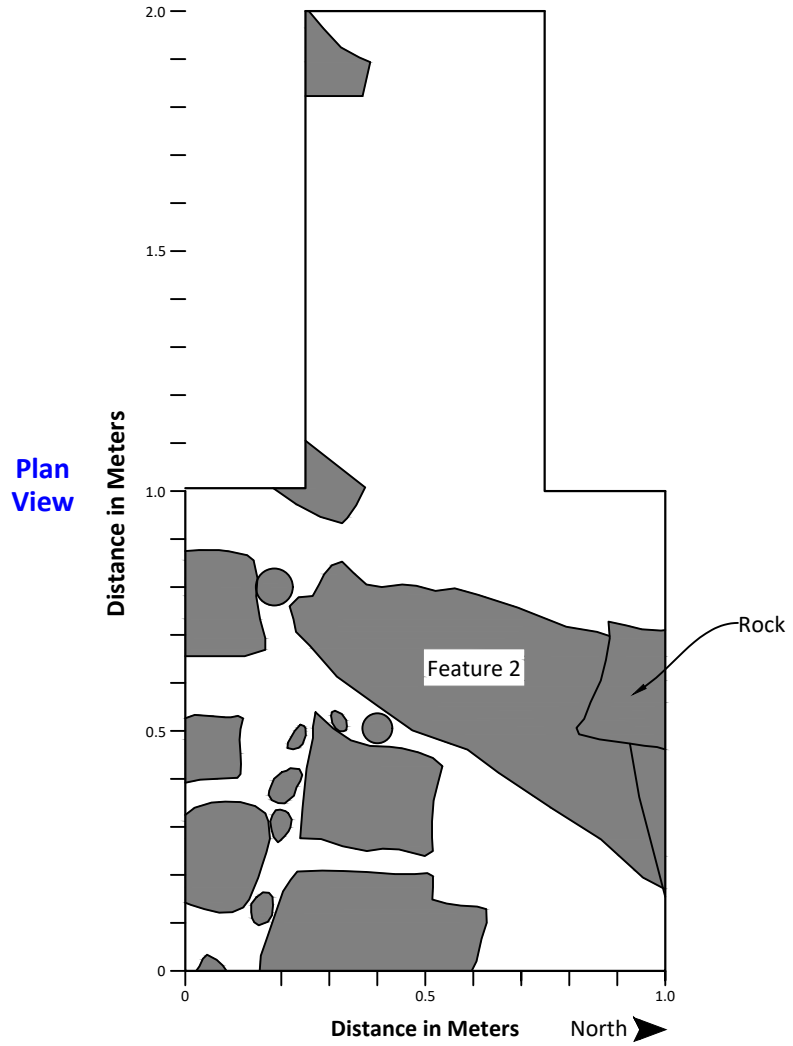
Figure 3



ST = Shovel Test

Scale 1:40

Unit 6 and 8 Plan; Unit 6 South Profile

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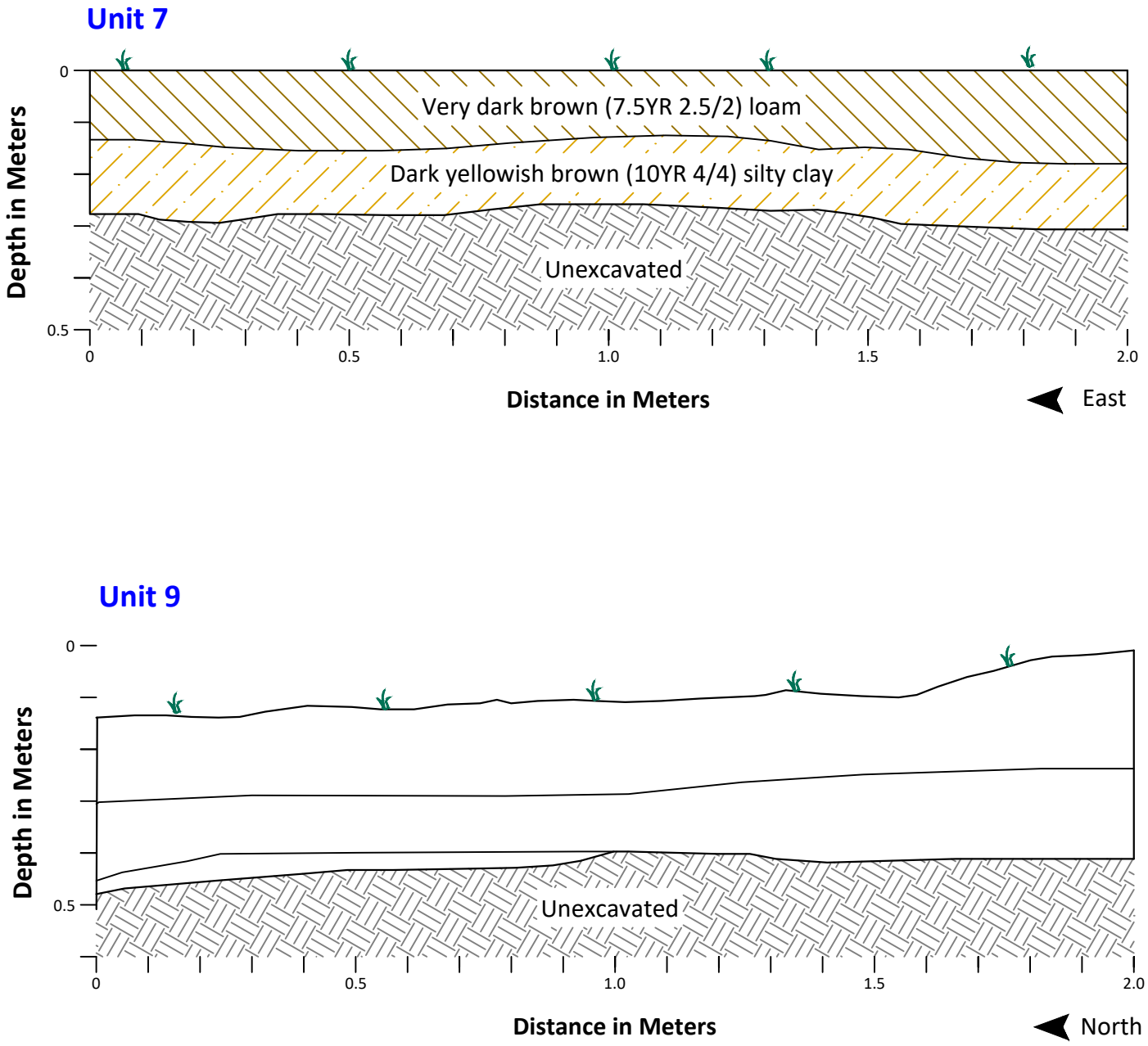
Figure 4



Scale 1:30

Unit 7 South Profile and Unit 9 East Profile

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Figure 5

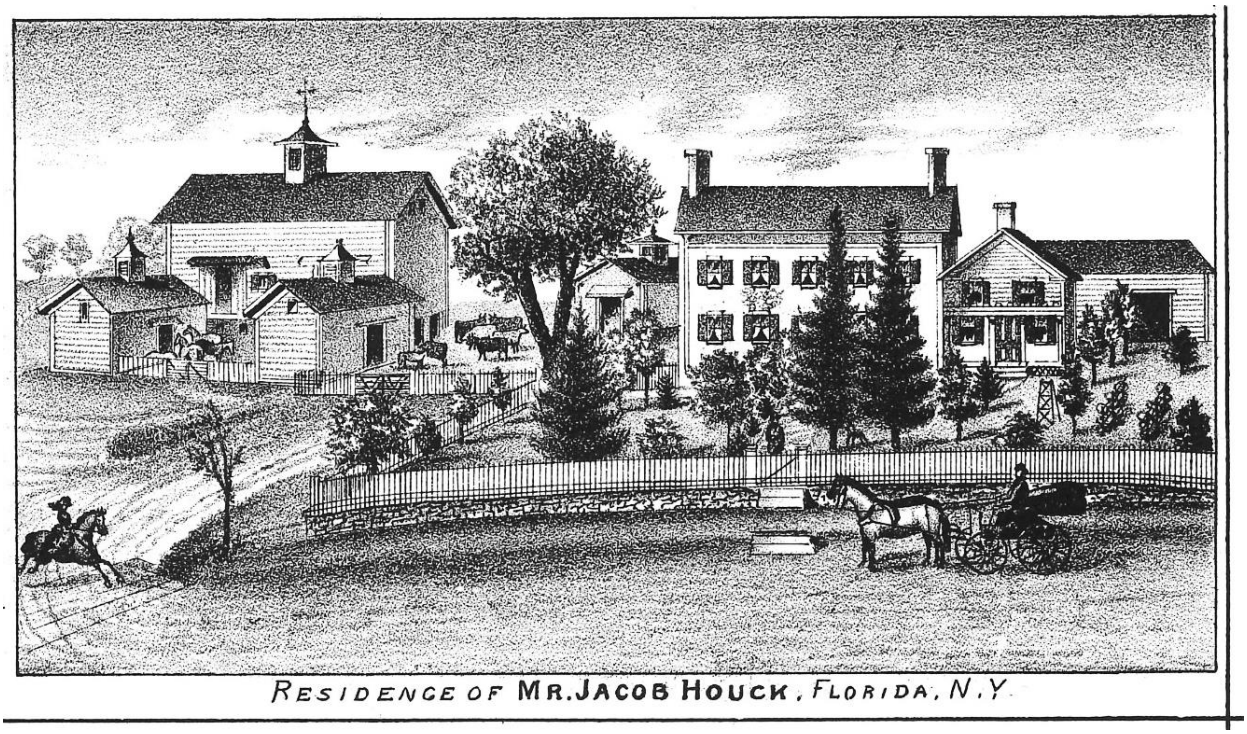

Figure 6 – Jacob and Christina House in 1878

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PHASE III DATA RETRIEVAL

Winstanley Distribution Center
J. Houck Historic Site (05704.000188)

NY-5S and Mead Road
Town of Florida
Montgomery County, New York

HAA 5334-51
SHPO 19PR04728

Submitted to:
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July 2022

MANAGEMENT SUMMARY

SHPO Number:	*19PR04728*
Involved Agencies:	*United States Army Corps of Engineers*
Phase of survey:	*Phase III Data Retrieval*

LOCATION INFORMATION

Municipality:	*Town of Florida*
County:	*Montgomery*

SITE INFORMATION

Site Name:	*J. Houck Historic Site (05704.000188)*
Site Size:	*3,437 m2 (37,000 ft2)*
Mechanical Stripping:	*511 m^2 (5,500 ft^2, or 0.13 acre)*
Trenches:	*3 trenches, cumulative area 26 square meters (280 ft^2)*
Units:	*8 units, cumulative area 8 square meters*
Features:	*3 features identified, 3 of which were investigated*
Total Area Excavated:	*545 m^2 (5866 ft^2, or 0.13 acre)*

SUMMARY

The Houck family were important in the settlement and early development of the community of Florida, New York, first recorded as purchasing the property in 1793. The Houck family owned and farmed their property for over 100 years, relying on additional labor from tenant farmers for much of this time. Previous archeology conducted at the Houck Farmstead and Cemetery (OPRHP A05704.000119) and several other contemporary tenant farmsteads allowed for some interesting regional comparisons.

The J. Houck Historic Site is the second of two tenant farmhouses on the property. The first is situated near the main house, while the J. Houck Historic Site is located southwest of the main farmhouse. The J. Houck Historic Site consists of three main features, the original stone cellar footprint, an L-shaped addition to the east, and a stone well that is likely contemporary to the original stone cellar.

In general, tableware and other goods recovered from the site, in addition to food remains were of low to moderate economic value. Faunal analysis indicated that occupants consumed a varied diet of cow and veal, pig, sheep, various birds, fish, and clams, likely supplemented with the variety of crops produced on the farm, including fruits from a small orchard. The economic values of various cuts of meat studied during this survey ranged from low to high, but generally fell within the moderate range.

Historic cultural materials recovered from the site, in conjunction with numerous historical records about the Houck family and their various tenant occupants, provide valuable information and insight into the lives of rural tenant farmers and their landlords in the region throughout the 19th century.

Report Authors:	*Elizabeth Gregory, Matthew J. Kirk, RPA, Walter R. Wheeler*
Date of Report:	*13 July 2022*

TABLE *of* CONTENTS

PHASE III DATA RETRIEVAL 1
1 Introduction 1
2 Background 1
2.1 The Houck Farmstead and Cemetery (OPRHP A05704.000119 and A05704.000121) 2
2.2 J. Houck Historic Site (OPRHP 05704.000188) 7
2.2.1 Site Stratigraphy and Chronology 8
2.2.2 Archeological Features 10
2.2.3 Artifacts 10
3 Environment and History 11
3.1 Environmental Setting 11
3.2 Regional Cultural Context 11
3.3 Property/Family History 15
3.3.1 The Houck Farmhouse 22
3.3.2 Tenant Structures 22
3.3.3 The Houck Farm in the 19th century 23
3.4 Tenant Farming 25
3.5 Local 19th-Century Farmstead Models 26
4 Phase III Data Recovery Field Research Objectives 28
5 Field Strategies and Methods 29
5.1 Mechanical Stripping and Trenching 29
5.2 Unit Excavation 30
6 Artifacts and Laboratory 30
6.1 Methodology 30
6.2 Subconsultant Analysis 30
6.3 Curation 30
7 Results of Excavation of the J. Houck Historic Site (05704.000188) 30
7.1 Units 31
7.2 Mechanical bisection of the well 33
7.3 Mechanical trenching within foundation 33
7.4 Mechanical stripping 34
7.5 House 34
7.6 Artifact Analysis 35
7.7 Distribution Patterns and Activity Areas 35
7.8 Sewing machine parts and buttons 35
7.9 Children's Toys 39
7.10 Architectural Artifacts 41
7.11 Agricultural Artifacts 44
7.12 Vessel Glass 46
7.13 Kitchen Items, Food Remains, and Related Artifacts 49
7.14 Distribution of Diagnostic Artifacts 61
7.15 Food Remains 62
7.16 Specialized Analyses 66
7.16.1 Faunal Analysis 66
7.16.2 Architectural 72
8 Interpretation 72
8.1 Comparison of J. Houck Historic Site (OPRHP 05704.000188) to Houck Farmstead and Cemetery (OPRHP A05704.000119) 73
9 Synthesis and Conclusions 74
9.1 Public Education and Dissemination of Data 76
10 Bibliography 77

Maps
Drawings
Photographs
Appendix 1: Artifact Inventory
Appendix 2: Faunal Analysis
Appendix 3: Deed Chain for J. Houck Historic Site

Table List

Table 1. Summary of archeological site information collected during the Phase I and II studies 7
Table 2. Summary of archeological features 10
Table 3. Population census records for the Jacob & Christina Houck House and the J. Houck Historic Site. 15
Table 4. Summary of occupation of the J. Houck Historic Site 23
Table 5. Agricultural census records for the Jacob and Christina Houck House and the J. Houck Historic Site. 24
Table 6. Summary of Phase III excavations 31
Table 7. Artifacts likely associated with Grace A. Havens, by provenience 38
Table 8. Children's toys by provenience 41
Table 9. Architectural artifacts by provenience 41
Table 10. Agricultural artifacts collected during Phase II and III investigations, listed by provenience 45
Table 11. Ceramic artifacts by provenience 50
Table 12. Possible Nathaniel Hudson stoneware by provenience 56
Table 13. Samples selected for faunal analysis 66

Map List

Map 1. Project Location
Map 2. Project Map

Figure List

Figure 1. Overlay showing the Houck Farmstead and Cemetery, as mapped in 2002, placed over an aerial image dating to 1995 (courtesy of Google Earth). The J. Houck Historic Site, the focus of the current study, is situated southwest of the Houck Farmstead and Cemetery.

Figure 2. Map of the Fossgate/Houck Farmstead [*sic*] and Cemetery shown in the overlay in Figure 1, as recorded in the spring of 2002. This image was published in Hartgen's 2008 survey. The J. Houck Historic Site, the focus of the current study, is situated southwest of the Houck Farmstead and Cemetery and does not appear on this map.

Figure 3. Illustration of the Houck farmstead published in 1878 (F. W. Beers & Co. 1878).

Figure 4. Photograph from the 2002 report showing the Houck farmhouse prior to its removal. View looking northeast (Hartgen Archeological Associates 2002).

Figure 5. 1766 Bleeker *Map of Warrensburg Laid into lot in the year 1766* (Bleeker 1766).

Figure 6. 1779 Sauthier *A Chorographical Map of the Province of New York in North America* (Sauthier 1779).

Figure 7. Houck House on 1766-1795 Warrenbush map. Underlay image courtesy of Google Earth. Note the tenant house is at the very southwest extent of the farm lot. The Houcks owned Lot 147 (lot numbers are upside down in this view).

Figure 8. Undated photograph of James Dennis in uniform, published in the *Amsterdam Evening Recorder*. The caption notes that "he is thought to be the only colored veteran in Montgomery county" (Montgomery County Historical Society).

Figure 9. A dog collar was recovered during mechanical excavations of the well (Item 99.1).

Figure 10. A part of a sewing machine foot pedal mechanism was recovered from Trench 3 (Item 108.8).

Figure 11. Sewing machine foot pedal was recovered from Unit 12 (Item 65.15).

Figure 12. A variety of buttons were recovered throughout the site. Front (top photo) and rear (bottom photo) views. Top row (from left to right): Items 82.4, 86.4, and 86.5; Bottom row (from left to right): Items 59.7, 68.8, 69.8, 86.6, and 116.6.

Figure 13. Residences of Benjamin and Grace Havens between 1893 and 1901. Base imagery courtesy of Google Earth.

Figure 14. Children's toys collected during Phase III archeological investigations at the J. Houck Historic Site. Top, unglazed and decorated porcelain marble (Item 76.4); Bottom, bisque doll parts from left to right, Items 69.12, 89.3, and 75.7.

Figure 15. Architectural artifacts by type, as collected during Phase III archeological investigations.

Figure 16. Architectural elements collected during Phase III investigations included (top left) a finial from Level 1 of Unit 16 (Item 80.9), (top center) door hardware from Level 3 of Unit 16 (Item 86.13), (bottom left) an unidentified architectural element from Level 1 of Unit 16 (Item 80.11), (bottom center) a possible handle from Level 1 of Unit 17 (Item 90.11), and (right) a lock/lock part (latch type) from Level 1 of Unit 17 (Item 91.12).

Figure 17. Trench 2 produced a slate fragment, while a fragment of dressed stone was recovered from Trench 3.

Figure 18. The distribution of architectural artifacts by provenience. The majority of architectural materials were recovered from Units 15 and 16.

Figure 19. Horseshoes recovered from Unit 17 and Trench 3 included a horseshoe with a toe calk for traction and medial heel calk (Item 106.5, left), a narrow horseshoe with a heel calk (Item 91.11, middle), and an additional horseshoe from Unit 17 (Items 91.11, right).

Figure 20. This whetstone was recovered during stripping north and west of the house (Item 115.5).

Figure 21. Three examples of different bottle finishes represented in the artifact assemblage. Top: complete brown glass bottle with applied finish, c. 1830-1885 (Item 80.1.1), bottom left: machine-made brown glass bottle finish, TPQ 1899 (Item 80.1.3), and bottom right: pale aqua lipping-tooled glass bottle finish, c. 1885-1910 (Item 75.3).

Figure 22. Samples of some of the olive glass recovered from Level 2 of Unit 16 (Item 85.1).

Figure 23. Examples of diagnostic pharmaceutical bottles, including (top) a bottle embossed with "Kennedy's… /Kingston, N.Y. U.S.A." from Level 2 of Unit 11 (Items 62.5), (bottom left) "Chas. H. Fletchier's" castoria medicine bottle from Trench 3 (Item 105.5), and (bottom right) a Knox Bottle Co. vessel with "Dr. Edward A/ Bogdan/58 Church St./Amsterdam, N.Y./Phone 126" acid etched on the bottle, recovered from the stripped area (Item 112.2).

Figure 24. Examples of food and beverage-related glass containers recovered throughout the site. From left to right, a machine-made "Pride of the Farm/Tomato Catsup" bottle from the stripping area (Item 113.2), an embossed "American Soda Fountain Co" bottle from Level 2 of Unit 16 (Item 82.1), an embossed "Colton's/Select/Flavors" extract bottle from Level 2 of Unit 11 (Item 62.5), and an embossed wine bottle base manufactured by the Owens-Illinois Glass Co. from the stripped area (Item 116.2).

Figure 25. Two C. 1900-1925 milk bottles, embossed with "ONE QUART/ STEPHEN COLLINS/ ELMWOOD FARM/ AMSTERDAM N.Y./ REGISTERED," were recovered from Trench 3 (Item 106.2, left, and 108.3, right).

Figure 26. Quantities of ceramics by type as catalogued during Phase III archeological investigations at the J. Houck Historic Site.

Figure 27. A variety of ceramic artifacts were recovered throughout the site, including these examples of decorated whiteware (Items 65.1, left) and semi-porcelain (Item 65.2, right) recovered from Level 1 of Unit 12.

Figure 28. A variety of ceramic artifacts were recovered throughout the site, including these examples of decorated whiteware recovered from the stripped area north and west of the foundation. From left to right, a cobalt blue flow transfer printed rim with molded decoration including beading, lines, and stars (Item 111.1.1), a decorated and lightly impressed shell edged rim sherd (Item 111.1.2), a whiteware rim with molded decoration (Item 111.1.3), a polychrome saucer (Item 111.1.4), and a decorated polychrome rim sherd (Item 111.1.5).

Figure 29. Variety of decorated whiteware collected from Level 2 of Unit 13, top two rows (Items 68.1), and Level 4 of Unit 14, bottom row (Item 73.1).

Figure 30. Two fragments of yellowware were collected during Phase III investigations, including a milk pan fragment from the stripped area (Item 111.3, left) and a dipped polychrome fragment with dendritic decoration recovered from Level 4 of Unit 14 (Item 73.3, right).

Figure 31. A variety of stoneware was recovered throughout the site. From left to right, top: gray-bodied salt-glazed stoneware exterior (Item 111.5) and slipped interior (Item 65.3), and Albany slip and salt-glazed

stoneware interior and exterior (Items 111.6); Bottom: Gray-bodied slip decorated hollowware body (Item 58.2), and salt-glazed buff/pink bodied stoneware jug exterior and slipped interior (Items 62.4.2).

Figure 32. Several fragments of Nathaniel Hudson stoneware are represented in this photo, included base fragments from Bag 57.3 (top left), a piece of a handle from Bag 62.4.1 (bottom left), two body fragments from Bag 62.4.3 (right). Note the inscription on the central body fragment. Note the metallic sheen to the slip.

Figure 33. Fragments of an unglazed buff/pink bodied stoneware pie plate were recovered from the northern portion of the original house footprint (Items 104.2 and 107.1).

Figure 34. Makers' marks were identified on some of the ceramics recovered from the site, including this white-bodied refined earthenware sherd from the stripped area (Item 111.2, left) and this ironstone fragment from Trench 2 (Item 102.2, right).

Figure 35. Distribution of ceramics recovered throughout the J. Houck Historic Site by Unit (U), Trench (T), and stripping area (GP).

Figure 36. This c. late 19th century enameled teapot spout was recovered from Level 1 of Unit 17 (Item 92.5). Similar items were observed in the 1897 Sears Roebuck Co. catalog.

Figure 37. Coffee grinder recovered from the J. Houck Historic Site (Item 120.1, top) and a similar A. Kenrick & Sons cast iron and brass coffee mill grinder from an Etsy listing (bottom image courtesy of PaintedLadyAntiques, etsy.com).

Figure 38. Coffee grinder metal tag recovered from Unit 17, c. 1815-1830 (Item 92.4, left) and example of a similar A. Kenrick and Sons coffee mill tag from an Etsy listing (right image courtesy of PaintedLadyAntiques, etsy.com).

Figure 39. Distribution of food remains, including clam shell and faunal bone, recovered throughout the J. Houck Historic Site during Phase III archeological investigations.

Figure 40. Faunal bone collected from Level 1 of Unit 12 included cow, pig, unidentified medium mammal, and duck remains (Items 65.10).

Figure 41. The most common type of food remains recovered during Phase III archeological investigations were cow bone, such as these samples from the stripping area (Items 113.3). Some bone, including two samples seen here, showed cutting, sawing, and other evidence of butchering.

Figure 42. Two samples of clam shells recovered from Level 1 of Unit 12 (Item 65.11).

Figure 43. Intrusive wildlife remains were found in several contexts, including five striped skunk bones in Unit 15 (Item 74.5). Unit 15 also contained the remains of an unidentified large mammal, an unidentified medium mammal, and a pig.

Figure 44. These faunal remains recovered during excavation of Trench 3 consisted primarily of cow, but also included chicken, an unidentified large bird, and intrusive wildlife New England cottontail (Item 105.10).

Figure 45. Some smaller faunal bones, including bird and fish remains, were collected from the stripping area north and west of the foundation (Items 112.10.2).

Figure 46. Three cow bones were analyzed from Unit 17 including two loin steaks, top, and a cut for short rib stew, bottom (Item 91.27). The bottom sample is sawed and shows evidence of gnaw marks from a rodent.

Figure 47. Most cuts fell into the medium to low value range, and primarily consisted of larger cuts of meat.

Figure 48. Most cuts of pork fell into the low economic value range and included three "trotter" stew cuts and two "head" processed cuts.

Photograph List

Photo 1. Archeologists excavate Units 12 and 13 near the Houck house foundation. Unit 10 is visible in the foreground. View looking southeast.

Photo 2. Unit 10 was excavated in the northeastern corner of the foundation. The stratigraphy visible in this unit was fairly consistent throughout the interior of the foundation. View looking northwest.

Photo 3. The stratigraphy east of the foundation, within the northern portion of the addition, consisted of a thin layer of topsoil atop redeposited field cobbles. The soils beneath the cobbles consisted of a very dark

grayish brown silty loam underlain by a light olive brown silty loam subsoil. No living floor or substantial foundation remains were observed within the addition. View looking northwest.

Photo 4. Trench 1 was excavated to bisect the well, remove the cobble fill, and investigate any potential deposits within this feature. Although mechanical excavations were able to reach the base of the well, no significant cultural materials were recovered from the feature. View looking south.

Photo 5. Upon completion of the documentation, the well excavations (Trench 1) and Unit 11 were backfilled. View looking south.

Photo 6. Excavation of Trench 2, within the house addition. An intrusion into the topsoil consisting of cobbles amid darker soil, running generally in a north-south direction, indicated a possible exterior wall or edge of the addition. View looking north.

Photo 7. The north wall and a portion of the west wall were exposed after mechanical trenching. The depth of the foundation was relatively shallow and may have indicated the presence of a crawl space rather than a full cellar.

Photo 8. An archeologist inspects the stripping area west of the original house foundation. View looking north.

PHASE III DATA RETRIEVAL

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase II archeological site evaluation of the J. Houck Historic Site, which is located within the Area of Potential Effects (APE) for the proposed Winstanley Distribution Center project in the Town of Florida, Montgomery County, New York.

The proposed Project entails the removal of existing structures and the construction of a 750,000 to 1,000,000 square-foot distribution center, parking, access roads, storm water management areas, and utility lines. The total property acquisition includes approximately 140 acres.

This investigation was conducted to comply with Section 14.09 of the State Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared in accordance with OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

2 Background

Hartgen Archeological Associates, Inc. completed the Phase III fieldwork for the proposed Winstanley Distribution Center/Interchange 27 Warehouse Project (Project) located at New York State Bicycle Route 5 and Mead Road in the Town of Florida, Montgomery County, New York (Map 1). The data retrieval fieldwork was completed between November 30 and December 16, 2020, and included shovel testing, unit excavations, and mechanical stripping to locate and record archeological features and deposits.

The Phase III research design, work scope, and analysis was based on current site conditions and on data collected from the Phase I and II archeological investigations completed by Hartgen in January 2018 and March 2019. Hartgen completed a Phase I archeological survey of the Project and identified the J. Houck Historic Site (05704.000188), constructed between 1820 and 1830, and occupied by tenant farmers throughout the 19th century. The site was abandoned in the early 20th century.

The J. Houck Historic Site is situated in a wooded section of the APE along the original route of State Highway 5S, which has since been rerouted to its current configuration to the north of the Project. The site consists of the remnants of a single-family residential structure and an associated well. The archeological footprint of the residence consists of a stone foundation with a cellar hole, a collapsed brick fireplace back associated with a stone hearth built into the stone foundation, and what appears to be an L-shaped addition along the east and south sides of the structure.

The addition was built sometime after 1888 based on the date of a coin found just below the stone floor slabs. The well is stone-lined and still contained water during the Phase I and II archeological surveys but was dry during the Phase III data retrieval. The property was owned by the locally important Houck family over several generations, who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family.

The artifacts collected during our investigation are consistent with an occupation lasting from the early to mid-19th century until the early 20th century. The collection of domestic materials includes ceramics, glass and food remains. Additionally, there are two distinct midden deposits on the site, one from the 1920s and the other from the 1930s, which postdate the occupational phase. The 1920s midden deposit is located within the cellar hole.

2.1 The Houck Farmstead and Cemetery (OPRHP A05704.000119 and A05704.000121)

The Houck Farmstead (also known as Farm Complex 2 in earlier archeological literature) consists of five distinct aspects:

- The Houck farmhouse (1793-2005);
- The Houck Tenant farmhouse (???-2006);
- The Houck family cemetery (1800-present);
- Various agricultural outbuildings (1793-2006);
- The J. Houck Historic Site (also a tenant residence) (1850-1930s).

Previous archeology and cultural resource management focused on the first four cultural resources. The current study is concerned with the fifth. A review of the previous archeology presented here provides a broader context for the history of the farmstead and the associated archeological investigations. Archeology was previously conducted in advance of improvements to Route 5S and the development of the former farm parcel for warehouse and storage facilities.



Figure 1. Overlay showing the Houck Farmstead and Cemetery, as mapped in 2002, placed over an aerial image dating to 1995 (courtesy of Google Earth). The J. Houck Historic Site, the focus of the current study, is situated southwest of the Houck Farmstead and Cemetery.

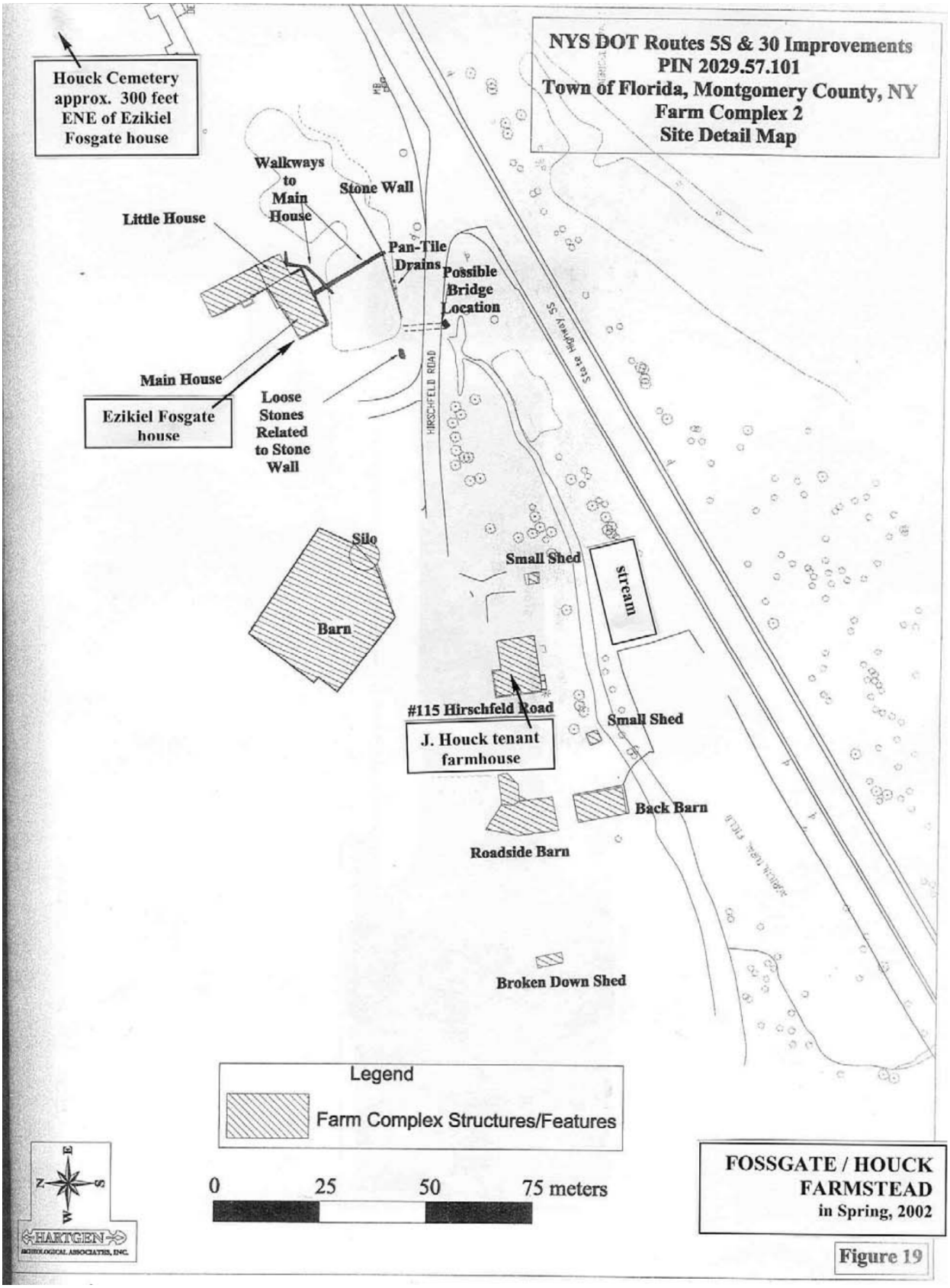

Figure 2. Map of the Fossgate/Houck Farmstead [*sic*] and Cemetery shown in the overlay in Figure 1, as recorded in the spring of 2002. This image was published in Hartgen's 2008 survey. The J. Houck Historic Site, the focus of the current study, is situated southwest of the Houck Farmstead and Cemetery and does not appear on this map.

This site was initially identified and reported during a 2002 NYSDOT-sponsored archeological survey conducted by Hartgen Archeological Associates (Hartgen Archeological Associates 2002). The site identified as Farm Complex 2 (Houck Farm) was assigned an OPRHP site number of A05704.000121 and a NYSM number of 11242. At the time of the survey, two houses (the Jacob and Christina Houck farmhouse and the J. Houck tenant house), three barns, and at least three small sheds stood on the site. The Jacob and Christina Houck house, situated on the north side of Hirschfeld Road, was assigned an OPRHP site number of 05704.000119. The J. Houck tenant farmhouse was on the south side of Hirschfeld Road. Both structures were situated within the Houck Farmstead and Cemetery site. The Houck Farmstead and Cemetery is approximately 5.2 acres (2.1 ha) in extent.

In 2005, the Jacob and Christina Houck farmhouse was dismantled by Windy Hill Restorations of Palatine Bridge, New York, with a view toward its eventual reconstruction elsewhere, although this has not occurred as of the writing of this report. The terms of the deconstruction of the house are given in an August 18th letter of resolution between New York State OPRHP and the Montgomery County IDA. One of the terms was that the house's cellar hole be filled to grade with clean fill from outside the site. This appears to have been accomplished. Concomitant with the dismantling of the Jacob and Christina Houck farmhouse, all the other buildings at the Houck farmstead site were demolished. As of 2008, only the cemetery remained. The initial form for the site, written in 2002, was based upon incomplete research and misidentified the original owners of the house as the Fossgate family. Excluding that erroneous conclusion, that form (A05704.000121) reads in part:

> The Fossgate/Houck Farm [*sic*]
>
> A Farm Complex situated at the intersection of Hirschfeld Road and SR 5S in the Town of Florida, Montgomery County, New York was investigated as part of PIN 2029.57.101 for the New York State Department of Transportation in the spring of 2002 (see site map). The site encompasses approximately 35,664 square meters.
>
> Surface reconnaissance of the site revealed a stone wall, steps and walkway in the front yard of a farmhouse, surrounded by associated barns and sheds, with an additional house across the road between Hirschfeld Road and SR 5S, and a little house joined to the east wall of the main farmhouse. Although many of the elements of the main house have been modified, a relatively early date of construction was discerned from the intact elements. A single shovel test excavated in the highway right-of-way recovered artifacts include two creamware sherds, a redware sherd, 43 whiteware sherds, window and bottle glass, three tobacco pipe fragments, a silver-plated spoon, brick, nails, and other unidentified hardware.
>
> …J. Hawke [*sic*] is indicated as the property owner on the 1853 Map of Montgomery County (Griner and Smithy), showing one of the varied family name spellings on different maps.
>
> The Houck family developed the property considerably, as the 1855 agricultural records lists a variety of goods including hay, grass seed, winter wheat, oats, barley, buckwheat, corn, potatoes and apples. Animals raised on the farm included sheep, cows, horse, and pigs. Family members listed on the 1855 census included Jacob Houck, his wife Adeline, his mother Catherine Ann, his brother Peter, his grandmother Marie Endern, and a female servant from England (Adelaide Smith). The little house attached to main house was likely intended for the mother and/or the grandmother of Jacob Houck. By 1868, family holdings appear to have extended along the road with one distant structure identified as J. Houck on the Map of Montgomery and Fulton Counties (Stranahan and Beach), along the treeline of the old SR 5S south of present-day #1711 SR 5S (outside of the PIN 2029.57.101 project area). Stone foundations were identified in an inspection of this area.
>
> In the 1875 agricultural record, the property value had increased from $13,500 to $22,600. Changes in production on the farm included an increase in the acreage being farmed, the addition of rye and flax in the crops, as well as cattle being raised for beef. The 1875 census

shows that two farm hands were hired to help with the work, and that Peter Houck was also involved in farming on his own, albeit with half of his acreage remaining wooded land. A drawing of the house in 1881 depicts the front yard with stone features and the orientation of surrounding structures, as well as a small bridge.

Records for the main house location become less detailed after this time. The brother's or tenant house on 4.67 acres at present-day #115 Hirschfeld Road was purchased in 1928 by the VanVechten family. A larger purchase of 240 acres was made by the Larrabein family in 1929, which likely included the main house. This same area was purchased by Harvey Reese in 1931, by Anthony Chaks and then by the Pawloski family in 1932, and by the Czeck family in 1933. Constantine Kuber purchased the 240 acres in 1935, the last time the larger lot is indicated.

From this point on, the property is listed at 8.37 acres in the Town of Florida, presumably the #115 Hirschfeld Road structure and immediately surrounding buildings. The property changed hands to the Yunkers in 1957, to Constance Hauer in 1974 and to the Bushman family in 1982, the present owners of the tenant house. The main farmhouse and surrounding barns are currently the property of Montgomery County Industrial Development Agency.

Further work in the form of a site evaluation…is recommended if the site cannot be avoided during construction.

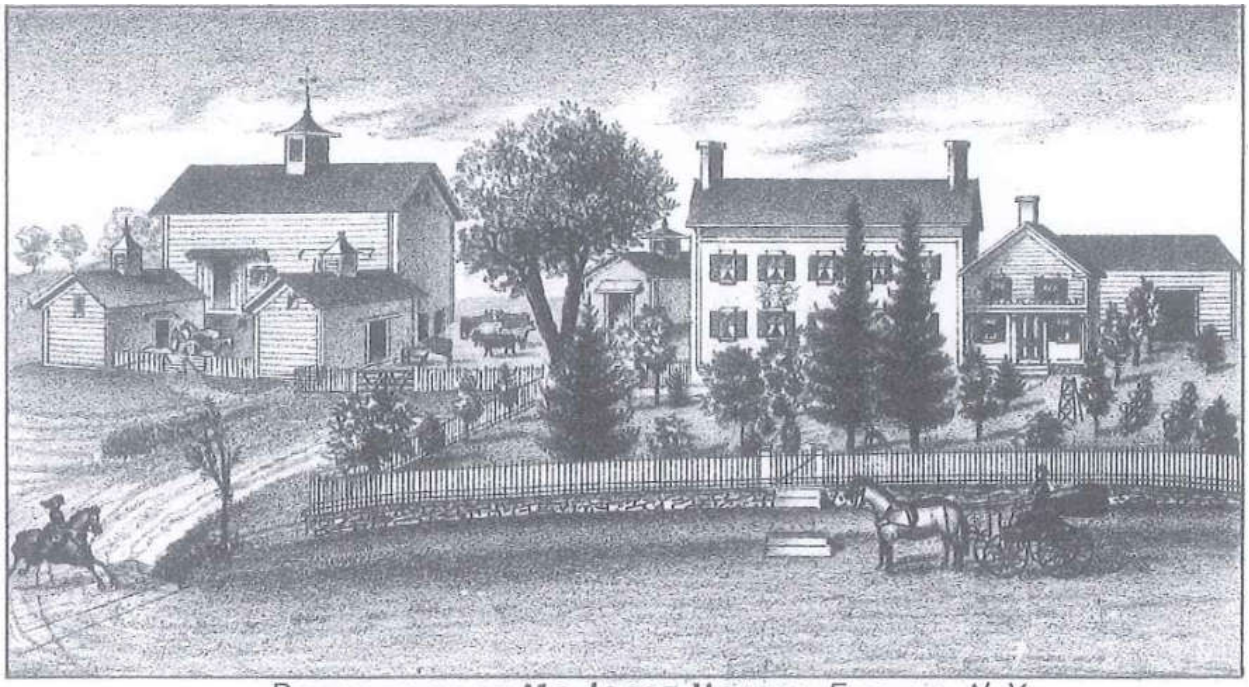

Figure 3. Illustration of the Houck farmstead published in 1878 (F. W. Beers & Co. 1878).



Figure 4. Photograph from the 2002 report showing the Houck farmhouse prior to its removal. View looking northeast (Hartgen Archeological Associates 2002).

Archeology conducted in the summer of 2002 for Lot 4 of the Town of Florida Business Park involved subsurface exploration of the Houck Farmstead and Cemetery. Forty hand-excavated shovel tests were placed in the site and plowed transects were placed to the north and south of the Houck cemetery. Three locations were stripped of topsoil in order to locate historic features: 1,600 square feet on the northwest side of the Jacob and Christina Houck farmhouse, 2,050 square feet east of the house, and 1,300 square feet at the Houck cemetery. The explorations near the farmhouse encountered former walkways and, northwest of the house, two historic sheet midden deposits. Disturbed soils associated with the former location of a swimming pool and of a summer kitchen were found in the eastern stripped area (Hartgen Archeological Associates 2003).

The exploration work at the Houck Cemetery documented the existence of corner fence posts surrounding the cemetery, three head- and foot-stone pairings (including Isaac Houck's), and a dog burial. Stripping confirmed the presence of a graveshaft at the Isaac Houck gravestones.

Another archeological survey for the Beech Nut Relocation Project was conducted in this area in 2008, and included the previously identified Houck Farmstead and Cemetery, which was determined by OPRHP to be a National Register Eligible site.

Artifacts collected from the site during the 2008 Beech Nut Relocation Project included ceramics (19th-century creamware, yellowware; hard-paste porcelain; redware, whiteware, and stoneware); a silver-plated spoon, food waste (faunal bone), ball clay white tobacco pipe fragments, vessel glass, rubber tires, construction material debris, and gravestones.

According to the 2008 report, Montgomery County had agreed to place decorative metal fencing around the Houck cemetery. "In order to protect the 5.2-acre Houck farmstead from ground-disturbing activity associated with the Beech-Nut Relocation project, the farmstead and cemetery have been placed in a conservation easement parcel. Therefore, the project will avoid the archeological site and cemetery" (Hartgen Archeological Associates 2008b).

2.2 J. Houck Historic Site (OPRHP 05704.000188)

The J. Houck Historic Site (OPRHP 05704.000188) is situated southwest of the Jacob and Christina Houck house, part of the Houck Farmstead and Cemetery (OPRHP A05704.000119 and A05704.000121) farther east on Route 5S as described above. The Houck's also owned an adjacent tenant house that they rented to a series of individuals. The J. Houck Historic Site property was originally shown on maps in 1853 and 1866 (Geil and Hunter 1853; Nichols 1868). Earlier maps do not indicate individual property owners. The site probably predates 1853, and was depicted on maps through 1905 (Century Map Company 1905). Analysis of subsequent historical maps reveals that the house was demolished between 1905 and 1931 (Century Map Company 1905; USGS 1931). The residence at the J. Houck site under study here also appears to have been a rental property, leased to tenant farmers who worked the land.

The J. Houck Historic Site was initially identified during Hartgen's Phase I Archeological Investigation of a 140-acre parcel of land that will be developed as part of the Winstanley Distribution Center project (Hartgen Archeological Associates 2019b). The Phase I and II archeological investigations were conducted by Hartgen in January of 2019 and March of 2019, with addendum Phase I investigations conducted in September of 2019 (Hartgen Archeological Associates 2019a, c). The investigations identified the J. Houck Historic Site, situated in the central portion of the Project within a wooded section of the APE. Historic maps of the area show the Houck property located just to the north of a roadway that has since been rerouted. Within the wood line was evidence of an old rock wall, with piles of cobbles visible in a line throughout this area. Two small streams, roughly parallel to one another, also ran through the wooded area alongside the rock wall. These were determined to be drainage ditches on either side of the former roadway. Some disturbance was noted throughout this area, though initially little evidence of the former roadway was visible on the surface.

This site consists of the remains of a single-residential structure and an associated well, located along the original route of State Highway 5S, which now runs to the north of the site. Three features were identified: a cut stone foundation/cellar hole (Feature 1), a house floor associated with an east and south side addition to the stone foundation (Feature 2), and a stone well (Feature 3) (Table 2). Phase I and II archeological investigations indicated a date of approximately 1820-1853 for the foundation/cellar hole and the well, and a post-1888 construction date for the east and south side additions to the original foundation.

The remains of the dwelling consist of a stone foundation with cellar hole, a collapsed brick fireplace back associated with a stone hearth built into the stone foundation and what appears to be an L-shaped addition along the east and south sides of the structure. The data suggested that the main portion of the residence was built between 1820 and 1853, when it is first shown on historic maps. The addition was built sometime after 1888 based on the date of a coin found just below the stone floor slabs. The well is stone lined and still contains water. Efforts to examine any contents were hampered by a post-occupational deposit of field cobbles filling up to a depth of about five feet below the ground surface. The property was owned by the locally important Houck family over several generations who used the site as a rental property. It was occupied by a series of tenants, many of whom worked as laborers for the Houck family.

Phase II field investigations established site boundaries based on drop-off of archeological materials during shovel testing. TPQ dates had a large range—from 1780 to 1920—suggesting long-term use of the site before and after residence was present. Some ambiguity remained about the form of the structure after excavation of the test units. Excavations suggested the visible foundation and cellar hole were the original structure dating between 1820 and 1853 when it appears on the Geil map. Stone walls and floor slabs suggest that the structure had at least one addition wrapping around the east and south sides added sometime after 1888.

Table 1. Summary of archeological site information collected during the Phase I and II studies

Characteristic	Site information	Source of information
OPRHP Site No.	05704.000188	
Site Name	J. Houck Historic Site	

Characteristic	Site information	Source of information
Description	Historic site consisting of a stone foundation and well. The artifacts collected in this vicinity included 3 strap hinges, likely barn door hinges dating to the mid-late 19th century, and two pieces of unidentified wire hardware surface collected near the foundation remains. In addition to the surface artifacts, nearby shovel tests contained cut nails, handmade amber bottle glass, manganese solarized and embossed pale aqua vessel glass, faunal bone, and a variety of ceramics including redware, yellowware, whiteware, salt-glazed Albany slip stoneware, molded ironstone and porcelain. The metal strap hinge, cut nails, salt-glazed Albany slip stoneware, molded ironstone, and handmade amber bottle glass can be approximately dated to the mid- to late-19th century, a time period consistent with the occupation of the house according to historic maps. A 1888 dated Indian head penny recovered immediately below a floor slab provides a TQP date for construction of an addition to the original house. Some earlier artifacts such as ball clay pipe fragments suggests use of the site prior to construction of the foundations under study. Two midden deposits, one from the 1920s and the other from the 1930s were created after the demolition of the residential structure. The structure appears on historic maps from 1853-1905.	Historic maps, documentary research, artifact analysis and stratigraphy
Date	~1830-1905	Historic maps and artifact analysis
Function	Residential	Artifact analysis and architectural form
Size	0.5 acre	
Location	NAD 83, UTM Zone 18, 562724 Easting, 4753742 Northing	

2.2.1 Site Stratigraphy and Chronology

Archeological excavations throughout the J. Houck Historic Site (outside of the foundation footprint) indicated that the site stratigraphy was reasonably uniform, with an A-horizon consisting of a dark gray silty loam to depths ranging between 20 and 55 centimeters below the ground surface. This was typically underlain by a B-horizon consisting of a yellowish or grayish brown clay silt mix. Soils were poorly drained owing to the clay in the B-horizon, particularly during excavations in early 2019. Phase III archeological investigations, which occurred in November and December of 2020, did not encounter the same poor drainage seen during earlier excavations.

The three units excavated within the original stone foundation footprint were fairly consistent to one another stratigraphically (Units 10, 16, and 17; Photo 2). After removal of the post-occupational deposit of large field cobbles, soils consisted of black silty loam with additional cobbles and post-occupational debris, underlain by a light brownish gray sand which appeared to be disintegrated mortar, and a third layer of yellowish-brown silty clay. Beneath this was a thin layer of very dark brown clay and disintegrating shale, underlain by the brown silty clay subsoil. The shale inclusions appeared to be natural, as large pieces of shale were noted in the subsoil as well.

Within the suspected addition, Units 2, 4 and 6 contained a man-made layer of floor slabs/cobbles that were likely placed on the existing surface at the time of construction which have since accumulated enough soil to be buried just below the present-day surface. Similarly, a layer of smaller cobbles was encountered in the first level of Unit 12, terminating at a soil transition at a depth of approximately 35 centimeters below the ground

surface. All cultural materials were recovered from the first 35 centimeters of Unit 12. This level was underlain by light olive brown silty loam subsoil; no cultural materials were recovered from the subsoil.

The initial indication of the date of the structure came from a sample of the collapsed bricks located along the west side of the structure whose attributes suggested a manufacturing date of around 1820 (between 1810 and 1830). However, the best archeological indications of the chronology for the features come from two artifacts with clear dates. Three refitted ironstone ceramic sherds featuring an embossed lily of the valley motif dating from the 1850s or 60s was recovered in Level 3 of Unit 3 alongside the west foundation wall in a context that suggests it was deposited in the construction trench when the foundation was built. The Geil map indicates that the main structure was present by 1853, suggesting this would be an early example of the style.

Feature 2, the floor in the structure's addition, was securely dated as having been constructed sometime after 1888 based on Phase II archeological investigations. This is the date on an Indian-head penny located immediately below a large floor slab in Unit 2, located just south of the foundation wall.

North of the foundation, Unit 14 was situated at what appears to have been the rear of the house. This unit did not indicate the presence of any further additions to the north.

The structure was still present at the time that the 1905 Century map was published and was demolished before the creation of the 1920s midden deposit in the cellar hole. Possibly not coincidentally. According to cemetery records, owners Adeline Houck, wife of Jacob Houck died in 1903 at the age of 70 and Jacob Houck died in 1905 at the age of 72 (Montgomery County History and Archives n.d.). It has been determined that the house was demolished between 1905 and 1931 (Century Map Company 1905; USGS 1931).

Mid- to late-19th century and early 20th-century artifacts were distributed throughout the site. Earlier materials included a buff/pink-bodied stoneware vessel manufactured by Nathaniel Hudson that dates c. 1852-1866, Prosser buttons (TPQ 1840), and a cast iron and brass Kenrick's Patent coffee mill and metal tag (c. early- to mid-19th century). Many artifacts recovered during Phase III archeological investigations at the J. Houck Historic Site dated to the late 19th century. This included a variety of ceramic materials, a 19th-century enameled metal teapot spout, late 19th-century sewing machine parts and children's toys, and a range of diagnostic vessel glass.

The site chronology appeared largely as expected within the original foundation footprint, with post-occupational artifact deposits at or near the surface within the foundation, and earlier materials recovered from the mortar layer and below the wooden floorboards. For example, Unit 16 contained four buttons, ball clay-white tobacco pipe stems, nails, painted and beaded whiteware, a fragment of a pewter pocketknife, faunal bone, a medicine bottle, additional green and amber container glass, clear window glass, and other materials beneath the mortar layer and suspected floorboards (Level 3).

Immediately south of the foundation near the suspected doorway, Unit 13 contained such diagnostic artifacts as shell-edged whiteware, which was popular between 1820 and 1860, and salt-glazed stoneware (c. 1705-1930, though likely mid- to late-19th century). Black underglaze transfer-printed ironstone was recovered from Level 3 of Unit 13. While ironstone was produced between 1842 and 1930, the transfer-printing technique was used from the mid- to late-19th century.

Cultural materials within the stripped area north, northwest, and west of the original foundation tended to date post-occupation, with a number of c. 1920s and 1930s artifacts catalogued from these proveniences. This is consistent with the chronology identified during earlier excavations, as mechanical stripping focused on removal of the overlying topsoil to search for features visible in the subsoil and did not go as deep as trenching or unit excavations.

A 1976 United States dime was recovered from the first level of Unit 11, situated 50 centimeters south of the well, indicating modern activity in this area. Subsequent levels contained historic cultural materials generally dating from the mid-19th through the early-20th centuries. These included olive vessel glass, cut nails, transfer printed and other decorated whiteware, Albany slip and salt-glazed stoneware, Nathaniel Hudson buff/pink bodied stoneware (c. 1852-1866), pharmaceutical bottles, an Illinois Glass Co. bottle with a TPQ of 1911, and

other historic cultural materials. Additional stoneware sherds matching the Nathaniel Hudson vessel were also recovered from Unit 10, within the original foundation footprint.

Mechanical excavations revealed that there were no significant archeological deposits within the stone well. Although there was no cultural evidence to definitively date this feature, it is likely that the well was contemporaneous with the original house footprint and was likely constructed c. 1810-1830.

2.2.2 Archeological Features

Three archeological features were identified during Phase I and II archeological investigations at the J. Houck Historic Site (Table 2).

Table 2. Summary of archeological features

Feature	Function	Date	Integrity	Artifact content
1	Foundation/cellar hole	c. 1820-1853	Good	Early 20th-century midden deposit
2	Floor (east and south side addition)	Post 1888	Good	Mix of typical domestic artifacts including ceramics, glass and faunal bone. Indian head penny dated 1888 was found immediately below floor slab in Unit 2.
3	Well	c. 1820-1853	Good	Undetermined

Feature 1 was a readily visible cut stone building foundation and cellar hole consisting of irregular, cut limestone blocks. It measures 15' 8" by 16' 8" feet at the outside corners and is 1' 8" thick. The interior surface has been dressed leaving an even flat wall. The exposed outer surface is irregular. A hearth or hearth support is set into the west wall extending like a shelf into the interior space. An adjacent concentration of bricks and mortar represents the collapsed chimney.

Because the bricks were associated with the hearth which appears to be original to the structure, the bricks themselves are good evidence for the initial construction date of the structure. Hartgen's architectural historian Walter R. Wheeler examined a sample of complete bricks from the collapse feature and determined that they likely date between 1810 and 1830 based on the dimensions, uniformity, and quality of firing. The excavated artifacts also provide some idea of the construction date since they are from the construction trench. If we assume that a "Musterole" bottle found near the surface is part of the post-occupation 1920s midden based on its 1926 TPQ, the oldest TPQ is in the 1850s from three fragments of refitting ironstone with a lily of the valley embossed motif (Hartgen Archeological Associates 2019c: 11).

Feature 2 was a floor for what appears to be a later L-shaped addition to the structure which runs the length of the east side of the foundation (Feature 1) and wraps around the south side of the structure. It was first encountered in Unit 2 where it consisted of a large flat slab extending south from the foundation (Map 2). The same flat slab construction was seen in Unit 6. Unit 4 also contains a floor whose outside edge runs along the same line at the floor in Unit 6. However, its construction differs, consisting of a level layer of rounded cobbles forming the outer line with more irregular stone fill inside. This may indicate that the two sections were built at different times or had a different function (i.e., one being an internal floor surface and the other an external patio space). It was unclear where one section ends and the other begins.

Feature 3 was a roughly 3-foot diameter well located approximately 40 feet northeast of the Feature 1 foundation and 30 feet northeast of the Feature 2 floor (Map 2). Attempts to collect a column sample of sediment and artifacts from the bottom failed because an obstruction was encountered. The well had been partially filled with the same cleared field cobbles found inside the main foundation up to a depth of about five feet below the surface.

2.2.3 Artifacts

The artifacts collected during Phase I and II archeological investigations are consistent with an occupation lasting from the early to mid-19th century until the early 20th. There are two distinct midden deposits on the site, one from the 1920s and the other from the 1930s that postdate the occupation phase. There is no

indication of disturbance of the site, suggesting that the site retains its integrity and has the potential to provide useful data. The artifact distribution is quite restricted with almost all recovered materials from both Phases I and II being restricted to a 33-meter (110 feet) radius around the structure's foundations.

The collection is a typical domestic assemblage including ceramics, glass and food remains. The ceramic materials contain a mix of types including salt glazed stoneware, redware, yellowware, whiteware, ironstone and porcelain. The vessel forms are dominated by serving wares although some storage items such as jugs and crocks are also present. Many of the glass artifacts collected are bottles, from food and beverages, as well as medicines/beauty products. There were also a significant number of glass serving wares in the collection. Construction materials such as nails, hardware and window glass were also well represented in the collection. The faunal assemblage contains many large mammal (cow and pig) bones with evidence of butchering and cooking. Interestingly, the elements that are present are generally not from the meatiest "best cuts" which may reflect lower socio-economic status of the occupants, who sources indicate were renting the property from the Houck family. Several commensal species, primarily rodents, were also recovered. Faunal analysis conducted on samples collected during Phase III archeological investigations are compared against data collected during Phase I and II archeological investigations.

3 Environment and History

3.1 Environmental Setting

The Project is situated in the Mohawk Valley, approximately 1.1 mile south of the Mohawk River. The Town of Florida is bounded by the Schoharie Creek on the west, and by the Mohawk River (Erie Canal) on the north. The City of Amsterdam, the only city in Montgomery County, is situated approximately 1.1-mile northeast of the Project. Historically, the Erie Canal, and the nearby Mohawk Turnpike and Utica and Schenectady Railroad were significant methods of transportation and were all running along the shores of the Mohawk River by 1835.

3.2 Regional Cultural Context

The remarkable aspect of the Houck family farm is the continuous occupation by the descendants for over 100 years. Probably the original European settlers on the parcel, the Houck brothers initially cleared and plowed the property, and their children and grandchildren reaped the rewards of a profitable farm for decades afterwards. Like many middle-class farmers of the time, the 200 acres of land were beyond the means of two adult males to farm by themselves. As a result, farmers choose different strategies over time, which included:

- enslavement of Africans,
- sharecropping with neighbors, extended family members, and others,
- rental agreements (for both cash and/or crops),
- and part-time and full-time wage laborers.

Such strategies, as we will see, were not mutually exclusive of each other. After gradual emancipation in 1825 in New York, various economic crashes and booms led landowners to adopt various means to leverage non-family labor for farm work. In part, these were dictated by the owner's access to capital, the number of family members available to share the work, the size of the farm, and the labor pool locally available.

Historical documents indicate that the Houck family kept slaves through at least 1820, as slaves were listed on the 1810 and 1820 census records (United States Census Bureau 1810, 1820). *The History of Montgomery County* noted that "when in 1824 the act of emancipation took effect, they gladly went from under the yoke, to establish homes of their own, and none but the hopelessly infirm or aged sought to remain with their late owners" (F. W. Beers & Co. 1878: 113). However, the Houck family continued to rely on labor provided by free African Americans long after that date. In 1830, Jacob Houck was between 50 and 60 years of age and lived with one woman of the same age, two young adult men, one boy, one young adult female, one girl, and one free African

American male between 10 and 23 years of age (United States Census Bureau 1830). Census records indicate that free African American laborer Benjamin Havens worked for the Houck family for over seventeen years, between 1875 and 1893.

We currently have no records of the Houck family to shed light on the agreements made with non-family members, therefore we can only speculate on the situation based on the larger historical context in which non-family laborers were associated with the Houck farm.

The 18th and early 19th centuries

Prior to the 18th century, the land east of the Schoharie Creek and south of the Mohawk River was part of the larger territory of the Mohawk tribe of the Iroquois. Their principal larger villages were primarily west of the Schoharie River. At the mouth of the Schoharie, English colonists constructed a small defensive fort known as Fort Hunter in 1712 to help protect their Mohawk allies from attacks by the French and their Native allies during Queen Anne's War. The English took advantage of the opportunity by also constructing a chapel to encourage converts to the Anglican faith and negotiated the settlement of Palatine German immigrants to the area as well in the hope of further bolstering protection from French depredations. However, in the immediate vicinity of the Project, it appears the initial settlers were primarily Scotch-Irish and older Dutch families. The fort and its related chapel stood until about 1820 when the Erie Canal was under initial construction.

In the late 1730s William Johnson emigrated from Ireland to oversee the estate of Captain Peter Warren, uncle to Johnson, who purchased the tracts from Charles Williams, the original patentee. The large landholding was variously referred to as Warren bush, Warrensboro, Warrenburgh, Warren's town and the like. During this time, Johnson settled six Irish immigrant families in the area, but not all the settlers stayed due to the continued threat of French attacks, especially during King George's War. Eventually, Johnson started his own large estate north of the Mohawk but continued to control and lease out much of the land within Warrensbush. The J. Houck Historic Site is situated at the very western end of the Warrenbush patent, while the larger Houck farm appears to occupy former Lots 146, 147, 152, and perhaps part of 153. According to the Taylor map of 1795, which surveyed the lots laid out in 1766, a farmhouse was located northeast of the current excavations in Lot 147-the Houck farmstead. The J. Houck Historic Site is located at the very southern end of the lot but was likely constructed in the 19th century.

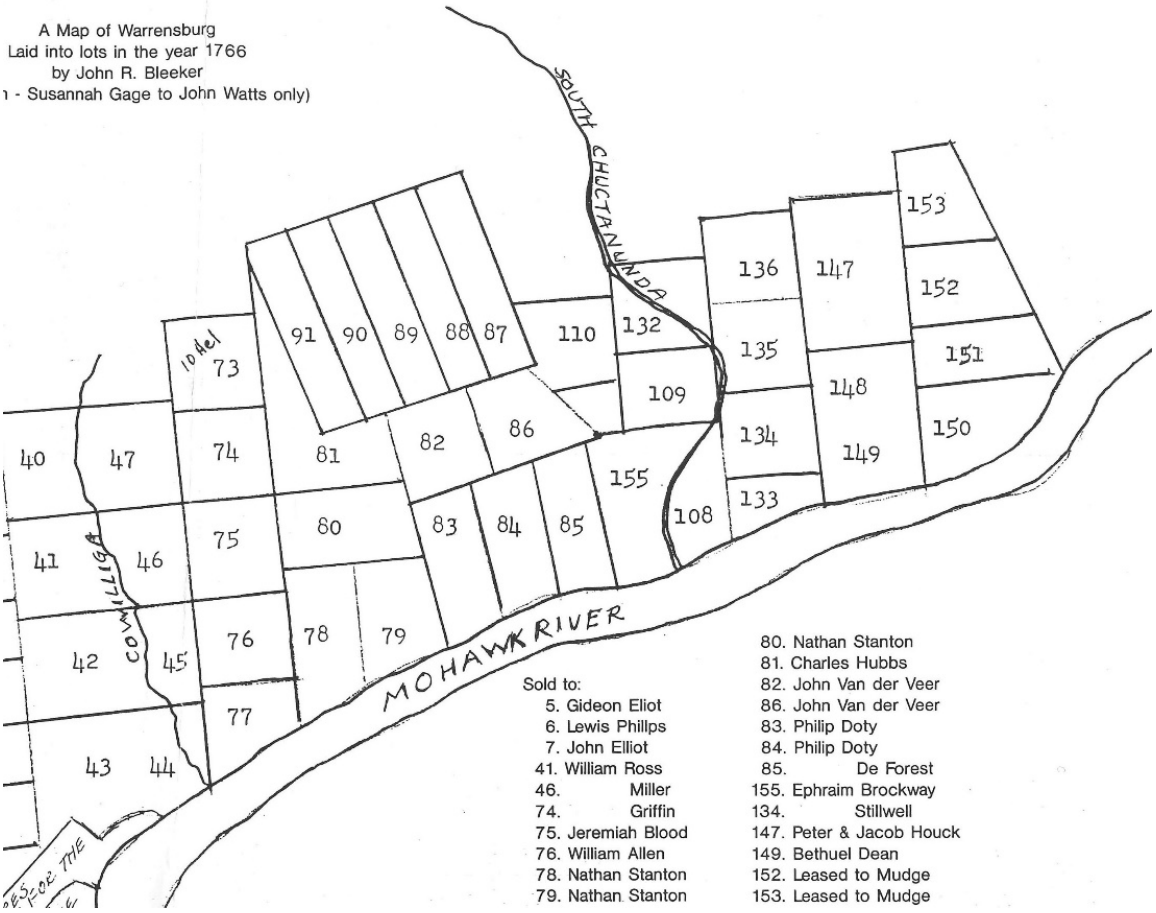

Figure 5. 1766 Bleeker *Map of Warrensburg Laid into lot in the year 1766* (Bleeker 1766).

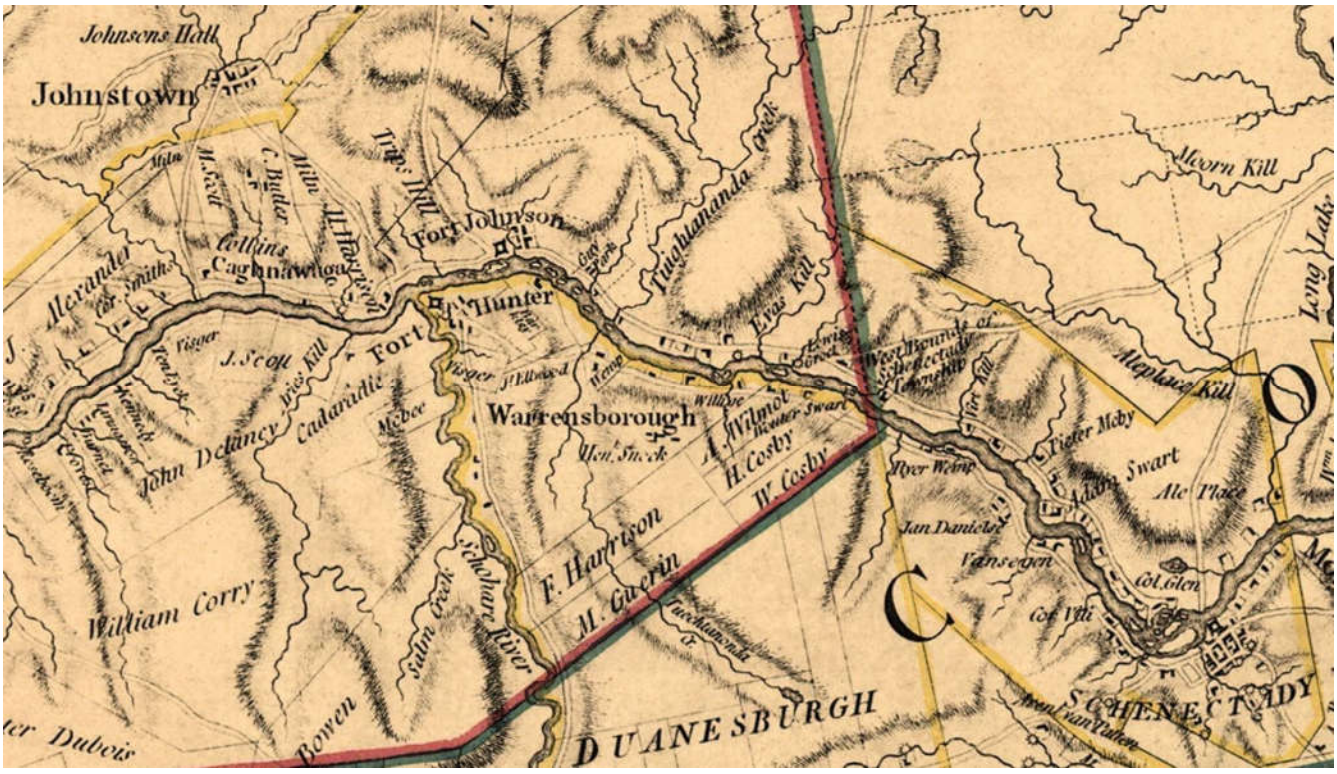

Figure 6. 1779 Sauthier *A Chorographical Map of the Province of New York in North America* (Sauthier 1779).



Figure 7. Houck House on 1766-1795 Warrenbush map. Underlay image courtesy of Google Earth. Note the tenant house is at the very southwest extent of the farm lot. The Houcks owned Lot 147 (lot numbers are upside down in this view).

By 1756 Johnson was appointed as Superintendent of Indian Affairs in New York. Over the next 30 years, Johnson made a remarkable impact on the area further advancing English interests and befriending and leveraging the assistance of the Mohawk Nation in colonial politics and warfare. Eventually Lots 82-86, the northeastern portion of the current Project, were sold to Henry Huff, and eventually many of the lots were purchased by John Watts, Jr. (Lampkin 2011). As an absentee landlord in New York City, both owner and tenants became disillusioned with the situation and by the end of the 18th century, Watts sold his holdings to the tenants on his land (Frothingham 1892:300). His interest in the area remained however, as his daughter Mary married Sir John Johnson, William's only son (Lampkin 2011).

As it relates to the Houck property, according to the 1793 deed, the farmstead was purchased by the family, but the surround farms were still leased to others, including Jeremiah Birch, Albert Franck, George Northman, and a small trio of framers known as "Mudge, Billing, and Truesdell."

During the Revolutionary War, the Johnsons helped to organize and recruit Mohawk raiding parties to attack farmers in the valley who joined the colonial cause. The Johnsons and the allied Mohawk Nation remained loyal to the crown throughout the war. It is likely, but not recorded, that the farms in the Warrensbush area were burned, destroyed, or otherwise abandoned until after hostilities ceased (Lampkin 2011). After the war the Johnsons fled to Canada, the Mohawks relocated northward, and many Loyalists properties were confiscated and sold. Despite his close ties with the Johnsons, Watt seems to have retained his property, but the situation likely proved perilous.

The Houck brothers, Peter and Jacob, appear to be some of the first renters of the larger Watts landholding to pursue purchase of their improved farmlands. It suggests that the family was able to raise substantial capital to make the payments, perhaps through family inheritance as evidenced in their grandfather's will of 1785.

3.3 Property/Family History

The Houck family were important in the settlement and early development of the community of Florida, New York. The Houck family had its roots in Holland and by the later 18th century amassed significant property in and around the Schoharie and Mohawk Valleys. Their grandfather, Hendrick Houck, lived in today's village of Esperance and farmed a rich plot of land along the creek since about 1729. His son, Peter Houck, apparently died at a relatively young age. As a result, much of the family's lands-holdings devolved to his still young sons and daughters, most of whom had yet to reach their majority. Two of the recipients of the Houck family largess were the brothers Peter and Jacob Houck. Jacob eventually settled on a farm in Florida by the early part of the 19th century.

The Town of Florida was formed from Mohawk on March 12, 1793, making the Houcks some of its earliest settlers. Peter and Jacob Houck were listed as recipients of "sundry lots" conveyed by John Watts in a document dated November 13, 1793 (F. W. Beers & Co. 1878: 111). The deed between Watts and the Houcks is dated 21 September 1793.

An 1801 New York Tax Assessment Rolls of Real and Personal Estates listed Jacob Houck with $2,690 real estate and $592 personal estate ($3,282 total), in addition to 5 dollars and 74 cents. The 1802 real estate and personal estate totals were the same, though Jacob Houck was listed with $4.10 in cash (Ancestry.com). Just a few years later, Jacob and Christina Houck's home was assessed as one of the most valuable properties in the Town of Florida in 1805 (Hartgen Archeological Associates 2008a).

Census records provide additional details such as who occupied the project area, their occupation, and where they were born. The following table lists the census date, head of household, and property occupants' ages, places of birth, and occupations from the 1810 Federal Census through the 1940 Federal Census.

Table 3. Population census records for the Jacob & Christina Houck House and the J. Houck Historic Site.

Census Date	Head of Household	Occupants	Listed Age	Place of Birth	$ Real Estate	$ Personal Estate	Occupation	Notes
1810 Federal	Jacob Houck	1 male	26-45	n/a	n/a	n/a	n/a	
		2 males	<10	n/a				
		2 females	<10	n/a				
		1 female	26-45	n/a				
		2 slaves		n/a				
1820 Federal	Jacob Houck	1 male	>45	n/a	n/a	n/a	n/a	
		2 males	16-26	n/a				
		1 male	16-18	n/a				
		1 female	26-45	n/a				
		2 females	10-16	n/a				
		1 black male slave	26-45	n/a				
		1 black female slave	14-26	n/a				
		1 black female-free	<14	n/a				
1830 Federal	Jacob Houck	1 male	50-60	n/a	n/a	n/a	n/a	
		1 male	20-30	n/a				
		1 male	15-20	n/a				
		1 male	5-10	n/a				
		1 female	50-60	n/a				
		1 female	20-30	n/a				
		1 female	10-15	n/a				

Census Date	Head of Household	Occupants	Listed Age	Place of Birth	$ Real Estate	$ Personal Estate	Occupation	Notes
		1 black male-free	10-23	n/a				
1840 Federal	Isaac Houck	1 male	30-40	n/a	n/a	n/a	n/a	
		2 males	10-15	n/a				
		1 male	5-10	n/a				
		1 male	<5	n/a				
		1 female	50-60	n/a				
		1 female	30-40	n/a				
		1 female	20-30	n/a				
		1 female	15-20	n/a				
		1 female	10-15	n/a				
1850 Federal	Isaac Houck	Isaac Houck	47	New York	10,000	n/a	Farmer	
		Catherine A. Houck	37	New York				
		Jacob Houck	17	New York				
		Peter E. Houck	11	New York				
		Maria Houck	64	New York				
		Betsy Cushion	18	New York				
1860 Federal	Jacob Houck	Jacob Houck	27	New York New York	16,000	1,700	Farmer	
		Adeline Houck	27	New York				
		Peter Houck	21	New York				
		Catherine Houck	49	New York				
		James Dennis	16	New York New York				African American
1860 Federal	John Miller	John Miller	45	New York	-	-	Farm Laborer	African American
		Jane Miller	45	New York				African American
1870 Federal	Jacob Houck	Jacob Houck	37	New York	18,080	3,680	Farmer	
		Adeline Houck	37	New York			Keeping house	
		Catherine Houck	60	New York			Keeping house	
		Peter Houck	32	New York			Farmer	
		Jane Miller	4					Peter Houck's daughter
1870 Federal	Loronzo Lisdell	Loronzo Lisdell	23	New York	-	100	Farmer	Believed to be living at the J. Houck Historic Site
		Anna Lisdell	19	New York			Keeping house	
		Minnie Lisdell	2	New York				

Census Date	Head of Household	Occupants	Listed Age	Place of Birth	$ Real Estate	$ Personal Estate	Occupation	Notes
1870 Federal	Jay Burt	Jay Burt	25	New York	-	100	Farming	Believed to be living at the Houck Tenant Farmhouse
		Lydia Loranzo	19	New York			Keeping house	
		Amy Burt	2	New York				
1875 State	Jacob Houck	Jacob Houck	42	Montgomery			Farmer	
		Adeline Houck	42	Montgomery			Housekeeper	
		Catherine Houck	65	Montgomery				
		Peter Houck	36	Montgomery			Farmer	
		Sophia Fink (?)	17	Germany			Domestic Servant	
		Benjamin Haven	24	Montgomery			Farm laborer	African American
		Jennie Houck	9	Montgomery				
1880 Federal	Jacob Houck	Jacob Houck	47	New York	n/a	n/a	Farmer	
		Adeline Houck	47	New York			Keeping house	
		Catherine Houck	68	New York			At home	
		Minnie Miller	17	Prussia			Servant	
		Benjamin Haven	27	New York			Laborer	Possibly living in the Houck Tenant Farmhouse
		John Bickford	18	New York			Laborer	Possibly living in the Houck Tenant Farmhouse
1880 Federal	Timothy Fero	Timothy Fero	44	New York	n/a	n/a	Farmer	Believed to be living at the J. Houck Historic Site
		Dorcas Fero	48	New York			Keeping house	
		Frank Fero	14	New York			At home	
		Josephine Fero	12	New York			At home	
1892 State	Jacob Houck	Jacob Houck	60	New York	n/a	n/a	Farmer	
		Adeline V. Houck	60	New York				
		Catherine A. Houck	81	New York				
		Annie Erkin	17	United States	n/a	n/a	Servant	

Census Date	Head of Household	Occupants	Listed Age	Place of Birth	$ Real Estate	$ Personal Estate	Occupation	Notes
		James Dence	19	United States	n/a	n/a	Laborer	Possibly living in the Houck Tenant farmhouse
		Benjamin Havens	41	New York	n/a	n/a	Laborer	African American; possibly living at the J. Houck Historic Site
		Grace Havens	31	United States	n/a	n/a	Dress maker	African American; possibly living at the J. Houck Historic Site
1900 Federal	Jacob Houck	Jacob Houck	67	New York	n/a	n/	Farmer	
		Adeline Houck	67	New York				
		Jay Morrimer	21	New York				Farm laborer
		Melissa Reese	17	New York				Servant
1900 Federal	John Miller	John Miller	32	New York	n/a	n/a	Farm laborer	Believed to be renting out the Houck Tenant farmhouse
		Kate Miller	30	New York				
1900 Federal	William [Sanders]	William [Sanders]	40	New York	n/a	n/a	Farmer	Believed to be renting out the house at the J. Houck Historic Site.
		Amelia Sanders	39	New York				
		Howard Sanders	14	New York			Farm laborer	
		Seymore Sanders	12	New York			At school	
		Morris Sanders	9	New York			At school	
		Erving Sanders	2	New York				

The first population record for Jacob Houck was in 1810 when he was between 25 and 45 years of age. At that time, he was living in the Jacob and Christina Houck House, just east of the J. Houck Historic site. He was listed in the population census as living with one woman of the same age, four children and two slaves (United States Census Bureau 1810). By 1820, the population record listed him as living with one woman, five children/young adults, two slaves (one adult male and one young adult female), and one free African American female under the age of fourteen (United States Census Bureau 1820). In 1830, Jacob Houck was between 50 and 60 years of age and lived with one woman of the same age, two young adult men, one boy, one young adult

female, one girl, and one free African American male between 10 and 23 years of age (United States Census Bureau 1830). According to cemetery records, Jacob Houck died in 1839 (Montgomery County History and Archives n.d.).

By 1840, the ownership of the Jacob and Christina Houck House was transferred to Jacob's son Isaac Houck. In the 1840 population census, Isaac Houck was listed as the head of the family between the age of 30 and 40. He lived with one female the same age, four boys, 1 young adult female, three girls, and one female between 50-60 years of age (United States Census Bureau 1840). Christina Houck, the wife of Jacob and the mother of Isaac died in 1847 according to cemetery records (Montgomery County History and Archives n.d.).

In 1850, Isaac Houck was recorded at age 47 and living with his wife, Catherine, 37. They had two sons, Jacob and Peter. The 64-year-old Maria Houck was living with them in this year (United States Census Bureau 1850b). Perhaps Maria Houck was Jacob's sister, but no documentation was found to support that assumption. In this year, Isaac Houck's farm was valued at $10,000 and he farmed 170 acres of land. His main crops were oats, rye, and corn. He had 9 horses, 4 milk cows, 9 beef cattle, 2 oxen, 34 sheep and 9 pigs. His livestock was valued at $718 (United States Census Bureau 1850a).

According to cemetery records, Isaac Houck died in 1850 (Montgomery County History and Archives n.d.). His son, Jacob, acquired the property of the Houck estate and was listed as the head of the household in the 1860 population census at the age of 27, living with his wife, Adeline. His brother, Peter, and his mother, Catherine, also resided with him. A 16-year-old African American boy named James Dennis, most likely a farm laborer, was also listed in the household. While young during his residence on the Houck property, Dennis later became a rather prominent member of the Town of Amsterdam.



Figure 8. Undated photograph of James Dennis in uniform, published in the *Amsterdam Evening Recorder*. The caption notes that "he is thought to be the only colored veteran in Montgomery county" (Montgomery County Historical Society).

Like the other tenants of the Houck farm, Dennis did not remain an occupant of the property for long. He was not recorded among the inhabitants of the Houck property on the 1870 census. *The Albany Journal* reported on February 20 of 1888 that "James Dennis, of Amsterdam, has been appointed janitor of the comptroller's office at Albany" (Montgomery County Historical Society). He later returned to Amsterdam, and his death was recorded in the *Amsterdam Evening Recorder* on December 18, 1914. He was described as "man of lowly station and black skin" with a "true heart," who "performed humble tasks for a living" and "never possessed much of this world's goods." The newspaper recorded that he "fought bravely for the Union during the Civil war," and "was a well-known member of the Grand Army of the Republic." He was official bearer of the flag at state encampments and carried the flag in Memorial Day processions in Amsterdam as a member of E. S. Young Post, 33, Grand Army of the Republic. The paper also noted that "everybody had a friendly word for 'Jim' Dennis. He had proved himself a man. In him were the essential qualities of the best American citizenship" (Montgomery County Department of History & Archives).

The 1860 population census record suggests that African American John Miller and his wife Jane were living in the house at the J. Houck Historic Site. It is believed that John Miller who was listed as a farm laborer in the population census living directly adjacent positioned west of the Jacob and Christina Houck House, was

working for Jacob Houck and living in this house on the Houck estate (United States Census Bureau 1860b). According to the 1860 agricultural census, the amount of land farmed increased to 264 acres, and the value of the farm increased to $16,000. The main crops this year were oats and corn. The value of livestock increased to $1,400 which included 8 horses, 5 milk cows, 20 beef cattle, 4 oxen, 45 sheep, and 5 pigs. John Miller was not listed in the agricultural census of this year; only landowners appear to have been recorded at this time (United States Census Bureau 1860a).

By 1870, James Dennis no longer lived at the Houck's main house but Jane Miller, a four-year-old girl, lived with the family. It is believed that this child was a relation to John and Jane Miller who lived next door in 1860 (most likely the daughter of Jane Miller). John and Jane Miller were listed as living in a different area of the town of Florida according to the population census for that year. Historical records show that John Miller acquired property in Amsterdam sometime after his move from the Houcks', which was described as "Lot 20 N.W. ¼ 40 [acres?] in Township 12, Old Military Tract" (Montgomery County Historian). Jane Miller passed away after 1860. On January 8, 1874, John Miller married Maria Miller of Canajoharie, and the couple relocated to that community, where they resided until John's death in 1887 at the age of 90.

The 1870 census records imply that farmer, Loronzo Lisdell rented land from Jacob Houck as well as the house which stood at the J. Houck Historic Site. He was 23 years old in 1870 and lived with his young wife, Anna and their daughter, Minnie. He is not recorded as owning any real estate in the population census but had $100 in his personal estate. There is another young farmer who lived directly next door. 25-year-old Jay Burt.

It is probable that Burt lived in what is known as the Houck Tenant Farmhouse which was situated directly east of the Jacob and Christina Houck House. Jay Burt lived with his young wife, Lydia and their 2-year-old daughter, Amy (United States Census Bureau 1870b). Neither Loronzo Lisdell nor Jay Burt were listed in the 1870 agricultural census because they were not property owners. According to the agricultural census of this year, the Houck farm decreased in size to 180 acres, but maintained the same value, most likely because Houck was renting out approximately 85 acres of farmland. The main crop continued to be oats, with an increase of their wheat crop. The farm was still heavy with livestock as they maintained 10 horses, 6 milk cows, 6 beef cattle, 2 working oxen, 23 sheep, 3 pigs, and 210 chickens (United States Census Bureau 1870a).

Jennie Miller who was listed in the 1860 population census living with the Houck family was in fact Peter Houck's daughter according to a later enumeration (New York State Census Bureau 1875). By 1880, Peter and Jennie did not live at the Jacob and Christina Houck House. In this year, Jacob Houck and his wife, Adeline continued to live in the main house with Jacob's mother, Catherine. They had a female servant from Prussia living with them and two male farm laborers. It is believed that the two males were living in the tenant farmhouse. Living directly next door to Jacob Houck was farmer, Timothy Fero and his family.

It is very probable that the Fero family lived in the house which used to stand at the J. Houck Historic Site. In 1880, Timothy Fero was listed at age 44 and his wife, Dorcas, was recorded as age 48. The couple had two teenage children (United States Census Bureau 1880b). According to the 1880 agricultural census, Timothy Fero was renting 85 acres of farmland in that year. It is believed that Fero was renting farmland from Jacob Houck while living at the J. Houck Historic Site. The 1880 census was the first time that the enumerators recorded whether a farmer was the owner or renter.

Jacob Houck's farm increased in value between 1870 and 1880 by $6,000. His main crop was still oats, but he did increase his buckwheat and corn crop. His wheat crop diminished from 200 bushels down to 18 bushels in that year. Houck had 6 horses, 5 milk cows, 7 beef cattle, 2 working oxen, 30 sheep, 5 pigs, and 120 chickens. Recorded immediately adjacent to Jacob Houck, was Timothy Fero in the 1880 agricultural census. Fero rented 86 acres of farmland from Houck in that year and his farm was valued at $9,000. His main crop was also oats, with his next largest crop being corn. He had 2 horses, 6 milk cows, 9 beef cattle, and 12 chickens. There are no later agricultural censuses available after 1880 (United States Census Bureau 1880a).

According to the 1892 state census, Jacob Houck and his wife Adeline were both 60 years old in that year, and his mother Catherine was 81. They had a seventeen-year-old female servant living with them, and an eighteen-year-old male laborer possibly living in the tenant farmhouse. It is believed that African American Benjamin

Havens and his wife Grace Havens lived at the house at the J. Houck Historic site in this year. The state census does not distinguish between households as the federal census does, so it is unclear if they lived in a separate house from the Houck family (New York State Census Bureau 1892).

Catherine Houck died in 1898 reported by the New York State Death Index (Ancestry.com 2019). In 1900, Jacob and Adeline Houck continued to occupy the Jacob and Christina Houck House. Living with them in this year was a young female servant and a young male farm laborer. Recorded living next door in the population census was John and Kate Miller. John Miller was listed as a 32-year-old farm laborer who rented out the house which he occupied. It is supposed that he and his wife were living in the Houck Tenant Farmhouse at this time. William Sanders and his family were recorded living next to the Miller's. William Sanders was documented as a 40-year-old farmer who rented out a house. Living with him was his wife, Amelia, and their four sons. It is believed that the Sanders family rented out the house which used to be located on the J. Houck Historic Site.

According to cemetery records, Adeline Houck, wife of Jacob Houck died in 1903 at the age of 70 and Jacob Houck died in 1905 at the age of 72 (Montgomery County History and Archives n.d.). John P. Van Vechten purchased the farm after the Houcks in 1903 and held the property through 1929. However, he doesn't appear to have lived on the property. The census records from 1905 through 1920 record him as living in Esperance during those years. He may have continued to rent the tenant house at the J. Houck Historic Site, as was the trend with many other landlords around this time, which would account for much of the later refuse recovered from the site. After the analysis of historical maps, it has been determined that the house which used to be situated at the J. Houck Historic site was demolished between 1905 and 1931 (Century Map Company 1905; USGS 1931).

3.3.1 The Houck Farmhouse

The main house is thought to have been constructed c. 1804 and was occupied until c. 2005. It was owned by Jacob and Catherine Houck and heirs from c. 1793 to 1878; and by Constantine Kuber from 1935 to 1957. The main farmhouse was dismantled c. 2005, and all other buildings were demolished around that time.

The NRE Jacob and Christina Houck House was one of the largest and most costly in the town. The home was accompanied by a small family cemetery. This Jacob, the grandfather of our "J. Houck," moved from Schoharie to the Town of Florida in 1793 and served in several official positions in the community (Frothingham 1892). Jacob, the grandson, was born in Florida in 1832 and inherited the property from his father Isaac upon his death in 1850. Jacob's brother, Peter, who spent many years living at the Jacob and Christina House, served as a First Lieutenant in New York's 153rd Infantry Regiment during the Civil War. Interestingly, according to Town Meeting Minutes from the Town of Florida historical records, Jacob Houck had a substitute for him to go into the Civil War in 1865 (W. Langworth).

Florida Town Meeting minutes revealed several other insights into Jacob Houck's community involvement. Houck was recorded as a "path master"/overseer of highways for District 2 in the Town of Florida. Houck also contributed to a "dog fund," although it is unclear what exactly this refers to. Later records also indicate that Houck claimed and/or was compensated for sheep damage.

3.3.2 Tenant Structures

Several generations of Houcks owned and occupied the house while providing two additional structures to tenant farmers. The J. Houck Historic Site was one of these rental properties. Examination of ceramics, food remains, and other material found at this this site offers to the opportunity to explore comparisons and contrasts between life in the main house and life as a Houck tenant and laborer, specifically the chance to examine issues of economic production and consumption as well as social status and how it related to ethnicity. The existence of documentary sources, such as a series of agricultural censuses listing specific details about these farm properties, allows an even more detailed and holistic analysis of these questions.

The following table summarizes the known (or suspected) identities of the tenants renting either the Houck Tenant Farmhouse adjacent to the main house or the J. Houck Historic Site home that is the focus of this study between 1860 and 1900. Due to the timing of censuses, it is likely that additional renters were present in the two properties which were not recorded.

Table 4. Summary of occupation of the J. Houck Historic Site

First Name	Last Name	Residence	Age	Census year	Occupation	Note
John	Miller	J. Houck Historic Site	45	1860	Farm laborer	African American
Jane	Miller	J. Houck Historic Site	45	1860		African American
Loronzo	Lisdell	J. Houck Historic Site	23	1870	Farmer	
Anna	Lisdell	J. Houck Historic Site	19	1870	Keeping house	
Minnie	Lisdell	J. Houck Historic Site	2	1870		
Jay	Burt	Houck Tenant Farmhouse	25	1870	Farmer	
Lydia	Loranzo	Houck Tenant Farmhouse	19	1870	Keeping house	
Amy	Burt	Houck Tenant Farmhouse	2	1870		
Benjamin	Haven	Houck Tenant Farmhouse	27	1880	Laborer	Presumably the same as the Benjamin "Havens" identified as an African American laborer in the 1892 census
John	Bickford	Houck Tenant Farmhouse	18	1880	Laborer	
Timothy	Fero	J. Houck Historic Site	44	1880	Farmer	
Dorcas	Fero	J. Houck Historic Site	48	1880	Keeping house	
Frank	Fero	J. Houck Historic Site	14	1880	At home	
Josephine	Fero	J. Houck Historic Site	12	1880	At home	
James	Dence	Houck Tenant Farmhouse	19	1892	Laborer	
Benjamin	Havens	J. Houck Historic Site	41	1892	Laborer	African American
Grace	Havens	J. Houck Historic Site	31	1892	Dress maker	African American
John	Miller	Houck Tenant Farmhouse	32	1900	Farm laborer	
Kate	Miller	Houck Tennant Farmhouse	30	1900		
William	Sanders	J. Houck Historic Site	40	1900	Farmer	
Amelia	Sanders	J. Houck Historic Site	39	1900		
Howard	Sanders	J. Houck Historic Site	14	1900	Farm Laborer	
Seymore	Sanders	J. Houck Historic Site	12	1900	At school	
Morris	Sanders	J. Houck Historic Site	9	1900	At school	
Erving	Sanders	J. Houck Historic Site	2	1900		

The J. Houck Historic Site housed a series of tenant farmers beginning prior to 1860 and continuing through at least 1900. Those recorded on available census records are marked in gray in the table above. Additional tenant farmers resided to the north near the main farmhouse, in what is referred to as the Houck Tenant Farmhouse.

3.3.3 The Houck Farm in the 19th century

The last will and testament of Jacob Houck provides some additional insight into the family's dynamics and possessions. Upon his death in 1839, Jacob Houck bequeathed "all my furniture in the dwelling house where I reside including silver plate" to his wife Christina, in addition to stoves, beds, and bedding, and "all the cattle and sheep" owned upon his death. Christina was also provided with "the use and occupation of the east half of the two story part of my dwelling house." Their son Isaac was tasked with providing for his mother and was bequeathed $2,000 and a horse of his choosing. Isaac's brother Jacob was to receive a horse of his choosing as well. Isaac was to receive "all the real estate, lands, and tenements belonging to me and situated in the town of Florida, Montgomery County, except about eighteen acres of land herein after described and which has for some years been in possession of Samuel Greenman Esq." Isaac also received "all my farming utensils, one pleasure sleigh and the pleasure two horse carriage, also all my horses not herein otherwise disposed of also my klock." Jacob and Christina's daughter Catherine received "two cows, and three two years old cattle and a mare

colt to be two or three years old." The plot of land possessed by Samuel Greenman, described as "north of lands belonging to me, east by the George Servoss farm, south by the highway and west by Samuel Greenmans land" was allotted to Isaac and Jacob. The family must have been financially comfortable, as both Isaac and his brother Jacob received plots of land in the Town of Glen, outside of the bounds of the Houck farm. Isaac and his sister Catherine also received sums of $2,000 and $1,500 respectively, while their sister Christina received $2,000 (Houck 1839).

It appears that Isaac Houck was elsewhere in 1855, but Jacob occupied the old family farmstead with his wife Adaline, his mother Catherine, younger brother Peter, his aged grandmother-in-law Maria Enders, and an English servant woman named Adelaide Smith. A decade later, the house was still fairly full. The grandmother passed away, but Jacob's brother remained and there were also two laborers in the house, James Hare (a local teenaged boy), and Shereson Flagg, a young German immigrant. The 1892 census still showed Jacob, Adaline, and Catherine (now 81 years old) living together with a female servant and a young female servant and male hired laborer.

The Houck family expanded the development of the property in the years following Jacob Houck Sr.'s death. Available agricultural census records indicate that farming operations gradually expanded between 1850 and 1880 under the supervision of Isaac Houck and his brother Jacob, with the farm valued at $22,600 in 1880. This is equivalent to a value of $640,575 today. The 1855 agricultural census lists a variety of goods including hay, grass seed, winter wheat, oats, barley, buckwheat, corn, potatoes, and apples. Animals raised on the farm included sheep, cows, horses, and pigs.

By 1868, family holdings appear to have extended along the road with one distant structure identified as J. Houck on the Map of Montgomery and Fulton Counties (Nichols 1868). This structure is the subject of the current archeological study. Archeological investigations suggest the structure was built earlier than this date although it does not appear on maps until this time.

By 1875, the farm's value had increased from $13,500 to $22,600, with more acreage being farmed. Agricultural census records indicate the addition of rye and flax into the crops, as well as cattle being raised for beef. Unlike many other farms throughout New York at time, the Houck family were able to maintain a diverse crop and livestock portfolio. Two farm hands had also been hired by this time, one of whom was likely Benjamin Havens. Havens was first recorded as a farm laborer for the Houcks in the 1875 New York State Census.

Table 5. Agricultural census records for the Jacob and Christina Houck House and the J. Houck Historic Site.

Year	**1850**	**1860**	**1870**	**1880**	**1880**
Landowner/Tenant	**Isaac Houck**	**Jacob Houck**	**Jacob Houck**	**Jacob Houck**	**Timothy Fero**
Acres of improved land	170	264	180	170	86
Acres of unimproved land	80		40	40	5
$ of Farm	10,000	16,000	16,000	22,600	9,000
$ Machinery	150	300	550	1,200	150
Horses	9	8	10	6	2
Mules and Asses				2	
Milch cows	4	5	6	5	6
Other cattle	9	20	6	7	9
Poultry			210	120	12
Working oxen	2	4	2	2	
Sheep	34	45	23	30	
Swine	9	5	3	5	
$ of Livestock	718	1,400	2,590	1,300	150
Rye (bushels)	150				
Indian Corn (bushels)	100	100	100	350	50
Oats (bushels)	400	1,000	700	1,217	400
Wheat	25	55	200	18	10

Year	1850	1860	1870	1880	1880
Buckwheat (bushels)	125	30	70	194	20
Rice (lbs)					
Tobacco (lbs)					
Wool (lbs)	63	100		150	
Peas & Beans (bushels)		20	15		
Irish Potatoes (bushels)	50	80	60	80	40
$ Orchard Products	20	25	25	90	20
Butter (lbs)	800	600	400	700	150
Cheese (lbs)					
Hay (tons of)	80	5	30	150	50
Beeswax & Hones (lbs)					
$ Home-made manufactures		8			
$ animals slaughtered	30	50	90		
Flaxseed (bushels)		50		72	50

There was little expansion to the farm between 1860 and 1870 and, in fact, agricultural census records indicate a reduction in the acreage of improved land between these dates. One factor impacting the Houcks was the enlargement of the Erie Canal. According to "AN ACT for the relief of Jacob Houck, Peter Houck and Catharine Ann Houck" passed March 26, 1861, a portion of the canal expansion was constructed through the Houck farm. Jacob Houck was drafted for the Civil War in 1863 at the age of 31 but had a substitute go in his place, in 1865 (W. Langworth).

Between 1850 and 1880, the Houck farm maintained between 4 and 6 milk cows and produced anywhere between 800 pounds of cheese in 1850, to 400 pounds of cheese in 1870. The Houck farm maintained a variety of livestock including horses, milk cows, other cattle, working oxen, sheep, swine, and, after 1860, poultry. The Houck farm appears to have maintained a small orchard as well, with orchard products valued between $20 in 1850, and $90 in 1880.

Landowner Jacob Houck and tenant farmer Timothy Fero are listed individually in the 1880 agricultural census. This indicates that the J. Houck Historic Site maintained its own animals in addition to the Houck's main farm. In 1880, the agricultural census lists 2 horses, 6 milk cows, 9 other cattle, and 12 poultry for the J. Houck Historic Site. No mules or asses, working oxen, sheep, or swine were listed under the supervision of Timothy Fero.

3.4 Tenant Farming

The Houcks maintained a general family farm throughout the 19th century and, likely because of the richness of the land, did not invest heavily in the production of hops or in dairying. Farmers who did needed access to capital for start-up costs and labor to maintain, harvest, and process these products. The diversified nature of the Houck farm helped to ensure long-term financial stability of the business. It seems probable that the Houcks resisted hiring laborers in order to maintain capital and instead relied on rental agreements that incorporated sharecropping to assist with land management of the 200-acre farm. These agreements further helped the Houck family manage risk and provided a modest but consistent means to maximize the production of the farmland without cash outlays. The Houcks made a modest investment in constructing two houses and possibly additional outbuildings on the farm, but leases, rent, and sharecropping likely required additional initial investment by the family.

Tenants and sharecroppers could find these agreements advantageous or exploitive, depending on the terms. As will be discussed, the Houcks appear to have provided an advantageous situation for both tenants and wage laborers on the farm. Benjamin Havens worked on the farm for at least 17 years. At least two separate dwellings were provided for tenants, and both laborers and servants lived in the main Houck house. While not an entirely

equitable situation, the Houcks provided their laborers with several different incentives to commit to long-term work on the farm.

Tenant farming is defined as agricultural production of lands by individuals (or groups of individuals) who do not own or possess the property. While some may rent the lands for cash, more typically tenants famers paid with "a portion of the agricultural output" as agreed upon between the parties. After the end of slavery in New York, landowners typically also provided housing or accommodation for the tenant farmers, as by default they became residents on the farm for a negotiated term (usually 1-3 years). Some owners would also provide equipment and even start-up cash for seeds and loan other necessary items. Tenants also likely were provided land for their own animals and for use in raising goods.

Sharecropping was similar, but virtually all the seed and equipment were provided by the landowner. As a result, virtually all the products grown were to be returned to the landowner. The distinction is slight, but middle-class landowners, like the Houcks, likely retained tenant farmers as they did not have the means to furnish all the materials up front. Further, the Houcks lacked the means to hire many laborers to farm all the 200 acres. As a result, they were likely happy with the modest income they could raise on idle land utilized by tenants. By the start of the 20th century 35% of all farmers in the state were hired laborers (Parkerson 2005:1544). But throughout the 19th century, tenant farmers were critically important to the overall agricultural economy, especially for more modestly sized farms.

Farm tenancy must also be viewed against the larger economic trends of New York State. In 1837 and again in 1857, severe economic downturns crippled many land-owning farmers, and those with outstanding debts often lost their property when mortgages and loans were called in. As result, through the 1840s and early to late 1860s (and again in the post-Civil War period from 1870-1890), there was a relatively large, unlanded labor force agreeable to tenant farming. In fact, some researchers believe that tenant farmers viewed the arrangement favorably and as "mutually beneficial" (Summerhill 1995:130).

Despite the economic headwinds, New York enjoyed its zenith in agricultural production between 1850 and 1870, often leading the nation in terms of overall agricultural output (Gates 1969:116). In part, this was due to the success of scientific farming practices, advances in equipment and technology, better transportation networks, and a strong labor force.

After the war, New York farmers were at the mercy of larger Midwest and western farms that could produce large amounts of wheat and other grains relatively cheaply. New Yorkers were forced to change and adapt. Many converted to the dairy industry which provided greater cash returns and the declining need for tenants and sharecroppers. Those farms that remained committed to grains and similar crops (like the Houcks) quickly exhausted the productivity of the farmland as crop rotation necessary for long-term sustainability were abandoned to keep pace with rising costs and declining sales (Gates 1969:134-137). Census records reveal the out-migration of farmers and the abandonment of farms starting in the 1880s and accelerating in about 1910 (Hoglund 1953:187). This appears to correspond with the decline of tenant farmers on the Houck property. Despite investment to enlarge and perhaps modernize the tenant houses, farm laborers needed a wage to economically survive. The modest land-owning farmer could not afford such a cash outlay, paling their farm and lively on the brink. The fact that Benjamin Havens' wife (Grace) was involved with tailoring, points to the precarious situation of both the tenant farmer and landowner, as both needed cash to surviving the quickly evolving economy of the late 19th century.

Despite the updates to the tenant house and likely better terms for working the land, tenancy was no longer economically viable at the end of the century in New York State. Like many farms, the old tenant house quickly fell into disuse, disrepair, and eventually collapsed.

3.5 Local 19th-Century Farmstead Models

The rich farmlands of Warrensburg (today's Florida) were prized assets during the 18th and 19th centuries. A review of some nearby farmsteads with a constellation of outbuildings that survived into the modern era is worth exploring to provide some context for the Houck farmstead.

The Schenck homestead (90NR01534) situated along present-day Route 5 in Palatine, New York, which was later sold to Montgomery County and became the Montgomery County Poor Farm and cemetery, and the Daniel G. Van Wie Farmstead (10NR06181) at 269 Brower Road, Palatine Bridge, New York, which includes a house constructed prior to 1853, a c. 1874 barn, and several additional agricultural outbuildings are good models for the Houck farmstead.

The Schenck mansion was a two-story brick masonry structure with a large brick-floored cellar and a large attic. Two northerly wings were described, one a two-story brick wing and the other constructed of wood. The c. 1870 two-story Italianate style Van Wie Farmstead house was constructed of clapboard with a wood frame and interlocking joints. The large Dutch clapboard barn was constructed with a wood frame with interlocking joints and resided roof. It contained a stable wing added in the 1920s, and two attached silos. One barn was built prior to 1853 by A. Van Wie (1826-1891). A second barn was constructed in 1874 by George VanWie. In addition to the well-preserved contributing structures, the property is significant due to its association with historic hop production and dairy farming in the region. The hop house remained extant as late as 1979 and contained its original slotted floor and some original cloth.

The Samuel and Johanna Jones Farm (92NR00383), situated along NY-67 west of the junction with NY-296, is another such 19th century farm. The "Jones Farm," as it is locally known, consists of a Greek Revival residence on a typical mid-19th century farmscape belonging to one of the earliest farming families in eastern Montgomery County. This c. 1840s farmstead consisted of the main house with a limestone foundation with weatherboard walls, a wood shingle and metal standing seam roof, and limestone steps, in addition to five contributing structures historically associated with the residence. These include a c. late 19th-early 20th century cow barn, a milkshed, a privy, a machine shed, and a chicken coop. At the time the National Register forms were completed, the house maintained several original features including hand grained marbleized fireplace mantle in the living room, some original woodgraining on doors and windows dated 1878, original working exterior blinds, much original rolled glass, the original stone slab floor in the basement, and the original laid up stone dug well.

Like the Houck family, the Jones family remained on their property over several generations. Five generations of Joneses resided on the farmstead. The Jones farmstead was located within a few miles of four major transportation systems that may also have been used by the Houck family. These included the Erie Canal, the Mohawk Turnpike, and the Utica and Schenectady Railroad, which were all running along the shores of the Mohawk River by 1835.

The Town of Florida was formed from Mohawk on March 12, 1793. After the Civil War, many New York farmsteads were roiled by declining prices on produce. Many turned to dairy farming, but this required a larger farm and investment in large dairy barns (Summerhill 2008). *The History of Montgomery County* noted that the town was "mainly agricultural" around 1878 and was "well adapted to a varied range of products, well able to keep pace with varying markets." Initially, wheat was the town's staple crop, succeeded by barley and eventually oats and other cereals. The publication also noted that "a good deal of fine fruit [was] also yearly produced for market, and home consumption" (F. W. Beers & Co. 1878: 108).

There was also a distinct rise in the number of tenant farms through the end of the 19th century. Throughout New York, merchants were purchasing struggling farms in outlying towns and leasing the land to tenant farmers (Summerhill 2008). However, farms in this region such as the Houck farm and Jones farm appeared to be successful and remained in the families for generations. The Houck farmstead relied on labor from tenant farmers between at least 1860 and 1900, according to available census records. Expansion to the tenant farmhouse at the J. Houck Historic Site indicates that, even with an additional tenant house near the main farmhouse, more space was needed for the tenant farmers on the property and resources were available to provide a more comfortable living space for these workers. There is evidence, however, that these practices may have occurred on the farm at the beginning of the 20th century. John P. Van Vechten acquired the farm from the Houcks in 1903 and held the property through 1929. However, it appears that he never lived on the property. The census records from 1905 through 1920 record him as living in Esperance during those years. He may have continued to rent the tenant house at the J. Houck Historic Site, as was the trend with many other landlords around this time.

The nearby properties belonging to the McClumpha family investigated by Ed Curtin (Curtin 2001, 2003) were contemporary farmstead sites to the J. Houck Historic Site and the Houck Farmstead and Cemetery. The two sites, designated the J. McClumpha Historic Archaeological Site (05704.000115) and the W. McClumpha Historic Archaeological Site (05704.000116), were associated with extant farms and outbuildings. Ceramic assemblages recovered from the two sites during Phase I archeological investigations indicated that they may date as early as the mid- to late-18th century.

Phase II archeological investigations indicated that the J. McClumpha Historic Archaeological Site (05704.000115), situated 2,350 feet northwest of the J. Houck Historic Site, was a pre-1853 historic site consisting of an 1893 Chicago exposition medallion, whiteware, pearlware, flow blue, yellowware, spongeware, lusterware, gray salt-glazed stoneware, hand-painted polychrome pearlware, creamware, slip decorated buff earthenware, hand wrought nails, vessel and window glass, metal figurine fragments, and porcelain doll fragments. The area in front of the house contained stratified deposits and 18th-century contexts, while the other areas around the house contained scattered mid- to late-19th and 20th century artifacts in mixed contexts.

The associated W. McClumpha Historic Archaeological Site (05704.000116), situated 1,910 feet northeast of the J. Houck Historic Site, was a pre-1853 historic site consisting of whiteware, semi-porcelain, pearlware, black-glazed redware, flow blue, yellowware, gray salt-glazed stoneware, hand-painted polychrome pearlware, creamware, vessel and window glass, and cut and wire nails. One area of the site contained a light density of late-19th and early 20th century artifacts associated with farm outbuildings. In another area, a rock feature with early 19th century artifacts was identified.

Both McClumpha sites produced several polychrome pearlware and transfer printed whiteware pieces with identical decorative patterns and/or vessel shapes, indicating they may have been acquired at the same time from a common source, or handed down to different family members.

The 2002 NYSDOT-sponsored archeological survey conducted by Hartgen Archeological Associates also identified the Keller/Walrath Farm, situated west of the J. Houck Historic Site (Hartgen Archeological Associates 2002). This farmstead consisted of an intact farmhouse at 1797 State Route 5S, a barn at 1803 State Route 5S, and a tenant farmhouse at 1767 State Route 5S, where a section of the old State Route 5S intersects with the new State Route 5S. Historical maps indicate that the map-documented structures for the main farmhouse and tenant house date to about 1853. These structures were demolished sometime after 2002 for the construction of the Alpin Haus company. Shovel tests in the vicinity of the tenant farmhouse produced a small assemblage of artifacts including faunal bone, sherds of redware, creamware, and whiteware, unidentified iron, vessel glass, a nut and bolt, and fragments of brick and mortar.

By 1875, the Josiah Walrath farm consisted of 159 acres and produced hay, wheat, oats, buckwheat, corn, potatoes, and peas, with apple and pear trees producing fruit and cider. Like other farms throughout the state, the Walrath farm also relied on tenant farmers as well as dairy production toward the end of the 19th century. The farm had 27 cows producing 600 pounds of butter and 10,000 pounds of cheese in 1874. Like the Houck family, Josiah and his wife Caroline resided with their two sons, a hired hand, and a domestic servant in 1865. However, it appeared that the Walrath sons worked the farm by 1874, as no hired hands are listed at this time.

According to an 1878 record, the portion of the property near the tenant farmhouse may have also housed one of the only stores in the region in the early 19th century, and the main farmhouse had been used as a tavern in the early 19th century (F. W. Beers & Co. 1878).

4 Phase III Data Recovery Field Research Objectives

The J. Houck Historic Site possesses data relevant to the historical development of the region. It has the potential to yield important information relating to household economics; it offers an opportunity to reconstruct patterns of tenant household production and consumption. These patterns can be compared to those for the main, higher status, Houck property and other contemporary farmstead sites such as the nearby property belonging to the McClumpha family that was investigated by Ed Curtin (Curtin 2001, 2003), thereby providing a wider regional perspective. Additionally, as many of the documented tenants were African

Americans, it can provide data useful in examining social organization of rural communities in the mid to late 19th century; in particular, questions relating to household status and ethnicity.

The following research objectives were identified upon completion of Phase II archeological investigations.

The J. Houck Historic Site has the potential to answer a wide range of research questions. These include the following:

- Phase II investigations suggested that the residential structure was expanded decades after the initial construction of the stone foundations and cellar. Can a more detailed construction history and chronology of the residential structure and its possible additions be reconstructed? Are any activity areas evident from the remains of the structure?

- Unit 1 from our Phase II study was terminated after it filled with ground water and did not reach the floor of the cellar. Can the floor be exposed and activity areas defined with the watertable lowered through the excavation of a sump?
- Previous work did not reveal the location of a privy, a common feature of 19th-century houses which often provides significant preserved remains that can shed light on a variety of issues. Can a privy or other important features, such as middens, be located?

- If so, can study of the night soils give us data on the health and diet of the home's residents? Can their remains help us reconstruct the socioeconomic status and/or ethnicity of the households occupying the site?
- Initial examination of the existing well feature suggests that it has been blocked with deposited field cobbles following abandonment of the residence. Does the well contain archeological remains below the field cobbles which could help us reconstruct life in this rural farmstead?

- Are there remains of the second structure (likely a barn) shown on the 1905 Century map? If so, is there evidence of its function remaining in the archeological record?

- Historical research on the property suggests that it was a rental home occupied by a series of tenant farmers, most working for the Houck family, who owned the residence and surrounding farmland. Previous research at the Jacob and Christina Houck House (Hartgen Archeological Associates 2003, 2008a) provided us information on their lifeways. How do the lives of tenants renting this property differ from those of their Houck Family landlords?
- Historical research revealed that several of these tenant farmers were African Americans living in the decades immediately following manumission of enslaved individuals in New York state. The Houck family is shown to have owned slaves as of the 1820 census (United States Census Bureau 1820). However, they continued to rely on labor provided by free African Americans long after that date. Can we recover information that would illuminate how ethnicity, social class and socioeconomic status were expressed and interrelated in rural New York communities during the 19th century? Can that data help us understand how African American laborers and former slave owners transitioned from enslaved labor to freedom?

5 Field Strategies and Methods

The survey methodology was completed according to the Data Retrieval Plan (DRP), and consisted of unit excavation, mechanical stripping of the topsoil, mechanical excavation of trenches within the foundation, and mechanical bisection of the well. Previous efforts to examine any contents of the well were hampered by a post-occupational deposit of field cobbles filling up to a depth of about five feet below the ground surface.

5.1 Mechanical Stripping and Trenching

Mechanical excavation of the topsoil was directed by the archeological crew. Topsoil stripping occurred within a designated area of archeological sensitivity. The plow zone was removed by a backhoe to a depth just above

the subsoil. Soils were piled next to the stripped area and investigated for artifacts. Backhoe excavations were photographed. Archeologists scraped the ground surface using hand tools and inspected the subsoil for features. Potential archeological features were documented with photographs and measured scale drawings. Stripped areas and potential features were mapped with a Trimble Geo 7X GPS unit.

Trenches were excavated stratigraphically, and soils were piled next to each trench and investigated for artifacts. Trench walls were cleaned and examined for artifacts in trenches that were less than four feet deep, and the walls were profiled and photographed. Trench locations were mapped with a Trimble Geo 7X GPS unit.

5.2 Unit Excavation

Units were square with dimensions of 1 x 1 meter. Soil levels were excavated separately, and all excavated soil was passed through 0.25-inch hardware mesh and examined for both precontact (Native American) and historic artifacts. Soil depths, Munsell colors, textures, artifact content, and other relevant observations were recorded (Munsell Color 2000). Profiles and plan views were drawn when appropriate. The location of each unit was mapped with a Trimble Geo 7X GPS unit. Unit excavation fieldwork and unit wall stratigraphy was photographed.

6 Artifacts and Laboratory

6.1 Methodology

As general procedure, all precontact (Native American) cultural material identified during the fieldwork are collected. Significant historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items are collected. Coal, ash, cinder, brick, and modern materials are noted. Any artifacts collected are placed in paper or plastic bags labeled by provenience and inventoried in a bag list. Bags are numbered in the field and transported to the Hartgen laboratory in the Town of North Greenbush, Rensselaer County, New York, for processing.

Shovel test records and other provenience information are entered into a Microsoft *Access* database. We are in the process of cleaning and cataloguing artifacts. Cataloging entails entering artifact provenience information, counts, weights, and descriptive information into the database.

6.2 Subconsultant Analysis

Faunal analysis was conducted on select samples by Marie-Lorraine Pipes, PhD, RPA of SUNY Geneseo. Faunal samples were sorted by class, species, and size range category, and were investigated for Total Number of Fragments (TNF) and the Minimum Number of Units (MNU), as well as skeletal element, portion, and age of death when possible. Furthermore, samples were categorized by type of meat unit and meat cut.

6.3 Curation

The cultural material assemblage from the data recovery study will make an important contribution to the study of New York history. As such, the collection should be placed in a suitable repository where it will be available for archeologists and other scholars to use in comparative analyses and studies. The New York State Museum (NYSM) is considered a suitable final repository for the collection. If the NYSM does not accept the collection, Hartgen will work with SHPO to find a viable alternative repository.

7 Results of Excavation of the J. Houck Historic Site (05704.000188)

Phase III archeological field reconnaissance was conducted between November 30 and December 16, 2020. The field crew consisted of Cynthia Jackson, Amy Wilson, David Wendell, and Matthew Hunt under the direction of Elizabeth Gregory. Matthew J. Kirk, MA, and Bradley Russell, PhD served as Principal Investigators.

Phase III archeological investigations consisted of unit excavation, mechanical stripping of the topsoil, mechanical trenching within the foundation and addition, bisection of the well, and feature documentation (Table 6).

Table 6. Summary of Phase III excavations

Field method	Qty/Area	Rationale	Results
Units	8 m^2	Investigate potential deposits near the well.	Low-density deposit identified south of the well.
		Investigate stratigraphy of fill within the foundation and identify potential deposits or living floor.	A layer of mortar was located beneath the post-depositional fill. Subsoil was reached below this layer in all units within the foundation.
		Identify boundaries of addition	Shallow units within addition suggest a more ephemeral structure or porch/patio
Mechanical stripping	Approx. 5,500 ft^2	Identify potential features in select areas of Loci 1-3	No archeological features were identified within the stripped area.
Mechanical trenching	3 trenches: (T1) 130 ft^2 (T2) 30 ft^2 (T3) 120 ft^2	(T1) Bisect the well feature to determine depth and identify potential archeological deposits	(T1) The base of well was reached around nine feet in depth. No significant cultural materials were recovered.
		(T2) Trench within the addition to investigate depth and construction	(T2) No substantial foundation or walls found in addition
		(T3) Trench within the foundation to investigate depth and construction	(T3) The base of the foundation was encountered around 2.9-3.3 feet in depth. The shallow depth indicates a crawlspace rather than a full cellar.

7.1 Units

A total of eight units, each measuring 1 square meter, were excavated during Phase III fieldwork (Units 10-17; Photo 1). Three of these units were placed within the original stone foundation (Units 10, 16, and 17). Unit 12 was placed just east of the original foundation, within the addition identified during Phase II fieldwork. Unit 13 was placed south of the foundation, at the entryway to the house. Units 14 and 15 were placed to verify the boundaries of the addition. Finally, Unit 11 was excavated south of the well to investigate any potential archeological deposits in this vicinity.

Unit 11, situated 50 centimeters south of the stone well, consisted of 14 centimeters of loose, soft very dark grayish brown silty loam. This was underlain by dark brown gravelly silty loam to a depth of 40 centimeters below the ground surface, and grayish brown. Beneath this, a pile of cobbles was noted in the northwest corner of Unit 11 at a depth between 43 and 59 centimeters below the ground surface. These large cobbles were not articulated, and it was suspected that these were discards associated with the construction of the well. Beneath this discard pile, mottled grayish brown, yellow brown, and brown silty loam subsoil was encountered. The mottling in the subsoil is indicative of an area that is consistently wet. This unit contained a low density of historic cultural materials. No concentration of cultural materials was observed. A 1976 dime was the only item collected from the first 10-centimeter level. Artifacts were consistent with those found elsewhere on the site. Cultural materials associated with the occupation of the site were collected from the second stratum, including olive container glass, bottle glass, cut nails, and transfer-printed whiteware. A small pile of cobbles in the northwestern corner of the unit at a depth of 45-60 centimeters may have been a discard pile created during the construction of the well. No cultural materials were recovered at or below this depth.

Units 10, 16, and 17, excavated within the original foundation footprint, contained a post-occupational layer of approximately 30-50 centimeters of large cobbles. The soil within the cobble layer was a black silty loam. Beneath the cobbles, soils consisted of very dark brown sandy silt to a depth of approximately 45 centimeters, underlain by about 7 centimeters of light brownish gray and pale brown sandy ash. The ashy layer was later determined to be disintegrated mortar. In Unit 16, a wooden board measuring 59 centimeters in length by 13 centimeters in width by 8 centimeters in depth was encountered running in a north-south direction at a depth

of 52-60 centimeters. Another board was roughly in line lengthwise with the first, with a 20-centimeter gap between the two ends. This coincided with the base of the mortar layer.

Beneath the mortar layer, soils consisted of approximately 11 centimeters of yellowish-brown silty clay, which transitioned to a thin lens of very dark gray-brown sandy loam atop brown silty clay with pieces of degrading shale. Unit 16 encountered sandier soils at the base of excavations. Excavations were terminated at a depth of 80 centimeters below the datum, as this was below the base of the foundation and the brown silty clay and olive brown sandy loam were determined to be B horizon soils. Far fewer artifacts were collected beneath the mortar layer. Units 10 and 16 encountered the base of the original foundation at a depth of approximately 60 centimeters below the datum.

A number of glass bottles, whiteware, stoneware, faunal bone, a sample of window glass, redware, several buttons (including three shell-buttons), olive vessel glass, pipe stems, and cut nails were recovered from these units. Although the age of the materials generally correlated with depth, with modern materials on the surface and in the first stratum, whiteware was recovered between 48 and 60 centimeters below the opening depth. It appears that the majority of cultural materials contemporary with the occupation of the house were recovered from the mortar level. Materials including wire, mattress springs, concrete, modern bottle glass, brick fragments, metal fragments, and miscellaneous modern refuse were not collected.

Units 12 and 15 within the addition did not identify any substantial structural remains (Photo 3). Unit 12 consisted of a thin layer of topsoil atop redeposited field cobbles. The topsoil, a very dark grayish brown silty loam, continued beneath the cobble layer and was underlain by a light olive brown silty loam subsoil. Several artifacts were recovered from Level 1, thought to be the occupational level, but no features were identified. Small pieces of mortar were noted in the eastern portion of the unit. Cultural materials included Albany-slip stoneware, hand-painted, transfer-printed, and undecorated whiteware, pearlware, a decorated pipe stem, flat and curved colorless glass, cut nails, metal hardware, faunal bones, clam shells, and mortar. No cultural materials were recovered from the subsoil, which began at a depth of 35 centimeters below the ground surface.

Unit 14, placed north of the house between the original foundation and the addition, confirmed that the structure did not extend north of the footprint proposed during Phase II work. This unit contained approximately 15 centimeters of very dark grayish brown silt loam over dark brown silt loam, which was underlain by a compact dark yellowish brown silty sand subsoil. Consistent with the rest of the site, ceramics including whiteware and yellowware, bottle glass, window glass, cut nails, metal hardware, shell, and faunal bone were recovered from the two upper strata of this unit. Unit 15 was excavated at the southeastern corner of the addition. Ceramic sherds (including whiteware), white salt-glazed stoneware, faunal bone, shell, cut nails, a metal spike, window and bottle glass, and pipe stems were collected from this unit. A large increase in the number of recovered nails was noted in Level 2 at a depth of 30-40 centimeters below the ground surface. This level also contained small cobbles in the northern portion of the unit, which may have marked the boundary of the addition. At a depth of 50 centimeters, however, the rocks extended throughout the unit.

Unit 13, located south of the foundation at the suspected entrance to the house, consisted of 15 centimeters of dark yellowish brown silty loam containing minimal historic cultural materials. This was underlain by 15 centimeters of brown silty loam and 10 centimeters of dark yellowish brown silty loam containing historic ceramic, window glass, and vessel glass, faunal bone, shell, and a button. Beginning at a depth of 40 centimeters, the silty loam levels were underlain by yellowish brown silty clay that is characteristic of the subsoil within the site. Unit 13 contained a large flat rock in the southeast corner 5 centimeters below the ground surface that may have been associated with a walkway or entryway. However, no other rocks were in this unit at this depth. Another large, flat stone was found in the southwestern corner of the unit at a depth of 40 centimeters below the ground surface. This was partially underlain by another rock and a brick. Artifacts recovered from this unit were consistent with those found throughout the site; notable finds included a button and a metal buckle.

As noted during Phase II archeological investigations, with the exception of the post-occupational deposits, the artifacts collected during the Phase III Data Retrieval appear to be consistent with an occupation lasting from the early to mid-19th century until the early 20th.

7.2 Mechanical bisection of the well

Trench 1 was excavated as an east-west bisect of the historic well, located northeast of the foundation (Map 2; Photo 4). The northern section of the well and the surrounding soils were removed, in addition to the post-occupational deposit of field cobbles within the well. This trench was excavated to determine the depth of the well and to identify potential archeological deposits within the well that may have been located beneath the cobbles.

Trench 1 was excavated to a total depth of approximately 10 feet below the ground surface. The base of the well was reached at around nine feet, and was marked by a large, flat stone. Bisection of the well identified a builder's trench extending approximately two feet on either side of the well. The well did not contain a significant cultural deposit; only one complete brick, brick fragments, and a dog collar were recovered (Figure 9).



Figure 9. A dog collar was recovered during mechanical excavations of the well (Item 99.1).

The well was photographed and documented with a measured-scale drawing (Drawing 5). Trench 1 was backfilled upon completion of this documentation (Photo 5).

7.3 Mechanical trenching within foundation

Trench 2 was excavated east of the original foundation through the northern portion of the addition (Photo 6). Excavations were terminated at a depth of approximately 1.5 meters below the ground surface, into the subsoil, to verify that no substantial foundation was present. As seen in Unit 12, small cobbles were located beneath a layer of topsoil. A line of similar small cobbles was noted beneath the larger deposit and appeared to be aligned north-south amid a dark stain in the subsoil. The cobbles were not articulated, and no mortar was observed between the stones. It is possible that these stones marked the easternmost extent of the addition. Mixed historic cultural materials were collected from the backdirt during excavations and appeared consistent with materials collected during excavation of Unit 12. Trench 2 was photographed and documented.

Trench 3 was excavated within the original portion of the foundation, to investigate the depth of the structure and identify a potential living floor (Photo 7). This trench, excavated in the northern half of the foundation, measured around 8 square meters. The stratigraphy observed during trenching was consistent with that seen in Units 10, 16, and 17 (Photo 2). The base of the foundation was reached at a depth of around 90-100 centimeters below the ground surface. The trench was excavated to a depth of about 135 centimeters below

the ground surface within the foundation, into the subsoil, to ensure the base of the foundation was reached. The exposed portions of the northern and western walls were cleaned off, photographed, and documented with measured scale drawings. A redware drainage pipe was installed in the northwestern corner of the foundation, near the base of the stones. Given how wet the site was during the Phase I and II archeological investigations, it is not surprising that this would have been necessary to drain the cellar or crawlspace. A wooden plank was also documented in the northern wall near the base of the foundation, and may have been a part of a wooden floor within the crawlspace. A similar wooden plank was found at approximately the same depth in Unit 16. However, no other wooden elements were observed during unit excavation or trenching within the foundation.

The ashy layer observed during excavation of other units within the interior of the original foundation footprint was determined to be disintegrated mortar. All excavated trenches were backfilled upon completion of archeological investigation and documentation.

7.4 Mechanical stripping

Mechanical stripping was conducted in the area to the north and west of the foundation. The topsoil was removed by a Volvo backhoe with a toothless bucket from an area measuring approximately 500 square meters, to a level just above the subsoil. Archeologists scraped the uppermost portion of the subsoil stratum using hand tools to look for features. Artifacts were collected from the backdirt piles in three arbitrary sections: north, west, and northwest. Artifacts collected during the stripping were consistent with those found in the Phase I and II investigations, as well as other artifacts collected during Phase III fieldwork. These consisted primarily of glass bottles, ceramic sherds, metal, brick, and other miscellaneous debris. The remains of the collapsed chimney identified during Phase II fieldwork were noted along the western wall of the foundation. The bricks were cleared away to inspect the ground surface.

Several large rocks were observed just north of the foundation, but further examination indicated this was not a feature. No archeological features, including privies, barns, or other outbuildings, were observed within the stripped areas. The remains of the second structure shown on the 1905 Century map, likely a barn, were not identified during hand excavation or mechanical stripping in the vicinity of the foundation.

7.5 House

Unit 1 from the Phase II study was terminated after it filled with ground water and did not reach the floor of the cellar. Fortunately, site conditions during Phase III archeological investigations were far drier than they were during any of the previous investigations. As such, excavation of a sump was not necessary. Hand excavations reached the base of the foundation in the northeast corner, within Unit 10, at a depth of approximately 95 centimeters below the ground surface. The shallow depth of this feature indicates it may have been more of a crawlspace than a full cellar. Subsequently, the northern half of the foundation was mechanically excavated to expose and document the interior of the northern wall (Trench 3). Upon its completion, Trench 3 measured approximately 2 meters x 4 meters. A wood beam and unglazed redware drainage pipe were exposed in the northwest corner of the foundation. Wooden planks identified in Unit 16 running in a north-south direction at a depth of 52-60 centimeters coincided with the base of the disintegrated mortar layer and were identified at roughly the same depth as a wooden plank in the northern wall of the foundation. These may represent a portion of a wooden floor at the base of the foundation.

Phase II investigations suggested that the residential structure was expanded decades after the initial construction of the stone foundations and cellar. Phase III archeological fieldwork investigated whether a more detailed construction history and chronology of the residential structure and its possible additions could be reconstructed.

Units excavated in the vicinity of the house and mechanical stripping conducted north, northwest, and west of the original foundation footprint did not identify a privy or any additional outbuildings. Phase III archeological investigations produced no evidence of other additions aside from the L-shaped addition identified during the Phase II fieldwork. Unit 14, excavated north of the foundation at the expected seam of the original foundation and addition, was placed to investigate the possibility of further additions to the north. No structural features

were noted in Unit 14. The unit appeared to be situated outside of the house footprint, confirming that there was not another addition extending northward. Furthermore, mechanical stripping north, northwest, and west of the house did not provide any evidence that the house had been further expanded.

7.6 Artifact Analysis

Historic cultural materials collected during archeological investigations of the J. Houck Historic Site are consistent with the site's use as a tenant farmhouse throughout much of the 19th century into the early 20th century. Although historic cultural materials collected throughout the J. Houck Historic Site ranged in date between the early 19th century and the mid-20th century, most artifacts appeared to date to the late 19th century.

A significant number of post-occupational materials were also recovered, generally dating between 1920-1940. These artifacts tended to be deposited at or near the ground surface, including the stripped area north and west of the original foundation footprint, and around the cobble layer within the original foundation footprint.

7.7 Distribution Patterns and Activity Areas

Artifacts were categorized by functional groups to investigate distribution patterns and possible activity areas within the site. Functional groups included domestic artifacts, architectural items, food, activities, personal items, hardware, and furniture. Artifacts were examined for additional information, including possible dates, and date and function were analyzed to link artifacts to occupants of the property. Upon further investigation, several more specific categories emerged including sewing machine parts and buttons, children's toys, vessel glass, and kitchen and food related items.

Examination of cultural materials from a midden identified in Unit 1 during Phase II archeological investigations indicated that much of the midden material appear to have been discarded in the 1920s based on the latest Level 1/surface TPQ of 1923 from a kerosene lamp base. The deposit also contained a significant amount of earlier material with TPQs as early as 1805, from grey bodied stoneware. These may have been deposited at an earlier date, suggesting a long accumulation of material. However, based on their clear association with later materials, it seems more likely that they had been curated for some time before being discarded in a midden formed after the house was demolished. The material from Level 2 appeared to be slightly earlier with the latest TPQ being 1905, the same year that the house was last shown on reliable historic maps. This suggested that the basement hole began being used as a dump soon after the structure was demolished.

This trend was also noted throughout Phase III archeological excavations. Earlier materials were recovered within the house footprint including a Kenrick's Patent Coffee Mill from Level 1 of Unit 17 (TPQ 1815) and the associated grinder, a fragment of ironstone from Trench 2 dated 1853-1861, and sherds of buff/pink-bodied salt-glazed stoneware associated with potter Nathaniel Hudson, dated c. 1850 through 1860 were recovered from Level 2 of Unit 11 as well as Levels 1 and 2 of Unit 10. However, these were also recovered from contexts associated with materials of a later date including cosmetic jars and other vessel glass manufactured by the Hazel-Atlas Glass Co. (TPQ 1923), bottles manufactured by the Owens-Illinois Glass Co. (TPQ 1929), wire nails, and whiteware with a polychrome decal (popular c. 1890-1930).

Subsequent levels similarly contained slightly earlier materials like a Peter Dorni ball clay-white tobacco pipe with molded decoration recovered from Level 4 of Unit 15 (TPQ 1850), though items such as an unglazed buff bodied stoneware pie pan (c. 1880-1920), dating toward the end of the structure's occupation, were recovered near the base of the post-occupation deposits.

7.8 Sewing machine parts and buttons

Several artifacts associated with sewing activities were recovered during Phase III archeological investigations at the J. Houck Historic Site. These included a variety of buttons (Figure 12) and what appeared to be two sewing machine foot pedal parts (**Error! Reference source not found.** and Figure). Based on images in an 1897 Sears Roebuck and Co. catalog, the sewing machine parts appear to date to the late 19th century. The two

potential sewing machine parts were recovered from Unit 12 and Trench 3. They appear to be pieces of the foot pedal mechanism of a stand or drop head sewing machine (Sears Roebuck and Co. 1897: 698-702).



Figure 10. A part of a sewing machine foot pedal mechanism was recovered from Trench 3 (Item 108.8).



Figure 11. Sewing machine foot pedal was recovered from Unit 12 (Item 65.15).

The quantity and variety of buttons also indicate some clothing manufacturing occurred on the property, rather than simply everyday clothing repair needs. These included three shell buttons, one of which was made of mother-of-pearl, and six China buttons manufactured by the Prosser process (Figure 12). Buttons manufactured by this process became readily available around 1840. Two of the Prosser-type buttons were

decorated, one with a gingham type pattern, and the other with the circumference painted red. While dating such buttons by decoration is somewhat unreliable, the gingham-type decoration appears to have been popular beginning around 1840 as well. All Prosser buttons recovered during this investigation were the four-hole type, the most common form found on archeological sites.

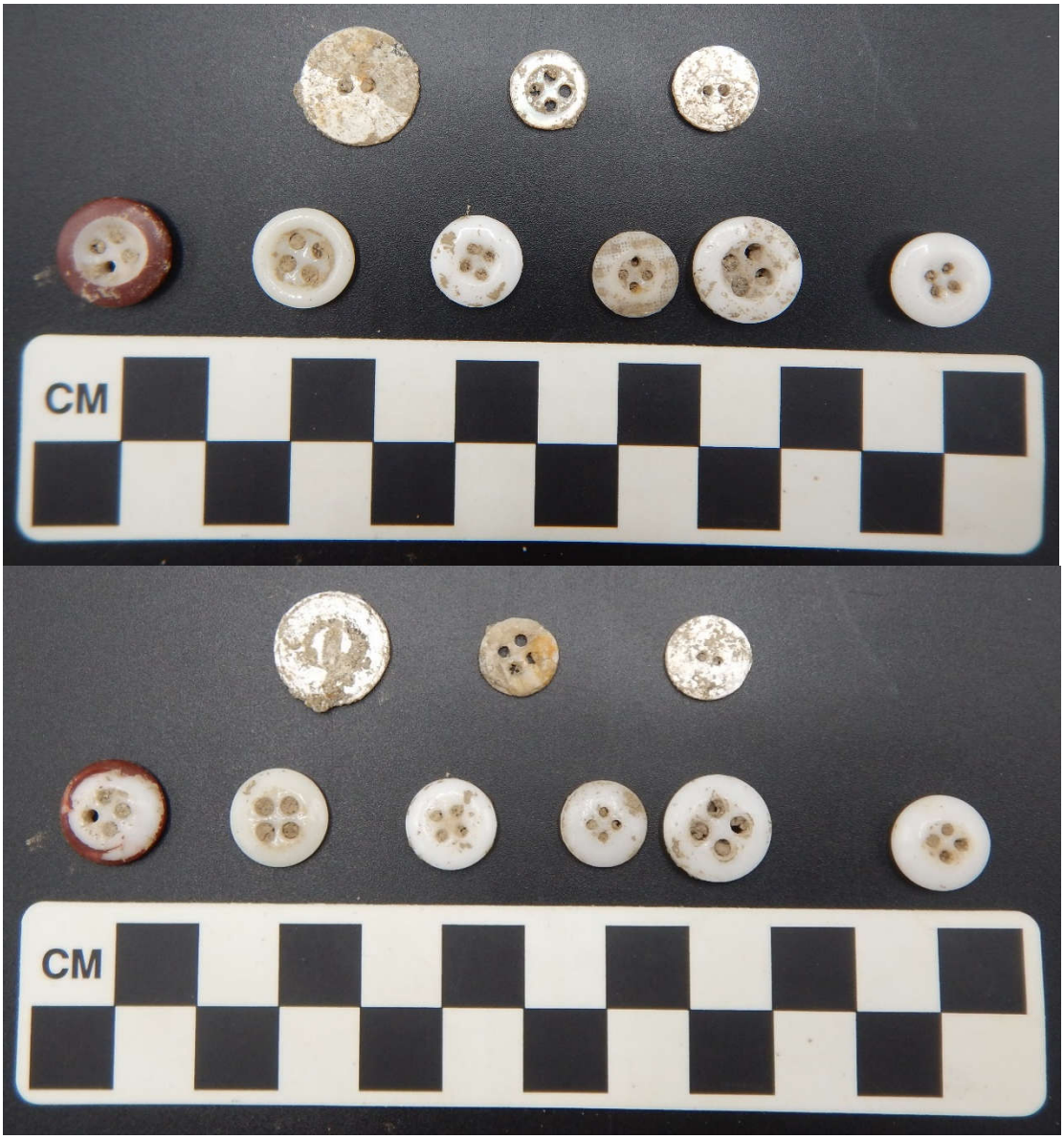

Figure 12. A variety of buttons were recovered throughout the site. Front (top photo) and rear (bottom photo) views. Top row (from left to right): Items 82.4, 86.4, and 86.5; Bottom row (from left to right): Items 59.7, 68.8, 69.8, 86.6, and 116.6.

The 1892 New York State Census records indicate that Grace A. Havens, wife of laborer Benjamin D. Havens, was a dressmaker who is believed to have resided at the J. Houck Historic Site. Both Grace and Benjamin were African Americans. Benjamin had resided on the Houck property for over 17 years, having been first recorded as a farm laborer for the Houcks on the 1875 New York State Census, and as a laborer living at the Houck Tenant Farmhouse on the 1880 Federal Census. The approximate date of the buttons and sewing machine parts recovered from this site correspond to the occupation of the house by Benjamin and Grace, and it is likely that these artifacts were used by Grace during her residence here.

Benjamin was born in the Town of Glen, Montgomery County, New York, in 1848 and was a lifelong resident of Montgomery County. The 1850 census records the family as "free inhabitants" residing in the Town of Glen. In 1860, 12-year-old Benjamin lived with his brother William H. Havens (13) and sister Mary L. Havens (4), as well as John Havens, a 51-year-old laborer, Lucinda Havens (32), and Rosa Havens (70). Although the three adults of the household could not read or write, William and Benjamin had both attended school within the year the census was recorded. Benjamin was recorded as a laborer at age 17, and later more specifically as a farm laborer along with his brother and father. He had moved out of his parents' house by 1875 and was recorded as a 24-year-old African American farm laborer from Montgomery County on the 1875 New York State Census. The 1880 Federal Census recorded Havens as a "servant" for the Houck family, with an occupation of "laborer."

Benjamin and Grace Havens were married around 1886. No marriage record is available for the couple. Little to no information is available about Grace's childhood, including her maiden name. The 1892 New York State Census records Benjamin (41), a laborer, and Grace (31), a dressmaker, residing on the Houck property. The couple did not have any children.

Like Jacob Houck, Benjamin Havens was active in the community and appears to have been well-liked. The *Troy Daily Times* noted in an article called "Amsterdam," dated August 8, 1896, that "a colored Republicans club has been organized with Benjamin Havens as president." An article in the *Amsterdam Evening Recorder* dated May 2, 1902, recorded that

> *The funeral of Benjamin Havens was held this morning at the African M.E. church on Cedar street, and was largely attended. The Rev. T.A. Auten officiated, and he was assisted by the Rev. J.R. Kyle of the First Reformed church. The internment was made at North Broadalbin. A large number of friends were present from out of town, and a delegation of Masons from Mt. Moriah lodge of Troy also attended.* (Montgomery County Historical Society)

Most of the artifacts that appear to be associated with Grace Havens and her occupation as a seamstress were recovered from the northeastern corner of the original house footprint (Units 10 and 16, Trench 3) and the northwestern corner of the house addition (Unit 12). Three buttons were recovered elsewhere within the site. Two were recovered from Unit 13, which was situated near the suspected entrance of the house. The third was recovered from the stripped area near the original house foundation.

Grace likely tended to her business in addition to the tasks generally assigned to women on the farm, such as raising poultry, milking and feeding the cows, sheep and goats; churning butter, as well as dressing and butchering animals culled from their herds (Bruegel 2002). The fact that Grace was also engaged in tailoring suggests she was active in the local community and developed economic relationships with neighbors and friends in the vicinity. Her domestic and wage labor likely provided her with a certain amount of individual autonomy within the Havens family, and may also suggest that she was responsible for purchasing many of the housewares, tablewares, and other goods and personal items within the tenant house during their stay.

Table 7. Artifacts likely associated with Grace A. Havens, by provenience

Provenience	Artifact ID	Description	Date
U 10 L 3	59.7	Button, four hole sew through, Prosser type, painted red around circumference, diam 1.5 cm	TPQ 1840
U 13 L 2	68.8	Button, four hole sew through, Prosser type	TPQ 1840
U 13 L 3	69.8	Button, four hole sew through, Prosser type, diam 0.8 cm	TPQ 1840
U 16 L 2	82.4	Button, two hole sew through, shell, diam 1.1 cm	
U 16 L 3	86.4	Button, four hole sew through, shell/mother of pearl, diam 0.7 cm	Popularity peaked c. late 19th-early 20th c.
U 16 L 3	86.5	Button, two hole sew through, shell, diam 0.8 cm	
U 16 L 3	86.6.1	Button, four hole sew through, Prosser type, diam 1 cm	TPQ 1840
U 16 L3	86.6.2	Button, four hole sew through, Prosser type, diam 0.8 cm, plaid/checkered pattern	TPQ 1840
GP	115.6	Button, four hole sew through, Prosser type	TPQ 1840

Provenience	Artifact ID	Description	Date
Unit 12	65.15	Sewing machine foot pedal	Late 19th-century (post-Civil War)
Trench 3	108.8	Possibly associated with sewing machine foot pedal mechanism	Late 19th-century (post-Civil War)

Rural African Americans in the late 19th century were oftentimes transient. After the couple's move to Amsterdam, they were recorded at three different residences within 0.1 mile of one another, 45 Arch Street, 40 Center Street, and 45 Florida Avenue (Figure 13). These were all situated approximately 1.8 miles east of the J. Houck Historic Site. The U.S. City Directory for Amsterdam, NY records the couple residing at 40 Centre Street, Amsterdam, NY, in 1893 where Grace continued her dressmaking business while Benjamin worked as a coachman. They lived here for at least three years.

The 1900 census records Benjamin Havens (b. April 1854), aged 46, lived in Amsterdam Ward 5, Montgomery County on 45 Arch Street. He was married to Grace Havens (b. March 1860), aged 40, in 1886, and at the time of the census the couple had been married for 14 years. He was listed as a gardener, both could read and write, and the couple rented a house. The couple did not have any children. Both had been employed the entire year. They resided with Malissa M Havens (64), Benjamin's widowed aunt, born April 1836. She had five children, none of whom were living in 1900. She could also read and write. Today, 45 Arch Street is situated across the street from 40 Center Street.

By 1901, the family had moved to 45 Florida Avenue, which was located near their previous residence and was also situated approximately 1.8 miles east of the J. Houck Historic Site. Benjamin was listed as a farmer in the city directory and probably commuted to work at the Houck farm.



Figure 13. Residences of Benjamin and Grace Havens between 1893 and 1901. Base imagery courtesy of Google Earth.

7.9 Children's Toys

Although Benjamin and Grace Havens did not have children, historical records indicate that at least several children of other farm laborers resided on the property at one time or another. The remnants of children's toys, including bisque doll parts and an unglazed porcelain marble, were recovered from Units 13, 15, and 16

during Phase III archeological investigations. These toys generally dated to the late 19th century. Three additional toys were recovered during Phase II archeological investigations and included a glass marble and metal toy car from Unit 7, and a porcelain doll head from Unit 1. The toys recovered from Unit 7 were later in date, perhaps as late as the 1920s, while the porcelain doll head looks similar to German-made porcelain dolls popular in the early 20th century.

Marbles are inexpensive toys that have been produced in a variety of forms for centuries. Painted unglazed porcelain marbles such as the one recovered from Level 3 of Unit 15 were first produced in Germany in the early 1800s but became popular in the United States after about 1850. It appears that the decoration was developed in response to competition from new decorative glass marbles that became available around 1846 (Herring Run Archaeology Project 2019). According to Carskadden and Gartley, most of the toy marbles found on 19th-century American archeological sites were originally imported from Germany. It was not until the first decade of the 20th century that commercial marble production, particularly for mass production of glass marbles, really took off in the United States. Around World War I, improved production and marketing strategies, along with resistance to German-made products, meant that American-made marbles overtook their once-popular German counterparts. Porcelain marbles tend to be scarce in archeological assemblages dating c. 1900-1910 (Carskadden and Gartley 1990). This indicates that these marbles fell out of popularity fairly early in the first decade of the 20th century. By 1910, American machine-made glass marbles had become readily available to marble players, and that year will be used here to indicate, generally, the time after which porcelain marbles were no longer manufactured.



Figure 14. Children's toys collected during Phase III archeological investigations at the J. Houck Historic Site. Top, unglazed and decorated porcelain marble (Item 76.4); Bottom, bisque doll parts from left to right, Items 69.12, 89.3, and 75.7.

Interestingly, Germany had a thriving toy market for dolls as well, and the porcelain doll head collected from Level 1 of Unit 1 appears like similar German-made dolls produced in the early 20th century (Doll Reference 2004). Three bisque doll fragments were recovered from Units 13, 15, and 16. Bisque is unglazed porcelain, and these dolls often had color added for more realistic skin tones and facial features. However, none of the bisque doll parts recovered at the site had added color. Bisque dolls were first produced in the late 1860s and were popular through the early 20th century. Earlier bisque dolls were produced in France, with production

shifting to the Thuringia region of Germany in the 1880s and 90s (Van Patten 2019). Unlike marble production, Germany was able to reestablish some of its old trade in the porcelain doll market after World War I (Carskadden and Gartley 1990).

Table 8. Children's toys by provenience

Provenience	Artifact ID	Description	Date
U13 L3	69.12	Bisque doll parts	Late 19th c.
U15 L2	75.7	Bisque doll parts	Late 19th c.
U16 L5	89.3	Bisque doll parts	Late 19th c.
U15 L3	76.4	Marble – similar to German made unglazed porcelain	Late 19th c.
U7 L1	13.1	Glass marble	Midden trench, c. 1920s?
U7 L1	16.1	Metal toy car	Midden trench, c. 1920s?
U1 L1	8.1	Porcelain doll head	c. early 20th century, many German made

Of the tenants recorded as residents of the property in available state and federal census records between the mid- to late-19th century, there were only a few children listed. Some of these toys may have been associated with Minnie Lisdell, born in 1868, who resided on the J. Houck Historic Site in 1870 but had moved by 1880. Her father, Lorenzo, had been a laborer at the J. Houck Historic Site before becoming employed as a papermaker after the family's move.

Alternatively, some of these toys may have been associated with Frank Fero (b. 1866, aged 14) and his sister Josephine (Lois Josephine; aged 12), who were listed on the 1880 census. Their father Timothy (44) was a farmer while their mother Dorcas (Augusta Dorcas Sooper) kept house. Prior to their residence on the Houck farm, the family had lived with relative Christian C. Fero, his wife Mary Ann, and their daughter Hattie in the Town of Florida. Christian operated his own farm, and in 1870 had real estate holdings worth $6,000 and personal estate valued at $1,745. The 1869 Montgomery County Directory lists Christian as a farmer with Timothy in Scotch Bush. Christian died in Schenectady in 1904. The family appears to have moved from the Houck property by 1892, when Benjamin and Grace Havens occupied the property. In 1896, Timothy resided at 12 Mohawk Place in Amsterdam and was employed as a cartman. Frank Fero was listed as a millhand, boarding at 68 Bridge Street in Amsterdam. Josephine was a millhand, boarding at 12 Mohawk Place with her parents. Dorcas passed away in 1910, while Timothy died in 1920.

The Sanders family had moved into the house by 1900. William J. (40) and Amelia (Gross) Sanders (39) had four children, Howard (14), a farm laborer, Seymore (12) and Morris (9), who attended school, and toddler Erving (2). The family had moved out by 1910.

Given the transient nature of tenant farmers during this time, it is also possible that these toys may have belonged to children of workers that resided on the property between census records and were therefore not recorded.

7.10 Architectural Artifacts

Architectural elements were the second largest functional category of historic cultural materials collected during Phase III archeological investigations, behind domestic artifacts. Architectural elements collected during Phase III archeological field investigations included brick, door hardware, dressed stone, brackets, locks/lock parts, mortar, nails, plaster, spikes, and window glass.

Table 9. Architectural artifacts by provenience

	U10	U11	U12	U13	U14	U15	U16	U17	T2	T3	GP	Total
Window glass	9	6	23	22	44	30	42	47		4	4	231
Nails	17	10	66	21	30	83	85	6	3	3		324
Brick				3	1	1	1	1			1	8
Spikes						4	1					5
Mortar			1					1		7		9
Plaster							2			1		3

	U10	U11	U12	U13	U14	U15	U16	U17	T2	T3	GP	Total
Architectural element							2					2
Door hardware							1					1
Lock/lock part								1				1
Bracket								1				1
Dressed stone									1	1		2
Total	*26*	*16*	*90*	*46*	*75*	*118*	*134*	*57*	*4*	*16*	*5*	*587*

As expected, nails and window glass comprised the majority (94%) of architectural artifacts collected during Phase III archeological investigations. These were also recovered from nearly every context. Door hardware, brackets, a lock part, dressed stone, and other miscellaneous architectural elements each made up less than one percent of the total architectural elements recovered during Phase III investigations.

Most architectural artifacts were recovered from Units 12, 14, 15, and 16. Unit 14 was situated north of the house outside of the foundation footprint. Unit 15 was situated at the southeastern corner of the house addition, largely outside of the suspected footprint. Units 12 and 16, however, were located within the house footprint. Unit 12 was situated within the northwestern corner of the house addition while Unit 16 was situated within the northeastern portion of the original cellar hole, adjacent to the addition to the east. Interestingly, the largest quantity (134 artifacts, nearly 23% of the total collected) and variety of architectural artifacts were recovered from Unit 16. Architectural artifacts recovered from Unit 12 were mainly comprised of nails.

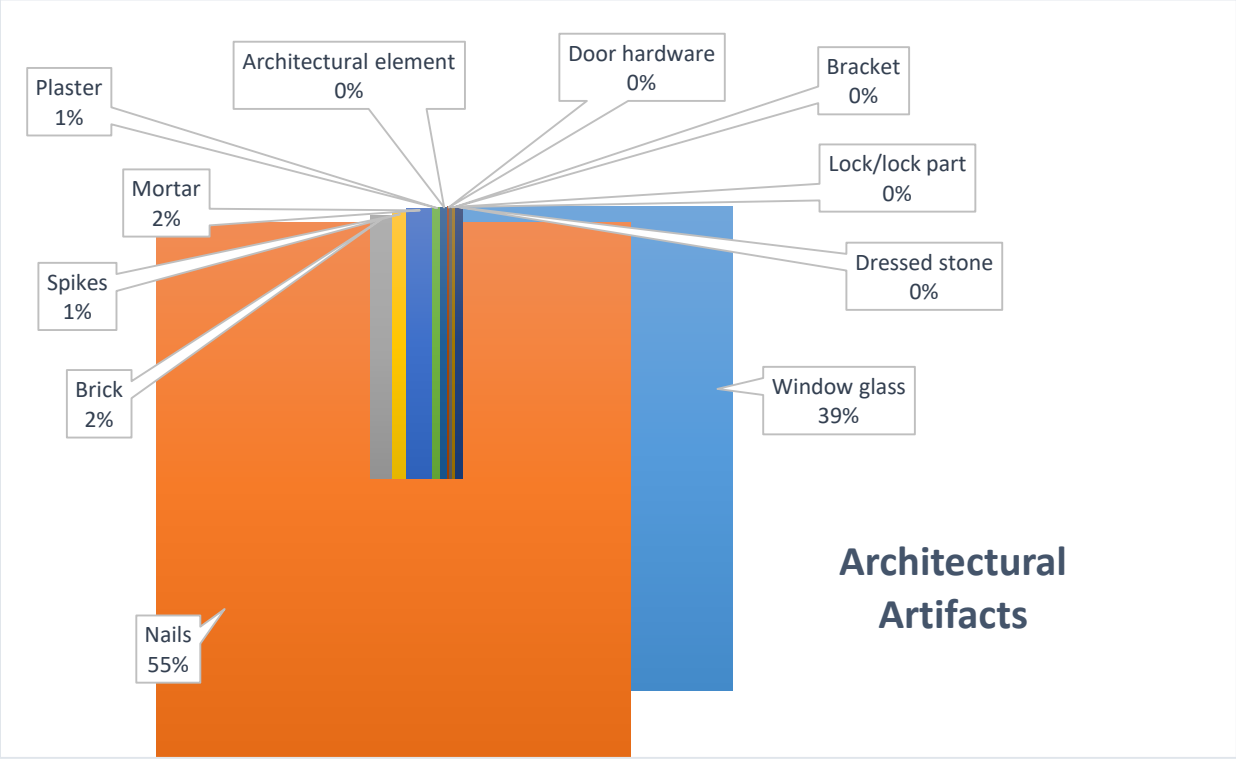

Figure 15. Architectural artifacts by type, as collected during Phase III archeological investigations.

Several significant architectural elements were recovered within the site. Unit 16 contained two architectural elements, including a finial, door hardware, and what appeared to be wooden floorboards near the base of the foundation. Level 1 of Unit 17 produced a possible handle, a latch type associated with a lock/lock part, and a bracket.



Figure 16. Architectural elements collected during Phase III investigations included (top left) a finial from Level 1 of Unit 16 (Item 80.9), (top center) door hardware from Level 3 of Unit 16 (Item 86.13), (bottom left) an unidentified architectural element from Level 1 of Unit 16 (Item 80.11), (bottom center) a possible handle from Level 1 of Unit 17 (Item 90.11), and (right) a lock/lock part (latch type) from Level 1 of Unit 17 (Item 91.12).



Figure 17. Trench 2 produced a slate fragment, while a fragment of dressed stone was recovered from Trench 3.

Architectural materials were recovered from Units 10, 12, 16, and 17 within the house footprint. Unit 16, within the interior of the original house foundation, contained the largest quantity of architectural artifacts recovered during Phase III investigations. Most of this architectural debris, including a brick, pale aqua window glass, and cut, wire, and indeterminate nails, was recovered from the post-occupational fill deposit within the foundation. Levels 4 and 5 each contained one fragment of window glass. Unit 12 also contained large quantities of architectural debris, primarily nails, all of which was collected from the first level of the unit. This may have been deposited during the removal of the structure. As seen in Unit 16, most architectural materials recovered from Unit 10 came from the post-occupational fill. Architectural materials were primarily recovered from Levels 2 and 3 of Unit 17, which included the mortar layer.

Architectural materials were also recovered from Units 13, 14, and 15, outside of the house footprint. Most architectural artifacts from Unit 13, situated near the suspected doorway at the southwest corner of the house, were recovered from Levels 1 and 2. North of the house, architectural artifacts were recovered to a depth of 63 centimeters below the ground surface in Unit 14. Below this depth was what appeared to be sterile subsoil. Unit 15, situated at the southeastern corner of the addition, contained architectural materials to a depth of 60 centimeters below the ground surface. However, most were recovered within the first 50 centimeters.

Architectural materials recovered near the well consisted of 10 nails and 6 shards of window glass. Cut nails and window glass were recovered from Levels 2 and 3 of Unit 11.

Interestingly, most of the architectural artifacts were recovered from Units 15 and 16 (Figure 18). This may have been due to the distribution of post-occupational fill deposits after demolition of the structure.

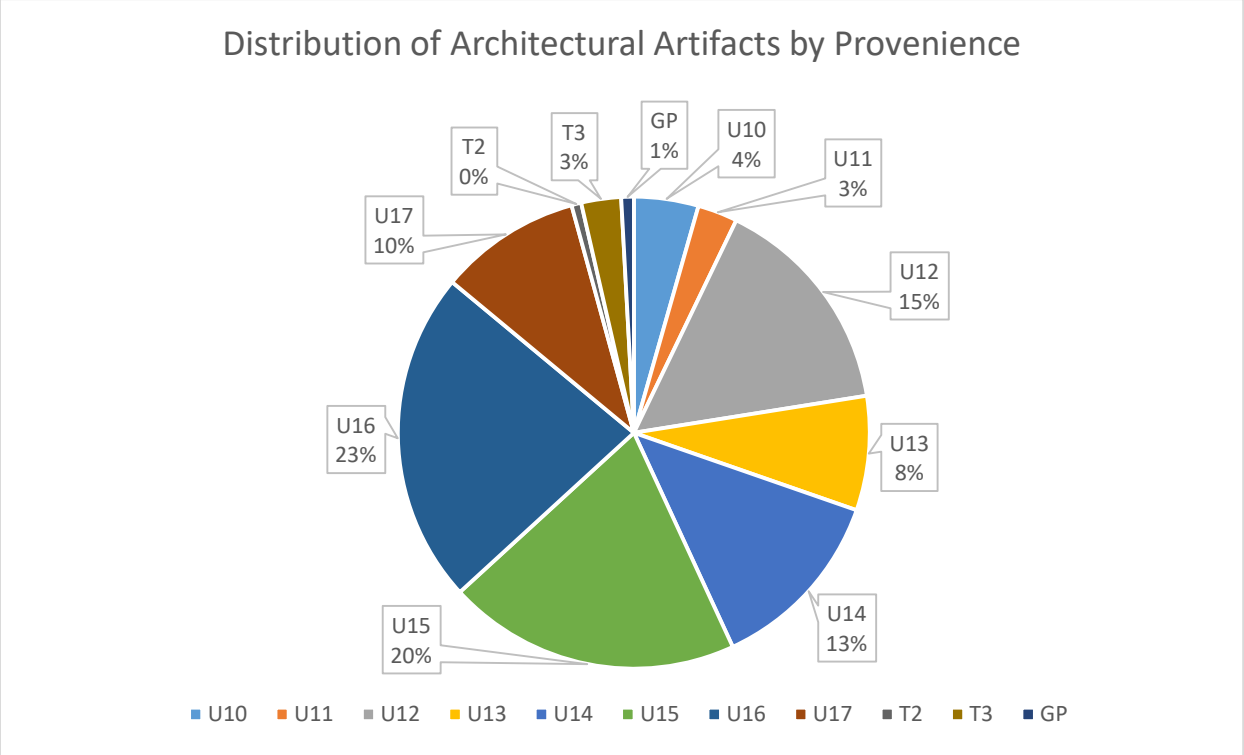

Figure 18. The distribution of architectural artifacts by provenience. The majority of architectural materials were recovered from Units 15 and 16.

7.11 Agricultural Artifacts

As the J. Houck Historic Site was part of a historic farmstead, it is not surprising that several agricultural artifacts were recovered throughout the site. Items collected during Phase III archeological investigations included a hand tool, three horseshoes, and a whetstone, as highlighted in gray in the following table. Additional agricultural artifacts were collected during Phase II archeological investigations, as listed in Table 10.

Table 10. Agricultural artifacts collected during Phase II and III investigations, listed by provenience

Provenience	Artifact ID	Description
U14 L1	71.3	Hand tool
U17 L1	91.11	Horseshoe
U17 L1	91.11	Horseshoe
T3 L1	106.5	Horseshoe
GP	115.5	Whetstone
U1 L1	40.24	Carbon rod
U1 L2	41. 17	Horseshoe
U1 L2	41.18	Agricultural tool
U1 L2	41.20	Carbon rod
U6 L1	49.6	Horseshoe
U7 L1	51.30	Wrench
U7 L1	51.36	Ceramic and iron machine part
U7 L1	51.37	Vacuum tube (TPQ 1904)
U7 L1	51.37	Vacuum tube (TPQ 1904)

Horseshoes were recovered from Unit 17 and Trench 3, within the original stone foundation. The horseshoes recovered from Unit 17 were deposited during the filling of the foundation.



Figure 19. Horseshoes recovered from Unit 17 and Trench 3 included a horseshoe with a toe calk for traction and medial heel calk (Item 106.5, left), a narrow horseshoe with a heel calk (Item 91.11, middle), and an additional horseshoe from Unit 17 (Items 91.11, right).

A whetstone was also recovered during mechanical stripping near the house (Figure 20). This sandstone tool would have likely been used to sharpen farm implements.

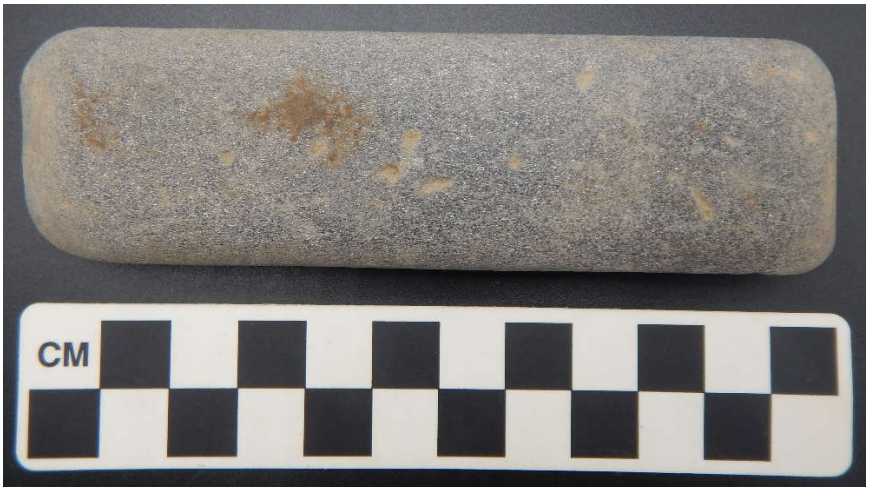

Figure 20. This whetstone was recovered during stripping north and west of the house (Item 115.5).

7.12 Vessel Glass

Some of the more definitive dates in areas of the site come from diagnostic fragments of vessel glass. These include pharmaceutical bottles, food and beverage-related vessels, cosmetic containers, and other miscellaneous vessel glass. Generally, diagnostic vessel glass recovered from the stripped area dated post-occupation. The TPQ dates of these vessels ranged between 1893 through 1929, with the majority having TPQ dates of 1919-1929. One Lummis Glass Co. embossed colorless threaded jar (Item 112.3) had a TPQ of 1940.

Within the original foundation footprint, vessels had a range of dates. These included a pale aqua embossed machine-made castoria medicine bottle with "Chas. H. Fletchier's" with a TPQ of 1870, but a more likely date of c. 1900-1940 (Item 105.5), a machine-made square bottle base embossed with "SMALLEY/ KIVLAN/ ONTHANK/ BOSTON" dating c. 1909-1920, and machine-made milk bottles embossed with "STEPHEN COLLINS/ ELMWOOD FARM/ AMSTERDAM, N.Y." dating c. 1900-1925 (Items 106.2 and 108.3) from Trench 3. A 19th century whiskey bottle was recovered from Level 3 of Unit 10.



Figure 21. Three examples of different bottle finishes represented in the artifact assemblage. Top: complete brown glass bottle with applied finish, c. 1830-1885 (Item 80.1.1), bottom left: machine-made brown glass bottle finish, TPQ 1899 (Item 80.1.3), and bottom right: pale aqua lipping-tooled glass bottle finish, c. 1885-1910 (Item 75.3).

Bottles from Units 16 and 17 also represented a range of dates. At the earliest, a complete brown bottle with an applied finish dating c. 1830-1855 was recovered from Level 1 of Unit 16 (Item 80.1), an olive green free blown bottle with an applied finish dating pre-1870 (Item 85.1), and possibly much earlier, was recovered from Level 2 of Unit 16, and a rectangular bottle base from the J.R. Watkins Co. recovered from Level 1 of Unit 17 was dated with a TPQ of 1868 (Item 90.2). At the latest two cosmetic jars manufactured by the Hazel-Atlas

Glass Co. with a zinc lid reading "HAIR-/GROOM" recovered from Level 1 of Unit 17 have TPQs of 1923 (Item 91.9 and 93.6), and an additional pharmaceutical jar with "MUSTEROLE/CLEVELAND" embossed on the base and molded on the lid dated c. 1926-1930 (Item 91.9). Most of the diagnostic vessel glass recovered from units within the foundation dated from the late 19th century through the early 20th century, toward the end of the site's occupation.

Most of an olive green free blown glass bottle with an applied finish was recovered from Level 2 of Unit 16 (Figure 22). The vessel included bubbles within the glass. Similar bottles generally date pre-1870 and may date much earlier.



Figure 22. Samples of some of the olive glass recovered from Level 2 of Unit 16 (Item 85.1).

Near the well, archeologists recovered a c. 1860-1890 "COLTON'S/ SELECT/ FLAVORS" extract bottle, a rectangular bottle base produced by the Illinois Glass Co. with a TPQ of 1911 (Item 62.5), and a paneled pale aqua bottle embossed with "KENNEDY'S … KINGSTON, N.Y. U.S.A." representing Dr. Kennedy's Favorite Remedy and dating c. 1880s-1890s (Item 62.5). All of these vessels were recovered from Level 2 of the unit.



Figure 23. Examples of diagnostic pharmaceutical bottles, including (top) a bottle embossed with "Kennedy's… /Kingston, N.Y. U.S.A." from Level 2 of Unit 11 (Items 62.5), (bottom left) "Chas. H. Fletchier's" castoria medicine bottle

from Trench 3 (Item 105.5), and (bottom right) a Knox Bottle Co. vessel with "Dr. Edward A/ Bogdan/58 Church St./Amsterdam, N.Y./Phone 126" acid etched on the bottle, recovered from the stripped area (Item 112.2).

Various food and beverage-related bottles were collected throughout the site. Those recovered from the stripped area generally had TPQ dates of 1919-1929, including an Owens-Illinois Glass Co. brown pectin measuring bottle (Item 112.2, TPQ 1929), a machine-made condiment bottle produced by the Owens Bottle Co. embossed with "PRIDE OF THE FARM/TOMATO CATSUP" (Item 113.2, TPQ 1919), and an embossed wine bottle base produced by the Owens Illinois Glass Co. (Item 116.2, TPQ 1929).



Figure 24. Examples of food and beverage-related glass containers recovered throughout the site. From left to right, a machine-made "Pride of the Farm/Tomato Catsup" bottle from the stripping area (Item 113.2), an embossed "American Soda Fountain Co" bottle from Level 2 of Unit 16 (Item 82.1), an embossed "Colton's/Select/Flavors" extract bottle from Level 2 of Unit 11 (Item 62.5), and an embossed wine bottle base manufactured by the Owens-Illinois Glass Co. from the stripped area (Item 116.2).

Several milk bottles were also recovered from the site. Two of these, recovered from Trench 3, were embossed with "ONE QUART/STEPHEN COLLINS/ELMWOOD FARM/AMSTERDAM N.Y./ REGISTERED," and were dated c. 1900-1925 (Figure 25). Available historical records indicate that the Houck farm was involved in relatively small-scale dairy production, maintaining anywhere between 4 and 6 milk cows between 1850 and 1880. Although the presence of the milk bottles could indicate that dairy was acquired from other nearby farms, given the late date range of the bottles and historical records of the Houck's dairy cows, it is more likely that these bottles were deposited post-occupation.



Figure 25. Two C. 1900-1925 milk bottles, embossed with "ONE QUART/ STEPHEN COLLINS/ ELMWOOD FARM/ AMSTERDAM N.Y./ REGISTERED," were recovered from Trench 3 (Item 106.2, left, and 108.3, right).

7.13 Kitchen Items, Food Remains, and Related Artifacts

In addition to vessel glass, a variety of kitchen-related domestic items and food remains were recovered during Phase III archeological investigations at the J. Houck Historic Site. These included ceramic artifacts, metal kitchen implements, and a variety of food remains including faunal bone and clam shells.

7.13.1.1 Ceramic Materials

Kitchen-related domestic items recovered during Phase III excavations consisted primarily of ceramic artifacts, which were found in every Unit and Trench excavated during the Phase III fieldwork except for Trench 1 (the well). Ceramic artifacts included coarse earthenware, refined earthenware, stoneware, and porcelain (Table 11).

Table 11. Ceramic artifacts by provenience

	U10	U11	U12	U13	U14	U15	U16	U17	T2	T3	GP	Total
Buff/pink-bodied stoneware	12	48		3				2		12	6	83
Gray-bodied stoneware	2	5	1			1					1	10
Hotel china											10	10
Ironstone				2					1			3
Porcelain	1		1	5				1		18	2	28
Semi-porcelain			2					8			9	19
Redware	1	2		4								7
White-bodied refined earthenware		2		7	6	2		1			2	20
Whiteware	56	33	10	29	34	27	2	61	2	27	69	350
Yellowware					1						1	2
Total	*72*	*90*	*14*	*50*	*41*	*30*	*2*	*73*	*3*	*57*	*100*	*532*

Ceramic artifacts were composed primarily of whiteware (both decorated and undecorated). In fact, whiteware comprised 66% of the total ceramic artifacts collected during Phase III archeological investigations. Buff/pink bodied stoneware was the second most popular category, in part due to the many sherds from a single vessel broken near the well, in Unit 11. Yellowware, ironstone, and unglazed redware were the least common ceramic artifacts recovered from the site.

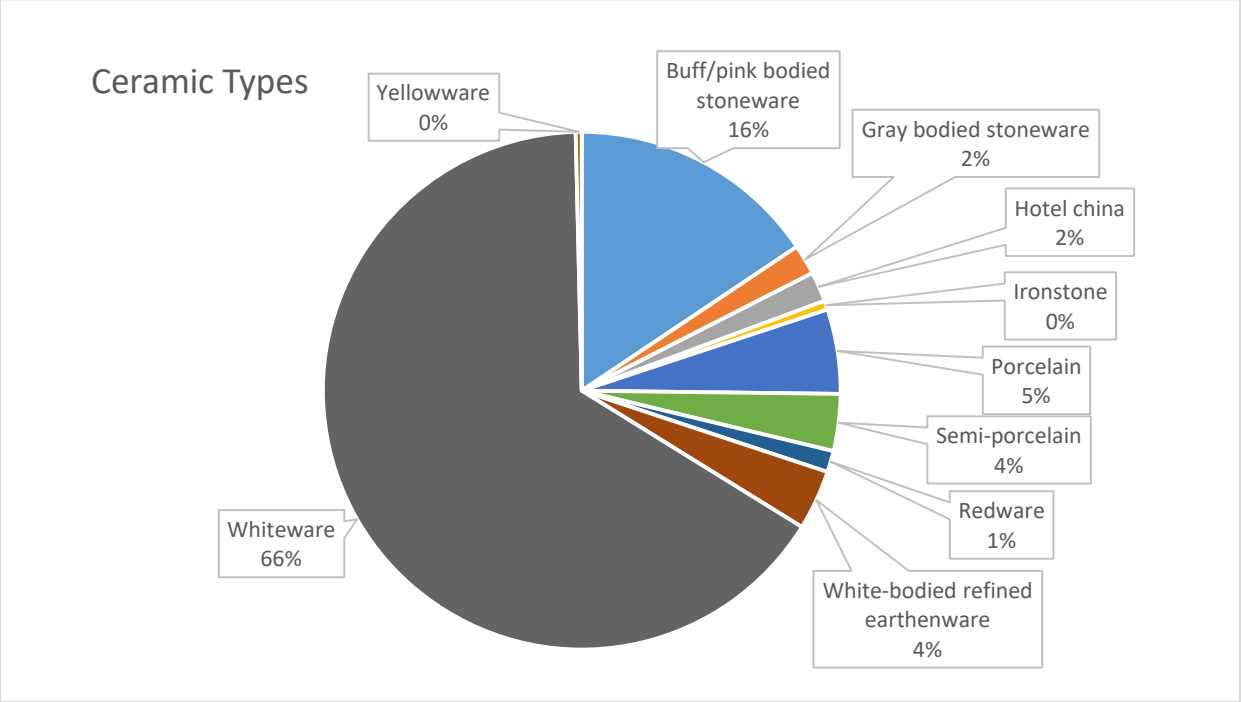

Figure 26. Quantities of ceramics by type as catalogued during Phase III archeological investigations at the J. Houck Historic Site.

Decorated whiteware appeared in several forms throughout the site, including underglaze transfer printing, shell-edged impressed whiteware, hand painted designs, gilded whiteware, decal designs, molded decoration, and flow transfer print. Whiteware became popular on American sites after 1820.



Figure 27. A variety of ceramic artifacts were recovered throughout the site, including these examples of decorated whiteware (Items 65.1, left) and semi-porcelain (Item 65.2, right) recovered from Level 1 of Unit 12.



Figure 28. A variety of ceramic artifacts were recovered throughout the site, including these examples of decorated whiteware recovered from the stripped area north and west of the foundation. From left to right, a cobalt blue flow transfer printed rim with molded decoration including beading, lines, and stars (Item 111.1.1), a decorated and lightly impressed shell edged rim sherd (Item 111.1.2), a whiteware rim with molded decoration (Item 111.1.3), a polychrome saucer (Item 111.1.4), and a decorated polychrome rim sherd (Item 111.1.5).

Some specific designs or decoration techniques can be assigned general dates or TPQs after 1820. For example, a fragment of whiteware with molded decoration and a polychrome decal recovered from Level 1 of Unit 10 has a TPQ of 1890 and was popular through the 1930s (Item 57.1.1). Unit 11 contained a whiteware rim with cobalt blue transfer printed underglaze design, which was popular c. 1820-1859 (Item 62.2.1). Similarly, a fragment of whiteware with a black transfer-printed underglaze design, popular between 1820 and 1864, was recovered from this same context (Item 62.2.3).

Unit 10 also contained several additional whiteware designs, including a gilded whiteware rim, a polychrome decal with leaves and flowers, a blue decal decoration with a bird design, and a green underglaze transfer-printed decoration. Similar designs were also recovered from Level 2 of Unit 10.

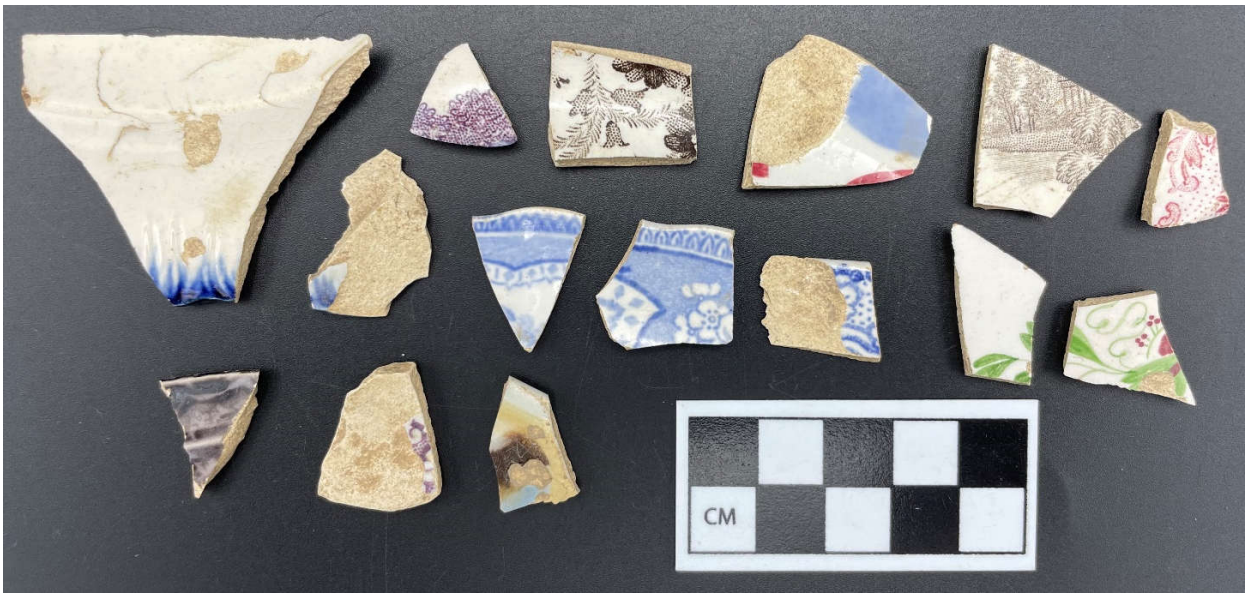

Figure 29. Variety of decorated whiteware collected from Level 2 of Unit 13, top two rows (Items 68.1), and Level 4 of Unit 14, bottom row (Item 73.1).

Level 2 of Unit 13 contained a variety of decorated whiteware including impressed cobalt blue shell-edged whiteware, transfer-printed underglaze decorations in cobalt blue, red, purple, brown, and black, in addition to hand-painted polychrome and green whiteware that appear to be part of the same pattern. Impressed shell-edged cobalt blue-painted whiteware was popular c. 1820-1850. The transfer-printing technique was also popular between 1820 and the mid-19th century. Level 4 of Unit 14 contained fragments of black flow transfer-printed whiteware, polychrome-dipped whiteware, and underglaze transfer-printed purple whiteware (Figure 29). Flow transfer -printed wares, such as the black printed sherds recovered from Level 3 (Items 72.1.1) and Level 4 (Item 73.1.1) of Unit 14 and Level 2 of Unit 15 (Item 75.1.1), have a TPQ of 1844 in North America.

The variety of whiteware found on site is likely due to the affordable nature of the product, and the transient nature of the numerous tenant farmers and their families who occupied the property throughout the 19th and early 20th centuries. Families who moved around frequently likely limited the quantity of cultural materials they acquired throughout the years to avoid having to move large amounts of personal possessions.

Only two sherds of yellowware, popular between 1830 and 1940, were recovered from the site. One, a fragment of a milk pan recovered from the stripped area, showed no additional decoration on either side, while the second was a small fragment of dipped polychrome yellowware with dendritic decoration recovered from Level 4 of Unit 14, north of the house (Figure 30). The dendritic style of decoration was popular on yellowware between about 1840 and World War I. The milk pan was a domestic utilitarian ware, the presence of which may indicate that a few milk cows were kept on site for personal, rather than commercial, use. In fact, the 1850-1880 agricultural census records show that the Houck farm maintained between 4 and 6 milk cows and produced anywhere between 800 pounds of cheese in 1850, to 400 pounds of cheese in 1870. The 1880 agricultural census record, which lists the J. Houck Historic Site separately from the larger Houck farmstead, indicates that six milk cows were under the supervision of tenant farmer Timothy Fero.

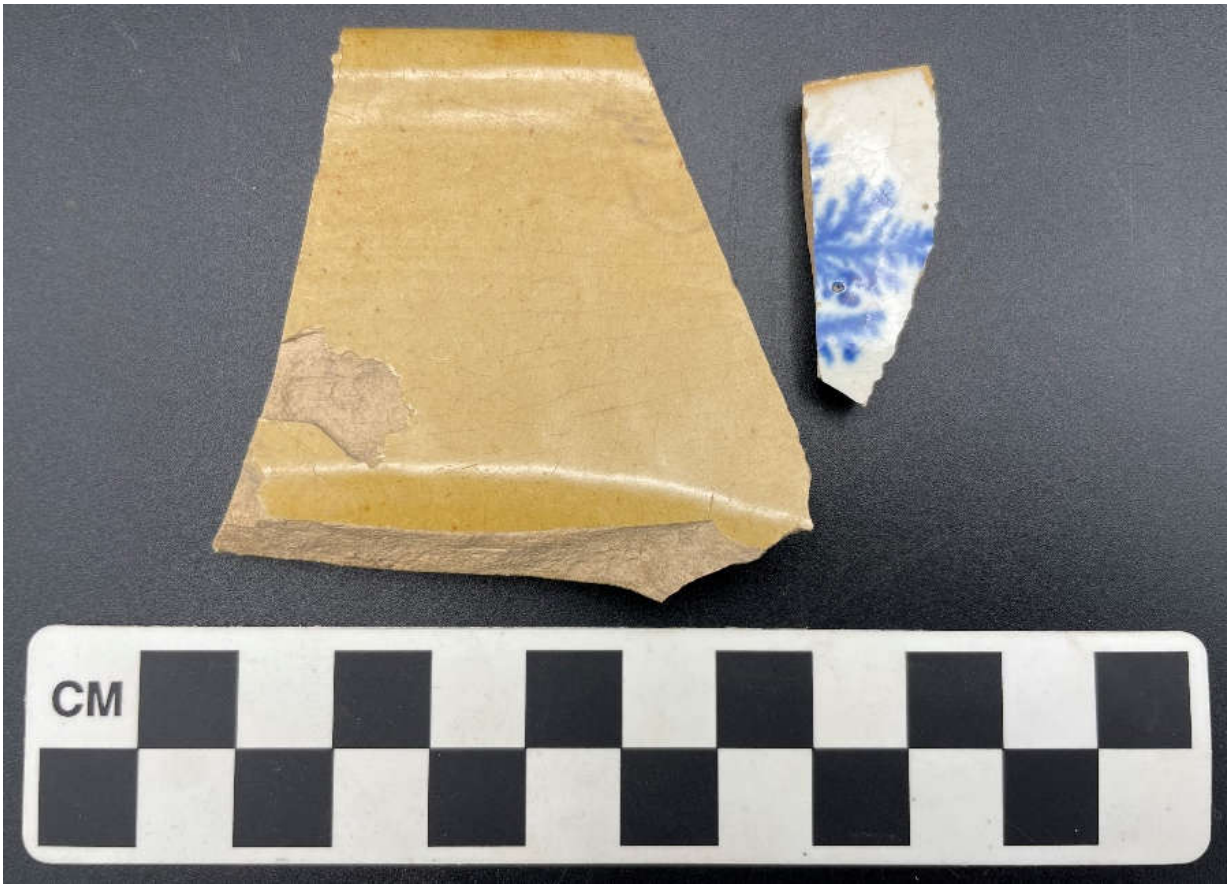

Figure 30. Two fragments of yellowware were collected during Phase III investigations, including a milk pan fragment from the stripped area (Item 111.3, left) and a dipped polychrome fragment with dendritic decoration recovered from Level 4 of Unit 14 (Item 73.3, right).

Stoneware was the second largest category of ceramic artifact recovered, after whiteware. A variety of stoneware was recovered throughout the site, including gray bodied salt glazed stoneware with a slipped interior, a gray bodied stoneware jug with Albany slip decoration, and gray-bodied slip-decorated hollowware, buff/pink-bodied salt-glazed stoneware with a metallic sheen, buff/pink-bodied salt-glazed impressed hollowware with cobalt blue decoration, unglazed buff/pink-bodied stoneware saucer with molded decoration, and Albany slip and salt glazed buff/pink bodied stoneware. Figure 31 depicts some of the stoneware described above.



Figure 31. A variety of stoneware was recovered throughout the site. From left to right, top: gray-bodied salt-glazed stoneware exterior (Item 111.5) and slipped interior (Item 65.3), and Albany slip and salt-glazed stoneware interior and exterior (Items 111.6); Bottom: Gray-bodied slip decorated hollowware body (Item 58.2), and salt-glazed buff/pink bodied stoneware jug exterior and slipped interior (Items 62.4.2).

Of particular interest are fragments of a stoneware jug with a metallic sheen (alkaline glaze). This vessel featured a salt-glazed buff/pink-bodied stoneware exterior and a slipped interior. Two fragments, which mend with one another, are imprinted with "…HANIEL HUDSON/GALWAY, VILLAGE, N.Y." Many other fragments associated with this vessel were recovered from adjacent Units 10 and 12, as well as from Unit 11. The stoneware jug may have been used to collect water at the well and may have broken here. Fragments were found at depths of up to 35 centimeters below the starting depth in Unit 10, and at depths between 11 and 22 centimeters below the ground surface in Unit 11. According to historical records, this vessel likely dates c. 1850-1865.



Figure 32. Several fragments of Nathaniel Hudson stoneware are represented in this photo, included base fragments from Bag 57.3 (top left), a piece of a handle from Bag 62.4.1 (bottom left), two body fragments from Bag 62.4.3 (right). Note the inscription on the central body fragment. Note the metallic sheen to the slip.

An early kiln was established in Galway, New York by Abraham Hodgson prior to 1850. Hodgson manufactured brick at the site. He changed his name to Hudson and had sold his pottery site by April 2, 1852, re-establishing the business at Galway Village as a stoneware manufacturer. This move was somewhat unusual, as it required transporting the stoneware clay approximately ten miles from an unloading point on the Erie Canal situated southeast of Galway Village. The business was in operation until at least 1866. Known makers marks denote several owners including Abraham Hudson, his son Natheniel/Nathaniel (at one time with a partner named French), and William A. Lewis (Ketchum 1987).

The 1850 and 1860 census records list "Nathaeniel Hodgson" (Hudson) as a potter, 42 years of age in 1850. Although Nathaniel is described as the owner in the 1859 New York State Business Directory, his father Abraham is recorded as a "stoneware man" in 1855 while Nathaniel is listed as a farmer. However, the 1856 Balch map of the Township depicts a building labeled "pottery" on the south side of present-day Ballston Road, situated next to the residence of N. Hudson. S. N. and D. G. Beer's 1866 New Topographical Atlas of Saratoga County depicts the same structure as a "stoneware factory." By 1865 Nathaniel Hudson was listed in the census as a brickmaker rather than a potter. The exact closing date of the pottery is unclear, as it is depicted on the 1866 map, but by 1870 no potters are listed in the community (Ketchum 1987: 231).

Table 12. Possible Nathaniel Hudson stoneware by provenience

Provenience	Artifact ID	Description
U10 L1	57.3	Buff/pink bodied salt glazed stoneware base with metallic sheen
U10 L1	57.3	Buff/pink bodied stoneware with metallic sheen
U10 L2	58.3	buff/pink bodied salt glazed stoneware base
U10 L2	58.3	buff/pink bodied salt-glazed stoneware
U11 L2	62.4	Buff/pink bodied salt-glazed stoneware jug, rim and handle, with metallic sheen. Fragments mend
U11 L2	62.4	Buff/pink bodied salt-glazed stoneware, some fragments mend. Appear to be part of 62.4.1 or 62.4.2 (jug)
U11 L2	62.4	Buff/pink bodied salt-glazed stoneware, impressed hollowware with cobalt blue decoration and metallic sheen, body fragments mend. Possibly part of 62.4.1 (jug)

Also of interest, fragments that comprised most of an unglazed bisque buff/pink bodied stoneware pie plate (Items 104.2.1 and 107.1.1) were recovered from Trench 3, and from the north wall near the base of the foundation (Figure 33). These were not situated beneath the foundation itself, but rather beneath the soil deposited post-occupation and immediately adjacent to the wall. The pie plate likely dates c. 1880s-1920s, and possibly even as late as the 1930s. The base is clearly wheel turned, but the crimped pattern on the outer edge of the plate was molded which indicates some sort of mass production.



Figure 33. Fragments of an unglazed buff/pink bodied stoneware pie plate were recovered from the northern portion of the original house footprint (Items 104.2 and 107.1).

When found, makers marks can be helpful in sourcing and dating ceramic artifacts. Two ceramic fragments with makers'-marks were recovered from the site, including a fragment of white-bodied refined earthenware

(Item 111.2) recovered from the stripped area, and a sherd of ironstone recovered from Trench 2 (Item 102.2). The fragment of white-bodied refined earthenware, stamped with "… IN HOLLAND/…CIETE CERAMIQUE…" is associated with "Societe Ceramique Maastricht," formed in 1863 in the city of Maastricht, the Netherlands. The sherd therefore has a TPQ of 1863. The company operated until 1958, when it merged with a competitor. However, the piece recovered from this site likely dates to the 19th century, as the company was more focused on the production of sanitary ware in the 20th century.

The second sherd reads "IMPERIAL IRONSTONE CHINA/JOHN ALCOCK." This piece has a transfer printed underglaze decoration and can be dated c. 1853-1861, the time during which John Alcock operated the business. Ironstone, also known as white granite, was popular between 1842 and 1930.



Figure 34. Makers' marks were identified on some of the ceramics recovered from the site, including this white-bodied refined earthenware sherd from the stripped area (Item 111.2, left) and this ironstone fragment from Trench 2 (Item 102.2, right).

Makers' marks were also noted on two later ceramic pieces. A fragment of hotel china collected from the stripped area west of the foundation contains a mark reading "Jackson Vitrified China" printed on its base (Item 110.1). This was produced by the Jackson China Company, located in Falls Creek, Pennsylvania, manufacturers of industrial restaurant tableware and several lines of fine "china."

Jackson China Company was established in 1914, and in 1916 was rebranded as Jackson Vitrified China Company, which operated through 1985. It is likely that this piece was part of the post occupational deposit observed throughout the site. Another fragment of hotel china recovered from the same context is marked with "O.P. CO. / SYRACUSE / CHINA / 9-Q" on its base (Item 110.1). The company began marking its pieces with "Syracuse China" in 1895, continuing this practice through the early 1970s. Again, it is likely that this piece was deposited at the site post occupation.

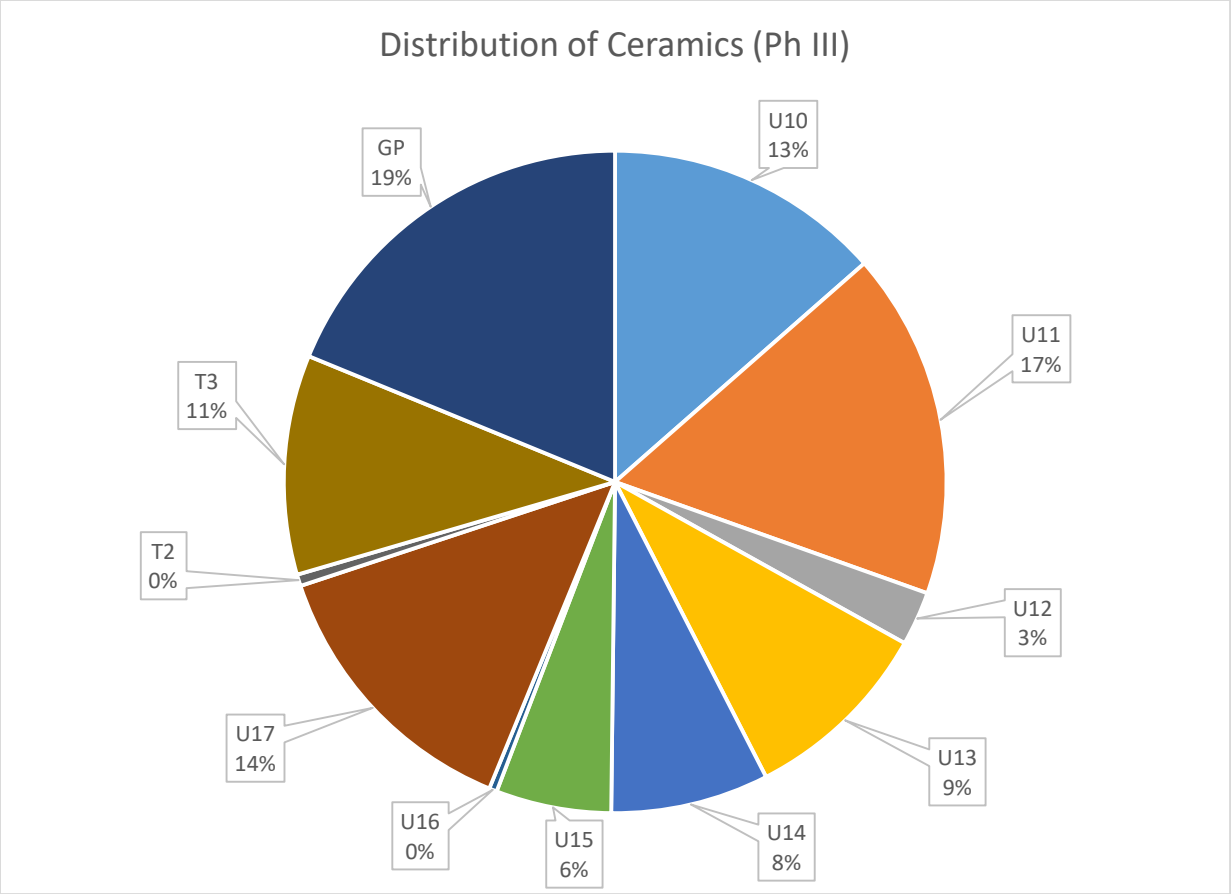

Figure 35. Distribution of ceramics recovered throughout the J. Houck Historic Site by Unit (U), Trench (T), and stripping area (GP).

Many of the ceramics recovered during Phase III archeological investigations were collected during mechanical stripping over a large area (19%), closely followed by those recovered from Unit 11, south of the well. Unit 11 produced 17% of the total ceramic materials collected, which included buff/pink bodied stoneware, gray bodied stoneware, redware, white-bodied refined earthenware, and whiteware. A large amount of stoneware, many sherds from the same vessel attributed to Nathaniel Hudson's company, were recovered near the well and may have been associated with vessels used to transport water from the well to the house.

Unit 17, in the northwestern portion of the original foundation produced 14% of ceramic artifacts and Unit 10, in the northeastern portion of the original footprint produced 13%. Trench 3 produced 11% of recovered ceramics. Unit 17 is situated near the brick fireplace back and stone hearth identified during Phase II investigations, in the area that may have been utilized as the kitchen.

Interestingly Units 13 and 14, located outside of the house to the north and southwest, respectively, each produced roughly the same percentage of ceramic artifacts. These items appear to be associated with vessels discarded outside of the house.

In comparison to the other contexts, very few ceramic materials were recovered from Unit 16, within the interior of the original foundation, or from Unit 12 and Trench 2, within the house addition. This could also indicate the kitchen's location closer to the western side of the original foundation footprint.

7.13.1.2 Kitchen Implements

Other kitchen-related items of interest collected during Phase III archeological investigations include a c. 1815-1850 coffee grinder and associated metal tag and a late 19th century enameled metal teapot spout recovered in the vicinity of Unit 17, and a large number of faunal remains collected throughout the site.

An enameled metal teapot spout and a metal coffee mill tag were recovered from Unit 17, situated in the northwest corner of the original foundation. This unit was located near the brick fireplace back and stone hearth identified during Phase II archeological investigations. This artifact appears to date to the late 19th century, as similar items were listed for sale in the 1897 Sears Roebuck & Co. catalog (Sears Roebuck and Co. 1897).



Figure 36. This c. late 19th century enameled teapot spout was recovered from Level 1 of Unit 17 (Item 92.5). Similar items were observed in the 1897 Sears Roebuck Co. catalog.

A complete mold-made brass tag was recovered from Level 1 of Unit 17. The tag reads "KENRICK'S PATENT/COFFEE MILL" with a royal coat of arms and has a TPQ of 1815 (Figure 38).

A cast iron and brass coffee grinder, presumably associated with the tag recovered from Unit 17, was recovered from deposits around the original foundation. The metal coffee grinder was nearly complete, weighing 2,280 grams (Figure 37). The cast iron grinding handle is missing its wooden knob. It appears to date sometime around the early- to mid-19th century. Ground coffee would be collected in the pull-out drawer at the bottom of the unit. There is some confusion about the exact date of the coffee grinder. The Smithsonian/National Museum of American History dates the artifact to both 1850 and c. 1815-1830 (National Museum of American History 2022). Presumably later models, such as the one pictured below, bore the inscription "A. Kenrick & Sons Patent Coffee Mill."

The company that manufactured this item was established as an iron foundry by Archibald Kenrick in 1791 in West Bromwich, Staffordshire. Kenrick advertised as "Archibald Kenrick, Ironfounder of West Bromwich." Kenrick began the manufacture of cast–iron hollowware, particularly for culinary use, in 1805. By 1812, the company was known as Archibald Kenrick & Co.. With the withdrawal of Kenrick's nephew and the addition of Kenrick's son to the team in 1827, the company reorganized as Archibald Kenrick & Son. Archibald Kenrick died in 1835. The company, presently known as Kenrick, is still in operation today with its headquarters situated

at the same site Archibald Kenrick purchased in 1791, on Spon Lane bordering the Birmingham canal (Archibald Kenrick & Sons 2019).



Figure 37. Coffee grinder recovered from the J. Houck Historic Site (Item 120.1, top) and a similar A. Kenrick & Sons cast iron and brass coffee mill grinder from an Etsy listing (bottom image courtesy of PaintedLadyAntiques, etsy.com).



Figure 38. Coffee grinder metal tag recovered from Unit 17, c. 1815-1830 (Item 92.4, left) and example of a similar A. Kenrick and Sons coffee mill tag from an Etsy listing (right image courtesy of PaintedLadyAntiques, etsy.com).

Based on the presence of the brick fireplace back along the western wall and the significant kitchen-related items including the coffee mill and its associated metal tag, and the enameled teapot spout, it appears that the kitchen was located on the west side of the original house footprint.

7.14 Distribution of Diagnostic Artifacts

The distribution of diagnostic ceramic artifacts, glass, and other materials throughout the site were also inspected. In general, many diagnostic artifacts within the stripped area dated c. 1920s-1930s, while artifacts in other contexts spanned the 19th century into the early 20th.

Many post-occupation artifacts were recovered from the stripped area, including vessel glass. These generally dated c. 1920s-1930s, with some dating even later. Two fragments of hotel china recovered from the stripped area west of the original foundation, with "Jackson Vitrified China" printed on the base of each, have TPQs of 1916 (Items 110.1.2 and 110.1.3). These dates are post-occupation and are consistent with a number of fragments of diagnostic vessel glass recovered from the stripped area.

However, some earlier cultural materials were also recovered from this area. Several other ceramic samples can be dated to the site's occupation, including the fragment of a yellowware milk pan (c. 1830-1940), two fragments of Albany slip & salt glazed stoneware (c. 1805-1920), and a fragment of white bodied refined earthenware associated with the "Societe Ceramique Maastricht" (TPQ 1863). One additional diagnostic piece, a fragment of whiteware with a molded decoration in a harvest motif, has a date of c. 1860s to the turn of the 20th century.

Artifacts recovered from Units 10, 16, and 17 within the original stone house footprint generally dated from the late 19th century through the early 20th century, toward the end of the site's occupation. This included much of the diagnostic vessel glass recovered from within the foundation and several types of decorated whiteware and other ceramics, such as whiteware with a polychrome decal, popular between 1890 and 1930. This corresponds with the suspected construction date of the addition, c. 1888. The increase in living space could explain the increase in cultural materials, as there was availability of storage space as well as higher capacity for occupants of the house.

However, both earlier and later historic cultural materials were also recovered from this context. Many of the historic cultural materials recovered within the original stone house foundation also dated post-occupation, as they were recovered in fill deposited after the removal of the structure. On the other hand, artifacts such as cobalt blue transfer printed underglaze whiteware (c. 1820 - mid-19th century), a Kenrick's Patent Coffee Mill (c. 1815-1850), and fragments of the Nathaniel Hudson stoneware vessel (c. 1850-1865) were also recovered within the foundation.

Also of note, fragments of an unglazed buff/pink-bodied stoneware pie plate (Items 104.2 and 107.1) were recovered from the northern portion of the original house footprint, beneath the fill soils. The pie plate likely dates c. 1880s-1920s, and even as late as the 1930s, toward the end of occupation and perhaps post-occupation of the site.

The mixed context of historical cultural materials within the foundation and throughout the stripped area is representative of the refuse deposition and filling activities that occurred after the abandonment of the site.

Fewer post-occupation cultural materials were recovered from the house addition, likely because this feature was not a cellar hole. The average date of diagnostic cultural materials recovered from this feature was slightly lower than the original cellar hole or the stripped area. A fragment of ironstone printed with "John Alcock" on its base was dated c. 1853-1861, while Unit 12 contained earlier materials such as wrought nails. Whiteware was present throughout these excavations, limiting the TPQ to 1820 or later. The Alcock ironstone was recovered within the house addition during excavation of Trench 2. Although it dates slightly earlier than the suspected construction date of c. 1888, this could indicate longer-term use of cultural materials on the site prior to disposal.

Like other contexts throughout the site Units 13, 14, and 15, situated outside of the house foundation, all contained whiteware throughout the artifact-bearing levels of each unit (TPQ 1820). Generally, artifacts from Unit 13 dated c. 1820 through the late 19th century. Whiteware was recovered from all four levels of Unit 13 containing cultural materials. Transfer-printed cobalt blue, red, purple, brown, and black whiteware, which was popular at various times between 1820 and 1880. Cobalt blue shell-edged whiteware, popular between 1820 and 1850, was also recovered from Unit 13. Prosser buttons (TPQ 1840) were also recovered from this unit.

Artifacts recovered from Unit 14 generally dated to the mid- to late-19th century. Whiteware (TPQ 1820) was recovered from all six levels containing cultural materials. Diagnostic decorated whiteware within this unit included flow transfer-printed black whiteware (TPQ 1844), transfer-printed purple whiteware (c. 1829-1867), and transfer-printed blue whiteware (c. 1820-1859). Yellowware (c. 1830-1940) was also recovered from this unit.

In Unit 15, whiteware was also recovered from all four artifact-bearing levels. Artifacts in Unit 15 generally dated from the mid- to late 19th century. This unit contained ironstone, (c. 1842-1930), black flow transfer-printed whiteware (TPQ 1844), and a Peter Dorni tobacco pipe (TPQ 1850).

All four levels of Unit 11, situated south of the well, also post-date 1820, based on the presence of whiteware throughout the unit. A United States dime dated 1976 was recovered from the upper portion of Level 1 of Unit 11. No other significant cultural materials were recovered from this level. Below this, artifacts generally spanned the 19th century, except for an Illinois Glass Co. bottle with a TPQ of 1911 in Level 2. Other diagnostic materials from this unit included Nathaniel Hudson stoneware (c. 1850-1865), a Colton's Select Flavors glass bottle (c. 1860-1890), and a Dr. Kennedy's Favorite Remedy glass bottle (c. 1880s-90s). Level 3 contained whiteware and a fragment of possible creamware (c. 1762-1820), along with whiteware (post-1820).

7.15 Food Remains

Food remains, including clam shells and faunal bone, were recovered from nearly all contexts during Phase III archeological investigations at the J. Houck Historic Site. The largest concentration of faunal bone was collected during stripping north and west of the foundation footprint, followed by that collected during trenching within the original foundation footprint (Trench 3). The largest concentrations of clam shells were recovered from Units 13 and 14, situated outside of the original foundation footprint to the south and northeast,

respectively. Approximately half of the total number of clam shells collected were recovered from these two tests. No food remains were recovered from Trench 1.

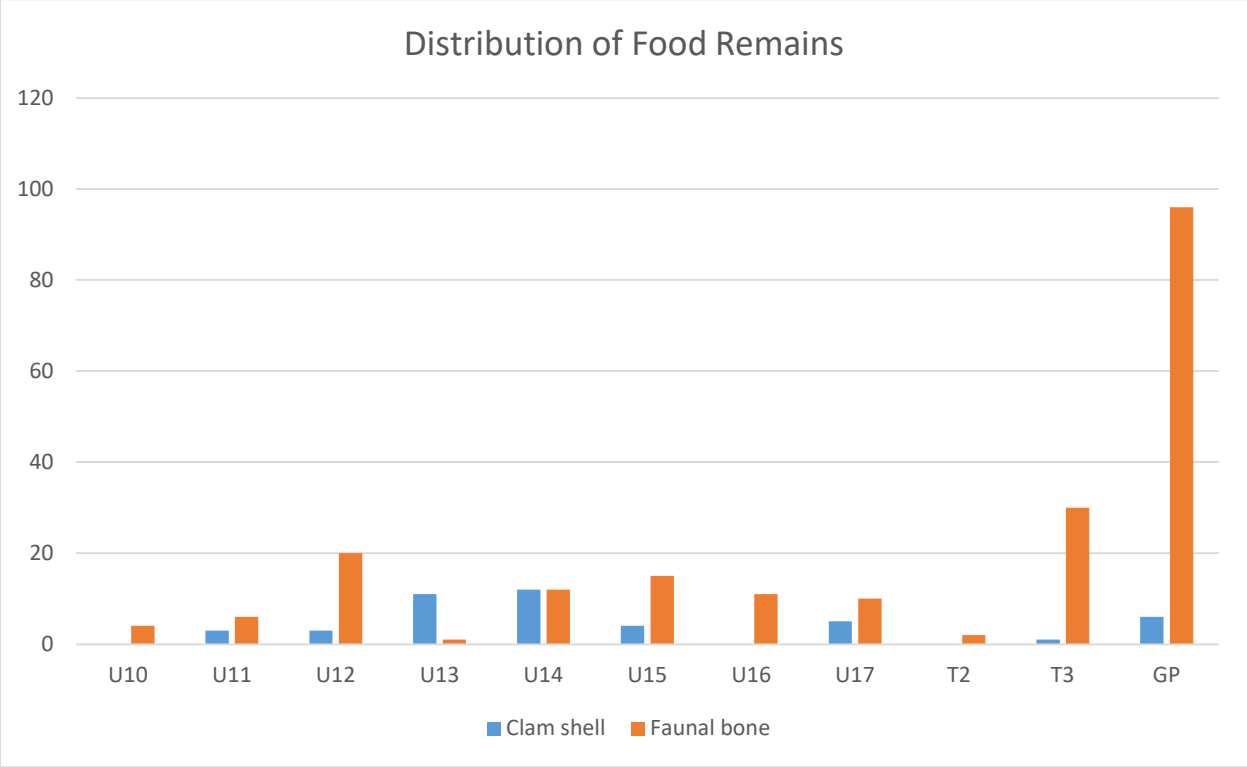

Figure 39. Distribution of food remains, including clam shell and faunal bone, recovered throughout the J. Houck Historic Site during Phase III archeological investigations.

Phase II and III archeological investigations recovered numerous large mammal (cow and pig) bones with evidence of butchering and cooking. Cow bone was the most common type of faunal bone recovered during Phase III archeological investigations. Additional samples included pig, sheep, various birds, and fish remains. Evidence of processing, including cutting, sawing, and other marks of butchering, were observed on numerous samples.



Figure 40. Faunal bone collected from Level 1 of Unit 12 included cow, pig, unidentified medium mammal, and duck remains (Items 65.10).



Figure 41. The most common type of food remains recovered during Phase III archeological investigations were cow bone, such as these samples from the stripping area (Items 113.3). Some bone, including two samples seen here, showed cutting, sawing, and other evidence of butchering.

Evidence of other food remains was recovered from several contexts within the J. Houck Historic Site during Phase I, II and III archeological investigations. A total of 45 clam shells and shell fragments were collected during Phase III archeological investigations from Units 11-15, Unit 17, Trench 3, and the stripping area. Additional shells were collected from Units 1-6 and Unit 8, as well as Tests 400, 2023, 2030-2032, and Test 2088. Many shells were collected in the immediate vicinity of the foundation, with a small number collected from Unit 11 south of the well.



Figure 42. Two samples of clam shells recovered from Level 1 of Unit 12 (Item 65.11).

7.16 Specialized Analyses

7.16.1 Faunal Analysis

A brief analysis of faunal remains collected during Phase II archeological investigations indicated that the Phase II faunal collection contained many large mammal (cow and pig) bones with evidence of butchering and cooking. The elements present were generally not from the meatiest "best cuts" which may reflect the lower socio-economic status of the occupants who, sources indicate, were renting the property from the Houck family. Several commensal species (primarily rodents) were also recovered. Much of the faunal bone showed cutting, sawing, and other evidence of butchering, and clam shells (some cut) were also collected throughout the site.

More intensive faunal analysis was conducted on select samples from Phase III archeological investigations by Marie-Lorraine Pipes, PhD, RPA of SUNY Geneseo (Pipes 2022). Faunal samples were selected from each provenience, including Units 10-17, Trenches 2 and 3, and the stripping area north and west of the original foundation. Trench 1 did not contain any faunal bone.

Faunal samples were sorted by class, species, and size range category, and were investigated for Total Number of Fragments (TNF) and the Minimum Number of Units (MNU), as well as skeletal element, portion, and age of death when possible. Furthermore, samples were categorized by type of meat unit and meat cut. The complete faunal report is presented in Appendix 2.

Table 13. Samples selected for faunal analysis

Bag	Item #	Provenience	Count
57	14	Unit 10	3
63	6	Unit 11	6
65	10	Unit 12	20
68	7	Unit 13	1
73	8	Unit 14	6
74	5	Unit 15	10
76	8	Unit 15	3

Bag	Item #	Provenience	Count
80	16	Unit 16	4
91	27	Unit 17	4
102	5	Trench 2	2
105	10	Trench 3	17
106	7	Trench 3	2
107	2	Trench 3	1
112	10	GP	71
113	3	GP	4
114	10	GP	20
Total			*174*

Faunal remains were mainly composed of domesticated mammal and bird species, though some remains suggest intrusive wildlife such as New England cottontail (Trench 3), striped skunk (Unit 15), and woodchuck (Unit 16). Additionally, the remains of unidentified fish were recovered from the stripped area. Trenches and units yielded primarily mammal remains, whereas the stripped area was more diversified by class and species and had a greater number of bird remains. In general, the deposits were composed of dietary refuse.

Many of the samples collected from Phase II and III archeological investigations showed marks from cutting, sawing, and other evidence of butchering. More specifically, cuts of cattle, pig, and sheep meat analyzed by Pipes displayed saw, cleaver, and chop marks.

Occupants of the J. Houck Historic Site consumed a varied diet of domesticated mammals including cow and pig, domesticated birds including chicken, duck, and goose, sheep, fish, and clams. Additionally, a variety of cuts of beef and pork were represented in the samples analyzed by Dr. Pipes. One single sample of veal was identified, which consisted of a leg roast.



Figure 43. Intrusive wildlife remains were found in several contexts, including five striped skunk bones in Unit 15 (Item 74.5). Unit 15 also contained the remains of an unidentified large mammal, an unidentified medium mammal, and a pig.

The three most abundant species represented by the faunal bones sampled and analyzed during Phase III archeological investigations were cattle, pig, and chicken, all domesticated animals. Available agricultural census records indicate that the Houck farm maintained a variety of livestock including horses, milk cows, other cattle, working oxen, sheep, swine, and, after 1860, poultry.

Landowner Jacob Houck and tenant farmer Timothy Fero are listed individually in the 1880 agricultural census. This indicates that the J. Houck Historic Site maintained its own animals in addition to the Houck's main farm. In 1880, the agricultural census lists 2 horses, 6 milk cows, 9 other cattle, and 12 poultry for the J. Houck Historic Site. No mules or asses, working oxen, sheep, or swine were listed under the supervision of Fero.

Cattle remains were recovered from adjacent Units 10, 12, and 16 as well as Unit 17 and Trenches 2 and 3, all within the house. Additional cow remains were recovered in the stripping area north and west of the house. Pig remains were recovered from Unit 12 and Trench 2 in the northern portion of the house addition, as well as Unit 15, near the southeastern corner of the addition, and Unit 14, excavated just north of the house. Chicken and other bird remains were recovered primarily from the stripping area, with one sample collected from Trench 3. Three cuts of sheep were also recovered. All of these were situated in the stripped area north and west of the foundation.



Figure 44. These faunal remains recovered during excavation of Trench 3 consisted primarily of cow, but also included chicken, an unidentified large bird, and intrusive wildlife New England cottontail (Item 105.10).

Bird remains included those of chickens, duck, and goose, and were primarily recovered from the stripped area north and west of the original foundation footprint (Bags 112 and 114). Bird bones included samples from the neck, wing, breast and leg of at least three individuals. A small number of bird remains were also recovered from adjacent Units 10 and 12, and from Trench 3. Medullary bone was noted in one femur fragment, which is produced in females when they are laying eggs, suggesting that birds were raised on site. Agricultural census records also support this conclusion, noting that Jacob Houck maintained 210 poultry in 1870 and 120 in 1880. Timothy Fero was also reported to maintain 12 poultry in 1880.

Residents of the J. Houck Historic site also enjoyed fish in their diet. Unidentified fish remains "consisted mainly of fragmentary cranial plates and a few vertebrae, all of which were found in Bag 112" (Pipes 2022).



Figure 45. Some smaller faunal bones, including bird and fish remains, were collected from the stripping area north and west of the foundation (Items 112.10.2).

Faunal remains recovered and analyzed during Phase III archeological investigations are consistent with available agricultural census records dated between 1850 and 1880, which listed livestock including sheep, cows, horses, pigs, mules and asses, other cattle, working oxen, and poultry.

The 1850 agricultural census indicates that Isaac Houck oversaw 4 milk cows and 9 other cattle. Jacob Houck maintained 5 milk cows and 20 other cattle in 1860, 6 milk cows and 6 other cattle in 1870, and 5 milk cows and 7 other cattle in 1880. Although the 1875 agricultural census records indicated cattle were being raised for beef by this time, cattle appeared to comprise a relatively small aspect of the commercial operations at the Houck farm. Similarly, low numbers of swine were recorded between 1850 and 1880, ranging between 3 and 9 animals.

Jacob Houck appears to have increased the focus on poultry toward the end of the 19th century, with 210 poultry recorded in 1870 and 120 poultry recorded in 1880. Additionally, the Houcks maintained 23 to 45

sheep between 1850 and 1880. Livestock production appears to have peaked around 1870, with a value of $2,590 recorded for that year. Livestock were valued at $1,400 in 1860 and $1,300 in 1880.



Figure 46. Three cow bones were analyzed from Unit 17 including two loin steaks, top, and a cut for short rib stew, bottom (Item 91.27). The bottom sample is sawed and shows evidence of gnaw marks from a rodent.

Pipes identified several bone modifications in the assemblage, including butcher marks, gnaw marks, heat exposure, and weathering. Pipes also grouped bone by refuse type within deposits, designating them either "dietary refuse," referring to meat bearing elements, or "processing waste," referring to cranial or foot elements used in soups or stews, or elements discarded during organ extractions like the removal of brain or tongue.

A brief analysis of food remains collected during Phase II fieldwork indicated that the elements present were generally not from the meatiest "best cuts," although faunal analysis on food remains collected during Phase III investigations indicated otherwise. A wide range of meat cuts were identified during faunal analysis, including a selection of roasts, steaks, and stews, in addition to some processed cuts. There was also a range of associated economic values of the cuts including high, medium, and low. However, overall, most cuts (particularly those of beef and veal) fell in the medium to low value range and were dominated by larger units of meat.

Tables 3 and 4 within the faunal report (Appendix 2) summarized the economic value of the cuts of veal, beef, and pork identified during faunal analysis. High quality cuts include steaks, beef sirloin or veal leg roasts, and pork loin rib-end chops. Medium quality cuts include rump, chuck, and arm roasts, short rib stew and chuck stew/grind beef and veal cuts and ham shank cuts, and low-quality cuts include stew and processed cuts.

Overall, 8 high quality cuts, 14 medium quality cuts, and 9 low quality cuts of veal and beef were identified, while 2 high quality, 1 medium quality, and 5 low quality cuts of pork were identified.

Pork cuts consisted of one chop, one ham, three stew meats and a processed cut. Most pig elements came from subadults and juveniles, and most of the cuts were of low economic value. A single cut of veal was included in the faunal samples, which consisted of a high-quality leg roast. Three meat cuts of sheep were sampled, all of which were loin-end chops.

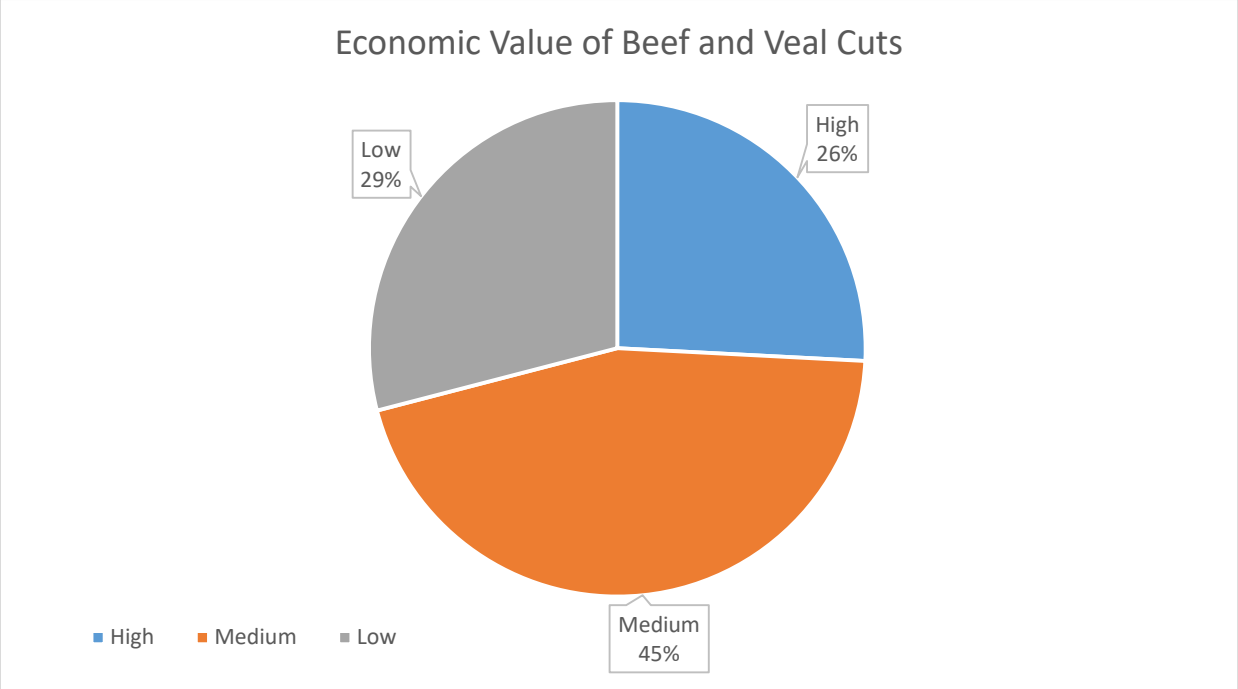

Figure 47. Most cuts fell into the medium to low value range, and primarily consisted of larger cuts of meat.

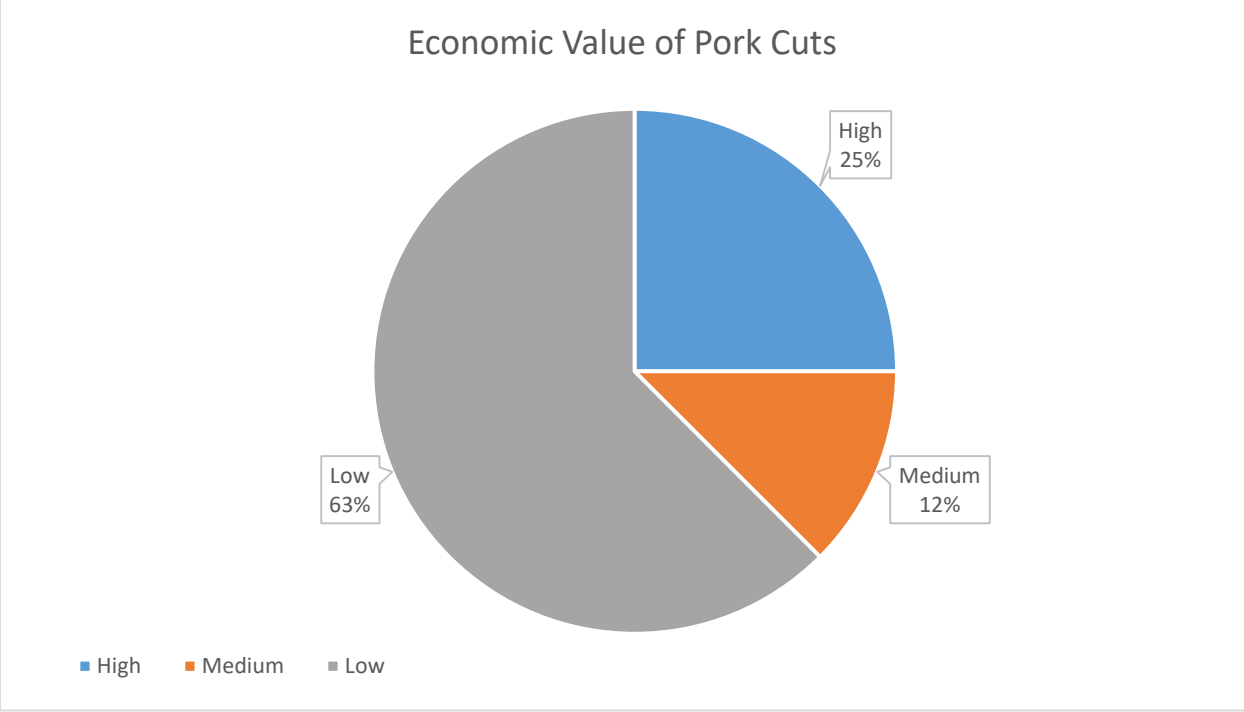

Figure 48. Most cuts of pork fell into the low economic value range and included three "trotter" stew cuts and two "head" processed cuts.

Phase II archeological investigations suggested that most of the food remains collected were of lower economic value and may reflect lower socio-economic status of the occupants, who sources indicate were renting the property from the Houck family. However, Pipes's faunal analysis indicated that the tenant farmers of the site and their families consumed a more varied diet than previously thought. Although large percentages of meat cuts identified during the present faunal analysis were categorized as cuts of low economic value, numerous medium and high-quality cuts of beef, veal, and pork were also identified.

Occupants of the J. Houck Historic Site appear to have consumed primarily medium quality rump, chuck, and arm roasts, short rib stew and chuck stew/grind beef and veal cuts, and low-quality pork cuts including trotter stew cuts and processed head cuts, in addition to chicken and other poultry raised on site. According to Pipes, "a few cranial elements indicate heads and mandibles were processed for tongue, brain, and facial tissue used for making cold cuts like headcheese" (Pipes 2022). Three meat cuts of sheep were identified, all of which were loin-end chops.

7.16.2 Architectural

Significant foundation remains of the J. Houck tenant house were recovered during archeological excavations at the site. The following assessment is confined to the earlier portion of the building, which was better preserved than its late-19th century addition.

The foundation of the house consisted of locally quarried stone dry-laid in approximately 1'-8" thick (.51 m) walls and measured 18'-4" (east-west) by 17'-4" (5.59m by 5.28m) in outside dimension, enclosing a cellar measuring 15 by 14 feet (4.57m by 4.27m) in size. Above the original exterior grade (approximately 16 inches or 40 cm), three courses of masonry were more regular and of larger size. In this respect, this foundation was like the Jacob and Christina Houck house and may point to the same mason being responsible for both.

The foundation extended four feet (1.2 m) below the three regularly coursed rows of masonry, indicating the lack of a fully excavated basement. No basement windows were indicated in the surviving portions of the foundation. The careful alignment of the interior face of the foundation walls indicates that the space may have been used for food storage. One stone in the north wall of the foundation bore four drill holes, indicating its removal from a quarry by mechanical means, either by blasting or by wedges. A large supporting stone for a hearth arch was embedded in the center of the west wall of the foundation. It would have served to support a brick or wood arch that in turn would have supported the hearthstone of the fireplace above.

Bricks found on-site were embedded in the foundation walls as part of the original construction and were also found in the vicinity of the hearth support, outside the foundation. Examples collected measure 7 ¾" x 2" x 3 5/8" (Bag 79, item 1), 8" x 2" x 3 ¾" (Bag 117, item 1), and 8" x 2" x 3 5/8" (Bag 101, item 1). Each of these is well-formed and highly fired, resulting in a brick of dense texture, heavy weight and dark purple-red color. That the bricks were not fired in a large-scale coal-fired kiln is indicated by the lack of striations on their side faces. Each of the examples from the J. Houck house were formed in a sanded mould, and bear indications on their top surface of having been scraped while still green.

Analogous examples from the Jacob and Christina Houck house, originally owned by the same family that owned this dwelling and constructed c. 1805, measured 7 ¾" x 2 1/8" x 3 5/8" and 8 1/8" x 2 ¼" x 3 7/8" in size. The size of these bricks is close to those recovered from the J. Houck house site.

If the brick recovered in the vicinity of the west end of the foundation originated in an externally expressed fireback, this would represent a third aspect of the construction of the J. Houck house that was shared with the Jacob and Christina Houck house, which featured two such brick firebacks (Figure 4).

8 Interpretation

Generally, 19th-century tenant farmers were transient. Available census records indicate that this was also true for many of the tenant farmers on the Houck farm, including the Lisdells and the Millers. Benjamin Havens,

however, was a notable exception. Conditions on the Houck farm appear to have been relatively favorable for tenant farmers and their families. For example, tenant farmer Benjamin Havens resided on the property for over 17 years. After his marriage to Grace in 1886, the couple lived on the Houck farm for several years before moving about two miles east to Amsterdam. Havens was listed as a farmer in city directories after his move and may have continued working for the Houcks (as a wage laborer) even after moving east with Grace.

Occupants of the J. Houck Historic Site consumed a varied diet that included a variety of cuts of beef, veal, and pork, as well as fish, clams, sheep, and poultry including chicken, duck, and goose. Most of the cuts of beef analyzed by Dr. Marie-Lorraine Pipes were of medium or low economic value, while the representative cuts of pork were primarily of low economic value. It appears that most of the food remains collected represented livestock and poultry raised on-site.

Additional artifacts collected during archeological investigations also provide some insight into conditions on the farm in the 19th and early 20th centuries. The variety of ceramic types and patterns collected throughout the site represent the variety of occupants through the years. Generally transient workers were likely to have fewer material possessions than their static landlords, as it would have been difficult to repeatedly move these belongings over time. It is also likely that full sets of each pattern or style of ceramic wares were not purchased, and ceramic pieces were instead acquired as needed. This would be for both economic and practical reasons and could also account for the variety of ceramic artifacts noted throughout the site.

Phase III archeological investigations also examined whether any activity areas were evident from the remains of the structure and whether any historic cultural materials could be linked to specific occupants. For example, most artifacts that appear to be associated with Grace Havens and her occupation as a seamstress were recovered from the northeastern corner of the original house footprint (Units 10 and 16, Trench 3) and the northwestern corner of the house addition (Unit 12). Three buttons were recovered elsewhere within the site. Two were recovered from Unit 13, which was situated near the suspected entrance of the house. The third was recovered from the stripped area near the original house foundation.

The remnants of children's toys, including bisque doll parts and an unglazed porcelain marble, were recovered from Units 13, 15, and 16 during Phase III archeological investigations. These toys generally dated to the late 19th century and may have belonged to Minnie Lisdell, Frank and Josephine Fero, or any number of other children who resided on site between available census records and were therefore not recorded in historical records.

Additionally, numerous materials dating c. 1920s-1930s were recovered throughout the site, but most were collected from the stripped area and the post-occupational fill within the original portion of the house foundation. These materials were deposited toward the end of the property's occupation and were likely linked to later occupants of the site including John P. Van Vechten, who owned the property between September of 1903 and December of 1929. Later landowners included a series of grantees who each held the property for a short time between 1931 and 1935 (Appendix 3).

Bisection of the well did not produce any significant cultural materials, suggesting that it remained in use during the occupation of the site. Materials dating to the 1920s-1940s were mainly concentrated within the foundation fill, the midden deposit identified during earlier archeological investigations, and near the ground surface around the foundation. The well was filled with field cobbles upon its abandonment.

8.1 Comparison of J. Houck Historic Site (OPRHP 05704.000188) to Houck Farmstead and Cemetery (OPRHP A05704.000119)

Several comparisons can be made between the Houck Farmstead and Cemetery (OPRHP A05704.000119 and A05704.000121) and the J. Houck Historic Site (OPRHP 05704.000188) based on archeological investigations and historical research conducted at both sites.

Historical research suggests that the J. Houck Historic Site was a rental property occupied by a series of tenant farmers, most working for the Houck family, who owned the residence and surrounding farmland. The lives

of tenants renting this property would certainly have differed compared to their Houck family landlords. Perhaps the biggest difference is the length of time a family may have taken up residence on the property.

Brothers Peter and Jacob Houck initially acquired the property in 1793, and the farmstead remained in the family through the death of a later Jacob Houck in 1905. Conversely, tenant farmers were generally somewhat transient and there was a lot of turnover of help on such farms. Tenant farmers frequently did not reside on the property for multiple generations as did their landlords, nor were they invested in the upkeep and improvement of the property as the landowners would be. Landowner homes were larger and more elaborate than those provided for tenant farmers; Jacob and Christina Houck's home was assessed as one of the most valuable properties in the Town of Florida in 1805 (Hartgen Archeological Associates 2008a).

Tenant farmers generally did not own a lot of personal items, as frequent moves would make these difficult to maintain and transport. On the other hand, it is likely that the Houck family amassed many more personal items and some luxury goods through the years and passed some of these items from generation to generation. The original Jacob Houck's will, dated 1839, describes some of the goods he intended to leave to his wife Christina and their children, including "all my furniture in the dwelling house where I reside including silver plate" in addition to stoves, beds, and bedding. Houck also left "all my farming utensils, one pleasure sleigh and the pleasure two horse carriage" to his son Isaac. Furthermore, Houck also divided additional property holdings, beyond the Houck farmstead in the Town of Glen, between his immediate family members. Conversely, it appears that many of the Houck family's tenants never owned their own property at all.

Some cultural materials recovered from the Jacob and Christina Houck house were like those recovered from the J. Houck Historic Site, and included whiteware, yellowware, hard-paste porcelain, and stoneware. Food remains, including faunal bone, were also recovered. No analysis of these remains was undertaken (Hartgen 2008).

Other cultural materials included a silver-plated spoon, ball clay-white tobacco pipe fragments, vessel glass. Many ceramics, including creamware and yellowware, hard-paste porcelain, lead-glazed redware, decorated and undecorated whiteware, and stoneware dated to the 19th century. A variety of whiteware was collected, with decoration including black underglaze transfer print, polychrome dipped/annular ware, polychrome banded, polychrome marbleized, blue dipped/annular ware, in addition to undecorated whiteware. These were popular between 1820 and 1900 (Hartgen 2002). Fragments of ball clay-white tobacco pipes, cut nails, and unidentified hardware were also collected. All these materials were recovered in front of the main farmhouse. More modern materials, including rubber tires and construction debris, were also noted, and gravestones related to the Houck family cemetery were observed nearby.

9 Synthesis and Conclusions

The Houck family were important in the settlement and early development of the community of Florida, New York, first recorded as purchasing the property in 1793. The Houck family owned and farmed their property for over 100 years, relying on additional labor from tenant farmers for much of this time. Previous archeology conducted at the Houck Farmstead and Cemetery (OPRHP A05704.000119) and several other contemporary tenant farmsteads allowed for some interesting regional comparisons.

The J. Houck Historic Site is the second of two tenant farmhouses on the property. The first is situated near the main house, while the J. Houck Historic Site is located southwest of the main farmhouse. The J. Houck Historic Site consists of three main features, the original stone cellar footprint, an L-shaped addition to the east, and a stone well that is likely contemporary to the original stone cellar.

In general, tableware and other goods recovered from the site, in addition to food remains were of low to moderate economic value. Faunal analysis indicated that occupants consumed a varied diet of cow and veal, pig, sheep, various birds, fish, and clams, likely supplemented with the variety of crops produced on the farm, including fruits from a small orchard. The economic values of various cuts of meat studied during this survey ranged from low to high, but generally fell within the moderate range.

Historic cultural materials recovered from the site, in conjunction with numerous historical records about the Houck family and their various tenant occupants, provide valuable information and insight into the lives of rural tenant farmers and their landlords in the region throughout the 19th century. Archeological and historical research conducted for the J. Houck Historic Site provided answers to some of the research questions formulated after Phase II archeological investigations.

Phase III archeological excavations successfully reached the floor of the cellar hole, the base of the original structure. These additional excavations identified an activity area associated with the seamstress Grace Havens, which was concentrated in the northeastern corner of the original house footprint. Additionally, excavations confirmed the location of a kitchen area on the west side of the original house footprint near the previously identified brick fireplace back. Additional units and a large stripping area excavated around the perimeter of the original house footprint and its later addition did not identify any further expansion to the structure. Stripping did not identify any additional features associated with the tenant house, including a privy or evidence of the second structure (likely a barn) shown on the 1905 Century map.

Excavation of Trench 1, which bisected the stone well, successfully removed the field cobbles filling the feature and reached the bottom of the feature approximately nine feet below the ground surface. No significant cultural materials were identified within the well.

Historic cultural materials and additional historic research did shed some light on the lives of the tenant farmers that occupied the J. Houck Historic Site. Conditions on the farm appeared to be relatively favorable, as faunal analysis indicated that residents consumed a varied diet, enjoyed coffee and other such goods, utilized a variety of ceramic styles and patterns, and had access to pharmaceuticals and, toward the end of the property's occupancy, cosmetics. In general, tableware and other goods recovered from the site, in addition to food remains were of low to moderate economic value. Faunal analysis indicated that occupants consumed a varied diet of cow and veal, pig, sheep, various birds, fish, and clams, likely supplemented with the variety of crops produced on the farm, including fruits from a small orchard. The economic values of various cuts of meat studied during this survey ranged from low to high, but generally fell within the moderate range.

Perhaps the longest tenant farmer resident, African American tenant farmer Benjamin Havens resided on site for over 17 years. In contrast to their Houck family landlords, however, tenant farmers tended to be transient. Alternatively, the Houck family owned and farmed the land for over 100 years.

The Houck family is shown to have owned slaves as of the 1820 census (United States Census Bureau 1820). However, they continued to rely on labor provided by free African Americans long after that date. Historical research revealed that several of these tenant farmers were African Americans living in the decades immediately following manumission of enslaved individuals in New York State. Unfortunately, there are currently no records of the Houck family to shed light on the agreements made with non-family members. Therefore, we can only speculate on the situation based on the larger historical context in which non-family laborers were associated with the Houck farm.

Benjamin and Grace Havens were both employed in different capacities throughout the years, according to historical records, with Benjamin working as a farmhand for many years and Grace as a seamstress. The couple eventually moved northeast to Amsterdam, occupying three recorded apartments over several years, but did not appear to purchase their own property. In addition to Benjamin and Grace Havens, several other free African Americans worked the Houck farm through the 19th century. One man, James Dennis, resided on the property as a teenager before fighting in the Civil War, successfully returning home, and becoming a prominent and well-respected citizen of Amsterdam. Historical records indicate, however, that Dennis remained poor, as his obituary in the *Amsterdam Evening Recorder* noted that he "performed humble tasks for a living" and "never possessed much of this world's goods." John Miller, another African American laborer, resided on the property around 1860. He was able to acquire property of his own sometime after his move from the Houck farm, which was described as "Lot 20 N.W. ¼ 40 [acres?] in Township 12, Old Military Tract" (Montgomery County Historian). He later relocated to Canajoharie with his second wife Maria where he resided until his death in 1887 at the age of 90.

There was a distinct rise in the number of tenant farms through the end of the 19th century. Throughout New York, merchants were purchasing struggling farms in outlying towns and leasing the land to tenant farmers (Summerhill 2008). However, farms in this region such as the Houck farm and Jones farm remained in the families for generations. The Houck farmstead relied on labor from tenant farmers between at least 1860 and 1900, according to available census records with an eventual decline toward the beginning of the 20th century. The Houck family lacked the means to hire the many laborers required to farm the 200 acres. As a result, they were likely happy with the modest income they could raise on idle land utilized by tenants. Throughout the 19th century, tenant farmers were critically important to the overall agricultural economy, especially for more modestly sized farms such as the Houcks'.

Expansion to the tenant farmhouse at the J. Houck Historic Site indicates that, even with an additional tenant house near the main farmhouse, more space was needed for the tenant farmers on the property and resources were available to provide a more comfortable living space for these workers. Later landowner John P. Van Vechten purchased the farm after the Houcks in 1903 and held the property through 1929. However, it appears that he never lived on the property. The census records from 1905 through 1920 record him as living in Esperance during those years. He may have continued to rent the tenant house at the J. Houck Historic Site, as was the trend with many other landlords around this time, which would account for much of the later refuse recovered from the site. After the analysis of historical maps, it has been determined that the house which used to be situated at the J. Houck Historic site was demolished between 1905 and 1931 (Century Map Company 1905; USGS 1931).

9.1 Public Education and Dissemination of Data

Hartgen will take the following steps to disseminate the results of the Phase III data retrieval study to the public:

- Distribute full-color hard copies and electronic copies of the final Phase III report to the Montgomery County Historical Society and one local library to ensure long-term accessibility of the information to the local community.
- Create a J. Houck Historic Site archeology resource in the Digital Archaeological Record (tDAR), an international digital repository for the digital records of archaeological investigations. tDAR's use, development, and maintenance are governed by Digital Antiquity, an organization dedicated to ensuring the long-term preservation of irreplaceable archaeological data and to broadening the access to these data.

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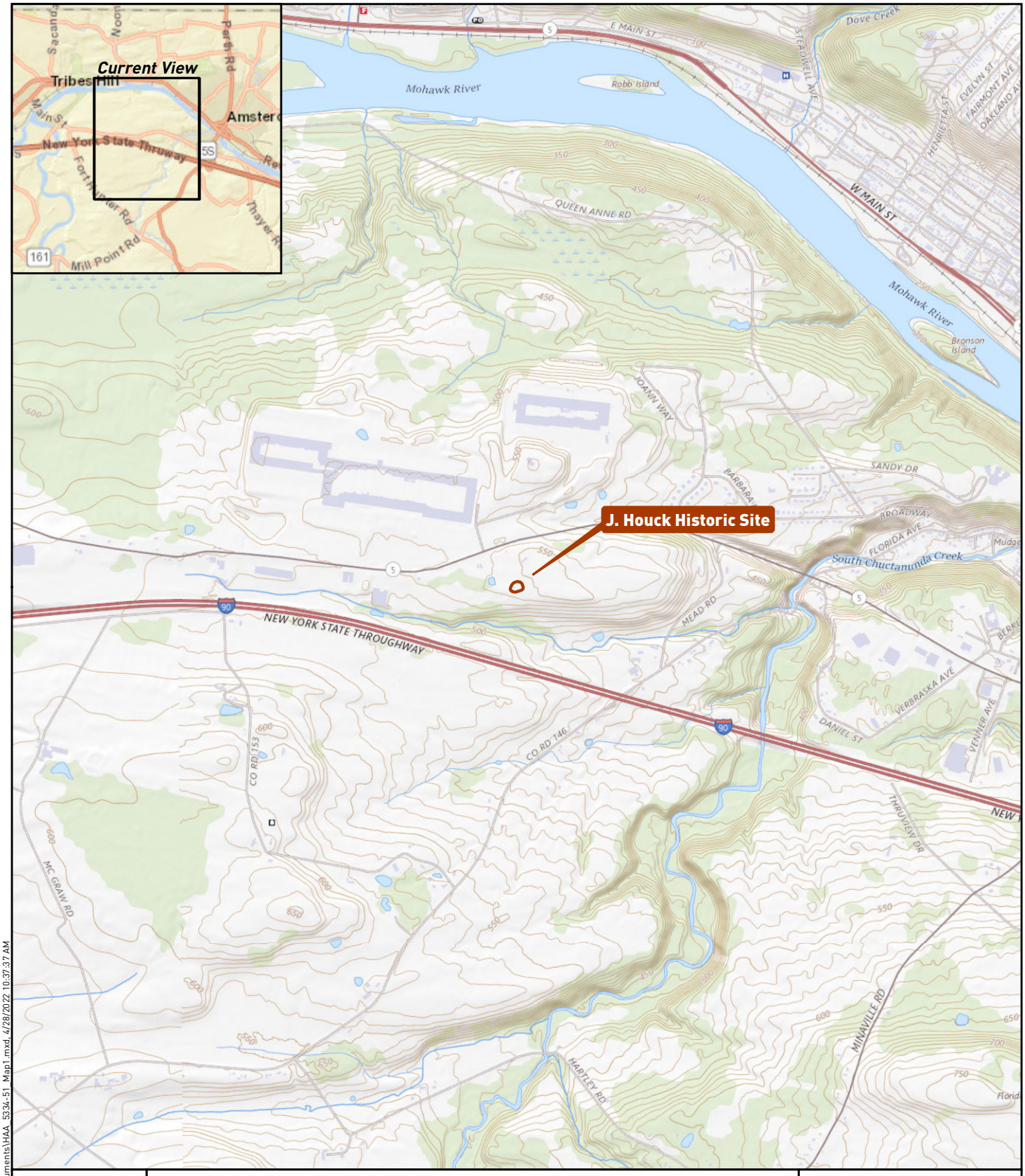
Maps



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N

1,000 0 1,000 2,000
Feet
300 0 300 600
Meters

Note: Contour interval is 10 feet.

Project Location

GIS Services Accessed 4/28/2022: Environmental Systems Research Institute, Inc., World Street Map; USGS The National Map

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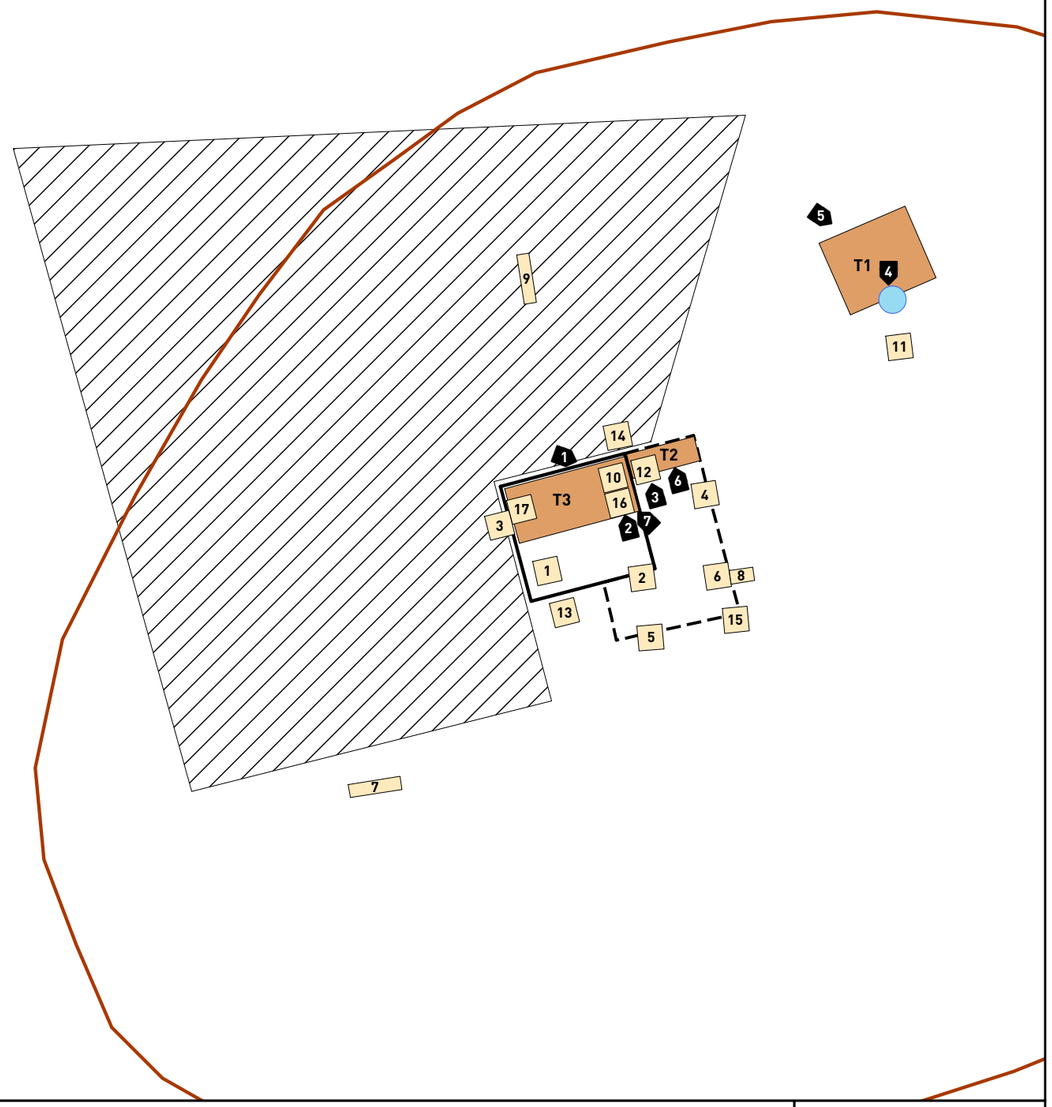
Map 1

Overview



Inset



50 0 50 100 Feet
15 0 15 30 Meters

Legend

- Photo Angle
- Well
- Unit
- Stripping Area
- Trench
- Original Footprint
- Addition
- J. Houck Historic Site

Project Map

New York State Office of Information Technology Services, Orthoimagery, 2017

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Map 2

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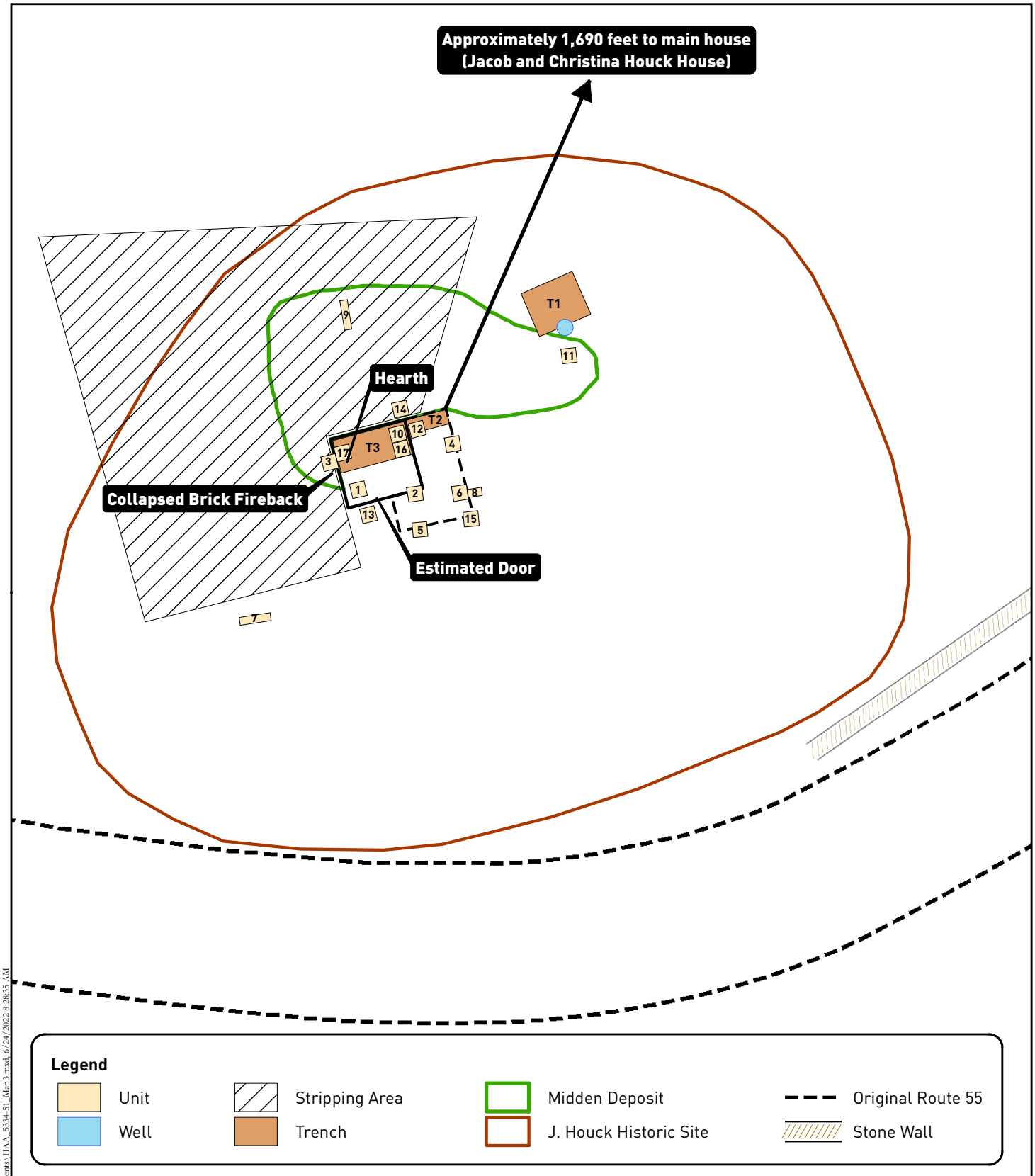

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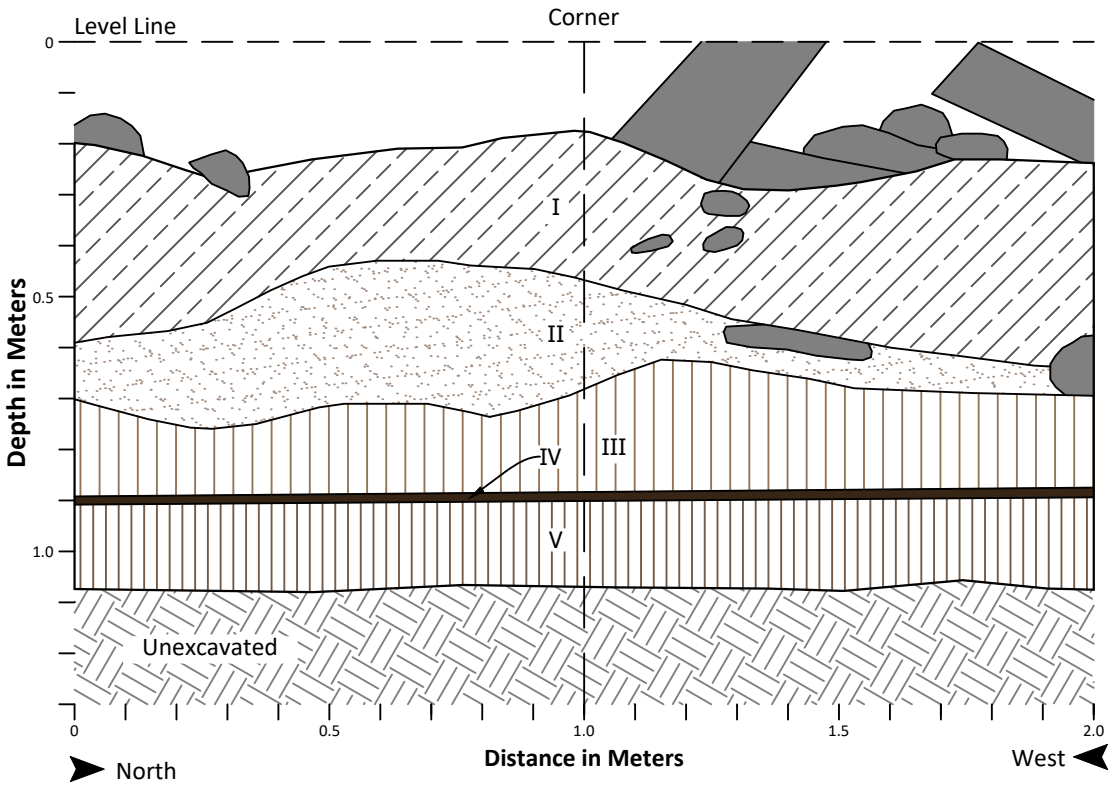
Drawings





I Black (10YR 2/1) silt loam - fill and cobbles
II Light brownish gray (10YR 6/2) sand - fill
III Yellowish brown (10YR 5/4) silty clay - fill
IV Very dark brown (10YR 2/2) clay and decayed stone - dirt floor
V Brown (10YR 4/3) silty clay - B horizon

Rock

Unit 10
West and North Profiles

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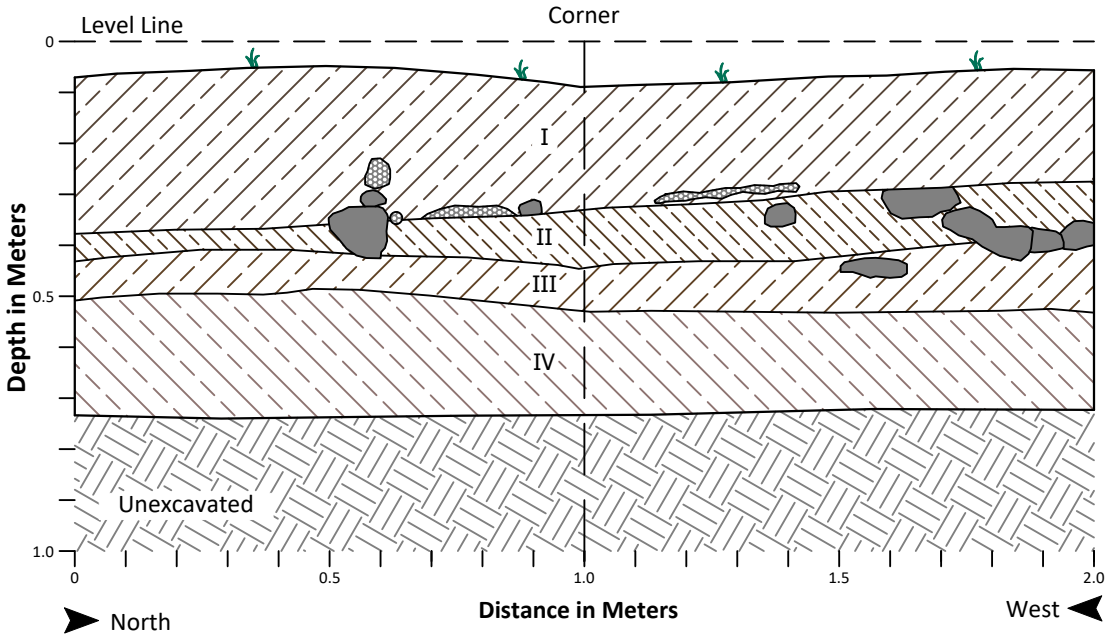
Figure 1





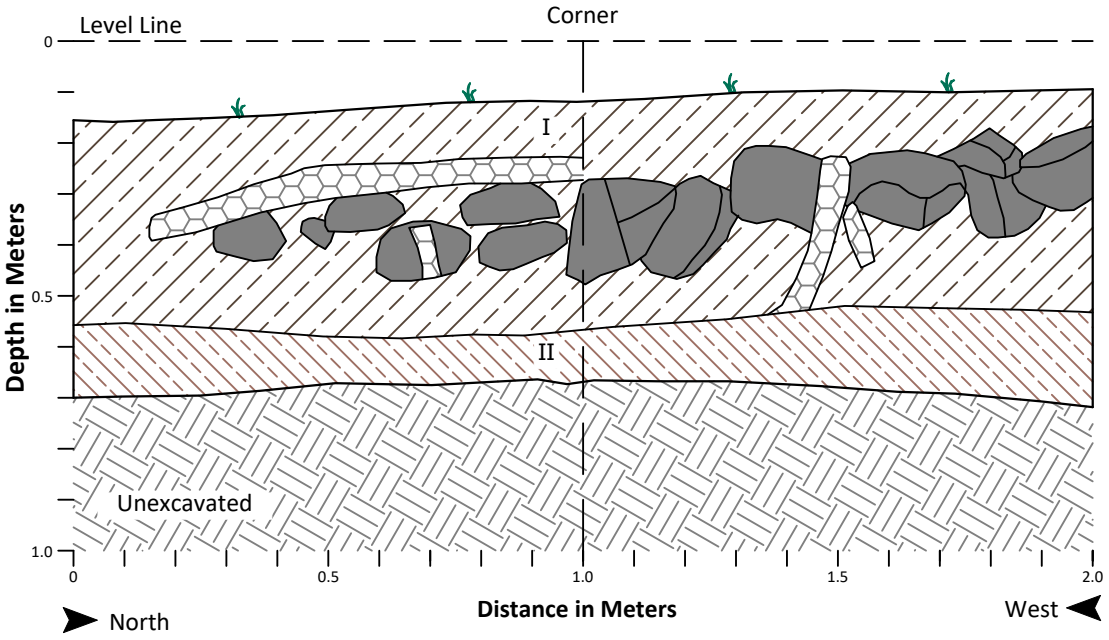
I Very dark grayish brown (10YR 3/2) silt loam
II Dark brown (10YR 3/3) silt loam
III Dark yellowish brown (10YR 3/4) silt loam
IV Grayish brown (2.5Y 5/2) silt loam; mottled with yellowish brown (10YR 5/6) as depth increases

Rock
Roots

Unit 11
West and North Profiles

HARTGEN archeological associates inc

Figure 2





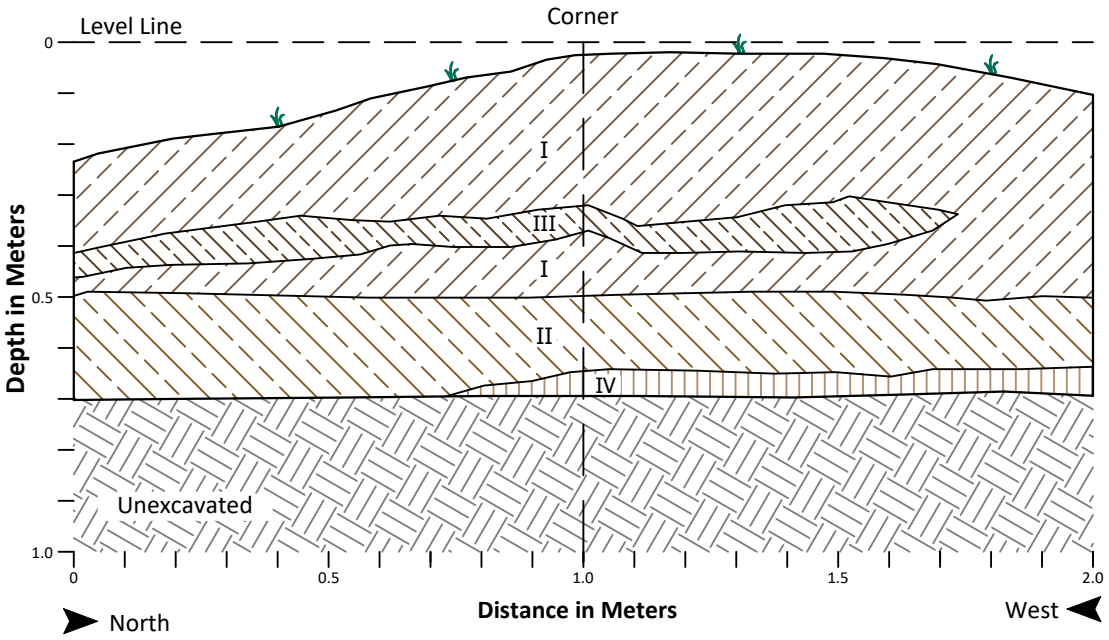
I Very dark grayish brown (10YR 3/2) silt loam with cobbles and roots
II Light olive brown (2.5Y 5/4) silt loam

Rock
Roots

Unit 12
West and North Profiles

HARTGEN archeological associates inc

Figure 3





I Brown (10YR 4/3) silt loam
II Dark yellowish brown (10YR 4/6) clay loam
III Dark brown (10YR 3/3) silt loam with small stones
IV Light yellowish brown (10YR 6/4) clay

Unit 15
West and North Profiles

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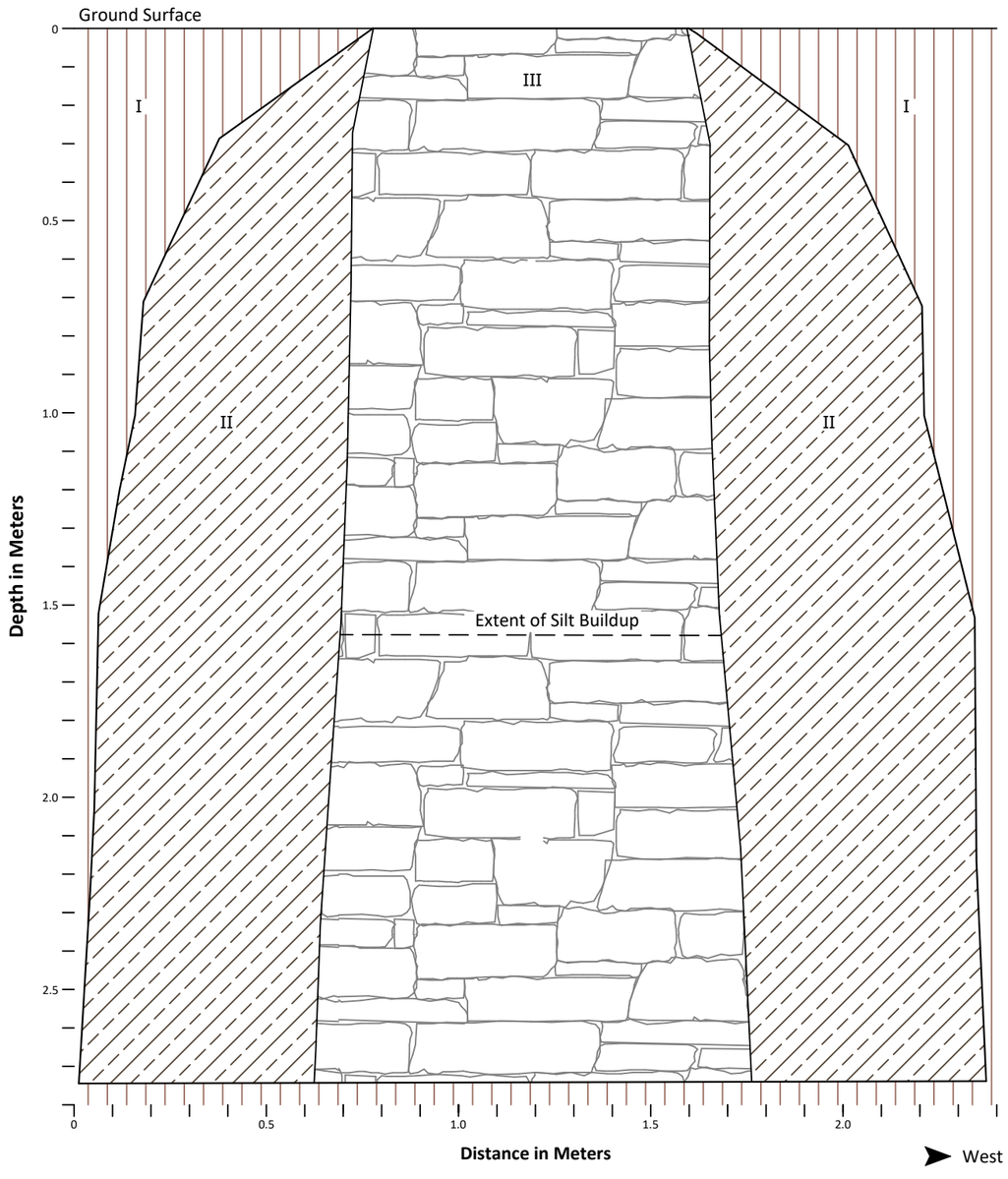
Figure 4





I Light olive brown (2.5Y 5/4) clay
II Very dark grayish brown (2.5Y 3/2) loam
III Flat limestone slabs with river cobbles used in gaps

Well interior diameter: 1.05 meters(~3.5 feet)
Well overall depth: 2.75 meters (~9 feet)

Bisected Well

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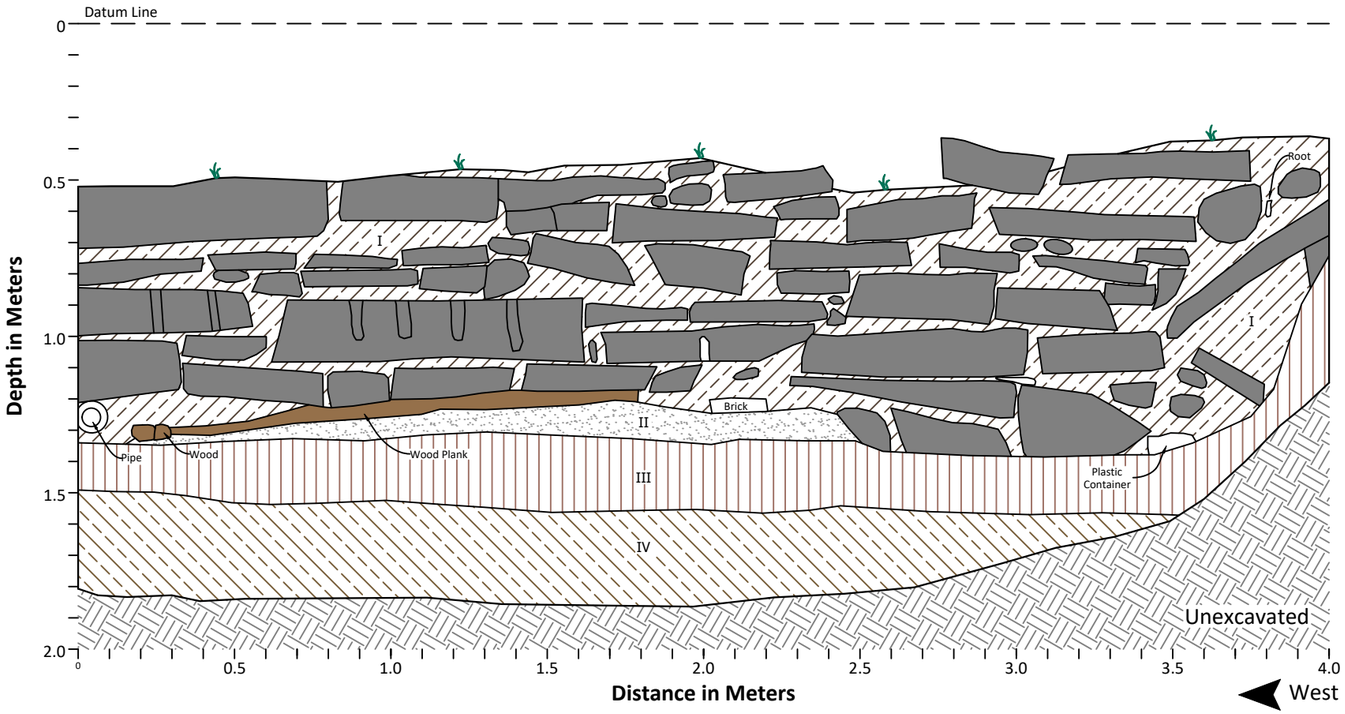
Figure 5





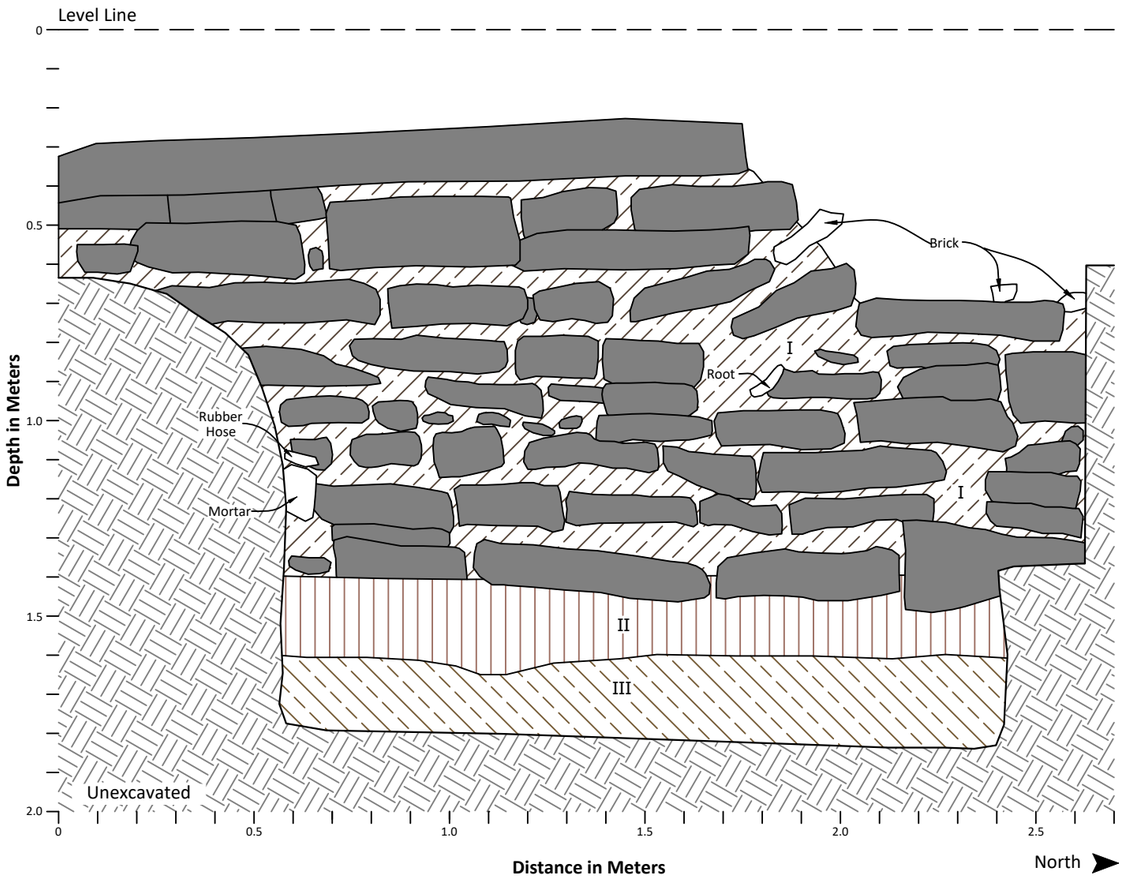
I Very dark grayish brown (10YR 3/2) sandy silt loam
II Gray (10YR 6/1) sand, mortar, plaster, rubble
III Light olive brown (2.5Y 5/4) silty clay
IV Olive brown (2.5Y 4/4) clay with pebbles and black (2.5Y 2.5/1) loam

Stone

Trench 3 (Foundation)
North Wall Profile

HARTGEN archeological associates inc

Figure 6





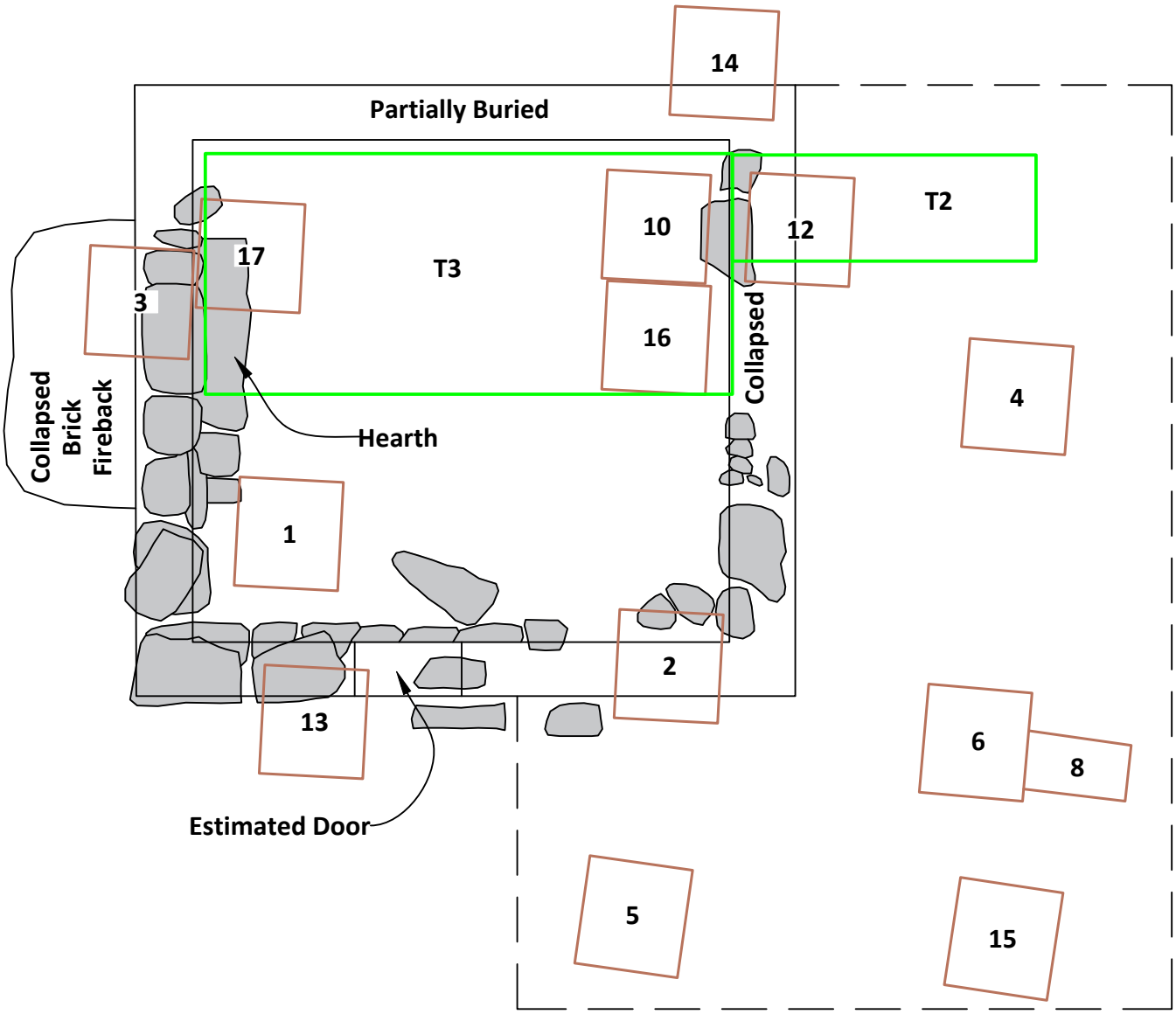
I Very dark grayish brown (10YR 3/2) sandy silt loam
II Light olive brown (2.5Y 5/4) silty clay
III Olive brown (2.5Y 4/4) clay and black (2.5Y 2.5/1) loam

Stone

Trench 3 (Foundation)
West Wall Profile

HARTGEN archeological associates inc

Figure 7



Unit

Trench

Scale 1:60

J. Houck Historic Site Residence Floor Plan

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Figure 8

Photographs



Photo 1. Archeologists excavate Units 12 and 13 near the Houck house foundation. Unit 10 is visible in the foreground. View looking southeast.



Photo 2. Unit 10 was excavated in the northeastern corner of the foundation. The stratigraphy visible in this unit was fairly consistent throughout the interior of the foundation. View looking northwest.



Photo 3. The stratigraphy east of the foundation, within the northern portion of the addition, consisted of a thin layer of topsoil atop redeposited field cobbles. The soils beneath the cobbles consisted of a very dark grayish brown silty loam underlain by a light olive brown silty loam subsoil. No living floor or substantial foundation remains were observed within the addition. View looking northwest.



Photo 4. Trench 1 was excavated to bisect the well, remove the cobble fill, and investigate any potential deposits within this feature. Although mechanical excavations were able to reach the base of the well, no significant cultural materials were recovered from the feature. View looking south.



Photo 5. Upon completion of the documentation, the well excavations (Trench 1) and Unit 11 were backfilled. View looking south.



Photo 6. Excavation of Trench 2, within the house addition. An intrusion into the topsoil consisting of cobbles amid darker soil, running generally in a north-south direction, indicated a possible exterior wall or edge of the addition. View looking north.



Photo 7. The north wall and a portion of the west wall were exposed after mechanical trenching. The depth of the foundation was relatively shallow and may have indicated the presence of a crawl space rather than a full cellar.



Photo 8. An archeologist inspects the stripping area west of the original house foundation. View looking north.

Appendix 1: Artifact Inventory

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
Well Int.								
GP			101	1	1	brick	brick	1,530.0
				1.1	*1*	*brick, complete, brick, hand molded, L 7 3/4, W 3 1/2, T 2 15/16 in*		*1,530.0*
Stripped Area N								
GP	1		111	1	22	whiteware	refined earthenware	165.5
				1.1	*2*	*whiteware, rim, refined earthenware, flow transfer print, molded decoration, cobalt blue, fragments mend, molded decoration includes beading, lines, and stars*		*12.1*
				1.2	*1*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*3.1*
				1.3	*1*	*whiteware, rim, refined earthenware, molded decoration*		*13.4*
				1.4	*1*	*whiteware, flatware, full profile, refined earthenware, painted, polychrome*		*27.2*
				1.5	*1*	*whiteware, rim, refined earthenware, decorated, polychrome*		*1.7*
				1.6	*1*	*whiteware, refined earthenware, decorated, cobalt blue*		*1.1*
				1.7	*2*	*whiteware, base, refined earthenware, undecorated*		*15.5*
				1.8	*2*	*whiteware, rim, refined earthenware, undecorated*		*33.6*
				1.9	*11*	*whiteware, refined earthenware, undecorated*		*57.8*
GP	1		111	2	1	white bodied	refined earthenware	1.7
				2.1	*1*	*white bodied, base, refined earthenware, cobalt blue, burned, "… IN HOLLAND / …CIETE CERAMIQUE…"*		*1.7*
GP	1		111	3	1	yellowware	refined earthenware	33.9
				3.1	*1*	*yellowware, milk pan, rim, refined earthenware, lead glaze*		*33.9*
GP	1		111	4	9	semi-porcelain	refined earthenware	146.6
				4.1	*2*	*semi-porcelain, rim, refined earthenware, molded decoration*		*33.7*
				4.2	*1*	*semi-porcelain, refined earthenware, transfer printed underglaze, blue*		*8.2*
				4.3	*2*	*semi-porcelain, tea cup, rim and handle, refined earthenware, fragments mend*		*17.2*
				4.4	*2*	*semi-porcelain, hollowware, rim, refined earthenware, undecorated*		*56.4*
				4.5	*1*	*semi-porcelain, base, refined earthenware, undecorated*		*12.9*
				4.6	*1*	*semi-porcelain, refined earthenware, undecorated*		*18.2*
GP	1		111	5	1	grey bodied stoneware	stoneware	32.9
				5.1	*1*	*grey bodied stoneware, body, stoneware, salt-glazed, slip on interior*		*32.9*
GP	1		111	6	2	buff/pink bodied stoneware	stoneware	345.3
				6.1	*2*	*buff/pink bodied stoneware, base, stoneware, Albany slip & salt-glazed, fragments mend*		*345.3*
GP	1		111	7	1	bottle closure	porcelain and iron alloy	17.0
				7.1	*1*	*bottle closure, porcelain and iron alloy*		*17.0*
GP	1		111	8	3	bottle	glass	159.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				8.1	*1*	*bottle, round, base, glass, embossed, colorless, "CALCUTT'S PAT'S / APR 11TH NOV 7TH 1893"*		*97.3*
				8.2	*1*	*bottle, rectangular, base, glass, embossed, colorless, "…TADY / N.Y."*		*41.1*
				8.3	*1*	*bottle, body, glass, pale aqua*		*21.0*
GP	1		111	9	1	jar	glass	142.5
				9.1	*1*	*jar, cosmetic, nearly complete, glass, white, cap not present*		*142.5*
GP	1		111	10	1	vessel	glass	10.0
				10.1	*1*	*vessel, glass, colorless*		*10.0*
GP	1		111	11	2	window	glass	9.0
				11.1	*2*	*window, glass, pale aqua*		*9.0*
GP	1		111	12	2	shell	shell	15.0
				12.1	*2*	*shell, clam, shell, fragment*		*15.0*
Stripped Area NW								
GP	1		112	1	1	tableware	glass	137.1
				1.1	*1*	*tableware, cruet, complete, glass, colorless, machine made*		*137.1*
GP	1		112	2	5	bottle	glass	925.8
				2.1	*1*	*bottle, rectangular, complete, glass, embossed, pale aqua, threaded, Owens-Illinois Glass Co., TPQ 1929*		*426.1*
				2.2	*1*	*bottle, complete, glass, embossed, brown, machine made, Owens-Illinois Glass Co., pectin measuring bottle, TPQ 1929*		*259.3*
				2.3	*1*	*bottle, pharmaceutical, complete, glass, embossed, colorless, machine made, Knox Bottle Co., "Dr. Edward A. Bogdan / 48 Church St. / Amsterdam, N.Y. / Phone 126" acid-etched on panel, TPQ 1918*		*132.3*
				2.4	*1*	*bottle, glass, embossed, pale aqua, embossed letters*		*40.4*
				2.5	*1*	*bottle, body, glass, dark green, mold blown*		*67.7*
GP	1		112	3	1	jar	glass	239.8
				3.1	*1*	*jar, complete, glass, embossed, colorless, threaded, Lummis Glass Co., TPQ 1940*		*239.8*
GP	1		112	4	2	vessel	glass	12.0
				4.1	*2*	*vessel, glass, colorless*		*12.0*
GP	1		112	5	1	window	glass	7.4
				5.1	*1*	*window, glass, pale aqua*		*7.4*
GP	1		112	6	23	whiteware	refined earthenware	250.6

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				6.1	*1*	*whiteware, rim, refined earthenware, molded decoration, harvest motif*		*17.1*
				6.2	*1*	*whiteware, rim, refined earthenware, molded decoration*		*12.2*
				6.3	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, blue*		*1.3*
				6.4	*2*	*whiteware, refined earthenware, banded, polychrome, fragments mend*		*4.0*
				6.5	*1*	*whiteware, refined earthenware, decorated, blue*		*2.5*
				6.6	*2*	*whiteware, full profile, refined earthenware, undecorated, burned*		*90.0*
				6.7	*2*	*whiteware, rim, refined earthenware, undecorated*		*31.6*
				6.8	*1*	*whiteware, flatware, rim, refined earthenware, undecorated*		*36.0*
				6.9	*1*	*whiteware, base, refined earthenware, undecorated*		*14.5*
				6.10	*11*	*whiteware, refined earthenware, undecorated*		*41.4*
GP	1		112	7	2	porcelain	porcelain	16.2
				7.1	*2*	*porcelain, porcelain, hand painted, cobalt blue*		*16.2*
GP	1		112	8	1	lamp	glass	3.6
				8.1	*1*	*lamp, glass, white*		*3.6*
GP	1		112	9	3	sheet metal	iron alloy	1.6
GP	1		112	10	71	faunal bone	bone	860.6
				10.1	*1*	*faunal bone, bone, fragment*		*840.0*
				10.2	*70*	*faunal bone, bone, fragment*		*20.6*
GP	1		112	11	2	rubber	rubber	1.9
GP	1		112	12	2	wood	wood	2.0
Stripped Area W								
GP			113	1	1	tableware	glass	136.7
				1.1	*1*	*tableware, cruet, complete, glass, molded decoration, colorless, machine made, Owens-Illinois Glass Co., TPQ 1929*		*136.7*
GP			113	2	2	bottle	glass	1,858.6
				2.1	*1*	*bottle, condiment, complete, glass, embossed, colorless, machine made, Owens Bottle Co., "PRIDE OF THE FARM / TOMATO CATSUP", TPQ 1919*		*348.6*
				2.2	*1*	*bottle, round, complete, glass, colorless, machine made*		*1,510.0*
GP			113	3	4	faunal bone	bone	235.2
				3.1	*4*	*faunal bone, bone, fragment*		*235.2*
Stripped Area W								
GP			114	1	6	whiteware	refined earthenware	308.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*whiteware, hollowware, rim, refined earthenware, molded decoration*		*260.6*
				1.2	*1*	*whiteware, rim, refined earthenware, decorated, incised, cobalt blue*		*14.3*
				1.3	*1*	*whiteware, hollowware, rim, refined earthenware, sponged, cobalt blue*		*14.2*
				1.4	*3*	*whiteware, refined earthenware, undecorated*		*19.3*
GP			114	2	1	white bodied	refined earthenware	52.7
				2.1	*1*	*white bodied, hollowware, rim, refined earthenware, decorated, molded decoration, green*		*52.7*
GP			114	3	4	hotel china	porcelain	308.2
				3.1	*1*	*hotel china, saucer, full profile, porcelain, transfer printed underglaze, red*		*135.1*
				3.2	*1*	*hotel china, flatware, full profile, porcelain, transfer printed underglaze, green*		*96.4*
				3.3	*1*	*hotel china, saucer, complete, porcelain, painted, green, band and line decoration*		*54.4*
				3.4	*1*	*hotel china, base, porcelain*		*22.3*
GP			114	4	1	bottle	glass	286.5
				4.1	*1*	*bottle, oval-shaped, complete, glass, embossed, colorless, machine made, "FEDERAL LAW FORBIDS SALE OR REUSE OF THIS BOTTLE / HALF PINT"; *CONTAINS LIQUID**		*286.5*
GP			114	5	2	jar	glass	543.8
				5.1	*1*	*jar, cosmetic, complete, glass, embossed, white, machine made, "MELBA" embossed on base*		*264.9*
				5.2	*1*	*jar, complete, glass, embossed, colorless, machine made, letters embossed on base*		*278.9*
GP			114	6	1	tableware	glass	156.1
				6.1	*1*	*tableware, tumbler, base, glass, paneled, fluted, colorless*		*156.1*
GP			114	7	1	window	glass	64.9
				7.1	*1*	*window, glass, pale aqua*		*64.9*
GP			114	8	2	sheet metal	iron alloy	0.9
GP			114	9	1	shell	shell	8.0
				9.1	*1*	*shell, clam, shell*		*8.0*
GP			114	10	20	faunal bone	bone	119.8
				10.1	*5*	*faunal bone, bone, fragment*		*93.6*
				10.2	*15*	*faunal bone, bone, fragment*		*26.2*
GP			114	11	1	unidentified	porcelain	11.7
Stripped Area, Rock Pile								
GP			115	1	14	whiteware	refined earthenware	75.3

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*2*	*whiteware, rim, refined earthenware, flow transfer print, black, fragments mend*		*5.9*
				1.2	*1*	*whiteware, rim, refined earthenware, hand painted, polychrome*		*4.3*
				1.3	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, blue*		*7.7*
				1.4	*2*	*whiteware, refined earthenware, transfer printed underglaze, cobalt blue*		*9.6*
				1.5	*1*	*whiteware, refined earthenware, decorated, cobalt blue*		*18.7*
				1.6	*1*	*whiteware, base, refined earthenware, undecorated*		*6.2*
				1.7	*1*	*whiteware, rim, refined earthenware, undecorated*		*2.4*
				1.8	*5*	*whiteware, refined earthenware, undecorated*		*20.5*
GP			115	2	1	drinking	glass	73.3
				2.1	*1*	*drinking, full profile, glass, colorless, mold blown*		*73.3*
GP			115	3	1	lamp	glass	1.6
				3.1	*1*	*lamp, glass, white*		*1.6*
GP			115	4	2	window	glass	17.5
				4.1	*2*	*window, glass, pale aqua*		*17.5*
GP			115	5	1	whetstone	sandstone	116.2
GP			115	6	1	button	porcelain	0.6
				6.1	*1*	*button, four hole sew through, porcelain*		*0.6*
GP			115	7	1	bolt	iron alloy	33.9
GP			115	8	3	shell	shell	64.4
				8.1	*3*	*shell, clam, shell*		*64.4*
GP			115	9	1	faunal bone	bone	35.6
				9.1	*1*	*faunal bone, bone, fragment*		*35.6*
GP			120	1	1	grinder	cast iron and brass	2,280.0
				1.1	*1*	*grinder, coffee, nearly complete, cast iron and brass, Square Kenrick's Patent Coffee Mill, L 13, W 13 cm*		*2,280.0*
Cleared Area West of House								
SC			110	1	6	hotel china	porcelain	277.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*hotel china, flatware, full profile, porcelain, transfer printed underglaze, green, "O.P. CO. / SYRACUSE / CHINA / 9-Q" on base*		*104.6*
				1.2	*1*	*hotel china, saucer, full profile, porcelain, painted, green, Band and line decoration; "Jackson vitrified China" printed on base*		*54.5*
				1.3	*1*	*hotel china, full profile, porcelain, "Jackon vitrified China" printed on base*		*29.2*
				1.4	*2*	*hotel china, full profile, porcelain, transfer printed underglaze, red, fragments mend*		*84.2*
				1.5	*1*	*hotel china, hollowware, rim, porcelain, painted, cobalt blue*		*4.9*
Unit 10								
SC			116	1	4	whiteware	refined earthenware	12.9
				1.1	*2*	*whiteware, rim, refined earthenware, banded, polychrome*		*5.2*
				1.2	*1*	*whiteware, handle, refined earthenware*		*1.4*
				1.3	*1*	*whiteware, base, refined earthenware, undecorated*		*6.3*
SC			116	2	2	bottle	glass	390.5
				2.1	*1*	*bottle, wine, base, glass, embossed, colorless, machine made, Owens-Illinois Glass Co., ribbed, with grapevines, TPQ 1929*		*326.3*
				2.2	*1*	*bottle, round, base, glass, embossed, brown, machine made, Owens-Illinois Glass Co., TPQ 1929*		*64.2*
SC			116	3	3	sheet metal	iron alloy	4.1
SC			116	4	1	mortar	mortar	0.7
Well								
T 1			99	1	1	strap	leather and metal	25.5
Well								
T 1			100	1	1	wood	wood	120.0
T 2			102	1	2	whiteware	refined earthenware	13.0
				1.1	*2*	*whiteware, rim, refined earthenware, flow transfer print, cobalt blue*		*13.0*
T 2			102	2	1	ironstone	refined earthenware	17.6
				2.1	*1*	*ironstone, base, refined earthenware, transfer printed underglaze, black, John Alcock, "IMPERIAL / IRONSTONE CHINA / JOHN ALCOCK" printed on base, TPQ 1853*		*17.6*
T 2			102	3	1	slate fragment	slate	31.8
T 2			102	4	3	nail	iron alloy	19.9
				4.1	*3*	*nail, iron alloy, cut*		*19.9*
T 2			102	5	2	faunal bone	bone	23.5

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*2*	*faunal bone, bone, fragment*		*23.5*
T 3	1		103	1	4	whiteware	refined earthenware	33.3
				1.1	*1*	*whiteware, base, refined earthenware, molded decoration, two circumfrential rings around foot*		*5.1*
				1.2	*1*	*whiteware, rim, refined earthenware, undecorated*		*6.7*
				1.3	*2*	*whiteware, refined earthenware, undecorated*		*21.5*
T 3	1		103	2	1	porcelain	porcelain	2.4
				2.1	*1*	*porcelain, porcelain, undecorated*		*2.4*
T 3	1		103	3	8	bottle	glass	588.4
				3.1	*1*	*bottle, round, complete, glass, colorless, machine made*		*139.1*
				3.2	*1*	*bottle, body, glass, embossed, colorless, "Monarch / WINES"*		*104.6*
				3.3	*1*	*bottle, base, glass, embossed and paneled, colorless, machine made, Hazel-Atlas Glass Co., TPQ 1923*		*110.9*
				3.4	*1*	*bottle, finish, glass, colorless, machine made*		*43.2*
				3.5	*1*	*bottle, rectangular, panel, glass, embossed, colorless, "WA …"*		*46.9*
				3.6	*1*	*bottle, round, base, glass, embossed, pale aqua, numbers embossed on base*		*59.6*
				3.7	*1*	*bottle, round, glass, embossed, colorless, numbers embossed on base*		*71.3*
				3.8	*1*	*bottle, soda, body, glass, embossed, pale aqua, machine made, Coca Cola Co., "TRADE M… / CONTENTS"*		*12.8*
T 3	1		103	4	2	jar	glass	96.5
				4.1	*1*	*jar, rim, glass, embossed, colorless, machine made, "…ISON"*		*83.9*
				4.2	*1*	*jar, body, glass, embossed, colorless, mold blown*		*12.6*
T 3	1		103	5	1	vessel	glass	29.4
				5.1	*1*	*vessel, glass, ribbed, colorless*		*29.4*
T 3	1		103	6	1	wire	iron alloy	0.9
				6.1	*1*	*wire, iron alloy*		*0.9*
T 3	1		104	1	7	whiteware	refined earthenware	166.7
				1.1	*1*	*whiteware, rim, refined earthenware, molded decoration*		*119.2*
				1.2	*1*	*whiteware, base, refined earthenware, undecorated*		*22.2*
				1.3	*5*	*whiteware, refined earthenware, undecorated*		*25.3*
T 3	1		104	2	6	buff/pink bodied stoneware	stoneware	194.5
				2.1	*1*	*buff/pink bodied stoneware, stoneware, unglazed*		*35.1*
				2.2	*5*	*buff/pink bodied stoneware, stoneware, slip on both interior and exterior*		*159.4*
T 3	1		104	3	3	porcelain	porcelain	22.1

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				3.1	*1*	*porcelain, rim, porcelain, decorated, cobalt blue, with gilt and red overglaze decoration*		*12.5*
				3.2	*1*	*porcelain, rim, porcelain, decorated, cobalt blue, with gilt*		*5.6*
				3.3	*1*	*porcelain, rim, porcelain, decorated, cobalt blue, with gilt*		*4.0*
T 3	1		104	4	3	bottle	glass	446.9
				4.1	*1*	*bottle, round, complete, glass, embossed, brown, machine made, "CERTO / REG. U. S. PAT. OFF." on one side, "FOR 1/2 BOTTLE / POUR TO HERE" on other, upside-down*		*264.9*
				4.2	*1*	*bottle, rectangular, base, glass, pale aqua, mold blown*		*82.6*
				4.3	*1*	*bottle, round, base and body, glass, embossed, pale aqua, "THIS B… / NOT TO B…"*		*99.4*
T 3	1		104	5	2	jar	glass	168.0
				5.1	*1*	*jar, complete, glass, embossed, colorless, threaded, Owens-Illinois Glass Co., TPQ 1929*		*140.1*
				5.2	*1*	*jar, full profile, glass, embossed, white, threaded, letters embossed on base*		*27.9*
T 3	1		104	6	1	lamp chimney	glass	16.7
				6.1	*1*	*lamp chimney, rim, glass, beaded, colorless*		*16.7*
T 3	1		104	7	1	vessel	glass	3.3
				7.1	*1*	*vessel, glass, pale aqua*		*3.3*
T 3	1		104	8	1	unidentified	iron alloy and unidentified	58.9
T 3	1		104	9	1	unidentified hardware	iron alloy	14.0
T 3	1		104	10	1	shell	shell	14.7
				10.1	*1*	*shell, clam, shell*		*14.7*
T 3	1		104	11	10	faunal bone	bone	215.0
				11.1	*10*	*faunal bone, bone, fragment*		*215.0*
NE Corner								
T 3	1		105	1	8	whiteware	refined earthenware	41.2
				1.1	*1*	*whiteware, rim, refined earthenware, gilt*		*4.5*
				1.2	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, blue*		*7.4*
				1.3	*1*	*whiteware, rim, refined earthenware, undecorated, burned*		*15.5*
				1.4	*5*	*whiteware, refined earthenware, undecorated*		*13.8*
T 3	1		105	2	4	buff/pink bodied stoneware	stoneware	106.2
				2.1	*1*	*buff/pink bodied stoneware, rim, stoneware, slip on both interior and exterior*		*64.0*
				2.2	*3*	*buff/pink bodied stoneware, stoneware, slip on both interior and exterior*		*42.2*
T 3	1		105	3	11	porcelain	porcelain	156.1

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				3.1	*7*	*porcelain, flatware, full profile, porcelain, decorated, molded decoration, cobalt blue, some fragments mend, with gilt and polychrome overglaze decoration*		*64.8*
				3.2	*3*	*porcelain, rim and handle, porcelain, decal, polychrome, some fragments mend, with gilt*		*23.5*
				3.3	*1*	*porcelain, base, porcelain, undecorated*		*67.8*
T 3	1		105	4	1	bottle closure	porcelain and iron	16.4
T 3	1		105	5	11	bottle	glass	906.3
				5.1	*1*	*bottle, rectangular, complete, glass, embossed, pale aqua, machine made*		*148.0*
				5.2	*1*	*bottle, complete, glass, colorless, machine made*		*145.1*
				5.3	*1*	*bottle, finish, glass, pale aqua, lipping-tooled*		*90.6*
				5.4	*1*	*bottle, pharmaceutical, finish, glass, pale aqua, lipping-tooled*		*35.1*
				5.5	*1*	*bottle, finish, glass, colorless, threaded*		*71.2*
				5.6	*1*	*bottle, square, base, glass, embossed, pale aqua, machine made, 'SMALLEY / KIVLAN / ONTHANK / BOSTON" embossed on base*		*140.9*
				5.7	*1*	*bottle, round, base, glass, embossed, aquamarine, embossed letters*		*116.0*
				5.8	*1*	*bottle, round, base, glass, embossed, colorless, embossed letters*		*67.8*
				5.9	*1*	*bottle, body, glass, embossed, colorless, "TRADE / WIDE MOUT..."*		*42.6*
				5.10	*1*	*bottle, body, glass, embossed, aquamarine, embossed letters*		*33.5*
				5.11	*1*	*bottle, glass, brown, patinated*		*15.5*
T 3	1		105	6	1	jar	glass and iron	79.4
				6.1	*1*	*jar, complete, glass, embossed, blue, threaded*		*79.4*
T 3	1		105	7	1	electrical insulator	glass	22.8
				7.1	*1*	*electrical insulator, base, glass, pale aqua*		*22.8*
T 3	1		105	8	3	unidentified hardware	iron alloy	36.9
T 3	1		105	9	1	cap	iron alloy	330.0
T 3	1		105	10	17	faunal bone	bone	522.4
				10.1	*17*	*faunal bone, bone, fragment*		*522.4*
Foundation Interior								
T 3	1		106	1	1	bottle	glass and aluminum	42.0
				1.1	*1*	*bottle, cosmetic, complete, glass and aluminum, blue, threaded, "NEWSKIN," mamelon present on base*		*42.0*
T 3	1		106	2	1	bottle	glass	1,580.0
				2.1	*1*	*bottle, milk, complete, glass, embossed, colorless, machine made, Thatcher Glass Manufacturing Co., "STEPHEN COLLINS / ELMWOOD FARM / AMSTERDAM, N.Y.", TPQ 1900*		*1,580.0*
T 3	1		106	3	1	jar lid liner	glass	25.5
				3.1	*1*	*jar lid liner, complete, glass, colorless, Diam 5.1 cm*		*25.5*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
T 3	1		106	4	1	dressed stone	sandstone	2,235.0
				4.1	*1*	*dressed stone, complete, sandstone*		*2,235.0*
T 3	1		106	5	1	horseshoe	iron alloy	925.0
				5.1	*1*	*horseshoe, iron alloy, L 16.5, W 14.0 cm*		*925.0*
T 3	1		106	6	1	unidentified hardware	iron alloy	4.3
T 3	1		106	7	1	faunal bone	bone	1,400.0
				7.1	*1*	*faunal bone, bone, fragment*		*1,400.0*
Foundation Interior								
T 3			107	1	1	buff/pink bodied stoneware	stoneware	93.9
				1.1	*1*	*buff/pink bodied stoneware, saucer, full profile, stoneware, unglazed, molded decoration*		*93.9*
T 3			107	2	1	faunal bone	bone	765.0
				2.1	*1*	*faunal bone, bone, fragment*		*765.0*
T 3			107	3	1	bottle	glass and unidentified metal	213.6
				3.1	*1*	*bottle, pharmaceutical, complete, glass and unidentified metal, embossed, colorless, machine made, embossed number on base*		*213.6*
T 3			107	4	2	bottle	glass	605.4
				4.1	*1*	*bottle, complete, glass, embossed, colorless, machine made, Hazel-Atlas Glass Co.*		*368.9*
				4.2	*1*	*bottle, full profile, glass, colorless*		*236.5*
T 3			107	5	5	vessel	glass	10.3
				5.1	*1*	*vessel, glass, pale aqua*		*2.5*
				5.2	*4*	*vessel, glass, colorless, some fragments mend*		*7.8*
Ash								
T 3	2		108	1	5	whiteware	refined earthenware	55.3
				1.1	*1*	*whiteware, rim, refined earthenware, decorated, cobalt blue, lightly impressed decoration*		*10.9*
				1.2	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, beaded, red*		*3.6*
				1.3	*1*	*whiteware, base, refined earthenware, transfer printed underglaze, purple*		*6.6*
				1.4	*2*	*whiteware, rim, refined earthenware, undecorated*		*34.2*
T 3	2		108	2	1	buff/pink bodied stoneware	stoneware	45.4
				2.1	*1*	*buff/pink bodied stoneware, stoneware, burned, slip on interior*		*45.4*
T 3	2		108	3	1	bottle	glass	1,665.0

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				3.1	*1*	*bottle, milk, complete, glass, embossed, colorless, machine made, patinated, "ONE QUART / STEPHEN COLLINS / ELMWOOD FARM / AMSTERDAM N.Y. / REGISTERED"*		*1,665.0*
T 3	2		108	4	1	jar lid and liner	glass and zinc	38.2
				4.1	*1*	*jar lid and liner, nearly complete, glass and zinc, colorless, opaque*		*38.2*
T 3	2		108	5	1	jar lid and liner	glass and unidentified metal	39.0
				5.1	*1*	*jar lid and liner, complete, glass and unidentified metal, embossed, white, mold made, Boyd's, "PRESTO" impressed on lid, "BOYD'S GENUINE PORCELAIN LINED CAP" embossed on glass liner, TPQ 1869*		*39.0*
T 3	2		108	6	2	plaster	plaster	5.1
T 3	2		108	7	7	mortar	mortar	18.1
T 3	2		108	8	1	hand tool	iron alloy	860.0
				8.1	*1*	*hand tool, saw, frame, iron alloy*		*860.0*
Ash								
T 3	2		109	1	3	whiteware	refined earthenware	84.2
				1.1	*1*	*whiteware, tea cup, full profile, refined earthenware, gilt, burned*		*69.2*
				1.2	*2*	*whiteware, rim, refined earthenware, undecorated, burned*		*15.0*
T 3	2		109	2	3	porcelain	porcelain	28.0
				2.1	*1*	*porcelain, rim, porcelain, decorated, cobalt blue, with gilt and polychrome overglaze decoration*		*18.0*
				2.2	*2*	*porcelain, rim, porcelain, decorated, cobalt blue, with gilt and polychrome overglaze decoration*		*10.0*
T 3	2		109	3	2	bottle	glass	73.7
				3.1	*1*	*bottle, finish, glass, colorless, machine made*		*25.4*
				3.2	*1*	*bottle, panel, glass, pale aqua, patinated*		*48.3*
T 3	2		109	4	4	window	glass	52.5
				4.1	*1*	*window, glass, colorless, thick*		*38.6*
				4.2	*1*	*window, glass, colorless*		*0.8*
				4.3	*2*	*window, glass, pale aqua*		*13.1*
T 3	2		109	5	1	mortar	mortar	3.1
T 3	2		109	6	3	nail	iron alloy	11.9
				6.1	*3*	*nail, iron alloy, indeterminate*		*11.9*
T 3	2		109	7	4	unidentified hardware	iron alloy	9.6
T 3	2		109	8	1	faunal bone	bone	33.2
				8.1	*1*	*faunal bone, bone, fragment*		*33.2*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 10	1		57	1	39	whiteware	refined earthenware	131.0
				1.1	*1*	*whiteware, rim, refined earthenware, decal, molded decoration, polychrome*		*2.9*
				1.2	*2*	*whiteware, rim, refined earthenware, gilt*		*10.8*
				1.3	*1*	*whiteware, base, refined earthenware, decal, polychrome*		*5.3*
				1.4	*2*	*whiteware, rim, refined earthenware, decal, blue*		*17.7*
				1.5	*2*	*whiteware, refined earthenware, decal, polychrome*		*2.9*
				1.6	*4*	*whiteware, base, refined earthenware, transfer printed underglaze, green, some fragments mend*		*6.7*
				1.7	*1*	*whiteware, handle, refined earthenware*		*4.8*
				1.8	*8*	*whiteware, base, refined earthenware, undecorated*		*32.4*
				1.9	*5*	*whiteware, rim, refined earthenware, undecorated*		*25.0*
				1.10	*13*	*whiteware, refined earthenware, undecorated*		*22.5*
U 10	1		57	2	1	grey bodied stoneware	stoneware	94.9
				2.1	*1*	*grey bodied stoneware, base, stoneware, slip on both interior and exterior*		*94.9*
U 10	1		57	3	5	buff/pink bodied stoneware	stoneware	119.8
				3.1	*1*	*buff/pink bodied stoneware, base, stoneware, salt-glazed, slip decorated interior*		*86.5*
				3.2	*1*	*buff/pink bodied stoneware, stoneware*		*5.1*
				3.3	*3*	*buff/pink bodied stoneware, stoneware, salt-glazed*		*28.2*
U 10	1		57	4	19	bottle	glass	834.2
				4.1	*1*	*bottle, finish, glass, embossed, colorless, patinated*		*109.0*
				4.2	*1*	*bottle, base, glass, embossed, colorless, number embossed on base*		*94.7*
				4.3	*1*	*bottle, base, glass, embossed, colorless*		*26.0*
				4.4	*1*	*bottle, oval-shaped, base, glass, paneled, pale aqua, Owens-Illinois Glass Co., TPQ 1929*		*88.3*
				4.5	*1*	*bottle, neck, glass, embossed, pale aqua, ring around neck*		*31.7*
				4.6	*1*	*bottle, base, glass, embossed, brown, Owens-Illinois Glass Co., TPQ 1929*		*78.2*
				4.7	*3*	*bottle, milk, glass, embossed, colorless, some fragments mend, "…ckmans/Dairy"*		*96.8*
				4.8	*4*	*bottle, base, glass, embossed, colorless, Owens-Illinois Glass Co., fragments mend, TPQ 1929*		*221.1*
				4.9	*1*	*bottle, base, glass, brown, mold blown*		*29.8*
				4.10	*2*	*bottle, neck, glass, colorless, mold blown*		*43.9*
				4.11	*3*	*bottle, glass, embossed, pale aqua, patinated, "…VED"*		*14.7*
U 10	1		57	5	8	jar	glass	297.9
				5.1	*2*	*jar, rim, glass, colorless, threaded*		*79.9*
				5.2	*5*	*jar, rim and body, glass, embossed, aquamarine, threaded, Ball Brothers Glass Mfg. Co, some fragments mend, "Ball / …EAL"*		*211.1*
				5.3	*1*	*jar, body, glass, embossed, colorless, Ball Brothers Glass Mfg. Co*		*6.9*
U 10	1		57	6	7	tableware	glass	790.2
				6.1	*7*	*tableware, pitcher, full profile, glass, embossed, colorless, fragments mend*		*790.2*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 10	1		57	7	2	vessel	glass	22.4
				7.1	*2*	*vessel, glass, paneled, colorless*		*22.4*
U 10	1		57	8	2	jar lid liner	glass	9.3
				8.1	*2*	*jar lid liner, glass, white, Boyd's, TPQ 1869*		*9.3*
U 10	1		57	9	6	shoe/shoe part	leather	32.8
U 10	1		57	10	1	jar lid	zinc alloy	22.3
U 10	1		57	11	1	handle	iron alloy	31.0
U 10	1		57	12	1	wire	iron alloy	24.2
				12.1	*1*	*wire, iron alloy, coiled*		*24.2*
U 10	1		57	13	3	sheet metal	iron alloy	32.9
U 10	1		57	14	3	faunal bone	bone	21.2
				14.1	*3*	*faunal bone, bone, fragment*		*21.2*
U 10	1		57	15	1	unidentified	mineral	16.1
U 10	2		58	1	9	whiteware	refined earthenware	95.4
				1.1	*1*	*whiteware, base, refined earthenware*		*18.6*
				1.2	*1*	*whiteware, rim, refined earthenware, gilt*		*3.8*
				1.3	*2*	*whiteware, base, refined earthenware, decal, polychrome*		*12.3*
				1.4	*2*	*whiteware, base, refined earthenware, undecorated*		*27.7*
				1.5	*2*	*whiteware, rim, refined earthenware, undecorated*		*24.7*
				1.6	*1*	*whiteware, refined earthenware, undecorated*		*8.3*
U 10	2		58	2	1	grey bodied stoneware	stoneware	63.5
				2.1	*1*	*grey bodied stoneware, hollowware, body, stoneware, slip decorated*		*63.5*
U 10	2		58	3	7	buff/pink bodied stoneware	stoneware	102.2
				3.1	*1*	*buff/pink bodied stoneware, handle, stoneware, salt-glazed*		*8.9*
				3.2	*1*	*buff/pink bodied stoneware, base, stoneware, salt-glazed, slip on interior*		*30.1*
				3.3	*3*	*buff/pink bodied stoneware, stoneware, salt-glazed, slip on interior*		*41.6*
				3.4	*2*	*buff/pink bodied stoneware, stoneware, salt-glazed*		*21.6*
U 10	2		58	4	1	porcelain	porcelain	0.8
				4.1	*1*	*porcelain, porcelain, decorated, cobalt blue*		*0.8*
U 10	2		58	5	34	bottle	glass	713.6

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*2*	*bottle, finish, glass, pale aqua, lipping-tooled, fragments mend*		*34.9*
				5.2	*2*	*bottle, base, glass, brown, mold blown, fragments mend, mamelon present on base*		*152.3*
				5.3	*2*	*bottle, oval-shaped, base, glass, pale aqua, mold blown, fragments mend*		*82.5*
				5.4	*2*	*bottle, pharmaceutical, finish, glass, colorless*		*5.4*
				5.5	*1*	*bottle, base, glass, colorless, mold blown*		*115.6*
				5.6	*1*	*bottle, neck, glass, colorless*		*22.6*
				5.7	*1*	*bottle, body, glass, embossed, pale aqua, "…N"*		*34.2*
				5.8	*1*	*bottle, glass, green*		*5.9*
				5.9	*3*	*bottle, body, glass, paneled, colorless*		*29.6*
				5.10	*11*	*bottle, glass, brown*		*145.2*
				5.11	*8*	*bottle, glass, pale aqua*		*85.4*
U 10	2		58	6	5	vessel	glass	73.5
				6.1	*1*	*vessel, rim and handle, glass, paneled, colorless, machine made*		*37.5*
				6.2	*4*	*vessel, glass, colorless*		*36.0*
U 10	2		58	7	2	window	glass	10.1
				7.1	*2*	*window, glass, pale aqua*		*10.1*
U 10	2		58	8	1	shoe/shoe part	iron and unidentified	63.1
U 10	2		58	9	3	nail	iron alloy	28.2
				9.1	*1*	*nail, iron alloy, cut*		*4.8*
				9.2	*2*	*nail, iron alloy, indeterminate*		*23.4*
U 10	2		58	10	1	wire	iron alloy	7.1
U 10	2		58	11	2	bolt	iron alloy	81.8
U 10	2		58	12	1	strap	iron alloy	12.2
U 10	2		58	13	1	faunal bone	bone	13.7
				13.1	*1*	*faunal bone, bone, fragment*		*13.7*
U 10	2		58	14	2	clinker	clinker	19.4
U 10	3		59	1	7	whiteware	refined earthenware	30.3
				1.1	*1*	*whiteware, rim, refined earthenware, decal, molded decoration, polychrome*		*1.7*
				1.2	*1*	*whiteware, hollowware, rim, refined earthenware, hand painted, polychrome*		*21.3*
				1.3	*1*	*whiteware, refined earthenware, decorated, polychrome*		*1.1*
				1.4	*1*	*whiteware, rim, refined earthenware, undecorated*		*4.8*
				1.5	*3*	*whiteware, refined earthenware, undecorated*		*1.4*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 10	3		59	2	1	redware	coarse earthenware	3.0
				2.1	*1*	*redware, coarse earthenware, unglazed*		*3.0*
U 10	3		59	3	19	bottle	glass	363.5
				3.1	*1*	*bottle, finish, glass, paneled, colorless, machine made*		*16.0*
				3.2	*1*	*bottle, finish, glass, colorless*		*34.9*
				3.3	*2*	*bottle, base, glass, pale aqua, fragments mend*		*38.4*
				3.4	*1*	*bottle, flask, body, glass, embossed, pale aqua, "...WARRANTED / FLASK"*		*17.8*
				3.5	*1*	*bottle, flask, body, glass, embossed, pale aqua, "FLASK"*		*13.5*
				3.6	*1*	*bottle, panel, glass, embossed, colorless, "…ATKI…"*		*26.0*
				3.7	*1*	*bottle, body, glass, embossed, colorless, "…87"*		*84.1*
				3.8	*1*	*bottle, glass, brown*		*13.9*
				3.9	*1*	*bottle, glass, green*		*10.7*
				3.10	*5*	*bottle, glass, colorless*		*66.4*
				3.11	*4*	*bottle, glass, pale aqua*		*41.8*
U 10	3		59	4	2	jar	glass	23.8
				4.1	*1*	*jar, rim, glass, pale aqua, mold blown, patinated, concentric rings near rim*		*20.4*
				4.2	*1*	*jar, rim, glass, pale aqua, ground rim*		*3.4*
U 10	3		59	5	2	vessel	glass	146.2
				5.1	*2*	*vessel, base, glass, colorless, press molded*		*146.2*
U 10	3		59	6	6	window	glass	33.8
				6.1	*6*	*window, glass, pale aqua*		*33.8*
U 10	3		59	7	1	button	porcelain	0.7
				7.1	*1*	*button, four hole sew through, porcelain, painted, red, Diam 1.5 cm*		*0.7*
U 10	3		59	8	3	unidentified	leather	2.9
U 10	3		59	9	14	nail	iron alloy	123.8
				9.1	*7*	*nail, iron alloy, cut*		*75.4*
				9.2	*2*	*nail, iron alloy, indeterminate*		*11.3*
				9.3	*5*	*nail, iron alloy, indeterminate*		*37.1*
U 10	3		59	10	1	wire	iron alloy	6.7
U 10	3		59	11	1	ring/ring shaped	iron alloy	4.0
U 10	3		59	12	1	unidentified hardware	iron alloy	11.1
U 10	4		60	1	1	whiteware	refined earthenware	1.3

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*whiteware, refined earthenware, molded decoration*		*1.3*
U 10	4		60	2	1	bottle	glass	5.2
				2.1	*1*	*bottle, glass, embossed, colorless, base or panel*		*5.2*
U 10	4		60	3	1	window	glass	2.3
				3.1	*1*	*window, glass, pale aqua*		*2.3*
U 11	1		61	1	1	coin	nickel alloy	2.3
				1.1	*1*	*coin, US dime, nickel alloy*		*2.3*
U 11	2		62	1	2	redware	coarse earthenware	21.4
				1.1	*2*	*redware, coarse earthenware, unglazed*		*21.4*
U 11	2		62	2	21	whiteware	refined earthenware	128.5
				2.1	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, cobalt blue*		*1.6*
				2.2	*1*	*whiteware, refined earthenware, decorated, cobalt blue*		*0.8*
				2.3	*1*	*whiteware, refined earthenware, transfer printed underglaze, black*		*0.7*
				2.4	*1*	*whiteware, handle, refined earthenware*		*1.3*
				2.5	*8*	*whiteware, rim, refined earthenware, undecorated*		*69.7*
				2.6	*2*	*whiteware, base, refined earthenware, undecorated*		*26.6*
				2.7	*7*	*whiteware, refined earthenware, undecorated*		*27.8*
U 11	2		62	3	5	grey bodied stoneware	stoneware	264.1
				3.1	*1*	*grey bodied stoneware, stoneware, salt-glazed, slip on interior*		*5.6*
				3.2	*4*	*grey bodied stoneware, jug, stoneware, Albany slip*		*258.5*
U 11	2		62	4	48	buff/pink bodied stoneware	stoneware	928.2
				4.1	*2*	*buff/pink bodied stoneware, jug, rim and handle, stoneware, salt-glazed, fragments mend, slip on interior*		*91.7*
				4.2	*3*	*buff/pink bodied stoneware, hollowware, body, stoneware, salt-glazed, impressed, cobalt blue, fragments mend, slip on interior, "…HANIEL, HUDSON / GALWAY, VILLAGE N.Y."*		*182.0*
				4.3	*40*	*buff/pink bodied stoneware, stoneware, salt-glazed, some fragments mend, slip on interior*		*629.4*
				4.4	*3*	*buff/pink bodied stoneware, stoneware, salt-glazed*		*25.1*
U 11	2		62	5	33	bottle	glass	904.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*1*	*bottle, pharmaceutical, complete, glass, embossed and paneled, colorless, lipping-tooled, "COLTON'S / SELECT / FLAVORS"*		*123.5*
				5.2	*1*	*bottle, finish, glass, pale aqua, lipping-tooled*		*60.6*
				5.3	*1*	*bottle, base, glass, embossed, brown, "AUG…"*		*57.6*
				5.4	*4*	*bottle, base, glass, embossed, aquamarine, fragments mend*		*81.1*
				5.5	*2*	*bottle, base, glass, embossed, pale aqua, patinated, letters embossed on base*		*110.3*
				5.6	*3*	*bottle, rectangular, base, glass, paneled, colorless, Illinois Glass Co., fragments mend, TPQ 1911*		*125.5*
				5.7	*2*	*bottle, rectangular, base and body, glass, embossed and paneled, pale aqua, fragments mend, "KINGSTON, N.Y. U.S.A."*		*87.1*
				5.8	*1*	*bottle, body, glass, embossed and paneled, pale aqua, "KENNEDY'S"*		*19.8*
				5.9	*2*	*bottle, body, glass, embossed and paneled, pale aqua, fragments mend*		*34.5*
				5.10	*1*	*bottle, finish, glass, colorless, machine made*		*39.4*
				5.11	*1*	*bottle, base, glass, green*		*38.8*
				5.12	*2*	*bottle, glass, embossed, colorless, embossed letters*		*19.2*
				5.13	*1*	*bottle, body, glass, paneled, aquamarine*		*50.2*
				5.14	*3*	*bottle, glass, paneled, colorless*		*17.8*
				5.15	*1*	*bottle, glass, brown*		*1.5*
				5.16	*7*	*bottle, glass, aquamarine*		*37.5*
U 11	2		62	6	7	jar	glass	92.8
				6.1	*2*	*jar, rim, glass, embossed, aquamarine, embossed letters*		*68.3*
				6.2	*1*	*jar, glass, embossed, pale aqua*		*3.3*
				6.3	*1*	*jar, rim, glass, colorless*		*2.6*
				6.4	*3*	*jar, glass, pale aqua, patinated*		*18.6*
U 11	2		62	7	1	drinking	glass	11.5
				7.1	*1*	*drinking, rim, glass, colorless, press molded*		*11.5*
U 11	2		62	8	6	vessel	glass	15.0
				8.1	*2*	*vessel, glass, olive*		*1.6*
				8.2	*2*	*vessel, glass, pale aqua*		*4.0*
				8.3	*2*	*vessel, glass, colorless*		*9.4*
U 11	2		62	9	5	window	glass	54.7
U 11	2		62	10	1	strap	leather and unidentified metal	2.5
U 11	2		62	11	5	nail	iron alloy	29.7
				11.1	*4*	*nail, iron alloy, cut*		*22.4*
				11.2	*1*	*nail, iron alloy, indeterminate*		*7.3*
U 11	2		62	12	1	chain	iron alloy	17.4
				12.1	*1*	*chain, link, iron alloy*		*17.4*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 11	2		62	13	3	sheet metal	iron alloy	29.0
U 11	2		62	14	1	shell	shell	7.4
				14.1	*1*	*shell, clam, shell*		*7.4*
U 11	2		62	15	5	clinker	clinker	11.2
U 11	2		62	16	2	clinker	clinker	56.3
U 11	3		63	1	9	whiteware	refined earthenware	7.3
				1.1	*1*	*whiteware, refined earthenware, hand painted, polychrome*		*2.4*
				1.2	*3*	*whiteware, refined earthenware, transfer printed underglaze, cobalt blue, some fragments mend*		*1.4*
				1.3	*5*	*whiteware, refined earthenware, undecorated*		*3.5*
U 11	3		63	2	2	white bodied	refined earthenware	2.6
				2.1	*1*	*white bodied, base, refined earthenware, undecorated*		*0.3*
				2.2	*1*	*white bodied, refined earthenware, undecorated*		*2.3*
U 11	3		63	3	1	vessel	glass	2.9
				3.1	*1*	*vessel, glass, aquamarine*		*2.9*
U 11	3		63	4	1	window	glass	0.8
				4.1	*1*	*window, glass, colorless*		*0.8*
U 11	3		63	5	5	nail	iron alloy	39.1
				5.1	*4*	*nail, iron alloy, cut*		*31.4*
				5.2	*1*	*nail, iron alloy, wire*		*7.7*
U 11	3		63	6	6	faunal bone	bone	10.7
				6.1	*6*	*faunal bone, bone, fragment*		*10.7*
U 11	3		63	7	2	shell	shell	8.4
				7.1	*2*	*shell, clam, shell, fragment*		*8.4*
U 11	3		63	8	1	mineral sample	sandstone	6.2
U 11	4		64	1	3	whiteware	refined earthenware	2.1
				1.1	*3*	*whiteware, refined earthenware, undecorated*		*2.1*
U 12	1		65	1	10	whiteware	refined earthenware	25.0

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*whiteware, rim, refined earthenware, transfer printed underglaze, black*		*2.9*
				1.2	*2*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*7.0*
				1.3	*1*	*whiteware, refined earthenware, transfer printed underglaze, cobalt blue*		*1.3*
				1.4	*1*	*whiteware, refined earthenware, decorated, polychrome*		*1.5*
				1.5	*1*	*whiteware, base, refined earthenware, undecorated*		*4.5*
				1.6	*2*	*whiteware, rim, refined earthenware, undecorated*		*6.9*
				1.7	*2*	*whiteware, refined earthenware, undecorated*		*0.9*
U 12	1		65	2	2	semi-porcelain	refined earthenware	13.9
				2.1	*1*	*semi-porcelain, refined earthenware, dipped, polychrome*		*4.9*
				2.2	*1*	*semi-porcelain, base, refined earthenware, undecorated*		*9.0*
U 12	1		65	3	1	grey bodied stoneware	stoneware	6.7
				3.1	*1*	*grey bodied stoneware, stoneware, salt-glazed, slip on interior*		*6.7*
U 12	1		65	4	1	porcelain	porcelain	1.3
				4.1	*1*	*porcelain, porcelain, undecorated*		*1.3*
U 12	1		65	5	23	window	glass	40.0
				5.1	*3*	*window, glass, colorless*		*3.3*
				5.2	*20*	*window, glass, pale aqua*		*36.7*
U 12	1		65	6	2	tobacco pipe	ball clay-white	4.3
				6.1	*1*	*tobacco pipe, stem, ball clay-white, molded decoration, 5/64 in, herringbone decoration*		*2.9*
				6.2	*1*	*tobacco pipe, bowl, ball clay-white, molded decoration*		*1.4*
U 12	1		65	7	1	mortar	mortar	48.5
U 12	1		65	8	65	nail	iron alloy	309.4
				8.1	*1*	*nail, iron alloy, wrought*		*8.7*
				8.2	*56*	*nail, iron alloy, cut*		*262.9*
				8.3	*8*	*nail, iron alloy, indeterminate*		*37.8*
U 12	1		65	9	3	wire	iron alloy	16.8
U 12	1		65	10	20	faunal bone	bone	387.7
				10.1	*20*	*faunal bone, bone, fragment*		*387.7*
U 12	1		65	11	3	shell	shell	66.0
				11.1	*3*	*shell, clam, shell*		*66.0*
U 12	1		65	12	1	fire-cracked rock		558.1
U 12	1		65	13	2	mineral sample	limestone	46.5

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 12	1		65	14	1	coal	coal	2.5
U 12	1		65	15	1	unidentified	iron alloy	575.8
U 12	1		65	16	1	indeterminate	glass	2.8
U 12	2		66	1	1	nail	iron alloy	3.6
				1.1	*1*	*nail, iron alloy, cut*		*3.6*
U 13	1		67	1	4	redware	coarse earthenware	5.7
				1.1	*1*	*redware, coarse earthenware, mold made*		*4.7*
				1.2	*3*	*redware, coarse earthenware, undecorated*		*1.0*
U 13	1		67	2	2	whiteware	refined earthenware	5.9
				2.1	*1*	*whiteware, rim, refined earthenware, painted, shell edge, impressed, cobalt blue*		*4.0*
				2.2	*1*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*1.9*
U 13	1		67	3	1	white bodied	refined earthenware	0.4
				3.1	*1*	*white bodied, refined earthenware, undecorated*		*0.4*
U 13	1		67	4	1	tableware	glass	34.1
				4.1	*1*	*tableware, hollowware, glass, colorless, press molded*		*34.1*
U 13	1		67	5	4	vessel	glass	10.1
				5.1	*1*	*vessel, glass, pale aqua, patinated*		*4.8*
				5.2	*1*	*vessel, glass, green*		*1.2*
				5.3	*2*	*vessel, glass, colorless*		*4.1*
U 13	1		67	6	1	lamp chimney	glass	0.1
				6.1	*1*	*lamp chimney, glass, colorless*		*0.1*
U 13	1		67	7	8	window	glass	11.1
				7.1	*3*	*window, glass, colorless*		*3.9*
				7.2	*5*	*window, glass, pale aqua*		*7.2*
U 13	1		67	8	1	tobacco pipe	ball clay-white	1.4
				8.1	*1*	*tobacco pipe, stem, ball clay-white, 5/64 in*		*1.4*
U 13	1		67	9	5	nail	iron alloy	46.2
				9.1	*3*	*nail, iron alloy, cut*		*35.4*
				9.2	*1*	*nail, iron alloy, wire*		*7.4*
				9.3	*1*	*nail, iron alloy, indeterminate*		*3.4*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 13	1		67	10	2	sheet metal	iron alloy	14.0
U 13	1		67	11	2	shell	shell	12.8
				11.1	*2*	*shell, clam, shell, fragments mend*		*12.8*
U 13	1		67	12	1	unidentified	glass	0.3
				12.1	*1*	*unidentified, glass, colorless*		*0.3*
U 13	2		68	1	16	whiteware	refined earthenware	53.0
				1.1	*2*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*7.3*
				1.2	*3*	*whiteware, rim, refined earthenware, transfer printed underglaze, cobalt blue*		*3.2*
				1.3	*1*	*whiteware, refined earthenware, transfer printed underglaze, red*		*0.7*
				1.4	*1*	*whiteware, refined earthenware, transfer printed underglaze, purple*		*0.8*
				1.5	*1*	*whiteware, refined earthenware, transfer printed underglaze, brown*		*2.3*
				1.6	*1*	*whiteware, refined earthenware, transfer printed underglaze, black*		*1.9*
				1.7	*2*	*whiteware, refined earthenware, hand painted, polychrome*		*3.0*
				1.8	*1*	*whiteware, refined earthenware, hand painted, green*		*1.2*
				1.9	*4*	*whiteware, rim, refined earthenware, undecorated, some fragments mend*		*32.6*
U 13	2		68	2	5	white bodied	refined earthenware	8.3
				2.1	*1*	*white bodied, refined earthenware, transfer printed underglaze, cobalt blue*		*3.1*
				2.2	*1*	*white bodied, base, refined earthenware, undecorated*		*2.9*
				2.3	*3*	*white bodied, refined earthenware, undecorated*		*2.3*
U 13	2		68	3	3	porcelain	porcelain	42.6
				3.1	*3*	*porcelain, full profile, porcelain, undecorated, fragments mend*		*42.6*
U 13	2		68	4	1	buff/pink bodied stoneware	stoneware	6.0
				4.1	*1*	*buff/pink bodied stoneware, stoneware, salt-glazed, slip on interior*		*6.0*
U 13	2		68	5	1	rod	glass	0.6
				5.1	*1*	*rod, glass, colorless*		*0.6*
U 13	2		68	6	12	window	glass	22.4
				6.1	*3*	*window, glass, colorless*		*3.1*
				6.2	*9*	*window, glass, pale aqua*		*19.3*
U 13	2		68	7	1	faunal bone	bone	1.9
				7.1	*1*	*faunal bone, bone, fragment*		*1.9*
U 13	2		68	8	1	button	porcelain	0.5
				8.1	*1*	*button, four hole sew through, porcelain*		*0.5*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 13	2		68	9	12	nail	iron alloy	88.3
				9.1	*8*	*nail, iron alloy, cut*		*69.5*
				9.2	*4*	*nail, iron alloy, indeterminate*		*18.8*
U 13	2		68	10	1	hook	iron alloy	125.1
U 13	2		68	11	2	shell	shell	10.7
				11.1	*2*	*shell, clam, shell*		*10.7*
U 13	2		68	12	2	unidentified	glass	1.0
				12.1	*2*	*unidentified, glass, colorless*		*1.0*
U 13	3		69	1	7	whiteware	refined earthenware	12.7
				1.1	*2*	*whiteware, base, refined earthenware, transfer printed underglaze, red, fragments mend*		*2.6*
				1.2	*1*	*whiteware, rim, refined earthenware, hand painted, polychrome*		*2.8*
				1.3	*1*	*whiteware, refined earthenware, hand painted, polychrome*		*2.6*
				1.4	*1*	*whiteware, refined earthenware, decorated, black*		*2.1*
				1.5	*1*	*whiteware, rim, refined earthenware, undecorated*		*1.6*
				1.6	*1*	*whiteware, refined earthenware, undecorated*		*1.0*
U 13	3		69	2	2	ironstone	refined earthenware	3.0
				2.1	*2*	*ironstone, base, refined earthenware, transfer printed underglaze, black, fragments mend, mark partially present*		*3.0*
U 13	3		69	3	1	white bodied	refined earthenware	1.6
				3.1	*1*	*white bodied, base, refined earthenware, undecorated*		*1.6*
U 13	3		69	4	2	buff/pink bodied stoneware	stoneware	108.3
				4.1	*2*	*buff/pink bodied stoneware, base, stoneware, fragments mend, slip on interior*		*108.3*
U 13	3		69	5	2	porcelain	porcelain	3.9
				5.1	*1*	*porcelain, rim, porcelain, undecorated*		*3.5*
				5.2	*1*	*porcelain, porcelain, undecorated*		*0.4*
U 13	3		69	6	1	bottle	glass	11.4
				6.1	*1*	*bottle, panel, glass, embossed, pale aqua, "HOU… / GET…"*		*11.4*
U 13	3		69	7	2	window	glass	3.3
				7.1	*2*	*window, glass, pale aqua*		*3.3*
U 13	3		69	8	1	button	porcelain	0.6
				8.1	*1*	*button, four hole sew through, porcelain, Diam 0.8 cm*		*0.6*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 13	3		69	9	3	brick	brick	1,027.3
				9.1	*1*	*brick, brick, fragment, W 3 3/4, T 2 3/4 in*		*750.0*
				9.2	*2*	*brick, brick, fragment, nondimensional*		*277.3*
U 13	3		69	10	4	nail	iron alloy	36.6
				10.1	*3*	*nail, iron alloy, cut*		*29.3*
				10.2	*1*	*nail, iron alloy, indeterminate*		*7.3*
U 13	3		69	11	4	shell	shell	37.2
				11.1	*4*	*shell, clam, shell, fragment*		*37.2*
U 13	3		69	12	2	unidentified	porcelain	3.6
U 13	4		70	1	4	whiteware	refined earthenware	14.9
				1.1	*2*	*whiteware, rim, refined earthenware, transfer printed underglaze, black*		*2.4*
				1.2	*1*	*whiteware, refined earthenware, banded, blue*		*5.0*
				1.3	*1*	*whiteware, refined earthenware, undecorated*		*7.5*
U 13	4		70	2	1	unidentified	iron alloy	131.9
U 13	4		70	3	3	shell	shell	31.3
				3.1	*3*	*shell, clam, shell, fragment*		*31.3*
U 14	1		71	1	2	whiteware	refined earthenware	4.0
				1.1	*1*	*whiteware, base, refined earthenware, undecorated*		*3.8*
				1.2	*1*	*whiteware, refined earthenware, undecorated*		*0.2*
U 14	1		71	2	5	window	glass	15.2
				2.1	*5*	*window, glass, pale aqua*		*15.2*
U 14	1		71	3	1	hand tool	iron alloy	23.1
U 14	3		72	1	9	whiteware	refined earthenware	21.5
				1.1	*3*	*whiteware, base, refined earthenware, flow transfer print, black, some fragments mend*		*13.3*
				1.2	*1*	*whiteware, rim, refined earthenware, decorated, polychrome*		*1.1*
				1.3	*1*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*1.1*
				1.4	*4*	*whiteware, refined earthenware, undecorated*		*6.0*
U 14	3		72	2	2	white bodied	refined earthenware	3.1
				2.1	*2*	*white bodied, refined earthenware, glaze missing*		*3.1*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 14	3		72	3	2	vessel	glass	9.8
				3.1	*1*	*vessel, glass, ribbed, colorless*		*8.2*
				3.2	*1*	*vessel, glass, colorless*		*1.6*
U 14	3		72	4	13	window	glass	29.6
				4.1	*13*	*window, glass, pale aqua*		*29.6*
U 14	3		72	5	9	nail	iron alloy	66.6
				5.1	*1*	*nail, iron alloy, cut*		*7.2*
				5.2	*6*	*nail, iron alloy, cut*		*44.6*
				5.3	*2*	*nail, iron alloy, wire*		*14.8*
U 14	3		72	6	1	sheet metal	iron alloy	10.7
U 14	3		72	7	6	faunal bone	bone	11.6
				7.1	*6*	*faunal bone, bone, fragment*		*11.6*
U 14	3		72	8	4	shell	shell	14.0
				8.1	*4*	*shell, clam, shell*		*14.0*
U 14	3		72	9	1	unidentified	cast iron	26.3
U 14	4		73	1	9	whiteware	refined earthenware	28.4
				1.1	*1*	*whiteware, rim, refined earthenware, flow transfer print, black*		*0.9*
				1.2	*1*	*whiteware, rim, refined earthenware, dipped, polychrome*		*1.1*
				1.3	*1*	*whiteware, refined earthenware, transfer printed underglaze, purple*		*1.6*
				1.4	*6*	*whiteware, refined earthenware, undecorated*		*24.8*
U 14	4		73	2	2	white bodied	refined earthenware	3.0
				2.1	*1*	*white bodied, refined earthenware, undecorated, burned*		*1.5*
				2.2	*1*	*white bodied, refined earthenware, glaze missing*		*1.5*
U 14	4		73	3	1	yellowware	refined earthenware	4.1
				3.1	*1*	*yellowware, refined earthenware, dipped, polychrome, dendritic decoration*		*4.1*
U 14	4		73	4	1	tableware	glass	2.3
				4.1	*1*	*tableware, hollowware, rim, glass, crimped, colorless*		*2.3*
U 14	4		73	5	3	vessel	glass	3.3
				5.1	*1*	*vessel, glass, pale green*		*0.7*
				5.2	*1*	*vessel, glass, colorless, patinated*		*0.4*
				5.3	*1*	*vessel, glass, colorless*		*2.2*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 14	4		73	6	13	window	glass	10.7
				6.1	*2*	*window, glass, colorless*		*2.3*
				6.2	*11*	*window, glass, pale aqua*		*8.4*
U 14	4		73	7	17	nail	iron alloy	80.0
				7.1	*10*	*nail, iron alloy, cut*		*60.2*
				7.2	*7*	*nail, iron alloy, indeterminate*		*19.8*
U 14	4		73	8	6	faunal bone	bone	15.9
				8.1	*6*	*faunal bone, bone, fragment*		*15.9*
U 14	4		73	9	4	shell	shell	31.3
				9.1	*4*	*shell, clam, shell*		*31.3*
U 14	4		73	10	1	slag	coal	2.5
U 14	5		117	1	1	brick	brick	1,700.0
				1.1	*1*	*brick, brick, L 7 7/8, W 3 1/8, T 2 in*		*1,700.0*
U 14	5		118	1	6	whiteware	refined earthenware	15.4
				1.1	*2*	*whiteware, refined earthenware, flow transfer print, black*		*3.1*
				1.2	*1*	*whiteware, base, refined earthenware*		*5.7*
				1.3	*1*	*whiteware, rim, refined earthenware, undecorated*		*1.5*
				1.4	*2*	*whiteware, refined earthenware, undecorated*		*5.1*
U 14	5		118	2	7	window	glass	19.5
				2.1	*7*	*window, glass, pale aqua*		*19.5*
U 14	5		118	3	1	nail	iron alloy	15.9
				3.1	*1*	*nail, iron alloy, cut*		*15.9*
U 14	5		118	4	2	shell	shell	6.5
				4.1	*2*	*shell, clam, shell*		*6.5*
U 14	6		119	1	8	whiteware	refined earthenware	23.3
				1.1	*1*	*whiteware, rim, refined earthenware, hand painted, polychrome*		*2.3*
				1.2	*1*	*whiteware, base, refined earthenware, transfer printed underglaze, blue*		*1.6*
				1.3	*1*	*whiteware, rim, refined earthenware, undecorated*		*4.7*
				1.4	*1*	*whiteware, base, refined earthenware, undecorated*		*13.4*
				1.5	*4*	*whiteware, refined earthenware, undecorated*		*1.3*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 14	6		119	2	2	white bodied	refined earthenware	4.3
				2.1	*2*	*white bodied, hollowware, refined earthenware, decorated, polychrome, frags mend, burned*		*4.3*
U 14	6		119	3	1	vessel	glass	1.0
				3.1	*1*	*vessel, glass, colorless*		*1.0*
U 14	6		119	4	6	window	glass	4.6
				4.1	*2*	*window, glass, colorless*		*1.6*
				4.2	*4*	*window, glass, pale aqua*		*3.0*
U 14	6		119	5	3	nail	iron alloy	13.9
				5.1	*2*	*nail, iron alloy, cut*		*11.0*
				5.2	*1*	*nail, iron alloy, indeterminate*		*2.9*
U 14	6		119	6	1	screw	iron alloy	13.5
U 14	6		119	7	2	unidentified hardware	iron alloy	11.1
U 14	6		119	8	1	unidentified hardware	copper alloy	4.6
U 14	6		119	9	2	shell	shell	6.4
				9.1	*2*	*shell, clam, shell*		*6.4*
U 15	1		74	1	6	whiteware	refined earthenware	11.3
				1.1	*2*	*whiteware, refined earthenware, transfer printed underglaze, red*		*3.4*
				1.2	*4*	*whiteware, refined earthenware, undecorated*		*7.9*
U 15	1		74	2	1	vessel	glass	3.9
				2.1	*1*	*vessel, rim, glass, colorless, opaque*		*3.9*
U 15	1		74	3	10	window	glass	13.5
				3.1	*10*	*window, glass, pale aqua*		*13.5*
U 15	1		74	4	2	nail	iron alloy	24.8
				4.1	*2*	*nail, iron alloy, cut*		*24.8*
U 15	1		74	5	10	faunal bone	bone	9.1
				5.1	*10*	*faunal bone, bone, fractured*		*9.1*
U 15	1		74	6	1	shell	shell	2.8
				6.1	*1*	*shell, clam, shell, fragment*		*2.8*
U 15	2		75	1	7	whiteware	refined earthenware	13.2

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*whiteware, refined earthenware, flow transfer print, black*		*1.1*
				1.2	*2*	*whiteware, rim, refined earthenware, undecorated*		*2.8*
				1.3	*4*	*whiteware, refined earthenware, undecorated*		*9.3*
U 15	2		75	2	2	white bodied	refined earthenware	3.6
				2.1	*2*	*white bodied, refined earthenware, undecorated, burned*		*3.6*
U 15	2		75	3	3	bottle	glass	14.1
				3.1	*2*	*bottle, finish, glass, pale aqua, lipping-tooled*		*11.0*
				3.2	*1*	*bottle, panel, glass, colorless*		*3.1*
U 15	2		75	4	4	vessel	glass	6.3
				4.1	*1*	*vessel, glass, brown*		*1.3*
				4.2	*1*	*vessel, glass, pale aqua*		*3.7*
				4.3	*2*	*vessel, glass, colorless*		*1.3*
U 15	2		75	5	7	window	glass	4.5
				5.1	*3*	*window, glass, colorless*		*1.4*
				5.2	*4*	*window, glass, pale aqua*		*3.1*
U 15	2		75	6	3	tobacco pipe	ball clay-white	1.8
				6.1	*1*	*tobacco pipe, stem, ball clay-white, 6/64 in*		*0.7*
				6.2	*1*	*tobacco pipe, stem, ball clay-white, indetermin in*		*0.4*
				6.3	*1*	*tobacco pipe, bowl, ball clay-white*		*0.7*
U 15	2		75	7	1	doll part	porcelain	1.6
				7.1	*1*	*doll part, ear, porcelain, molded decoration, fragment*		*1.6*
U 15	2		75	8	41	nail	iron alloy	364.2
				8.1	*2*	*nail, iron alloy, cut*		*178.8*
				8.2	*1*	*nail, iron alloy, wire*		*8.2*
				8.3	*38*	*nail, iron alloy, indeterminate*		*177.2*
U 15	2		75	9	1	spike	iron alloy	76.1
U 15	2		75	10	1	cap	aluminum	1.9
				10.1	*1*	*cap, aluminum, "SEAL / INSURED / ..."*		*1.9*
U 15	2		75	11	2	faunal bone	bone	3.3
				11.1	*1*	*faunal bone, bone, fragment*		*0.2*
				11.2	*1*	*faunal bone, bone, fragment*		*3.1*
U 15	2		75	12	2	shell	shell	4.6
				12.1	*2*	*shell, clam, shell*		*4.6*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 15	2		75	13	1	concretion	unidentified metal	8.5
U 15	2		75	14	10	coal, clinker, slag	coal	7.1
U 15	2		75	15	1	mineral sample	sandstone	85.4
U 15	2		75	16	4	unidentified	mineral	8.2
U 15	3		76	1	9	whiteware	refined earthenware	7.3
				1.1	*1*	*whiteware, rim, refined earthenware, decorated, impressed, cobalt blue*		*1.6*
				1.2	*1*	*whiteware, refined earthenware, decorated, blue*		*1.2*
				1.3	*7*	*whiteware, refined earthenware, undecorated*		*4.5*
U 15	3		76	2	1	grey bodied stoneware	stoneware	4.6
				2.1	*1*	*grey bodied stoneware, stoneware, salt-glazed, slip on interior*		*4.6*
U 15	3		76	3	9	window	glass	11.0
				3.1	*3*	*window, glass, colorless*		*2.8*
				3.2	*6*	*window, glass, pale aqua*		*8.2*
U 15	3		76	4	1	marble	clay	20.6
				4.1	*1*	*marble, complete, clay, painted, red, circumferential red bands*		*20.6*
U 15	3		76	5	1	brick	brick	3.9
				5.1	*1*	*brick, brick, fragment, nondimensional*		*3.9*
U 15	3		76	6	33	nail	iron alloy	276.3
				6.1	*19*	*nail, iron alloy, cut*		*174.9*
				6.2	*14*	*nail, iron alloy, indeterminate*		*101.4*
U 15	3		76	7	3	spike	iron alloy	142.8
U 15	3		76	8	3	faunal bone	bone	33.3
				8.1	*3*	*faunal bone, bone, fragment*		*33.3*
U 15	3		76	9	1	shell	shell	1.5
				9.1	*1*	*shell, clam, shell*		*1.5*
U 15	4		77	1	5	whiteware	refined earthenware	7.9
				1.1	*1*	*whiteware, refined earthenware, hand painted, red*		*0.9*
				1.2	*1*	*whiteware, base, refined earthenware, undecorated*		*4.6*
				1.3	*3*	*whiteware, refined earthenware, undecorated*		*2.4*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 15	4		77	2	4	window	glass	2.2
				2.1	*1*	*window, glass, colorless*		*0.2*
				2.2	*3*	*window, glass, pale aqua*		*2.0*
U 15	4		77	3	1	tobacco pipe	ball clay-white	2.0
				3.1	*1*	*tobacco pipe, ball clay-white, molded decoration, Peter Dorni, 6/64 in, TPQ 1850*		*2.0*
U 15	4		77	4	7	nail	iron alloy	42.8
				4.1	*2*	*nail, iron alloy, cut*		*15.5*
				4.2	*5*	*nail, iron alloy, indeterminate*		*27.3*
U 15		A	78	1	2	indeterminate	iron alloy	8.0
U 15		A	78	2	1	soil sample	soil	655.0
U 16	1		79	1	1	brick	brick	1,645.0
				1.1	*1*	*brick, brick, L 7 3/4, W 3 1/2, T 2 in*		*1,645.0*
U 16	1		80	1	13	bottle	glass	846.0
				1.1	*1*	*bottle, complete, glass, brown, applied finish, two mamelons present on base*		*589.9*
				1.2	*3*	*bottle, milk, finish, glass, color missing, mold blown, fragments mend*		*120.0*
				1.3	*1*	*bottle, finish, glass, brown, machine made*		*35.4*
				1.4	*1*	*bottle, panel, glass, colorless*		*15.0*
				1.5	*1*	*bottle, finish, glass, pale green*		*3.3*
				1.6	*1*	*bottle, base, glass, aquamarine*		*20.2*
				1.7	*1*	*bottle, base, glass, brown*		*8.2*
				1.8	*4*	*bottle, body, glass, brown, mold blown*		*54.0*
U 16	1		80	2	3	jar	glass	42.4
				2.1	*3*	*jar, rim, glass, colorless, mold blown, fragments mend*		*42.4*
U 16	1		80	3	5	vessel	glass	26.9
				3.1	*2*	*vessel, glass, pale aqua*		*2.9*
				3.2	*3*	*vessel, glass, colorless*		*24.0*
U 16	1		80	4	30	window	glass	159.7
				4.1	*30*	*window, glass, pale aqua*		*159.7*
U 16	1		80	5	3	shoe/shoe part	leather and metal	7.3

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*2*	*shoe/shoe part, leather and metal*		*4.1*
				5.2	*1*	*shoe/shoe part, leather and metal*		*3.2*
U 16	1		80	6	2	plaster	plaster	4.2
U 16	1		80	7	9	nail	iron alloy	34.4
				7.1	*4*	*nail, iron alloy, cut*		*18.7*
				7.2	*1*	*nail, iron alloy, wire*		*7.0*
				7.3	*4*	*nail, iron alloy, indeterminate*		*8.7*
U 16	1		80	8	1	snap	copper and unidentified	5.7
U 16	1		80	9	1	architectural element	iron alloy	6.5
				9.1	*1*	*architectural element, finial, iron alloy*		*6.5*
U 16	1		80	10	1	lamp	iron alloy	28.0
U 16	1		80	11	1	architectural element	iron alloy	6.1
U 16	1		80	12	2	wire	iron alloy	53.2
U 16	1		80	13	23	wire	iron alloy	84.9
U 16	1		80	14	8	strap	iron alloy	209.0
U 16	1		80	15	1	sheet metal	iron alloy	64.4
U 16	1		80	16	4	faunal bone	bone	13.6
				16.1	*4*	*faunal bone, bone, fragment*		*13.6*
West Wall								
U 16	2		81	1	3	bottle	glass	57.9
				1.1	*1*	*bottle, base, glass, colorless, mold blown, J.T.A. Hamilton Co., TPQ 1900*		*31.6*
				1.2	*1*	*bottle, panel, glass, colorless*		*22.2*
				1.3	*1*	*bottle, glass, green*		*4.1*
U 16	2		81	2	1	window	glass	4.1
				2.1	*1*	*window, glass, pale aqua*		*4.1*
U 16	2		82	1	25	bottle	glass	808.2

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*bottle, complete, glass, embossed, brown, applied finish, "AMERICAN SODA FOUNTAIN CO"*		*460.2*
				1.2	*1*	*bottle, base, glass, embossed, colorless, "NOT TO BE SOLD"*		*196.2*
				1.3	*2*	*bottle, glass, embossed, pale aqua, patinated, embossed letters*		*13.4*
				1.4	*1*	*bottle, glass, green*		*2.6*
				1.5	*1*	*bottle, glass, colorless*		*5.4*
				1.6	*1*	*bottle, glass, embossed, aquamarine*		*3.3*
				1.7	*6*	*bottle, glass, olive*		*25.7*
				1.8	*12*	*bottle, glass, brown*		*101.4*
U 16	2		82	2	3	lamp chimney	glass	6.1
				2.1	*3*	*lamp chimney, rim, glass, colorless*		*6.1*
U 16	2		82	3	8	window	glass	62.2
				3.1	*8*	*window, glass, pale aqua*		*62.2*
U 16	2		82	4	1	button	shell	0.5
				4.1	*1*	*button, two hole sew through, shell, Diam 1.1 cm*		*0.5*
U 16	2		82	5	4	plaster	plaster	6.2
U 16	2		82	6	27	nail	iron alloy	94.4
				6.1	*14*	*nail, iron alloy, cut*		*60.4*
				6.2	*6*	*nail, iron alloy, wire*		*19.1*
				6.3	*7*	*nail, iron alloy, indeterminate*		*14.9*
U 16	2		82	7	1	spike	iron alloy	66.2
				7.1	*1*	*spike, iron alloy, cut*		*66.2*
U 16	2		82	8	1	wire	iron alloy	2.1
				8.1	*1*	*wire, iron alloy, twisted*		*2.1*
U 16	2		82	9	7	unidentified hardware	iron alloy	8.0
U 16	2		82	10	3	faunal bone	bone	9.6
				10.1	*3*	*faunal bone, nearly complete, bone*		*9.6*
U 16	2		83	1	19	bottle	glass	743.2
				1.1	*19*	*bottle, glass, embossed, brown, lipping-tooled, some fragments mend*		*743.2*
U 16	2		84	1	5	bottle	glass	306.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*bottle, neck, glass, brown*		*54.9*
				1.2	*3*	*bottle, base, glass, embossed, brown, fragments mend, "E H E CO"*		*238.1*
				1.3	*1*	*bottle, glass, brown*		*13.4*
U 16	2		84	2	1	bottle closure	porcelain and iron	22.5
U 16	2		85	1	17	bottle	glass	446.5
				1.1	*17*	*bottle, glass, dark green, free blown, fragments mend, applied finish*		*446.5*
U 16	2		85	2	1	wood	wood	3.6
U 16	3		86	1	1	whiteware	refined earthenware	6.1
				1.1	*1*	*whiteware, rim, refined earthenware, painted, beaded, cobalt blue*		*6.1*
U 16	3		86	2	4	bottle	glass	30.3
				2.1	*2*	*bottle, rectangular, base, glass, paneled, pale aqua, patinated*		*17.1*
				2.2	*1*	*bottle, base, glass, embossed, pale aqua, embossed letters*		*8.7*
				2.3	*1*	*bottle, glass, brown*		*4.5*
U 16	3		86	3	4	vessel	glass	5.9
				3.1	*1*	*vessel, glass, green*		*1.5*
				3.2	*1*	*vessel, glass, colorless*		*1.6*
				3.3	*2*	*vessel, glass, pale aqua*		*2.8*
U 16	3		86	4	1	button	shell\mother-of-pearl	0.2
				4.1	*1*	*button, four hole sew through, shell\mother-of-pearl, Diam 0.7 cm*		*0.2*
U 16	3		86	5	1	button	shell	0.3
				5.1	*1*	*button, two hole sew through, shell, Diam 0.8 cm*		*0.3*
U 16	3		86	6	2	button	porcelain	1.0
				6.1	*1*	*button, four hole sew through, porcelain, Diam 1 cm*		*0.7*
				6.2	*1*	*button, four hole sew through, porcelain, Diam 0.8 cm*		*0.3*
U 16	3		86	7	3	tobacco pipe	ball clay-white	5.7
				7.1	*1*	*tobacco pipe, stem, ball clay-white, 4/64 in*		*1.6*
				7.2	*2*	*tobacco pipe, stem, ball clay-white, 6/64 in*		*4.1*
U 16	3		86	8	1	carbon rod	carbon	1.5
U 16	3		86	9	47	nail	iron alloy	207.1

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				9.1	*20*	*nail, iron alloy, cut*		*125.7*
				9.2	*5*	*nail, iron alloy, wire*		*12.5*
				9.3	*22*	*nail, iron alloy, indeterminate*		*68.9*
U 16	3		86	10	1	rod	iron alloy	14.0
U 16	3		86	11	1	washer	iron alloy	9.2
				11.1	*1*	*washer, square, iron alloy*		*9.2*
U 16	3		86	12	1	grommet	copper alloy	1.1
U 16	3		86	13	1	door hardware	iron alloy	23.3
U 16	3		86	14	1	pocket knife	pewter	2.6
U 16	3		86	15	1	strap	pewter	1.2
U 16	3		86	16	1	disk	iron alloy	1.7
U 16	3		86	17	6	unidentified hardware	iron alloy	13.3
U 16	3		86	18	2	sheet metal	iron alloy	1.9
U 16	3		86	19	4	faunal bone	bone	4.4
				19.1	*4*	*faunal bone, bone, fragment*		*4.4*
U 16	3		87	1	1	whiteware	refined earthenware	1.7
				1.1	*1*	*whiteware, refined earthenware, hand painted, red*		*1.7*
U 16	3		87	2	1	window	glass	2.2
				2.1	*1*	*window, glass, pale aqua*		*2.2*
U 16	3		87	3	1	nail	iron alloy	8.4
				3.1	*1*	*nail, iron alloy, cut*		*8.4*
U 16	3		87	4	1	wire	iron alloy	15.6
U 16	3		87	5	1	staple	iron alloy	6.5
U 16	3		87	6	1	wood	wood	545.0
				6.1	*1*	*wood, wood, sample, L 59.0, W 13.0, T 8.0 cm*		*545.0*
U 16	4		88	1	3	vessel	glass	22.0

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*vessel, base, glass, colorless*		*14.9*
				1.2	*2*	*vessel, glass, colorless*		*7.1*
U 16	4		88	2	1	window	glass	3.2
				2.1	*1*	*window, glass, pale aqua*		*3.2*
U 16	4		88	3	1	nail	iron alloy	7.2
				3.1	*1*	*nail, iron alloy, indeterminate*		*7.2*
U 16	5		89	1	1	bottle	glass	7.0
				1.1	*1*	*bottle, glass, green*		*7.0*
U 16	5		89	2	1	window	glass	1.1
				2.1	*1*	*window, glass, pale aqua*		*1.1*
U 16	5		89	3	1	doll part	porcelain	3.4
				3.1	*1*	*doll part, arm, porcelain, mold made*		*3.4*
U 16	5		89	4	2	sheet metal	unidentified metal	1.5
U 17	1		90	1	16	whiteware	refined earthenware	192.7
				1.1	*1*	*whiteware, rim, refined earthenware, decorated, molded decoration, cobalt blue*		*18.9*
				1.2	*1*	*whiteware, hollowware, rim, refined earthenware, decal, polychrome*		*52.8*
				1.3	*1*	*whiteware, base, refined earthenware, decal, polychrome*		*10.0*
				1.4	*1*	*whiteware, base, refined earthenware, decal, polychrome, nude cherubs/babies*		*48.6*
				1.5	*1*	*whiteware, base, refined earthenware, black, mark partially present: "T & R"*		*1.6*
				1.6	*2*	*whiteware, rim, refined earthenware, undecorated*		*20.4*
				1.7	*2*	*whiteware, base, refined earthenware, undecorated*		*17.9*
				1.8	*7*	*whiteware, refined earthenware, undecorated*		*22.5*
U 17	1		90	2	18	bottle	glass	1,291.0

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				2.1	*1*	*bottle, round, base, glass, dark green, mold blown, fragments mend*		*225.3*
				2.2	*1*	*bottle, complete, glass, paneled, colorless, Illinois Glass Co., octagonal base, TPQ 1911*		*185.9*
				2.3	*5*	*bottle, rectangular, base and body, glass, embossed and paneled, colorless, Illinois Glass Co., fragments mend, J.R. Watkins Co., TPQ 1911*		*93.1*
				2.4	*2*	*bottle, rectangular, base, glass, embossed and paneled, colorless, fragments mend, J.R. Watkins Co. - "CONTAINER / MADE IN U.S.A." on base, TPQ 1868*		*135.8*
				2.5	*1*	*bottle, complete, glass, colorless, machine made*		*273.5*
				2.6	*1*	*bottle, round, base, glass, colorless, mold blown*		*49.1*
				2.7	*2*	*bottle, round, base, glass, embossed, colorless*		*202.8*
				2.8	*1*	*bottle, round, body, glass, pale aqua, mold blown*		*85.9*
				2.9	*3*	*bottle, body, glass, paneled, colorless*		*14.5*
				2.10	*1*	*bottle, finish, glass, colorless, machine made*		*25.1*
U 17	1		90	3	4	jar	glass	101.3
				3.1	*1*	*jar, rim, glass, embossed, colorless, ground, "U S A"*		*20.5*
				3.2	*1*	*jar, rim, glass, embossed, colorless, mold blown*		*38.7*
				3.3	*1*	*jar, body, glass, embossed, colorless, mold blown, embossed letter*		*22.6*
				3.4	*1*	*jar, body, glass, embossed, pale aqua, mold blown, embossed letter*		*19.5*
U 17	1		90	4	3	vessel	glass	38.3
				4.1	*1*	*vessel, base, glass, embossed, colorless, mold blown*		*28.1*
				4.2	*2*	*vessel, glass, colorless*		*10.2*
U 17	1		90	5	2	window	glass	10.0
				5.1	*2*	*window, glass, pale aqua*		*10.0*
U 17	1		90	6	2	wire	iron alloy	54.2
U 17	1		90	7	11	sheet metal	iron alloy	37.9
U 17	1		90	8	4	shell	shell	109.8
				8.1	*4*	*shell, clam, shell, some fragments mend*		*109.8*
U 17	1		90	9	2	faunal bone	bone	182.3
				9.1	*2*	*faunal bone, bone, fragment*		*182.3*
U 17	1		90	10	1	sheet metal	iron alloy	0.1
U 17	1		90	11	1	unidentified	wood and iron alloy	37.5
U 17	1		91	1	30	whiteware	refined earthenware	135.4

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*whiteware, refined earthenware, molded decoration, edged*		*6.2*
				1.2	*1*	*whiteware, refined earthenware, molded decoration*		*1.7*
				1.3	*1*	*whiteware, refined earthenware, decal, red*		*1.9*
				1.4	*4*	*whiteware, rim, refined earthenware, undecorated*		*31.3*
				1.5	*7*	*whiteware, base, refined earthenware, undecorated*		*48.1*
				1.6	*16*	*whiteware, refined earthenware, undecorated*		*46.2*
U 17	1		91	2	7	semi-porcelain	refined earthenware	44.7
				2.1	*2*	*semi-porcelain, rim, refined earthenware, decal, brown, fragments mend*		*25.9*
				2.2	*1*	*semi-porcelain, base, refined earthenware, undecorated*		*2.9*
				2.3	*4*	*semi-porcelain, refined earthenware, undecorated*		*15.9*
U 17	1		91	3	19	bottle	glass	510.0
				3.1	*3*	*bottle, rectangular, base, glass, embossed and paneled, colorless, fragments mend, "L. SAMUELS & CO. / NEW YORK"*		*238.4*
				3.2	*1*	*bottle, pharmaceutical, finish, glass, colorless, lipping-tooled*		*28.4*
				3.3	*1*	*bottle, finish, glass, colorless, machine made*		*23.8*
				3.4	*1*	*bottle, finish, glass, brown, machine made*		*39.7*
				3.5	*1*	*bottle, oval-shaped, base, glass, colorless, mold blown*		*10.0*
				3.6	*2*	*bottle, body, glass, embossed, colorless, embossed letters*		*21.3*
				3.7	*4*	*bottle, glass, dark green*		*39.4*
				3.8	*5*	*bottle, body, glass, paneled, colorless*		*105.7*
				3.9	*1*	*bottle, glass, brown*		*3.3*
U 17	1		91	4	3	tableware	glass	109.0
				4.1	*3*	*tableware, bowl, rim, glass, colorless, fragments mend*		*109.0*
U 17	1		91	5	1	lamp chimney	glass	5.2
				5.1	*1*	*lamp chimney, rim, glass, colorless*		*5.2*
U 17	1		91	6	9	jar	glass	115.3
				6.1	*4*	*jar, rim, glass, colorless, fragments mend*		*54.9*
				6.2	*1*	*jar, rim, glass, colorless, threaded*		*22.4*
				6.3	*4*	*jar, rim, glass, colorless*		*38.0*
U 17	1		91	7	3	drinking	glass	137.1
				7.1	*1*	*drinking, glass, fluted, colorless*		*28.0*
				7.2	*2*	*drinking, base and body, glass, paneled, colorless*		*109.1*
U 17	1		91	8	5	vessel	glass	45.1
				8.1	*2*	*vessel, base, glass, colorless*		*21.9*
				8.2	*3*	*vessel, glass, colorless*		*23.2*

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
U 17	1		91	9	3	jar	glass and zinc	310.2
				9.1	*2*	*jar, pharmaceutical, complete, glass, embossed, white, threaded, Musterole Company, "MUSTEROLE / CLEVELAND" embossed on base and molded on lid, screw-on lid, TPQ 1926*		*170.8*
				9.2	*1*	*jar, cosmetic, complete, glass and zinc, embossed, white, threaded, Hazel-Atlas Glass Co., "HAIR- / GROOM" molded on lid, screw-on lid, TPQ 1923*		*139.4*
U 17	1		91	10	1	cap	zinc alloy	21.0
				10.1	*1*	*cap, zinc alloy, Diam 6 cm*		*21.0*
U 17	1		91	11	2	horseshoe	iron alloy	772.8
				11.1	*1*	*horseshoe, complete, iron alloy, L 15.5, W 10.5 cm*		*413.4*
				11.2	*1*	*horseshoe, complete, iron alloy, L 13.5, W 12.0 cm*		*359.4*
U 17	1		91	12	1	lock/lock part	copper alloy	146.1
U 17	1		91	13	1	nail	iron alloy	3.3
				13.1	*1*	*nail, iron alloy, wire*		*3.3*
U 17	1		91	14	3	wire	iron alloy	12.5
U 17	1		91	15	1	chain	iron alloy	108.4
U 17	1		91	16	1	fastener	iron alloy	0.2
				16.1	*1*	*fastener, eyelet, iron alloy*		*0.2*
U 17	1		91	17	1	bracket	unidentified metal	2.1
U 17	1		91	18	2	strap	iron alloy	36.2
U 17	1		91	19	2	tube	iron alloy	32.0
U 17	1		91	20	2	ring/ring shaped	iron alloy	10.0
U 17	1		91	21	16	sheet metal	iron alloy	50.0
U 17	1		91	22	1	unidentified hardware	iron alloy	11.1
U 17	1		91	23	1	unidentified hardware	iron alloy	2.2
U 17	1		91	24	4	unidentified	iron alloy	25.0
U 17	1		91	25	1	unidentified	iron alloy	93.0
U 17	1		91	26	3	unidentified	textile and metal	9.8
U 17	1		91	27	4	faunal bone	bone	22.6

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				27.1	*4*	*faunal bone, bone, fragment*		*22.6*
U 17	1		91	28	3	ring/ring shaped	carbon	20.5
U 17	1		91	29	1	clinker	clinker	1.3
U 17	1		92	1	1	bottle	glass	23.1
				1.1	*1*	*bottle, body, glass, ribbed, colorless*		*23.1*
U 17	1		92	2	1	jar	glass	185.1
				2.1	*1*	*jar, complete, glass, embossed, colorless, threaded*		*185.1*
U 17	1		92	3	1	porcelain	porcelain	4.5
				3.1	*1*	*porcelain, porcelain, gilt, tobacco pipe*		*4.5*
U 17	1		92	4	1	tag	brass	3.8
				4.1	*1*	*tag, complete, brass, mold made, Kenrick's Patent, 'KENRICK'S PATENT / COFFEE MILL" with royal coat of arms, coffee mill tag, TPQ 1815*		*3.8*
U 17	1		92	5	1	faucet	zinc alloy	49.2
U 17	1		93	1	5	whiteware	refined earthenware	107.1
				1.1	*1*	*whiteware, base, refined earthenware, undecorated*		*50.7*
				1.2	*2*	*whiteware, rim, refined earthenware, undecorated*		*39.1*
				1.3	*2*	*whiteware, refined earthenware, undecorated*		*17.3*
U 17	1		93	2	1	semi-porcelain	refined earthenware	61.8
				2.1	*1*	*semi-porcelain, rim, refined earthenware, decal, green*		*61.8*
U 17	1		93	3	1	tableware	glass	41.7
				3.1	*1*	*tableware, lid with finial, glass, paneled, fluted, colorless*		*41.7*
U 17	1		93	4	9	bottle	glass	850.8

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				4.1	*1*	*bottle, neck, glass, dark blue, mold blown*		*32.7*
				4.2	*1*	*bottle, rectangular, complete, glass, embossed, colorless, machine made, "TRIAL MARK / WATKINS" on side, "CONTAINER MADE IN U.S.A" on base*		*408.2*
				4.3	*1*	*bottle, rectangular, complete, glass, embossed, brown, machine made, Illinois Glass Co.*		*34.2*
				4.4	*1*	*bottle, square, base, glass, embossed, brown, Illinois Glass Co., TPQ 1911*		*72.0*
				4.5	*1*	*bottle, round, base, glass, embossed, aquamarine, embossed "4" on base*		*131.5*
				4.6	*1*	*bottle, finish, glass, colorless, threaded*		*54.3*
				4.7	*1*	*bottle, finish, glass, colorless, machine made*		*45.4*
				4.8	*1*	*bottle, panel, glass, colorless, mold blown*		*37.1*
				4.9	*1*	*bottle, body, glass, embossed, brown, embossed letters*		*35.4*
U 17	1		93	5	2	vessel	glass	21.4
				5.1	*2*	*vessel, glass, colorless*		*21.4*
U 17	1		93	6	1	jar	glass and zinc	139.4
				6.1	*1*	*jar, cosmetic, complete, glass, white, threaded, "HAIR / GROOM" on lid*		*139.4*
U 17	1		93	7	2	shoe/shoe part	leather and unidentified metal	190.0
U 17	1		93	8	4	eyeglass part	glass and unidentified metal	11.7
U 17	1		93	9	1	lamp	unidentified metal	23.1
U 17	1		93	10	1	unidentified	iron alloy	8.0
U 17	2		94	1	5	whiteware	refined earthenware	11.9
				1.1	*1*	*whiteware, base, refined earthenware, undecorated*		*4.3*
				1.2	*1*	*whiteware, rim, refined earthenware, undecorated*		*4.5*
				1.3	*3*	*whiteware, refined earthenware, undecorated*		*3.1*
U 17	2		94	2	1	white bodied	refined earthenware	0.1
				2.1	*1*	*white bodied, refined earthenware, decorated, cobalt blue*		*0.1*
U 17	2		94	3	2	buff/pink bodied stoneware	stoneware	175.2
				3.1	*2*	*buff/pink bodied stoneware, stoneware, undecorated, burned*		*175.2*
U 17	2		94	4	1	drinking	glass	57.7
				4.1	*1*	*drinking, packers tumbler, rim, glass, colorless, mold blown, TPQ 1908*		*57.7*
U 17	2		94	5	12	bottle	glass	237.1

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Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				5.1	*2*	*bottle, finish, glass, colorless, machine made, fragments mend*		*21.1*
				5.2	*3*	*bottle, round, base, glass, colorless, mold blown, fragments mend*		*89.2*
				5.3	*1*	*bottle, round, base, glass, embossed, colorless*		*56.5*
				5.4	*1*	*bottle, body, glass, embossed, aquamarine, embossed letters*		*5.9*
				5.5	*1*	*bottle, body, glass, brown*		*29.7*
				5.6	*4*	*bottle, panel, glass, colorless, mold blown*		*34.7*
U 17	2		94	6	1	jar	glass	119.4
				6.1	*1*	*jar, glass, colorless, machine made*		*119.4*
U 17	2		94	7	3	jar lid liner	glass	16.2
				7.1	*3*	*jar lid liner, glass, white, some fragments mend*		*16.2*
U 17	2		94	8	12	vessel	glass	37.9
				8.1	*10*	*vessel, glass, colorless*		*32.4*
				8.2	*2*	*vessel, glass, pale aqua*		*5.5*
U 17	2		94	9	1	lamp chimney	glass	0.3
				9.1	*1*	*lamp chimney, glass, colorless*		*0.3*
U 17	2		94	10	24	window	glass	129.6
				10.1	*24*	*window, glass, pale aqua*		*129.6*
U 17	2		94	11	1	cap	lead	20.2
U 17	2		94	12	1	shoe/shoe part	composite	8.9
U 17	2		94	13	2	wire	iron alloy	13.0
U 17	2		94	14	1	ring/ring shaped	iron alloy	18.3
U 17	2		94	15	2	sheet metal	iron alloy	10.4
U 17	2		94	16	1	unidentified hardware	iron alloy	11.8
U 17	2		94	17	1	faunal bone	bone	13.4
				17.1	*1*	*faunal bone, bone, fragment*		*13.4*
U 17	2		94	18	3	indeterminate	iron alloy	13.1
U 17	2		95	1	1	unidentified	iron alloy	1,145.0
U 17	2		96	1	1	brick	brick	1,680.0

533451: Phase III Archeological Investigation, Winstanley Distribution Center

Artifact Inventory

Provenience	Level	Feature	Bag	Item	Count	Artifact Description	Material	Weight (g)
				1.1	*1*	*brick, brick, L 8 1/8, W 3 11/16, T 2 1/8 in*		*1,680.0*
U 17	3		97	1	5	whiteware	refined earthenware	8.2
				1.1	*1*	*whiteware, rim, refined earthenware, decorated, cobalt blue*		*0.9*
				1.2	*4*	*whiteware, refined earthenware, undecorated*		*7.3*
U 17	3		97	2	1	vessel	glass	5.6
				2.1	*1*	*vessel, glass, colorless*		*5.6*
U 17	3		97	3	21	window	glass	67.4
				3.1	*21*	*window, glass, pale aqua*		*67.4*
U 17	3		97	4	1	tobacco pipe	ball clay-white	1.0
				4.1	*1*	*tobacco pipe, stem, ball clay-white, 4/64 in*		*1.0*
U 17	3		97	5	3	mortar	mortar	11.3
				5.1	*3*	*mortar, mortar, with plaster*		*11.3*
U 17	3		97	6	5	nail	iron alloy	36.8
				6.1	*1*	*nail, iron alloy, cut*		*15.3*
				6.2	*4*	*nail, iron alloy, indeterminate*		*21.5*
U 17	3		97	7	1	wire	iron alloy	3.5
U 17	3		97	8	3	sheet metal	iron alloy	3.4
U 17	3		97	9	1	shell	shell	6.4
				9.1	*1*	*shell, clam, shell*		*6.4*
U 17	3		97	10	3	faunal bone	bone	14.9
				10.1	*3*	*faunal bone, bone, fragment*		*14.9*
U 17	3		97	11	3	indeterminate	glass	1.8
U 17	3		97	12	1	indeterminate	iron alloy	4.5
U 17	3		97	13	2	mineral sample	shale	54.7
U 17			98	1	6	shoe/shoe part	leather	225.0
U 17			98	2	1	comb	plastic	6.6

Appendix 2: Faunal Analysis

J. Houck Historic Site
Faunal Report
Marie-Lorraine Pipes PhD RPA

Introduction

Faunal remains were recovered from several area across the site. They were mainly composed of domesticated mammal and bird species (Table 1). There were however some remains that suggest intrusive wildlife including striped skunk and New England cottontail. Table 2 summarizes faunal remains by excavation unit, trench and general provenience. The general provenience refers to the stripping effort that was done north, northwest and west of the house foundation. It is evident that there is a difference in the composition of the units and trench as compared with the stripped area. The former yielded primarily mammal remains whereas the latter was more diversified by class and species and had a greater number of bird remains. In general, the deposits were composed of mainly of dietary refuse.

Methodology

The faunal assemblage was sorted by class, species, and size range category. For the purposes of this report, large mammal is equivalent in size to cattle and medium mammal to pig. Table 2 summarizes the deposits from the units, trenches and general provenience. Two counts are presented, the Total Number of Fragments (TNF) and the Minimum Number of Units (MNU). The TNF count serves as a curation tool indicating the absolute number of fragments for a given row of data. The MNU count is a reduced or adjusted count based on the number of actual skeletal elements represented for a row of data. Not all rows of data received an adjusted count (MNU) as its application was used only when one or more skeletal elements were identified. For example, a crushed pig femur consisting of 4 bone fragments would be tallied as 4 TNF, and would receive an adjusted count of 1 MNU, whereas 10 medium mammal indeterminate longbone fragments would be tallied as 10 TNF, 0 MNU. Within the database, the Minimum Number of Units column is modified by another variable, the MNU Type which indicates the type of unit quantified. Most of the discussion and tables in this report are based on MNElement, MNmeat Cut, and MNTeeth counts. In addition, there are two columns that indicated the type of meat unit and meat cut were represented by specimens. All specimens were weighed in grams.

Each bone specimen was further identified by skeletal element, portion, and age at death, when possible. All apparent bone modifications were recorded. The term ‘bone modification’ means the physical alteration of the original appearance of a skeletal element either by human, animal, or environmental agents. Bone modifications identified in the assemblage included butcher marks, gnaw marks, heat exposure, and weathering. In the report, discussions of bone modifications were based on the Total Number of bone Fragments (TNF). The terms used to group bone by refuse type within deposits included ‘Dietary Refuse’ and ‘Processing Waste’. Dietary refuse refers to meat bearing elements. Processing waste refers to cranial and foot elements which used for soups or stews, or discarded during organ extractions, such as the removal of brains and tongue. Meat cut illustrations are in the Access database under Reports.

Identifications were made with the aid of a comparative skeletal type collection and the use of references including but not limited to: Brown and Gustafson (1979), Cornwall (1956), Gilbert et al (1996), Merritt (1987), Olsen (1964), Reitz and Wing (1999), Schmid (1972), Sullivan and Hilbert (2014), and Ubaldi and Grossman (1987). Each row of data was bagged separately, assigned a specimen number composed of the bag, item, sub-item, and specimen numbers, e.g. 79.2.2.1, 79.2.2.2, 79.2.2.3 etc., and returned to its original provenience bag.

Summary of Deposits

The faunal remains are summarized by species rather than by location because of the low density of deposits. The three most abundant species were cattle, pig and chicken, all three of which are domesticates (Table 2). Cattle was recovered in some of the units, trenches, and general proveniences. It was composed of a wide range of meat cuts (Table 3). There was a selection of roasts, steaks, and stews, as well as a small number of processed cuts. There was also a range in terms of the economic value of the cuts including high, medium, and low. Most cuts fell in the medium to low value range and were dominated by larger units of meat. There was only 1 veal cut which consisted of a leg roast. Pig was recovered from fewer deposits at the site, mainly from units. Cuts were limited in terms of variety of meats and cut types (table 4). There was one chop, one ham, three stew meats and a processed cut. Most of the cuts were of low economic value. Most pig elements came from subadults and juveniles. However, one phalange came from an adult individual. Other mammal species included sheep, cottontail, skunk, and woodchuck. Each of these species were found in singular deposits at the site and represented by few skeletal elements. Sheep consisted of three meat cuts, all of which were loin-end chops. The other three species were most likely intrusive in the deposits and probably not consumed. None of their skeletal elements were modified in any way. Cattle, pig and sheep meat cuts exhibited saw, cleaver and chop marks.

Identified birds included chicken, duck and goose (Table 2). In addition, there was a small unidentified bird indicated. The distribution of birds was limited to primarily to the general proveniences, namely Bags 112 and 114. In Bag 112 body parts included the neck, wing, breast and leg of two individuals, and in Bag 114, they included the leg and wing of one individual. One femur fragment contains medullary bone which is produced in females when they are laying eggs. Another leg was indicated in Bag number 105. Duck was limited to Unit 12 and was represented by a wing. Goose was recovered in Bag 114 and was represented by a wing and leg. Bag 112 yielded the toe bones of a large unidentified bird. One of the phalanges had a pathology, excessive bone growth. Large bird skeletal elements were also present in Unit 10 and Trench 3. All of the bird remains, with the exception of the small unidentified bird, represent food remains.

In addition to mammals and birds, there was a small amount of unidentified fish. Fish skeletal remains consisted mainly of fragmentary cranial plates and a few vertebrae, all of which were found in Bag 112.

In addition to butcher marks found on meat cuts, bone modifications include low frequencies of gnaw marks, heat exposure and weathering. Rodent incisor marks and canine

gnaw marks, perhaps from dogs, were seen occasionally. Very few specimens were calcined or charred. The same was true of weathering which included staining on the surface of the bone and flaking of the cortex.

Conclusion

The assemblage represents dietary refuse. A few cranial elements indicate heads and mandibles were processed for tongue, brain, and facial tissue used for making cold cuts like headcheese. The overall range of meats and cut types, as well as the presence of different fowl and fish, indicate a varied diet. Because medullary bone was found in at least one individual, it is evident that birds were raised on site.

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Table 1. Summary of taxa by class.

Class	Species	*Latin Name*
Mammal		
	Cow	*Bos taurus*
	Pig	*Sus domesticus*
	New England Cottontail	*Silvilagus transitionalis*
	Sheep	*Ovis aries*
	Striped Skunk	*Mephitus mephitus*
	Woodchuck	*Marmota monax*
Bird		
	Chicken	*Gallus gallus*
	Duck	*Anas sp.*
	Goose	*Answer sp.*
Fish		
	Unidentified fish	*Pisces*

Table 2. faunal remains from Units, Trenches and General Provenience, by Total Number of bone Fragments (TNF) and Minimum Number of bone Units (MNU).

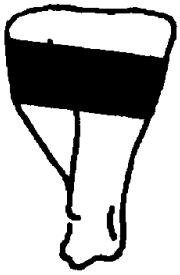
Class/Species/Size-Range Category	U10		U11		U12		U13		U14		U15		U16		U17		TR2		TR3		GP Stripped Area	
	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU	TNF	MNU
Mammal																						
Cattle	4	2	-	-	12	6	-	-	-	-	-	-	2	2	4	3	1	1	15	11	9	6
Pig	-	-	-	-	3	3	-	-	3	2	1	1	-	-	-	-	1	1	-	-	-	-
New England Cottontail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Sheep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Striped Skunk	-	-	-	-	-	-	-	-	-	-	10	6	-	-	-	-	-	-	-	-	-	-
Medium Mammal	-	-	-	-	4	2	1	-	3	2	1	-	-	-	-	-	-	-	-	-	11	5
Large Mammal	-	-	7	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Subtotal	*4*	*2*	*7*	-	*19*	*11*	*1*	-	*6*	*4*	*13*	*7*	*3*	*2*	*4*	*3*	*2*	*2*	*16*	*12*	*23*	*14*
Bird																						
Chicken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	9	8
Duck sp.	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Goose sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Small Bird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5
Large Bird	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	18	18
Unidentified Bird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	15
Subtotal	*2*	*1*	-	-	*1*	*1*	-	-	-	-	-	-	-	-	-	-	-	-	*3*	*2*	*59*	*48*
Fish																						
Unidentified Fish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	13
Subtotal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*19*	*13*
Total TNF/MNU	6	3	8	-	20	12	1	-	6	4	13	7	4	4	4	3	2	2	19	14	101	75

Table 3. Summary of veal and beef cuts (MNU).

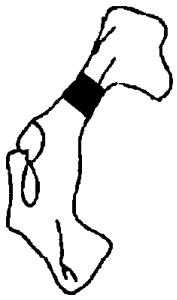
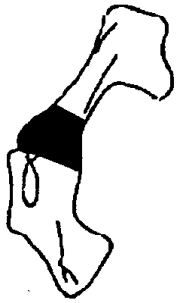
Butcher Cut	Retail Cut	Type of Cut	Rank Value	Quality	U10	U11	U12	U13	U14	U15	U16	U17	TR2	TR3	GP	*Total*
Loin	Loin	Steak	1	High	-	-	1	-	-	-	-	2	-	-	-	*3*
Rib	Prime rib	Steak	2	High	-	-	-	-	-	-	-	-	-	-	1	*1*
Round	Sirloin	Steak	2	High	-	-	1	-	-	-	-	-	-	-	-	*1*
Round	Round	Steak	2	High	-	-	-	-	-	-	1	-	-	-	-	*1*
				Subtotal	-	-	*2*	-	-	-	*1*	*2*	-	-	*1*	*6*
Round	Sirloin	Roast	2	High	-	-	-	-	-	-	-	-	-	1	-	*1*
Veal	Leg	Roast	2	High	1	-	-	-	-	-	-	-	-	-	-	*1*
Round	Rump	Roast	4	Medium	-	-	-	-	-	-	-	-	-	2	-	*2*
Chuck	Chuck	Roast	5	Medium	-	-	-	-	-	-	-	-	-	1	-	*1*
Shank	Hindshank	Roast	8	Low	-	-	1	-	-	-	-	-	-	-	2	*3*
				Subtotal	*1*	-	*1*	-	-	-	-	-	-	*4*	-	*6*
Rib	Short rib	Stew	6	Medium	-	-	1	-	-	-	-	1	-	2	1	*5*
Chuck	Arm	Roast	6	Medium	1	-	1	-	-	-	-	-	-	2	1	*5*
Chuck	Chuck	Stew/Grind	5	Medium	-	-	1	-	-	-	-	-	-	-	-	*1*
Shank	Hindshank	Stew	9	Low	-	-	-	-	-	-	-	-	-	3	-	*3*
Shank	Foreshank	Stew	0	Low	-	-	-	-	-	-	-	-	-	-	1	*1*
				Subtotal	*1*	-	*3*	-	-	-	-	*1*	-	*7*	*3*	*15*
Other	Head	Processed Cut	9	Low	-	-	-	-	-	-	1	-	1	-	-	*2*
				Subtotal	-	-	-	-	-	-	*1*	-	*1*	-	-	*2*
				Total Beef/Veal Cuts	2	-	6	-	-	-	2	3	1	11	6	*31*

Table 4. Summary of pork cuts (MNU).

Butcher Cut	Retail Cut	Type of Cut	Rank Value	Quality	U10	U11	U12	U13	U14	U15	U16	U17	TR2	TR3	GP	*Total*
Loin	Rib-end	Chop	2	High	-	-	-	-	-	-	-	-	1	-	-	*1*
Ham	Shank ham	Ham	4	Medium	-	-	-	-	-	1	-	-	-	-	-	*1*
Other	Trotter	Stew	6	Low	-	-	2	-	1	-	-	-	-	-	-	*3*
Other	Head	Processed Cut	6	Low	-	-	1	-	1	-	-	-	-	-	-	*2*
				Total Pork Cuts	-	-	*3*	-	*2*	-	-	-	*1*	-	-	*7*

Beef Cuts		
Species	Illustrated Cut	Illustration
zmd70	120	
zmd70	473	
zmd70	98	
zmd70	622	
zmd70	413	

Beef Cuts		
Species	Illustrated Cut	Illustration
zmd70	633	
zmd70	276	
zmd70	238	
zmd70	397	
zmd70	283	

Beef Cuts		
Species	Illustrated Cut	Illustration
zmd70	311	
zmd70	306	
zmd70	462	

Pork Cuts		
Species	Illustrated Cut	Illustration
zmd60	277	

Query1			
Prov Type	Prov Value	Sum Of Total Number of Fragments Count	Sum Of Minimum Number of Units Count
GP	0	101	75
T	2	2	2
T	3	19	14
U	10	6	3
U	11	8	0
U	12	20	12
U	13	1	0
U	14	6	4
U	15	13	7
U	16	4	4
U	17	4	3

ID	Proj Num	Prov Type	Prov Value	Level	Bag Num	Item	Count	Weight	Material	Type	Subitem	SubCount
1	533451	U	10	1	57	14	3	21.2000007629395	bone	faunal bone	1	3
2	533451	U	11	3	63	6	6	10.6999998092651	bone	faunal bone	1	6
3	533451	U	12	1	65	10	20	387.700012207031	bone	faunal bone	1	20
4	533451	U	13	2	68	7	1	1.89999997615814	bone	faunal bone	1	1
5	533451	U	14	4	73	8	6	15.8999996185303	bone	faunal bone	1	6
6	533451	U	15	1	74	5	10	9.10000038146973	bone	faunal bone	1	10
7	533451	U	15	3	76	8	3	33.2999992370605	bone	faunal bone	1	3
8	533451	U	16	1	80	16	4	13.6000003814697	bone	faunal bone	1	4
9	533451	U	17	1	91	27	4	22.6000003814697	bone	faunal bone	1	4
10	533451	T	2		102	5	2	23.5	bone	faunal bone	1	2
11	533451	T	3	1	105	10	17	522.400024414063	bone	faunal bone	1	17
12	533451	T	3	1	106	7	1	1400	bone	faunal bone	1	1
13	533451	T	3		107	2	1	765	bone	faunal bone	1	1
14	533451	GP	0	1	112	10	71	860.599975585938	bone	faunal bone	1	1
16	533451	GP	0		113	3	4	235.199996948242	bone	faunal bone	1	4
17	533451	GP	0		114	10	20	119.800003051758	bone	faunal bone	1	5

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
66	GP	112	10	112.10.25	zbz04	Large Bird		1	2	Minimum Number of Elements	1	1.28	Proximal Phalange	Whole	0	-	-	-	'-'	0	-	-	-	Pathology present, exostosis.
27	GP	114	10	114.10.1	zbz01	Unidentified Bird		1	2	Minimum Number of Elements	1	0.16	Claw	Whole	0	-	-	-	'-'	0	-	-	-	
40	GP	114	10	114.10.14	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	1.55	Femur	Proximal fragment	0	-	-	-	'-'	0	-	-	-	
16	U11	63	6	63.6.2	zmz05	Large Mammal		7	0	-	0	10.12	Unidentified	Fragment	15	Unfused	-	-	'-'	0	-	-	-	
2	U17	91	27	91.27.2	zmd70	Cow	Bos taurus	2	2	Minimum Number of Elements	1	7.06	Lumbar Vertebra	Transverse Process	0	-	-	-	Loin steak	0	-	-	Encrusted	
3	U17	91	27	91.27.3	zmd70	Cow	Bos taurus	1	2	Minimum Number of Elements	1	6.82	Lumbar Vertebra	Transverse Process	0	-	-	-	Loin steak	0	-	-	-	
4	U16	80	16	80.16.1	zmr40	Woodchuck	Marmota monax	2	2	Minimum Number of Elements	2	2.3	Humerus	Partial	0	-	-	-	'-'	0	-	-	-	
6	U16	80	16	80.16.3	zmd70	Cow	Bos taurus	1	6	Minimum Number of Teeth	1	2.12	Incisor	Lower tooth	5	Adult	-	-	Processed cut	0	-	-	-	
51	GP	112	10	112.10.10	zbz04	Large Bird		4	2	Minimum Number of Elements	4	0.78	Claw	Whole	0	-	-	-	'-'	0	-	-	-	
9	T2	102	5	102.2	zmd70	Cow	Bos taurus	1	2	Minimum Number of Elements	1	12.76	Maxilla	Proximal fragment	0	-	-	-	Processed cut	0	-	-	-	
50	GP	112	10	112.10.9	zbz01	Unidentified Bird		9	2	Minimum Number of Elements	7	0.01	Cervical Vertebra	Partial	0	-	-	-	'-'	0	-	-	-	
23	U10	57	14	57.14.3	zmd70	Cow	Bos taurus	3	2	Minimum Number of Elements	1	10.92	Humerus	Shaft	2	Neonate (Less than 6 months)	-	-	Arm Roast	0	Carnivore	-	Stained	
12	U15	74	5	74.5.3	zmw21	Striped Skunk	Mephitus mephitus	1	2	Minimum Number of Elements	1	0.36	Humerus	Partial	0	-	-	-	'-'	0	-	-	-	
13	U15	74	5	74.5.4	zmw21	Striped Skunk	Mephitus mephitus	1	2	Minimum Number of Elements	1	0.26	Ulna	Shaft	0	-	-	-	'-'	0	-	-	-	
30	GP	114	10	114.10.4	zbz01	Unidentified Bird		1	2	Minimum Number of Elements	1	0.45	Cervical Vertebra	Whole	0	-	-	-	'-'	0	-	-	-	

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
15	U11	63	6	63.6.1 zmz02	zmz04	Medium Mammal		1	0	-	0	0.43	Longbone	Fragment	0	-	-	-	'-'	0	-	-	-	
29	GP	114	10	114.10.3	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	0.17	Patella	Whole	0	-	-	-	'-'	0	-	-	-	
81	U12	65	10	65.10.7	zmz04	Medium Mammal		1	0	-	0	2.29	Longbone	Fragment	0	-	-	-	'-'	0	-	-	-	
52	GP	112	10	112.10.11	zbz01	Unidentified Bird		1	2	Minimum Number of Elements	1	0.04	Claw	Whole	0	-	-	-	'-'	0	-	-	-	
34	GP	114	10	114.10.8	zmz04	Medium Mammal		3	0	-	0	0.38	Unidentified	Fragment	0	-	-	-	'-'	0	-	-	-	
36	GP	114	10	114.10.9	zbz01	Unidentified Bird		4	0	-	0	0.13	Unidentified	Fragment	0	-	-	-	'-'	0	-	-	-	
24	U15	76	8	76.8.1	zmz04	Medium Mammal		1	0	-	0	0.57	Unidentified	Fragment	0	-	-	-	'-'	0	-	Calcined	-	
10	U15	74	5	74.5.1	zmw21	Striped Skunk	Mephitus mephitus	1	2	Minimum Number of Elements	1	0.8	Pelvis (innominates)	Partial	0	-	-	-	'-'	0	-	-	-	
46	GP	112	10	112.10.5	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	0.05	Atlas	Whole	0	-	-	-	'-'	0	-	-	-	
43	GP	112	10	112.10.2 zbd09	zbd09	Chicken	Gallus gallus	2	2	Minimum Number of Elements	1	1.65	Humerus	Whole	3	Immature	-	-	'-'	0	-	-	-	
31	GP	114	10	114.10.5	zbz01	Unidentified Bird		1	2	Minimum Number of Elements	1	0.31	Sacrum	Fragment	0	-	-	-	'-'	0	-	-	-	
32	GP	114	10	114.10.6	zbz01	Unidentified Bird		1	2	Minimum Number of Elements	1	0.14	Fibula	Partial	0	-	-	-	'-'	0	-	-	-	
48	GP	112	10	112.10.7	zmz04	Medium Mammal		1	2	Minimum Number of Elements	1	1.05	Rib	Distal fragment	0	-	-	-	'-'	0	-	-	Stained	
53	GP	112	10	112.10.12	zbz04	Large Bird		8	2	Minimum Number of Elements	8	3.48	Proximal Phalange	Whole	0	-	-	-	'-'	0	-	-	-	
33	GP	114	10	114.10.7	zmd35	Sheep	Ovis aries	1	2	Minimum Number of Elements	1	0.19	Lumbar Vertebra	Process	0	-	-	-	'-'	0	-	-	-	
11	U15	74	5	74.5.2	zmw21	Striped Skunk	Mephitus mephitus	2	2	Minimum Number of Elements	2	3.16	Mandible	Partial	0	-	-	-	'-'	0	-	-	-	Paired.

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
37	GP	114	10	114.10.11	zbe40	Goose	Anser sp.	1	2	Minimum Number of Elements	1	2.97	Ulna	Distal fragment	0	-	-	-	'-'	0	-	-	-	
39	GP	114	10	114.10.13	zbe40	Goose	Anser sp.	1	2	Minimum Number of Elements	1	3.33	Femur	Distal fragment	0	-	-	-	'-'	0	-	-	-	Female. Medullary bone present.
55	GP	112	10	112.10.14	zbz01	Unidentified Bird		2	2	Minimum Number of Elements	2	0.26	Proximal Phalange	Whole	0	-	-	-	'-'	0	-	-	-	
41	GP	114	10	114.10.15	zmz04	Medium Mammal		1	7	Minimum Number of Worked bone artifacts.	1	1.16	Tibia	Section	0	-	-	-	'-'	0	-	-	-	
28	GP	114	10	114.10.2	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	0.12	Ulnar Articulation	Whole	0	-	-	-	'-'	0	-	-	-	
45	GP	112	10	112.10.4	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	0.74	Carpometacarpus	Whole	0	-	-	-	'-'	0	-	-	-	
47	GP	112	10	112.10.6	zmz04	Medium Mammal		2	2	Minimum Number of Elements	1	0.26	Costal Rib	Fragment	0	-	-	-	'-'	0	-	-	-	
49	GP	112	10	112.10.8	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	0.24	Patella	Whole	0	-	-	-	'-'	0	-	-	-	
59	GP	112	10	112.10.18	zbz01	Unidentified Bird		2	2	Minimum Number of Elements	1	0.52	Sternum	Fragment	0	-	-	-	'-'	0	-	-	-	
67	GP	112	10	112.10.26	zpz01	Unidentified Fish		3	2	Minimum Number of Elements	3	0.16	Vertebra	Partial	0	-	-	-	'-'	0	-	-	Stained	
56	GP	112	10	112.10.15	zmz04	Medium Mammal		2	2	Minimum Number of Elements	2	0.58	Carpus/Tarsus	Whole	0	-	-	-	'-'	0	-	-	-	
94	T3	105	10	105.10.1	zmd70	Cow	Bos taurus	1	2	Minimum Number of Elements	1	7.9	Calcaneus	Proximal fragment	2	Neonate (Less than 6 months)	-	-	Shank Stew	0	-	-	-	
95	T3	105	10	105.10.2	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	4.23	Tibiotarsus	Proximal fragment	0	-	-	-	'-'	0	-	-	-	
57	GP	112	10	112.10.16	zmd35	Sheep	Ovis aries	1	2	Minimum Number of Elements	1	0.73	Lumbar Vertebra	Transverse Process	0	-	-	-	'-'	0	-	-	-	

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
60	GP	112	10	112.10.19	zbz01	Unidentified Bird		2	0	-	0	0.09	Unidentified	Fragment	0	-	-	-	'-'	0	-	-	-	
61	GP	112	10	112.10.20	zbz01	Unidentified Bird		1	0	-	0	0.73	Longbone	Fragment	0	-	-	-	'-'	0	-	-	-	
63	GP	112	10	112.10.22	zmz04	Medium Mammal		1	0	-	0	0.38	Vertebra	Fragment	0	-	-	-	'-'	0	-	-	-	
58	GP	112	10	112.10.17	zmz04	Medium Mammal		1	0	-	0	0.09	Unidentified	Fragment	0	-	-	-	'-'	0	-	-	-	
91	GP	113	3	113.3.1	zmd70	Cow	Bos taurus	2	5	Minimum Number of Articulated Elements	1	151.79	Leg - Femur and tibia	Joint	2	Neonate (Less than 6 months)	-	-	Shank Roast	0	-	-	-	
64	GP	112	10	112.10.23	zbz02	Small Bird		2	2	Minimum Number of Elements	2	0.03	Phalange	Whole	0	-	-	-	'-'	0	-	-	-	
68	GP	112	10	112.10.27	zpz01	Unidentified Fish		1	2	Minimum Number of Elements	1	0.06	Dentary	Partial	0	-	-	-	'-'	0	-	-	-	
71	GP	112	10	112.10.30	zpz01	Unidentified Fish		5	2	Minimum Number of Elements	5	0.56	Dorsal ray	Whole	0	-	-	-	'-'	0	-	-	-	
70	GP	112	10	112.10.29	zpz01	Unidentified Fish		2	2	Minimum Number of Elements	2	0.13	Branchiostegal	Partial	0	-	-	-	'-'	0	-	-	-	
69	GP	112	10	112.10.28	zbz02	Small Bird		1	2	Minimum Number of Elements	1	0.001	Ossified Tendon	Whole	0	-	-	-	'-'	0	-	-	-	
86	U12	65	10	65.10.12	zbe30	Duck	Anas sp.	1	2	Minimum Number of Elements	1	0.61	Carpometacarpus	Partial	0	-	-	-	'-'	0	-	-	-	
26	U15	76	3	76.3.3	zmd60	Pig	Sus domesticus	1	2	Minimum Number of Elements	1	25.05	Tibia	Shaft	0	-	-	-	shank-end ham	0	Rodent	-	-	
21	U10	57	14	57.14.1	zbz04	Large Bird		2	2	Minimum Number of Elements	1	1.78	Longbone	Shaft	0	-	-	-	'-'	0	Carnivore	-	-	
35	GP	114	10	114.10.10 zmd70	zmd70	Cow	Bos taurus	1	2	Minimum Number of Elements	1	79.08	Astragalus	Whole	0	-	-	-	Stew	0	Carnivore	-	-	Ox. Lesion present on articular surface.

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
54	GP	112	10	112.10.13	zbz04	Large Bird		5	2	Minimum Number of Elements	5	0.88	Mid Phalange	Whole	0	-	-	-	'-'	0	-	-	-	
85	U12	65	10	65.10.11	zmz04	Medium Mammal		1	0	-	0	5.94	Calvar (Skull)	Fragment	0	-	-	-	'-'	0	-	Calcined	-	
84	U12	65	10	65.10.10	zmd70	Cow	Bos taurus	5	2	Minimum Number of Elements	1	6.04	Thoracic Vertebra	Dorsal spine	0	-	-	-	Chuck Stew/Grind	0	-	-	-	
73	GP	112	10	112.10.32	zpz01	Unidentified Fish		1	2	Minimum Number of Elements	1	0.07	Hyomandibular	Whole	0	-	-	-	'-'	0	-	-	-	
76	U12	65	10	65.10.2	zmd60	Pig	Sus domesticus	1	2	Minimum Number of Elements	1	13.01	Calvar (Skull)	Segment	3	Immature	-	-	Processed cut	0	-	-	-	
78	U12	65	10	65.10.4	zmz04	Medium Mammal		1	2	Minimum Number of Elements	1	1.42	Rib	Fragment	0	-	-	-	'-'	0	-	-	-	
65	GP	112	10	112.10.24	zbz02	Small Bird		2	2	Minimum Number of Elements	2	0.06	Rib	Whole	0	-	-	-	'-'	0	-	-	-	
80	U12	65	10	65.10.6	zmd60	Pig	Sus domesticus	1	2	Minimum Number of Elements	1	0.91	Metacarpus/Metatarsus	Shaft	0	-	-	-	Trotter	0	-	-	-	
74	GP	112	10	112.10.33	zpz01	Unidentified Fish		6	0	-	0	0.36	Calvar (Skull)	Fragment	0	-	-	-	'-'	0	-	-	-	
96	T3	105	10	105.10.3	zbz04	Large Bird		2	2	Minimum Number of Elements	1	5.73	Tibiotarsus	Shaft	0	-	-	-	'-'	0	-	-	Stained	
62	GP	112	10	1120.10.21	zmd35	Sheep	Ovis aries	1	2	Minimum Number of Elements	1	0.62	Coccyx	Whole	15	Unfused	-	-	'-'	0	-	-	-	
83	U12	65	10	65.10.9	zmd60	Pig	Sus domesticus	1	2	Minimum Number of Elements	1	2.23	Hoof	Whole	0	-	-	-	Trotter	0	-	-	-	
14	U15	74	5	74.5.5	zmw21	Striped Skunk	Mephitus mephitus	5	2	Minimum Number of Elements	1	1.42	Calvar (Skull)	Fragment	0	-	-	-	'-'	0	-	-	-	
97	T3	105	10	105.10.4	zmw15	New England Cottontail	Silvilagus transitionalis	1	2	Minimum Number of Elements	1	1.24	Tibia/Fibula	Distal fragment	0	-	-	-	'-'	0	-	-	-	
72	GP	112	10	112.10.31	zpz01	Unidentified Fish		1	2	Minimum Number of Elements	1	0.12	Basipterygium	Whole	0	-	-	-	'-'	0	-	-	-	

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
90	T3	106	7	106.7.1	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	584.61	Humerus	Partial	93	- 3 1/2 years	Sawed	Roast	Arm Roast	120	-	-	Flaking cortex	
25	U15	76	3	76.3.2	zmz05	Large Mammal		1	0	-	0	1.37	Unidentified	Section	0	-	Sawed	-	'-'	0	-	-	-	
103	T3	105	10	105.10.10	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	43.56	Tibia	Section	0	-	Sawed	Stew	Shank Stew	473	-	-	-	
101	T3	105	10	105.10.8	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	64.29	Scapula	Section	0	-	Sawed	Roast	Chuck Roast	98	-	-	-	2" thick.
82	U12	65	10	65.10.8	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	7.61	Humerus	Proximal section	0	-	Sawed	Jointed roast	Arm Roast	622	-	-	-	
42	GP	112	10	112.10.1	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	376.59	Femur	Distal section	92	+ 3 1/2 years	Sawed	Jointed roast	Shank Roast	413	-	-	-	Ox. Robust muscle ridges.
1	U17	91	27	91.27.1	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	8.6	Rib	Shaft section	0	-	Sawed	-	Short rib stew	0	Rodent	-	Weathering present	
89	T3	107	2	107.2.1	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	346.72	Humerus	Distal section	84	+ 1 1/2 years	Sawed	Roast	Arm Roast	633	-	-	-	
99	T3	105	10	105.10.6	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	16.47	Rib	Section	0	-	Sawed	Roast	Short Rib	276	-	-	-	
93	GP	113	3	113.3.3	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	54.9	Humerus	Distal section	2	Neonate (Less than 6 months)	Sawed	Jointed roast	Shank Stew	0	-	-	-	
102	T3	105	10	105.10.9	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	157.09	Tibia	Shaft section	0	-	Sawed	Stew	Shank Stew	0	-	-	Stained	
98	T3	105	10	105.10.5	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	4.17	Rib	Section	0	-	Sawed	Stew	Short Rib	0	-	-	-	
77	U12	65	10	65.10.3	zmz04	Medium Mammal		1	4	Minimum Number of Meat Cuts	1	8.55	Scapula	Section	0	-	Sawed	Steak	'-'	0	-	-	-	3/4"
87	U12	65	10	65.10.13	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	6.28	Lumbar Vertebra	Transverse Process	0	-	Sawed	Steak	Loin Steak	238	Rodent	-	-	

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
38	GP	114	10	114.10.12	zmd70	Cow	Bos taurus	3	4	Minimum Number of Meat Cuts	1	6.23	Rib	Shaft section	0	-	Sawed	-	Short rib Stew	0	-	-	-	
79	U12	65	10	65.10.5	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	4.41	Rib	Section	0	-	Sawed	-	Short rib stew	0	-	-	-	
20	U14	73	8	73.8.4	zmz04	Medium Mammal		2	4	Minimum Number of Meat Cuts	1	0.98	Longbone	Section	0	-	Sawed	Steak	'-'	0	-	-	-	1/2"
5	U16	80	16	80.16.2	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	0.01	Femur	Section	0	-	Sawed	Steak	Round Steak	397	-	-	Flaking cortex	1/2" thick.
92	GP	113	3	113.3.2	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	22.68	Rib	Proximal section	0	-	Sawed	Steak	Rib steak	283	-	-	-	
88	U12	65	10	65.10.14	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	3.99	Sacral Vertebra	Epiphysis	15	Unfused	Sawed	Steak	Sirloin Steak	0	Carnivore	-	-	
105	T3	105	10	105.10.12	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	65.92	Innominate - Ilium	Section	0	-	Sawed	Roast	Sirloin Roast	311	-	-	-	
8	T2	102	5	102.5.1	zmd60	Pig	Sus domesticus	1	4	Minimum Number of Meat Cuts	1	10.53	Rib	Proximal Section	15	Unfused	Chopped	Chop	Rib-end chop	277	-	-	-	
100	T3	105	10	105.10.7	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	103.79	Innominate - Acetabulum	Section	0	-	Chopped	Roast	Rump Roast	306	-	-	-	
7	U13	68	7	68.7.1	zmz04	Medium Mammal		1	0	-	0	1.86	Longbone	Shaft	0	-	Chopped	-	'-'	0	-	-	-	
17	U14	73	8	73.8.1	zmd60	Pig	Sus domesticus	2	2	Minimum Number of Elements	1	10.93	Calvar (Skull)	Segment	9	Juvenile	Cut	-	Processed cut	0	-	-	-	Occipital.
44	GP	112	10	112.10.3 zbd09	zbd09	Chicken	Gallus gallus	1	2	Minimum Number of Elements	1	1.41	Coracoid	Partial	0	-	Cut	-	'-'	0	-	-	-	
18	U14	73	8	73.8.2	zmd60	Pig	Sus domesticus	1	2	Minimum Number of Elements	1	1.46	Proximal Phalange	Whole	86	+ 2 years	Bisected vertically	-	Trotter	0	-	-	-	
104	T3	105	10	105.10.11	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	30.44	Sacrum	Section	0	-	Cleaved	Roast	Rump Roast	0	-	-	-	

ID	Prov Value	Bag Number	Item	Specimen Number	Species	Species Translation	Latin	Total Number of Fragments Count	Minimum Number of Units Type	Minimum Number Translation	Minimum Number of Units Count	Weight (grams)	Skeletal Element Translation	Skeletal Part Translation	Age	Age translation	Cut Mark Translation	Cut Type Translation	Meat Cut Name	Illustrated Cut	Gnaw Translation	Heat Exposure Translation	Weathering Translations	Notefield
22	U10	57	14	57.14.2	zmd70	Cow	Bos taurus	1	4	Minimum Number of Meat Cuts	1	8.28	Innominate - Ilium	Section	2	Neonate (Less than 6 months)	Cleaved	Roast	Leg Roast	0	-	-	Stained	
106	U14	73	8	73.8.3	zmz04	Medium Mammal		1	4	Minimum Number of Meat Cuts	1	2.54	Costal Rib	Proximal Fragment	0	-	Cleaved	Chop	'-'	0	-	-	-	
107	U12	65	10	65.10.1	zmd70	Cow	Bos taurus	2	4	Minimum Number of Meat Cuts	1	275.73	Tibia	Proximal Section	93	- 3 1/2 years	Chopped	Jointed roast	Shank Roast	462	-	-	-	

Appendix 3: Deed Chain for J. Houck Historic Site

Deed chain for the Houck Farmstead

Date	Rec'd Date	Grantee	Grantor	Book, Page	Acres	$	Notes
Unknown	Unknown	John Watts	Henry and Susanna Gage				This transaction is described in Deed 4: Liber 257 when John Watts sold the property to Peter and Jacob Houck
21 September 1793	17 October-1793	Peter and Jacob Houck	John Watts	4:257	±200	800 pounds	
7 March 1839	7 March 1839	Jacob Houck	Isaac Houck				By will
23 September 1903	23 September 1903	John P. Van Vechten	Jacob Houck	149:187	±240	$1	
24 December 1929	31 December 1929	Louis & Elizabeth A. Larrabee	Jennie A. Van Vechten	218:245	±240	$1	Jennie was the widow of John P. Van Vechten
16 November 1931	16 November 1931	Harvey Reese	Louis & Elizabeth A. Larrabee	218:501	±240	$1	
9 June 1932	18 June 1932	Anthony Chaks	Harvey Reese	225:113	±240	$1	
2 August 1932	5 August 1932	Jacob & Mary Czech	Anthony Chaks	225:443	±240	$1	
3 October 1935	9 October 1935	Constansie Kuber and Ipolitas Juniavcis	Jacob & Mary Czech	231:404	±240	$1	
22 October 1935	6 December 1935	Constansie Kuber	Ipolitas & Anna Juniavcis	231:250	±30	$1	
22 November 1957	4 December 1957	Anthony J. Stack	Constansie Kuber	306:258	±30	$1	
28 March 1958	3 April 1958	Anna Yunker	Anthony J. Stack and Anna Yunker	309:206	±30	$1	Anna Yunker died in 1973 and the property was transferred to her heir, Constance A. Hauer
12 December 1988	16 December 1988	William J. Polumbo, Jr.	Constance A. Hauer	499:273	±22	$1	Polumbo subdivided the property. See deed for map
[1 March 1989]	Unknown	Brian & Diane Yacur	William J. Polumbo, Jr	500:207	±5.1	$1	
25 April 1990	31 May 1990	Diane Yacur	Brian & Diane Yacur	522:134	±5.1	$1	
14 May 1999	18 May 1999	Miguel & Lori Monge	Diane Yacur	652:238	±5.1	$1	

APPENDIX 17

TRAFFIC IMPACT STUDY

for

Proposed Warehouse Development
Town of Florida
Montgomery County, New York

Prepared For:

BMG Albany, LLC
100 Front Street
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21 April 2025
140315501

Table of Contents

EXECUTIVE SUMMARY ..... **i**
INTRODUCTION **1**
Project Description 1
Study Area 2
Scope of Study 3
DESCRIPTION OF EXISTING CONDITIONS **4**
Roads 4
Interstate 90 (I-90) 4
New York State Route 5S (NYS Route 5S) 4
New York State Route 30 (NYS Route 30) 4
P.S. Street 4
Intersections 4
NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street 4
NYS Route 5S and NYS Route 30 Northbound Ramps 5
NYS Route 30 and NYS Route 5S Ramps 5
NYS Route 30 and I-90 Ramps / Gas Station Driveway 5
NYS Route 5S and Target Drive East 5
Traffic Volumes 6
ESTIMATE OF FUTURE CONDITIONS **7**
Background Traffic Growth 7
Site-Generated Trips 7
Trip Distribution 8
Build Traffic Volumes 9
ANALYSIS OF TRAFFIC OPERATIONS **10**
Level of Service Criteria 10
Capacity Analysis 11
NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street 14
NYS Route 5S and NYS Route 30 Northbound Ramps 14
NYS Route 30 and NYS Route 5S Ramps 14
NYS Route 30 and I-90 Ramps 15
NYS Route 5S and Target Driveway East / Central Driveway 15
NYS Route 52 and West Driveway 17
NYS Route 5S and East Driveway 19
CRASH DATA ANALYSIS **20**
CONCLUSION **22**

List of Figures

Figure 1 - Site Location Map
Figure 2 - 2025 Existing Traffic Volumes
Figure 3 - 2027 No-Build Traffic Volumes
Figure 4 - Arrival and Departure Distributions - Passenger Cars
FIgure 5 - Arrival and Departure Distributions - Trucks
Figure 6 - Site-Generated Trips - Passenger Cars
Figure 7 - Site-Generated Trips - Trucks
Figure 8 - Total Site-Generated Trips
Figure 9 - 2027 Build Traffic Volumes

List of Tables

Table 1 – Future Trip Generation Estimates
Table 2 – Arrival and Departure Trip Distributions
Table 3 – Intersection Capacity Analysis Summary
Table 4 – Crash Data Summary, NYSDOT

Appendices

Appendix A - Figures
Appendix B - Traffic Counts, Census Data and Gap Count
Appendix C - Trip Generation Data
Appendix D - Journey-to-Work Model
Appendix E - Timing Directives
Appendix F - Capacity Analysis Printouts
Appendix G - Traffic Signal Warrant Report
Appendix H - Crash Data

EXECUTIVE SUMMARY

Bluewater Property Group has retained Langan to prepare a traffic impact study for a proposed warehouse development. The building, upon completion, will provide a 652,060 square foot (sf) footprint warehouse supported by 415 trailer parking spaces, 990 car parking spaces, and 59 loading docks. The project site is located in the Town of Florida, Montgomery County, New York.

The site is located along eastbound New York State Route 5S (NYS Route 5S) and bound by NYS Route 5S to the north, Mead Road to the east, the New York State Thruway (Interstate 90) to the south, and an existing warehouse development to the west.

Site access is proposed via three driveway locations along NYS Route 5S. The primary access is the central driveway, proposed to intersect NYS Route 5S opposite Target Drive East, and is intended to be utilized by passenger cars only. The central driveway will be full-movement and signalized to improve operational delays. We prepared a traffic signal warrant analysis of the NYS Route 5S and Target Driveway East intersection under future traffic conditions and the traffic volume-based warrant analysis indicates that Warrant 3 (Peak Hour) is met as a result of delay, thus supporting the proposed installation of a traffic signal. The second access, western driveway, is a stop-controlled full-movement intersection that will be utilized by trucks only. The third access, eastern driveway, will primarily be utilized by passenger cars with the exception of limited seasonal peak periods when outbound site trucks could egress the site at this location. The eastern driveway will be a stop-controlled right-in/right-out only access.

Langan recommends that three access points are necessary for the following reasons:

- The primary objective of the site access is to minimize interaction between passenger car and truck traffic within the site circulation.
    - Separate access to the truck court is established. Based on the layout of the truck court, the western driveway location allows the ability to provide appropriate stacking in advance of the guardhouse in addition to providing the necessary trailer parking spaces to support typical operations.
- The site has significant frontage along NYS Route 5S (approximately 4,000 feet).
- Site constraints, including existing easements, wetland disturbance, and grade conditions limit the location of access points and internal circulation connections.
- Due to site constraints, the layout of the employee parking area results in the necessity of two access points, one on each end of the parking fields.
- Reduce impacts to the NYS Route 5S corridor and adjacent properties by providing

efficient access and appropriate on-site circulation.

For this traffic study, we are analyzing roadway volumes under two conditions, including the "Roadway Peak Hour Condition" and "Generator Peak Hour Condition". For the "Roadway Peak Hour Condition", the weekday morning peak hour of the adjacent roadway system occurs from 7:30 AM to 8:30 AM and the weekday evening peak of the adjacent roadway system occurs from 3:30 PM to 4:30 PM. The "Generator Peak Hour Condition" was analyzed based on peak employee arrivals and departures specific to typical daily operations. The proposed warehouse will operate 24 hours a day, with two general shifts for employees. The peak employee arrival and departure periods are anticipated to occur from 6:30 AM to 7:30 AM and from 5:30 PM to 6:30 PM.

We estimated the number of new trips the proposed warehouse would generate based on tenant specific data summarized below:

- Roadway Peak Hour Condition: 157 trips (118 enter, 39 exit) during the weekday morning peak hour of the roadway and 139 trips (54 enter, 85 exit) during the weekday evening peak hour of the roadway.
- Generator Peak Hour Condition: 630 trips (560 enter, 70 exit) during the weekday morning peak hour and 1,005 trips (461 enter, 544 exit) during the weekday evening peak hour.

We determined the directional distribution of the site-generated trips for the warehouse based on an examination of demographic data, existing and expected travel patterns in the study area, and a census journey-to-work model.

We conducted capacity analyses at the following intersections:

- NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street
- NYS Route 5S and NYS Route 30 Northbound Ramps
- NYS Route 30 and NYS Route 5S Ramps
- NYS Route 30 and New York State Thruway (Interstate 90 – Exit 27) Ramps
- NYS Route 5S and Target Driveway East / Proposed Central Driveway
- NYS Route 5S and Proposed West Driveway
- NYS Route 5S and Proposed East Driveway

Based on a review of the analyses, with the improvements as discussed herein, we determined that the adjacent roadway network and proposed driveway system have the capacity to accommodate the anticipated traffic generated by typical operation of the proposed warehouse.

Moreover, with the proposed improvements, discussed below, the development will not create any significant adverse impacts to traffic operations in the study area during peak hours.

We recommend the following improvements associated with the access to the site:

- NYS Route 5S and Target Driveway East/Central Driveway
    - Widen NYS Route 5S to provide an exclusive westbound left-turn lane with approximately 400 feet of storage.
    - Signalize the intersection.
- NYS Route 5S and West Driveway (truck access only)
    - Within the existing median provide an exclusive westbound left-turn lane with approximately 200 feet of storage.

The design of the driveways and associated improvements will be in accordance with the NYSDOT (New York State Department of Transportation) design standards.

INTRODUCTION

Bluewater Property Group has retained Langan to prepare a traffic impact study for a proposed warehouse development. The building, upon completion, will provide a 652,060 square foot (sf) footprint warehouse supported by 415 trailer parking spaces, 990 car parking spaces, and 59 loading docks. The project is located in the Town of Florida, Montgomery County, New York.

Project Description

The project site consists of a warehouse building with a 652,060 square foot (sf) footprint. The total building square footage, inclusive of all floors and mezzanines, which is primarily dedicated to automated robotics sortation and material handling systems, is approximately 3,232,740 sf. As a result, traffic generation for the site is more accurately represented based on tenant-specific employee projected operations and is not related to the overall square footage.

The parcel is identified as Section 54, Block 1, and Lot 36 according to Montgomery County Tax Maps. The site location is shown in Figure 1. The site is located along eastbound New York State Route 5S (NYS Route 5S) and bound by NYS Route 5S to the north, Mead Road to the east, the New York State Thruway (Interstate 90) to the south, and an existing warehouse development to the west.

Site access is proposed via three driveway locations along NYS Route 5S. The primary access is the central driveway, proposed to intersect NYS Route 5S opposite Target Drive East, and is intended to be utilized by passenger cars only. The central driveway will be full-movement and signalized to improve operational delays. We prepared a traffic signal warrant analysis of the NYS Route 5S and Target Driveway East intersection under future traffic conditions and the traffic volume-based warrant analysis indicates that Warrant 3 (Peak Hour) is met as a result of delay, thus supporting the proposed installation of a traffic signal. The second access, western driveway, is a stop-controlled full-movement intersection that will be utilized by trucks only. The third access, eastern driveway, will primarily be utilized by passenger cars with the exception of limited seasonal peak periods when outbound site trucks could egress the site at this location. The eastern driveway will be a stop-controlled right-in/right-out only access.

Langan recommends that three access points are necessary for the following reasons:

- The primary objective of the site access is to minimize interaction between passenger car and truck traffic within the site circulation.
    - Separate access to the truck court is established. Based on the layout of the truck court, the western driveway location allows the ability to provide appropriate

stacking in advance of the guardhouse in addition to providing the necessary trailer parking spaces to support typical operations.

- The site has significant frontage along NYS Route 5S (approximately 4,000 feet).
- Site constraints, including existing easements, wetland disturbance, and grade conditions limit the location of access points and internal circulation connections.
- Due to site constraints, the layout of the employee parking area results in the necessity of two access points, one on each end of the parking fields.
- Reduce impacts to the NYS Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

Study Area

We conducted capacity analyses at the following intersections:

- NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street
- NYS Route 5S and NYS Route 30 Northbound Ramps
- NYS Route 30 and NYS Route 5S Ramps
- NYS Route 30 and Interstate 90 Ramps
- NYS Route 5S and Target Driveway East / Central Driveway
- NYS Route 5S and West Driveway
- NYS Route 5S and East Driveway

An inventory of the physical road conditions is presented in the section "Description of Existing Conditions."

Scope of Study

Langan undertook the following steps to prepare this study in accordance with standard accepted methodologies:

1. Conducted a desktop examination of the site and surrounding road network to inventory physical and regulatory conditions including the number of lanes, lane assignments, channelization, traffic-control devices, lateral clearances, and other factors that limit traffic capacity.
2. Conducted a series of turning movement traffic counts (TMCs) at the study intersections identified in the previous section. We conducted counts on a typical weekday from 5:00 AM to 9:00 AM and from 3:00 PM to 7:00 PM. In addition, we conducted Automatic Traffic Recorder (ATR) counts on both sides of NYS Route 5S along the site's frontage. We then identified existing weekday morning and evening peak hour traffic volumes based on the traffic count data for both analysis conditions.
3. Established 2025 existing traffic volumes using the conducted turning movement traffic counts. Note that both the peak hours of the adjacent roadway system and tenant specific peak hours were established.
4. Established future 2027 No-Build traffic volumes by conservatively applying a growth factor of 1.8% to the 2025 existing traffic volumes. This growth factor is based on New York State Department of Transportation (NYSDOT) historical data and a review of previous traffic studies conducted in the area.
5. Prepared trip generation estimates for the proposed warehouse based on tenant specific data.
6. Developed trip distribution for the site based on an examination of demographic data, existing and expected travel patterns in the study area, and a census journey-to-work model.
7. Assigned site-generated trips to the access driveways and surrounding road network based on the likely travel routes motorists will use to travel to and from the site.
8. Established future 2027 Build traffic volumes by adding future anticipated tenant specific site-generated trips to 2027 No-Build traffic volumes.
9. Performed intersection capacity analyses for the weekday morning and evening peak hours using Synchro Software.

DESCRIPTION OF EXISTING CONDITIONS

This section describes the roads, intersections, and traffic volumes in the area of the development located in the Town of Florida, Montgomery County, New York.

Roads

Interstate 90 (I-90)

I-90 is classified as an urban principal arterial interstate (11) and is under New York State Department of Transportation (NYSDOT) jurisdiction. The roadway has a general east-west orientation. The eastbound and westbound ramps at Exit 27 connect to NYS Route 30.

New York State Route 5S (NYS Route 5S)

NYS Route 52 is classified as urban minor arterial (16) and is under NYSDOT jurisdiction. The roadway has a general east-west orientation and generally provides one travel lane in each direction. The posted speed limit varies between 45mph and 55mph in the study area.

New York State Route 30 (NYS Route 30)

NYS Route 30 is classified as an urban principal arterial (14) and is under NYSDOT jurisdiction. The roadway has a general north-south orientation and generally provides two travel lanes in each direction. The posted speed limit is 55mph in the study area.

P.S. Street

P.S. Street is classified as an urban local (19) road and is under municipal jurisdiction. The roadway has a general north-south orientation and provides one travel lane in each direction. There is no posted speed limit.

Intersections

NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street

The NYS Route 30 southbound ramps and P.S. Street intersect NYS Route 5S to form the south and north legs, respectively, of a four-leg intersection under signal control. The eastbound NYS Route 5S approach provides one shared left-turn/thru lane and one exclusive right-turn lane. The westbound NYS Route 5S approach provides one shared left-turn/thru/right-turn lane. The northbound NYS Route 30 exit ramp provides one shared left-turn/thru/channelized right-turn lane. The channelized right-turn movement is under stop control. The southbound P.S. Street approach provides one shared left-turn/thru/right-turn lane. The signal operates under four phases with a 70 second cycle length during the analyzed time periods.

NYS Route 5S and NYS Route 30 Northbound Ramps

The NYS Route 30 northbound ramps intersect NYS Route 5S to form the south and north legs of a four-leg intersection under signal control. The eastbound NYS Route 5S approach provides one shared left-turn/thru lane. The westbound NYS Route 5S approach provides one shared thru/free flow channelized right-turn lane. The northbound NYS Route 30 exit ramp provides one shared left-turn/thru/right-turn lane. The southbound NYS Route 30 entrance ramp provides one receiving lane. The signal operates under two phases with a 45 second cycle length during the analyzed time periods.

NYS Route 30 and NYS Route 5S Ramps

The NYS Route 5S ramps intersect NYS Route 30 to form the east and west legs of a four-leg intersection under signal control. The eastbound NYS Route 5S ramp approach provides one right-turn lane. The westbound NYS Route 5S ramp provides one receiving lane for the NYS Route 30 northbound right-turn. The northbound NYS Route 30 approach provides one exclusive thru lane and one shared thru/right-turn lane. The southbound NYS Route 30 approach provides one exclusive thru lane and one shared thru/channelized free flow right-turn lane. The signal operates under four phases as part of the adjacent signal to the south for the I-90 ramps (Exit 27). The signal system operates with a 100 second cycle length during the analyzed time periods.

NYS Route 30 and I-90 Ramps / Gas Station Driveway

The I-90 ramps (Exit 27) and the Exxon driveway intersect NYS Route 30 to form the east and west legs, respectively, of a four-leg intersection under signal control. The eastbound Exxon driveway approach provides one shared left-turn/thru/right-turn lane. The westbound I-90 ramp approach provides one shared left-turn/thru lane and two channelized right-turn lanes. The northbound NYS Route approach provides one left-turn lane, one exclusive thru lane, and one shared thru/channelized right-turn lane. The southbound approach provides one left-turn lane and one shared thru/right-turn lane. The signal operates under four phases as part of the adjacent signal to the north for the NYS Route 5S ramps. The signal system operates with a 100 second cycle length during the analyzed time periods.

NYS Route 5S and Target Drive East

Target Drive East intersects NYS Route 5S to form the north leg of a T-shaped intersection under stop control. The eastbound NYS Route 5S approach provides one left-turn lane and one thru. The westbound NYS Route 5S approach provides one thru lane, and one right-turn lane. The southbound Target Drive East approach provides one left-turn lane and one right-turn lane.

Traffic Volumes

To examine traffic conditions near the site, turning movement traffic counts (TMC) were arranged for the morning and evening peak hours on a typical weekday at the study intersections. Specifically, turning movement counts were conducted on Wednesday, 5 February 2025 from 5:00 AM to 9:00 AM and from 3:00 PM to 7:00 PM.

Additionally, Automatic Traffic Recorders (ATR) were placed to collect data between Thursday, February 27, 2025 and Tuesday, March 4, 2025. ATRs were placed on both the eastbound and westbound sides of NYS Route 5S along the site's frontage between Target Drive East and Broadway Extended.

The traffic counts identify distinct times during the weekday morning and evening periods when traffic experienced its highest levels. Based on the turning movement counts (TMCs), the weekday morning peak hour of the adjacent roadway system occurs between 7:30 AM and 8:30 AM and the weekday evening peak hour of the adjacent roadway system occurs between 3:30 PM and 4:30 PM.

Note that both the peak hours of the adjacent roadway system and the tenant specific peak hours were analyzed. Those peak hours fall under two conditions "Roadway (adjacent street) Peak Hour Condition" and "Generator (tenant specific) Peak Hour Condition". For the "Roadway Peak Hour Condition", as discussed above, the weekday morning peak hour of the adjacent roadway system occurs from 7:30 AM to 8:30 AM and the weekday evening peak of the adjacent roadway system occurs from 3:30 PM to 4:30 PM. Whereas, the "Generator Peak Hour Condition" is based on peak employee arrivals and departures specific to the site's typical daily operations. The proposed warehouse will operate 24 hours a day, with two general shifts for employees. In general, it is anticipated that the peak employee arrival and departure periods will occur from 6:30 AM to 7:30 AM and from 5:30 PM to 6:30 PM.

Figure 2 illustrates the existing weekday morning and evening peak hour traffic volumes. Summaries of the traffic counts and ATRs are contained in Appendix B.

ESTIMATE OF FUTURE CONDITIONS

This section of the report covers background traffic growth, site-generated trips, trip distribution, and future traffic volumes. We anticipate the project will be completed by the end of 2027. Accordingly, we projected traffic volumes to include existing traffic and new traffic created by background growth to derive the 2027 No-Build traffic volumes. The site-generated trips were added to the 2027 No-Build traffic volumes to derive the 2027 Build traffic volumes.

Background Traffic Growth

We increased the 2025 Existing traffic volumes by compounded annual growth rate of 1.8 percent. The growth rate is consistent with other area studies that are based on information from NYSDOT including historical traffic data. Figure 3 illustrates the 2027 No-Build traffic volumes.

Site-Generated Trips

The proposed 652,060 sf (footprint) warehouse building will have the following typical 24-hour operations:

- The day shift workers generally begin a 10.5 hour shift at 7 AM and work until 5:30 PM.
- The night shift workers generally begin a 10.5 hour shift at 6 PM and work until 4:30 AM.
- Based on the shift times, the facility generator peak employee arrival and departure periods will occur from 6:30 AM to 7:30 AM and from 5:30 PM to 6:30 PM. The facility generator peak does not coincide directly with the commuter (adjacent roadway) peak periods, which are from 7:30 AM to 8:30 AM and from 3:30 PM to 4:30 PM.

We prepared trip generation estimate for the proposed warehouse development using tenant specific data. The trip generation data is included in Appendix C.

We utilized data published by the U.S. Census Bureau to estimate the level of carpool utilization for the Town of Florida in Montgomery County. The census data indicates that approximately 10% carpool to their place of employment. Therefore, the trip generation accounts for a factor of 10% carpool use. Appendix D contains the census data.

Table 1 summarizes the trip generation estimate for the weekday morning and evening peak hours.

Table 1 – Future Trip Generation Estimates

Vehicle Type	Peak Hour of Roadway Condition						Peak Hour of Generator Condition					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	7:30 AM – 8:30 AM			3:30 PM – 4:30 PM			6:30 AM – 7:30 AM			5:30 PM – 6:30 PM		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Cars	108	30	138	40	73	113	551	63	614	451	531	982
Trucks	10	9	19	14	12	26	9	7	16	10	13	23
TOTAL	**118**	**39**	**157**	**54**	**85**	**139**	**560**	**70**	**630**	**461**	**544**	**1,005**

Trip Distribution

We determined the directional distribution of site-generated trips based on demographic data, existing travel patterns in the study area, and a census journey-to-work model. We reviewed census data to develop a journey-to-work model and create distributions that are representative of the employment draw for the proposed warehouse.

Site access is proposed via three driveway locations along NYS Route 5S. The primary access is the central driveway, proposed to intersect NYS Route 5S opposite Target Drive East, and is intended to be utilized by passenger cars only. The second access, western driveway, will be utilized by trucks only. The third access, eastern driveway, will primarily be utilized by passenger cars with the exception of limited seasonal peak periods when outbound site trucks could egress the site at this location. The eastern driveway will be a right-in/right-out only access.

Table 2 shows the arrival and departure distributions. The journey-to-work model is included in Appendix D.

Table 2 – Arrival and Departure Trip Distributions

Direction (To/From)	Passenger Cars		Trucks
	Arrival	Departure	Arrival / Departure
NYS Route 5S (East)	5%	5%	-
NYS Route 5S (West) Including I-90 – Exit 28 (West) NYS Route 5S (West) Main Street (North) Other local roads	23%	23%	20%
NYS Route 30 North	22%	22%	-
NYS Route 30 South	9%	9%	-
I-90 Ramps – Exit 27 (East)	41%	41%	80%
Total	**100%**	**100%**	**100%**

The site-generated traffic was then applied to the adjacent roadway system as per the above distributions. Figures 4 and 5 show the arrival and departure distributions for the passenger cars and trucks, respectively. The site-generated trips are shown on Figure 6 for the passenger cars and on Figure 7 for the trucks. The total site-generated trips assigned to the roadway network for the proposed warehouse are shown on Figure 8.

Build Traffic Volumes

The 2027 Build traffic volumes were derived by adding the total proposed site-generated trips, Figure 8, to the 2027 No-Build traffic volumes, Figure 3. Figure 9 illustrates the 2027 Build weekday morning and evening peak hour traffic volumes for both the "Roadway (adjacent street) Peak Hour Condition" and the "Generator (tenant specific) Peak Hour Condition".

ANALYSIS OF TRAFFIC OPERATIONS

This section describes the capacity analysis we conducted to assess traffic operations for the No-Build and Build conditions. Capacity analysis provides an indication of the adequacy of road facilities to serve traffic demand.

Level of Service Criteria

Level of Service (LOS) is the term used to denote different operating conditions that occur on a given road segment under various traffic-volume demands. LOS is a qualitative measure that considers a number of factors including road geometry, speed, travel delay and freedom to maneuver. LOS designations range from A to F and provide an index of operational qualities of a road segment or an intersection. LOS A represents the best operating conditions; LOS F represents the worst.

LOS designations are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection. For unsignalized intersections, the analysis considers the operation of all movements that conflict with other movements, such as main-line left turns and traffic exiting a side street. The evaluation criteria used to analyze the study area intersections are based on the Highway Capacity Manual, (HCM), published by the Transportation Research Board and the Synchro software.

The HCM defines LOS for signalized intersections as follows:

LOS	Control Delay per Vehicle
A	≤10 sec
B	>10 and ≤20 sec
C	>20 and ≤35 sec
D	>35 and ≤55 sec
E	>55 and ≤80 sec
F	>80 sec

The HCM defines LOS for unsignalized intersections as follows:

LOS	Delay Range (sec/veh)
A	≤10 sec
B	>10 and ≤15 sec
C	>15 and ≤25 sec
D	>25 and ≤35 sec
E	>35 and ≤50 sec
F	>50 sec

Capacity Analysis

We conducted analyses for the intersections in the study area and found that the adjacent roadway network has the capacity to accommodate the traffic associated with the proposed warehouse development. Table 3 summarizes the 2027 No-Build, Build, and Build with Improvements levels of service (LOS) at each relevant study intersection during the weekday morning and evening peak hours. Note that both the peak hours of the adjacent roadway system and the tenant specific peak hours were analyzed. Those peak hours fall under two conditions "Roadway (adjacent street) Peak Hour Condition" and "Generator (tenant specific) Peak Hour Condition". Following are discussions pertaining to each of the study intersections. Capacity analysis worksheets are contained in Appendix F. Appendix E contains the traffic signal timings and plans that were obtained from the NYSDOT and used in the analysis for this traffic study.

Table 3 – Intersection Capacity Analysis Summary

Intersection	Lane Use	Roadway Peak Hour Condition (7:30AM-8:30AM and 3:30PM-4:30PM)												Generator Peak Hour Condition (6:30AM-7:30AM and 5:30PM-6:30PM)											
		2027 NO-BUILD AM		2027 NO-BUILD PM		2027 BUILD AM		2027 BUILD PM		2027 BUILD AM w/Imprvmnts		2027 BUILD PM w/Imprvmnts		2027 NO-BUILD AM		2027 NO-BUILD PM		2027 BUILD AM		2027 BUILD PM		2027 BUILD AM w/Imprvmnts		2027 BUILD PM w/Imprvmnts	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Signalized Intersections																									
NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street	**Overall**	**B**	**18.8**	**C**	**21.6**	**C**	**20.0**	**C**	**21.8**	**-**	**-**	**-**	**-**	**A**	**9.5**	**B**	**11.2**	**B**	**14.4**	**B**	**13.6**	**-**	**-**	**-**	**-**
	EB-LT	B	16.3	C	22.4	B	16.3	C	23.4	-	-	-	-	A	9.4	B	10.5	B	10.9	B	13.6	-	-	-	-
	EB-R	A	0.9	A	0.8	A	0.9	A	0.8	-	-	-	-	A	0.7	A	0.6	A	0.5	A	0.7	-	-	-	-
	WB-LTR	B	17.2	B	16.2	B	19.0	B	17.2	-	-	-	-	A	9.4	B	10.3	B	15.3	B	17.2	-	-	-	-
	NB-LTR	C	26.5	C	32.0	C	29.7	C	33.6	-	-	-	-	B	14.0	B	15.7	C	21.2	C	23.1	-	-	-	-
	SB-LTR	C	25.1	C	26.4	C	26.3	C	26.5	-	-	-	-	B	15.6	B	15.6	C	21.0	B	18.9	-	-	-	-
NYS Route 5S and NYS Route 30 Northbound Ramps	**Overall**	**A**	**7.6**	**B**	**17.8**	**A**	**9.2**	**C**	**21.3**	**-**	**-**	**-**	**-**	**A**	**6.4**	**A**	**7.7**	**B**	**17.0**	**C**	**20.7**	**-**	**-**	**-**	**-**
	EB-LT	A	7.9	C	24.4	A	9.3	C	30.0	-	-	-	-	A	6.2	A	7.7	B	13.2	C	26.3	-	-	-	-
	WB-TR	A	3.4	A	4.0	A	4.0	A	4.4	-	-	-	-	A	3.3	A	3.6	A	5.8	A	5.6	-	-	-	-
	NB-LTR	B	12.1	B	12.3	B	13.6	B	13.4	-	-	-	-	B	10.5	B	11.9	C	23.3	C	20.7	-	-	-	-
NYS Route 30 and NYS Route 5S Ramps	**Overall**	**A**	**3.9**	**A**	**3.4**	**A**	**3.9**	**A**	**3.5**	**-**	**-**	**-**	**-**	**A**	**5.4**	**A**	**2.3**	**A**	**4.4**	**A**	**3.3**	**-**	**-**	**-**	**-**
	EB-R	A	0.7	A	0.7	A	0.8	A	1.1	-	-	-	-	A	0.7	A	0.4	A	1.1	A	3.4	-	-	-	-
	NB-TR	A	0.2	A	0.2	A	0.2	A	0.2	-	-	-	-	A	0.1	A	0.2	A	0.3	A	0.4	-	-	-	-
	SB-T	B	10.3	A	9.6	B	10.7	B	10.3	-	-	-	-	B	11.1	A	7.0	B	11.7	B	11.4	-	-	-	-
	SB-R	A	2.3	A	2.4	A	2.4	A	2.5	-	-	-	-	A	2.3	A	1.9	A	2.2	A	2.5	-	-	-	-
NYS Route 30 and I-90 Ramps	**Overall**	**C**	**20.2**	**B**	**13.2**	**C**	**20.3**	**B**	**13.9**	**-**	**-**	**-**	**-**	**C**	**25.9**	**B**	**11.3**	**C**	**26.5**	**B**	**14.1**	**-**	**-**	**-**	**-**
	EB-LTR	D	35.9	C	29.9	D	36.8	C	30.9	-	-	-	-	D	36.9	C	24.8	D	38.1	C	30.4	-	-	-	-
	WB-LT	D	36.4	C	34.8	D	37.1	D	35.5	-	-	-	-	D	36.9	C	30.1	D	37.7	D	37.0	-	-	-	-
	WB-R	A	1.5	A	1.6	A	1.5	A	1.6	-	-	-	-	A	1.6	A	1.8	A	1.6	A	1.6	-	-	-	-
	NB-L	B	11.3	B	11.0	B	11.4	B	11.5	-	-	-	-	B	11.2	A	10.0	B	11.3	B	11.7	-	-	-	-
	NB-TR	C	29.9	C	27.8	C	30.5	C	28.9	-	-	-	-	C	30.0	C	24.6	C	32.1	C	31.5	-	-	-	-
	SB-L	C	30.7	C	22.4	C	32.2	C	24.0	-	-	-	-	D	37.2	B	16.8	D	47.2	C	23.5	-	-	-	-
	SB-TR	A	9.1	B	10.4	A	9.0	B	10.4	-	-	-	-	A	7.7	B	10.7	A	8.0	B	10.2	-	-	-	-
NYS Route 5S and Target Driveway East / Central Driveway	**Overall**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**6.7**	**B**	**11.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**A**	**8.1**	**B**	**16.1**
	EB-L	-	-	-	-	-	-	-	-	A	4.6	A	5.5	-	-	-	-	-	-	-	-	A	5.8	A	8.7
	EB-TR	-	-	-	-	-	-	-	-	A	9.5	B	14.0	-	-	-	-	-	-	-	-	B	14.7	C	26.0
	WB-L	-	-	-	-	-	-	-	-	A	3.7	A	5.1	-	-	-	-	-	-	-	-	A	5.0	B	12.9
	WB-T	-	-	-	-	-	-	-	-	A	6.3	A	8.3	-	-	-	-	-	-	-	-	A	4.0	A	8.6
	WB-R	-	-	-	-	-	-	-	-	A	0.2	A	0.1	-	-	-	-	-	-	-	-	A	0.1	A	0.2
	NB-L	-	-	-	-	-	-	-	-	B	12.7	C	20.8	-	-	-	-	-	-	-	-	C	22.1	C	28.2
	NB-TR	-	-	-	-	-	-	-	-	A	0.0	A	0.0	-	-	-	-	-	-	-	-	A	0.0	A	0.3
	SB-L	-	-	-	-	-	-	-	-	B	13.2	C	21.8	-	-	-	-	-	-	-	-	C	22.3	C	31.3
	SB-TR	-	-	-	-	-	-	-	-	A	0.0	A	0.1	-	-	-	-	-	-	-	-	A	0.0	A	0.1

Table 3 cont'd – Intersection Capacity Analysis Summary

Intersection	Lane Use	Roadway Peak Hour Condition (7:30AM-8:30AM and 3:30PM-4:30PM)												Generator Peak Hour Condition (6:30AM-7:30AM and 5:30PM-6:30PM)											
		2027 NO-BUILD AM		2027 NO-BUILD PM		2027 BUILD AM		2027 BUILD PM		2027 BUILD AM w/Imprvmnts		2027 BUILD PM w/Imprvmnts		2027 NO-BUILD AM		2027 NO-BUILD PM		2027 BUILD AM		2027 BUILD PM		2027 BUILD AM w/Imprvmnts		2027 BUILD PM w/Imprvmnts	
		LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Unsignalized Intersections																									
NYS Route 5S and Target Driveway East / Central Driveway	EB-L	A	7.9	A	9.5	A	8.0	A	9.6	-	-	-	-	A	7.7	A	8.6	A	7.7	A	8.7	-	-	-	-
	WB-L	-	-	-	-	A	7.8	A	8.4	-	-	-	-	-	-	-	-	A	9.8	A	9.6	-	-	-	-
	NB-L	-	-	-	-	B	14.7	C	24.4	-	-	-	-	-	-	-	-	F	77.3	F	810.5	-	-	-	-
	NB-TR	-	-	-	-	A	9.4	B	11.1	-	-	-	-	-	-	-	-	A	9.7	B	10.2	-	-	-	-
	SB-L	B	12.6	C	20.7	C	17.8	D	31.4	-	-	-	-	B	11.4	B	12.0	F	98.5	F	181.0	-	-	-	-
	SB-TR	A	9.6	B	11.2	A	9.7	B	11.4	-	-	-	-	A	9.4	A	9.9	A	9.4	A	10.0	-	-	-	-
NYS Route 5S and West Driveway	WB-L	-	-	-	-	A	9.0	A	9.7	-	-	-	-	-	-	-	-	A	9.2	A	8.9	-	-	-	-
	NB-L	-	-	-	-	B	11.5	B	14.2	-	-	-	-	-	-	-	-	B	11.9	B	12.0	-	-	-	-
NYS Route 5S and East Driveway	NB-L	-	-	-	-	A	9.5	B	11.7	-	-	-	-	-	-	-	-	A	9.4	B	13.1	-	-	-	-

Based on Synchro and HCM Software [*Level of Service (Average vehicle delay (seconds per vehicle))]

NYS Route 5S and NYS Route 30 Southbound Ramps / P.S. Street

Roadway Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS B during the weekday morning peak hour and at an overall LOS C during the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to operate at an overall LOS C during both the weekday morning and evening peak hours.

Generator Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS A during the weekday morning peak hour and at an overall LOS B during the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to operate at an overall LOS B during both the weekday morning and evening peak hours.

NYS Route 5S and NYS Route 30 Northbound Ramps

Roadway Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS A during the weekday morning peak hour and at an overall LOS B during the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to operate at an overall LOS A during the weekday morning peak hour and an overall LOS C during the weekday evening peak hour.

Generator Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS A during both the weekday morning and the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to operate at an overall LOS B during the weekday morning peak hour and an overall LOS C during the weekday evening peak hour.

NYS Route 30 and NYS Route 5S Ramps

Roadway Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS A during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition, the intersection is expected to continue to operate at an overall LOS A during both the weekday morning and evening peak hours.

Generator Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS A during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition, the intersection is expected to continue to operate at an overall LOS A during both the weekday morning and evening peak hours.

NYS Route 30 and I-90 Ramps

Roadway Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS C during the weekday morning peak hour and at an overall LOS B during the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to continue to operate at an overall LOS C during the weekday morning peak hour and at an overall LOS B during the evening peak hour.

Generator Peak Hour Condition

The signalized intersection is expected to operate at an overall LOS C during the weekday morning peak hour and at an overall LOS B during the evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to continue to operate at an overall LOS C during the weekday morning peak hour and at an overall LOS B during the evening peak hour.

NYS Route 5S and Target Driveway East / Central Driveway

Geometry – Proposed Condition

The proposed central driveway will intersect the existing T-shaped intersection to form the south leg and create a four-leg intersection. It is proposed to signalize the future intersection. The eastbound NYS Route 5S approach will provide one left-turn lane and one shared thru/right-turn lane. The westbound NYS Route 5S approach will provide one left-turn lane, one thru lane, and one right-turn lane. The northbound proposed central driveway approach will provide one left-turn lane and one shared thru/right-turn lane. The southbound Target Drive East approach will provide one left-turn lane and one shared thru/right-turn lane. We analyzed the intersection as both under stop-controlled (TWSC) and under signalization.

We recommend the following improvements associated with the Central Driveway intersection:

- NYS Route 5S and Target Driveway East / Central Driveway
    - Widen NYS Route 5S to provide an exclusive westbound left-turn lane with approximately 400 feet of storage.

- Signalize the intersection.

We have evaluated the feasibility of a roundabout at the location and due to both the development and potential adjacent development site constraints it is our opinion that the construction of a roundabout is not a viable alternative at this location.

Roadway Peak Hour Condition

All movements at the stop-controlled intersection are expected to operate at LOS C or better during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition with TWSC (Two-Way Stop-Control), all movements at the intersection are expected to operate at LOS D or better.

Under the Build with Improvements condition, the signalized intersection is expected to operate at an overall LOS A during the weekday morning peak hour and an overall LOS B during the weekday evening peak hour.

Generator Peak Hour Condition

All movements at the stop-controlled intersection are expected to operate at LOS B or better during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition, all movements are expected to operate at LOS B or better during both the weekday morning and evening peak hours, with the exception of the northbound and southbound left-turn movements, which are expected to operate at LOS F during both peak hours. Based on the anticipated poor operational delays in the Build condition we recommend signalizing the intersection to improve the traffic operations. The signal will help to reduce impacts to the NYS Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

Under the Build with Improvements condition, the signalized intersection is expected to operate at an overall LOS A during the weekday morning peak hour and an overall LOS B during the weekday evening peak hour.

Traffic Signal Warrant Analysis

We performed a traffic signal warrant analysis for the intersection using the Manual on Uniform Traffic Control Devices (MUTCD) Standards, 11th Edition. There are nine warrants described in the MUTCD. We only evaluated the traffic volume-based warrants.

We evaluated the 2027 Build volumes, under both roadway and generator peak hour conditions, from the analysis for the NYS Route 5S and Target Driveway East intersection, to determine if

they meet any of the traffic volume-based warrants. Appendix G contains the warrant summary report.

The traffic volume-based warrant analysis shows that Warrant 3 (Peak Hour) is met for Condition A. The peak hour that meets the criteria is from 5:30 PM to 6:30 PM (which is the evening generator shift change). The peak hour warrant (Warrant 3) is for considering the installation of a traffic signal when, for a minimum of 1 hour in a day, the side street experiences excessive delays when entering the intersection. Usually applied in unusual cases (i.e. office complexes, manufacturing plants, industrial complexes, or facilities that deal with large numbers of vehicles over a short period of time). It is Langan's opinion that the peak hour warrant (Warrant 3) is applicable for the proposed warehouse, an industrial use. The following Condition A requirements are met for Warrant 3, peak hour:

- Total stopped-time delay in the site driveway is 45.5 vehicle-hours (MUTCD's warrant criteria is >5 vehicle-hours);
- Total volume in the site driveway is 202 vehicles (MUTCD's warrant criteria is >150 vehicles);
- Total volume for the intersection is 985 vehicles (MUTCD's warrant criteria is >800 vehicles).

Based on the results of the traffic signal warrant analysis, we recommend signalizing the intersection under the proposed future conditions.

NYS Route 52 and West Driveway

Geometry

It is proposed to construct a full movement driveway on the west side of the site as the primary access for trucks. The proposed west driveway will intersect NYS Route 5S to form the south leg of a T-shaped intersection under stop control. The eastbound NYS Route 5S approach will provide one shared thru/right-turn lane. The westbound NYS Route 5S approach will provide one left-turn lane and one thru lane. The northbound proposed west driveway approach will provide one shared left-turn/right-turn lane that is stop control.

Based on the enclosed analysis, as part of the development, it is proposed to implement the below improvements.

- NYS Route 5S and West Driveway (for truck access only)
    - Within the existing median provide an exclusive westbound left-turn lane with approximately 200 feet of storage.

Roadway Peak Hour Condition

All movements at the unsignalized intersection are expected to operate at LOS B or better during both the weekday morning and evening peak hours under the Build condition.

Generator Peak Hour Condition

All movements at the unsignalized intersection are expected to operate at LOS B or better during both the weekday morning and evening peak hours under the Build condition.

Gap Analysis

As requested by NYSDOT, we conducted a gap analysis on NYS Route 5S to determine if sufficient gaps exist for the proposed west driveway as a stop-controlled truck access location. Specifically, we conducted a gap analysis at the existing NYS Route 5S and Target Driveway East intersection, which is the closest location to the proposed west driveway with similar conditions. We looked at a sampling of the traffic count videos collected on 5 February 2025. The existing roadway peak hours occurred between 7:30 AM to 8:30 AM and between 3:30 PM to 4:30 PM. We determined the peak 15-minute AM and PM periods that occurred during the commuter peak hours discussed above. For the AM peak period, we reviewed gaps from 8:15 AM to 8:30 AM and for the PM peak period, we reviewed gaps from 4:00 PM to 4:15 PM.

We utilized HCM (Highway Capacity Manual) methodology to adjust the critical headways and the follow-up headways to account for a 100 percent proportion of heavy vehicles for the available gap calculations. The results of the gap analysis, with adjustments for heavy vehicles, showed the following:

- A minimum of 444 total gaps from 7:30 AM to 8:30 AM (based on the sampling we took)
- A minimum of 160 total gaps from 3:30 PM to 4:30 PM (based on the sampling we took).
- Based on both build condition peak hour estimates, the above gaps are sufficient for the following egress volumes:
    - Roadway Peak Hour Condition:
        - AM Peak Hour: 9 total egress movements (2 left-turn and 7 right-turn)
        - PM Peak Hour: 12 total egress movements (2 left-turn and 10 right-turn)
    - Generator Peak Hour Condition:
        - AM Peak Hour: 7 total egress movements (1 left-turn and 6 right-turn)
        - PM Peak Hour: 13 total egress movements (3 left-turn and 10 right-turn)

The above gap analysis shows that the available gaps are significantly higher than the proposed truck volume anticipated to make a left-turn or right-turn out of the proposed west driveway. Therefore, we do not anticipate any major delays at the proposed west driveway for egress movements. The gap analysis is included in Appendix B.

NYS Route 5S and East Driveway

Geometry

The third access, eastern driveway, will primarily be utilized by passenger cars with the exception of limited seasonal peak periods when outbound site trucks could egress the site at this location. The eastern driveway will be a stop-controlled right-in/right-out only access. The eastbound NYS Route 5S approach will provide one shared thru/right-turn lane with channelization. The westbound NYS Route 5S approach will provide two thru lanes with left-turns restricted. The northbound proposed east driveway approach will provide one channelized right-turn lane under stop control.

Roadway Peak Hour Condition

All movements at the unsignalized intersection are expected to operate at LOS B or better during both the weekday morning and evening peak hours under the Build condition.

Generator Peak Hour Condition

All movements at the unsignalized intersection are expected to operate at LOS B or better during both the weekday morning and evening peak hours under the Build condition.

CRASH DATA ANALYSIS

As requested by NYSDOT, we obtained crash data from the Department for the general area on NYS Route 5S and NYS Route 30 between the years 2021 and 2024. The data summarizes the total number of reportable crashes (including property damage, injury, or fatalities) that occurred during the captured period. Exhibit 1 below shows a graphic summary of the crash information provided by NYSDOT. The raw crash data obtained from NYSDOT is included in Appendix H.

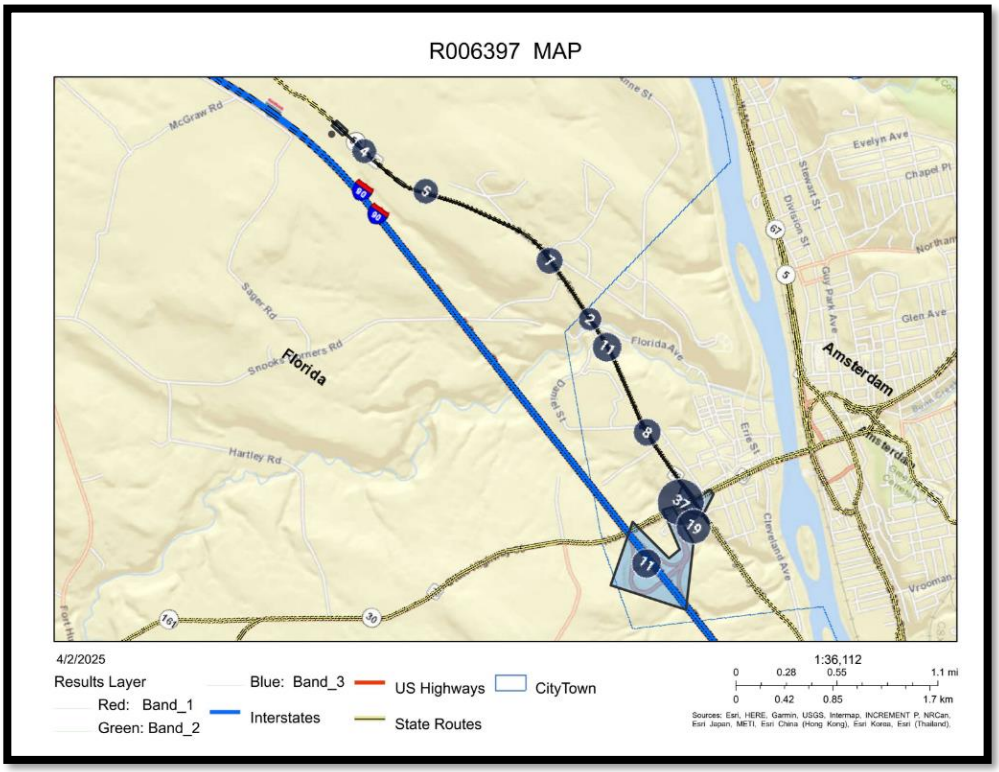

Exhibit 1 – Crash Data Locations, Provided by NYSDOT via FOIL Request

A review of the crash data shows that from 2021 thru 2024 (four-year period) there were approximately 2 reportable crashes per month along the entire 2-mile corridor. Table 4 below summarizes the various crashes during the four-year time period at the different locations depicted on Exhibit 1.

Further review of the crash reports indicates that a majority of the crashes that occurred in the study area could be attributed in part to weather conditions, distracted or negligent driving, collisions with deer, or mechanical failures of at least one involved vehicle. The identified causes are not directly attributed to any geometric deficiency. Therefore, as a result of the minimal reportable crashes during a four-year period and the attributed conditions, we expect the proposed site would have a negligible impact to crashes along the corridor.

Table 4 – Crash Data Summary, NYSDOT

Location	Year								Total	Total Property Damage	Total Injury	Total Fatalities	Crash Type
	2021		2022		2023		2024						
	Total	At Intersection?	Total	At Intersection?	Total	At Intersection?	Total	At Intersection?					
NYS Route 5S and Ramps and P.S. Street	3	Yes (3)	3	Yes (3)	3	Yes (3)	7	Yes (7)	16	11	5	-	MVC (15) Other (1)
NYS Route 30 and Ramps	1	Yes (1)	4	Yes (1) No (3)	8	Yes (8)	3	Yes (3)	16	14	2	-	MVC (15) Guiderail (1)
NYS Route 30	-	-	-	-	2	Yes (2)	1	Yes (1)	3	2	1	-	MVC (3)
NYS Route 5S and Broadway Extended and Mead Road	1	No (1)	3	No (3)	2	No (2)	1	No (1)	7	-	-	-	Deer (5) Snow (1) Other (1)
NYS Route 5S and Destefano Ave / Verbraska Ave and Venner Road	1	Yes (1)	1	No (1)	7	Yes (4) No (3)	2	No (2)	11	10	-	1	MVC (5) Deer (3) Other (3)
NYS Route 5S and Daniel Street	1	No (1)	2	Yes (2)	3	Yes (2) No (1)	3	Yes (1) No (2)	9	9	-	-	Deer (2) Other (3) Guiderail (1) MVC (3)
NYS Route 5S and Unnamed Street	1	Yes (1)	2	Yes (1) No (2)	4	Yes (1) No (3)	1	No (1)	8	8	-	-	MVC (5) Snow (1) Deer (2)
Minaville Street	-	-	1	Yes (1)	-	-	1	Yes (1)	2	2	-	-	MVC (2)
I-90 and Ramps (NYS Route 30)	3	No (3)	4	Yes (1) No (3)	11	Yes (1) No (10)	10	Yes (3) No (7)	28	13	5	-	Guiderail (12) MVC (9) Deer (1) Other (6)
NYS Route 5S	-	-	-	-	2	No (2)	-	-	2	2	-	-	Deer (1) MVC (1)
NYS Route 5S and Saint John Street	-	-	-	-	2	Yes (1) No (1)	-	-	2	2	-	-	MVC (2)

Crash data provide by NYSDOT via FOIL request in April 2025

CONCLUSION

Langan finds, based on a review of the analyses with the improvements as identified herein, that the adjacent roadway network and proposed driveway system has the capacity to accommodate the anticipated traffic generated by typical operation of the proposed warehouse. Moreover, with the proposed improvements, discussed below, the development will not create any significant adverse impacts to traffic operations in the study area during peak hours. Additionally, the site's access points will operate at acceptable levels of service (LOS) during peak traffic hours under all conditions.

We recommend the following improvements associated with the access to the site:

- NYS Route 5S and Target Driveway East/Central Driveway
    - Widen NYS Route 5S to provide an exclusive westbound left-turn lane with approximately 400 feet of storage.
    - Signalize the intersection.
- NYS Route 5S and West Driveway (truck access only)
    - Within the existing median provide an exclusive westbound left-turn lane with approximately 200 feet of storage.

The design of the driveways and associated improvements will be in accordance with the NYSDOT (New York State Department of Transportation) design standards.

Additionally, as discussed previously, Langan recommends that three access points are necessary for the following reasons:

- The primary objective of the site access is to minimize interaction between passenger car and truck traffic within the site circulation.
    - Separate access to the truck court is established. Based on the layout of the truck court, the western driveway location allows the ability to provide appropriate stacking in advance of the guardhouse in addition to providing the necessary trailer parking spaces to support typical operations.
- The site has significant frontage along NYS Route 5S (approximately 4,000 feet).
- Site constraints, including existing easements, wetland disturbance, and grade conditions limit the location of access points and internal circulation connections.
- Due to site constraints, the layout of the employee parking area results in the necessity of two access points, one on each end of the parking fields.
- Reduce impacts to the NYS Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

APPENDIX A
FIGURES



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NJ Certificate of Authorization No.24GA27996400

Project
PROPOSED WAREHOUSE DEVELOPMENT
CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
SITE LOCATION

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 1

Sheet 1 of 9

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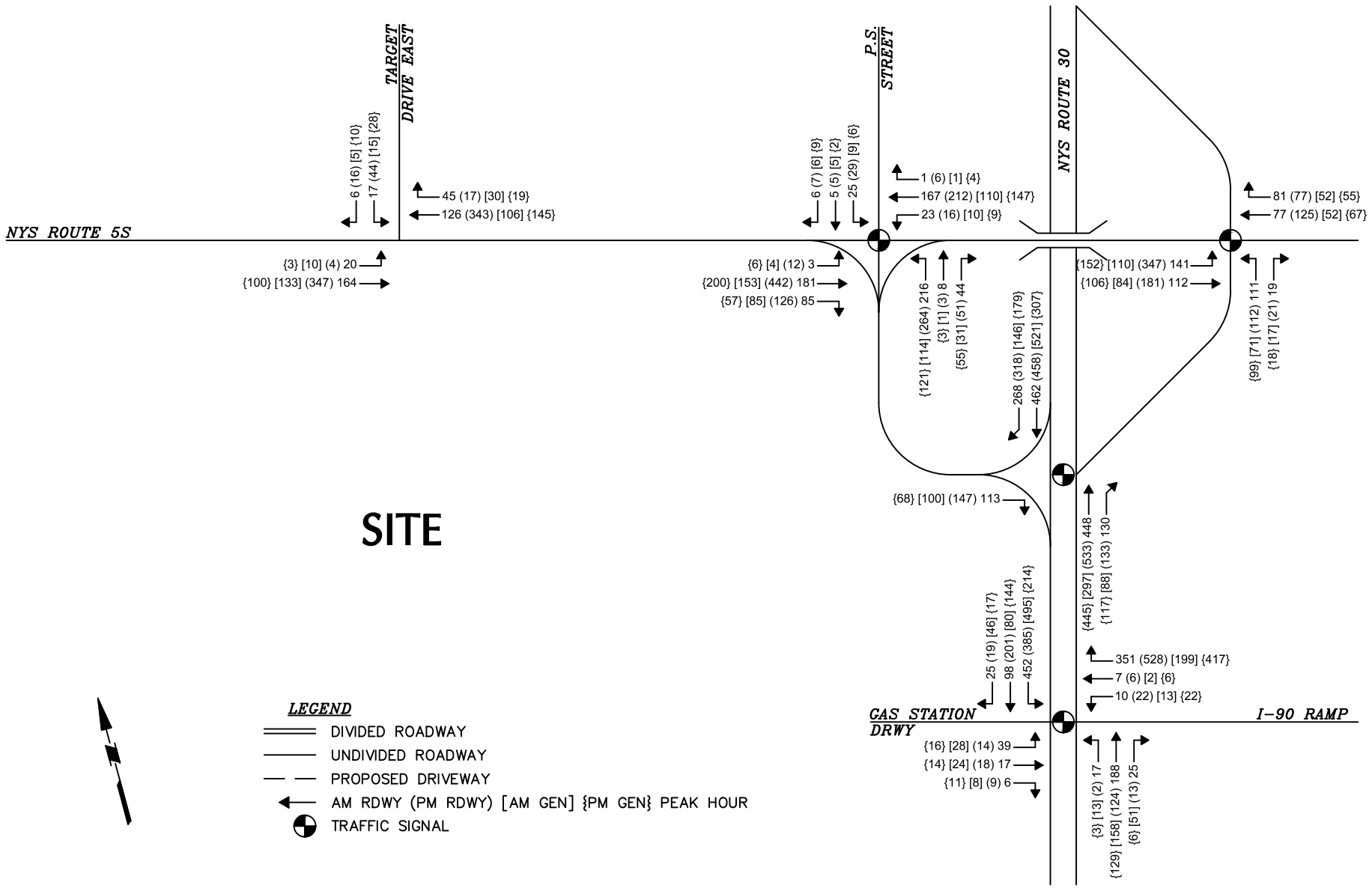
Filename: \\Langan.com\data\NHV\data5\140315501\Project Data_Discipline\Traffic\Figures & Tables\2025-04 TIS Figures - Bluewater.dwg Date: 4/9/2025 Time: 12:39 User: psabolchick Style Table: Langan.stb Layout: 1-SITE



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Project
PROPOSED WAREHOUSE DEVELOPMENT
CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
2025 EXISTING TRAFFIC VOLUMES

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 2

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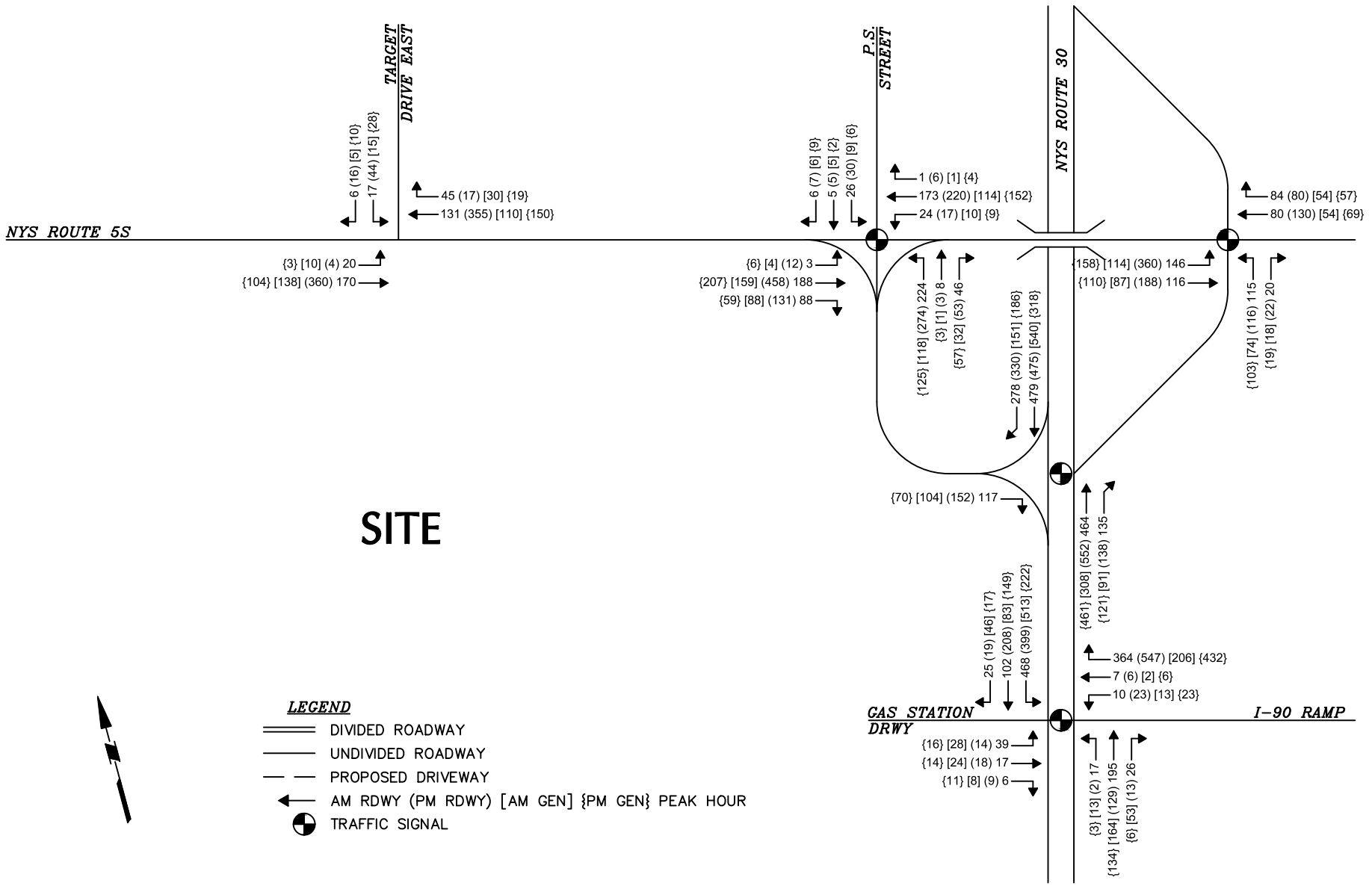

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MONTGOMERY COUNTY NEW YORK

Drawing Title
2027 NO-BUILD TRAFFIC VOLUMES

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 3

Sheet 3 of 9

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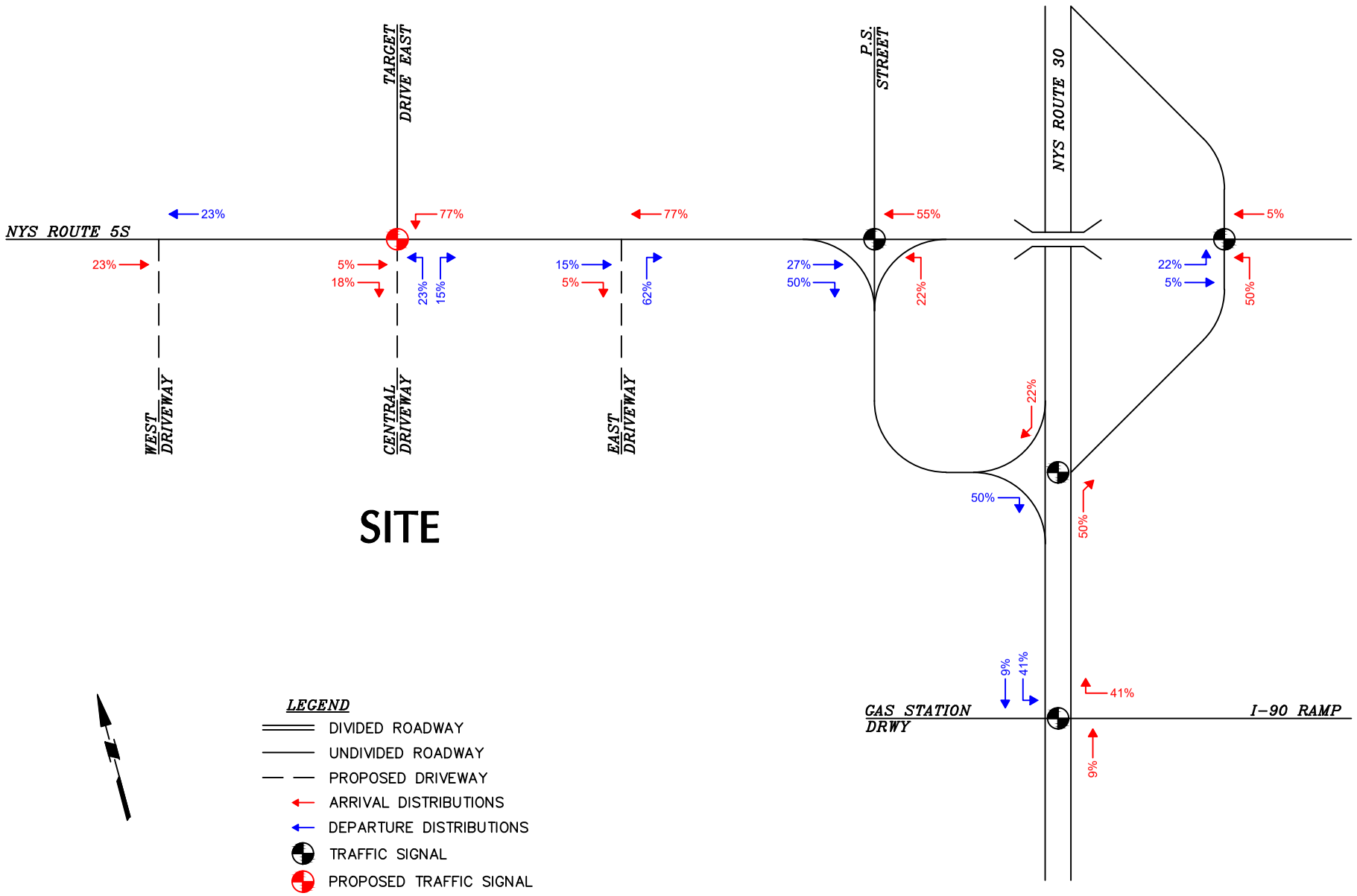

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Project
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CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
ARRIVAL & DEPARTURE DISTRIBUTIONS - PASSENGER CARS

Project No. 140315501
Date 4/9/2025
Drawn By PS
Checked By KAMP

Figure 4
Sheet 4 of 9

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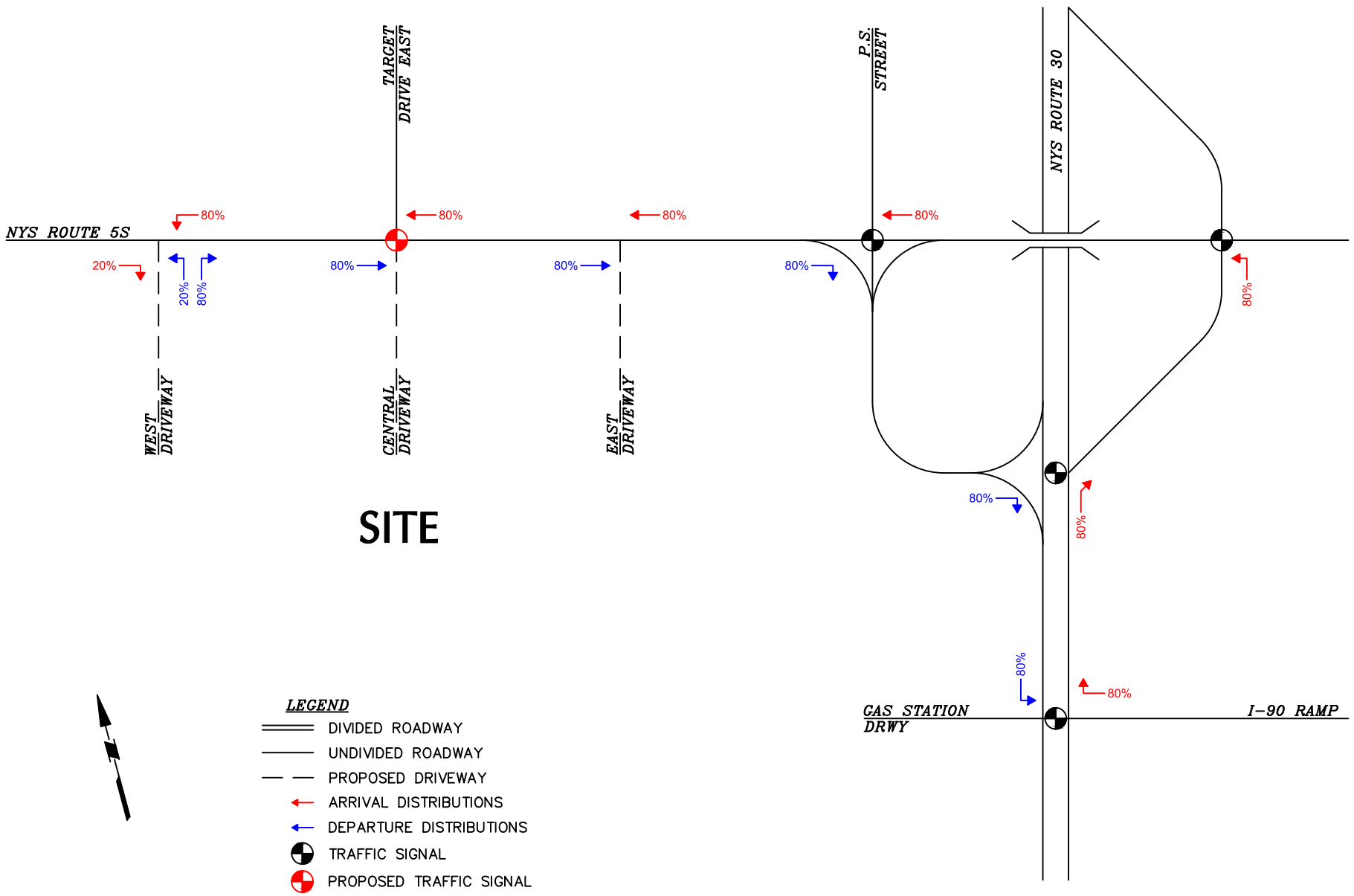

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Project
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CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
ARRIVAL & DEPARTURE DISTRIBUTIONS - TRUCKS

Project No. 140315501
Date 4/9/2025
Drawn By PS
Checked By KAMP

Figure 5
Sheet 5 of 9

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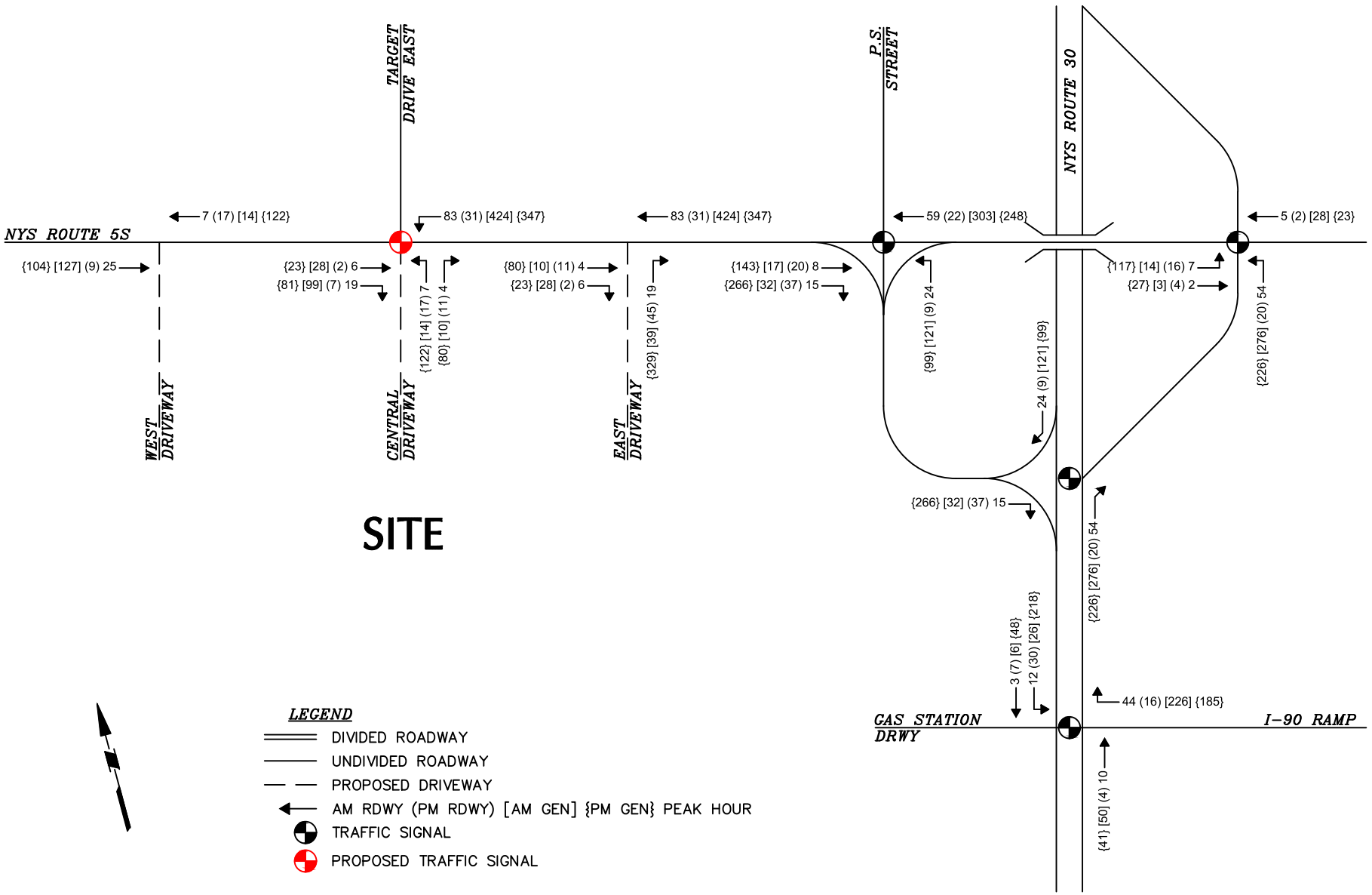

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Project
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CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
SITE-GENERATED TRIPS - PASSENGER CARS

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 6

Sheet 6 of 9

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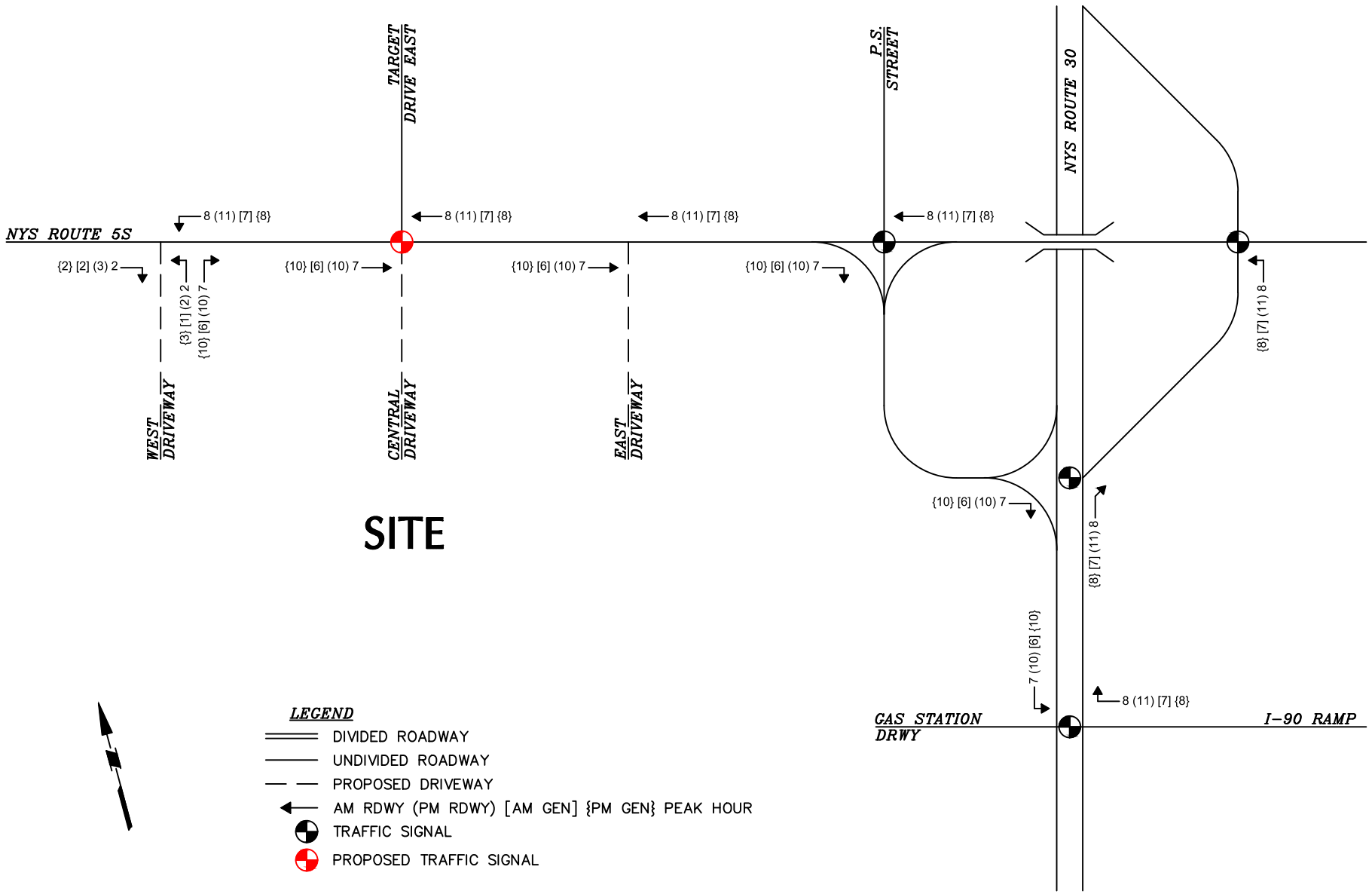

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PROPOSED WAREHOUSE DEVELOPMENT
CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
SITE-GENERATED TRIPS - TRUCKS

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 7

Sheet 7 of 9

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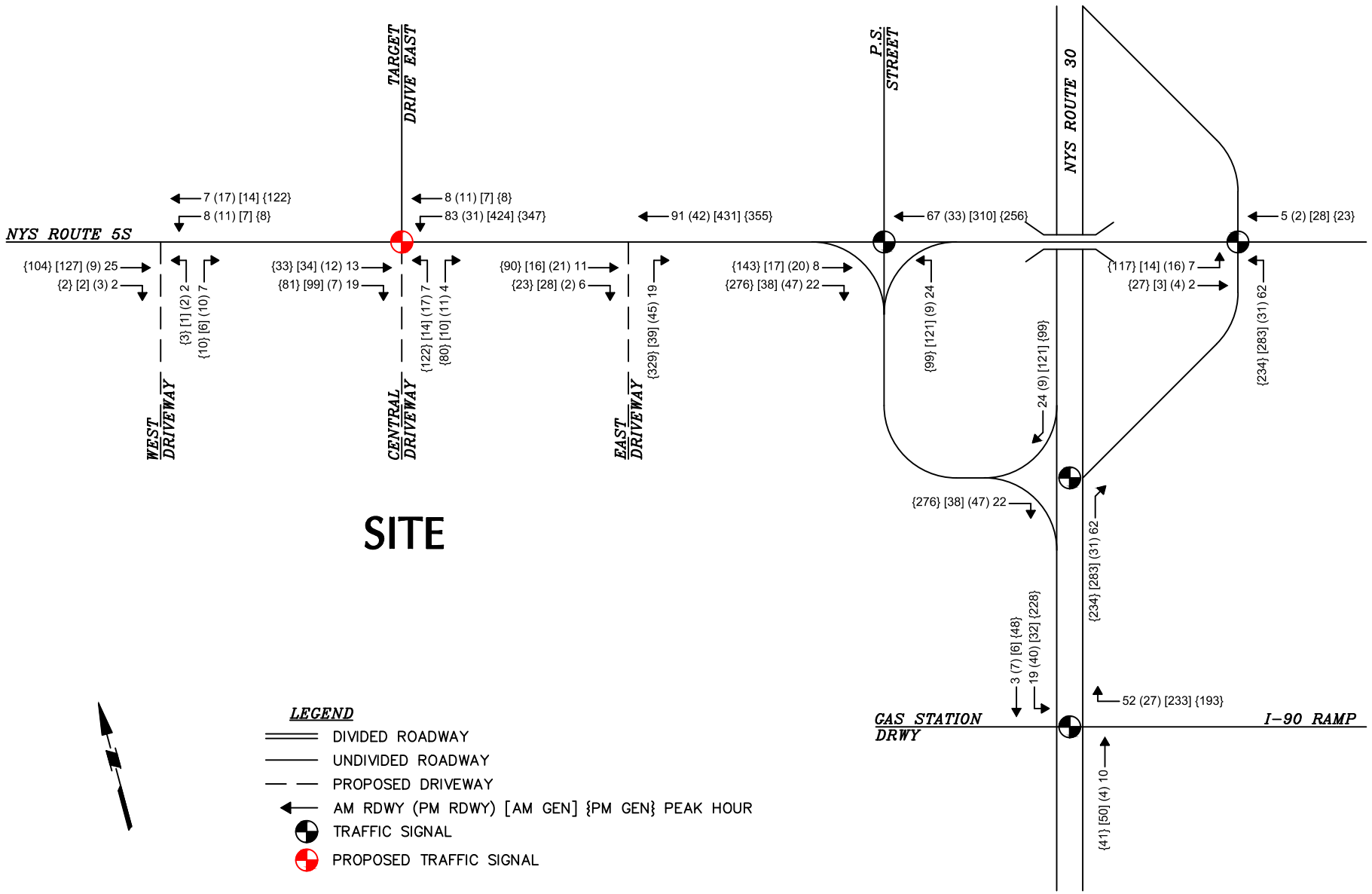

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Project
PROPOSED WAREHOUSE DEVELOPMENT
CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
TOTAL SITE-GENERATED TRIPS

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure **8**

Sheet 8 of 9

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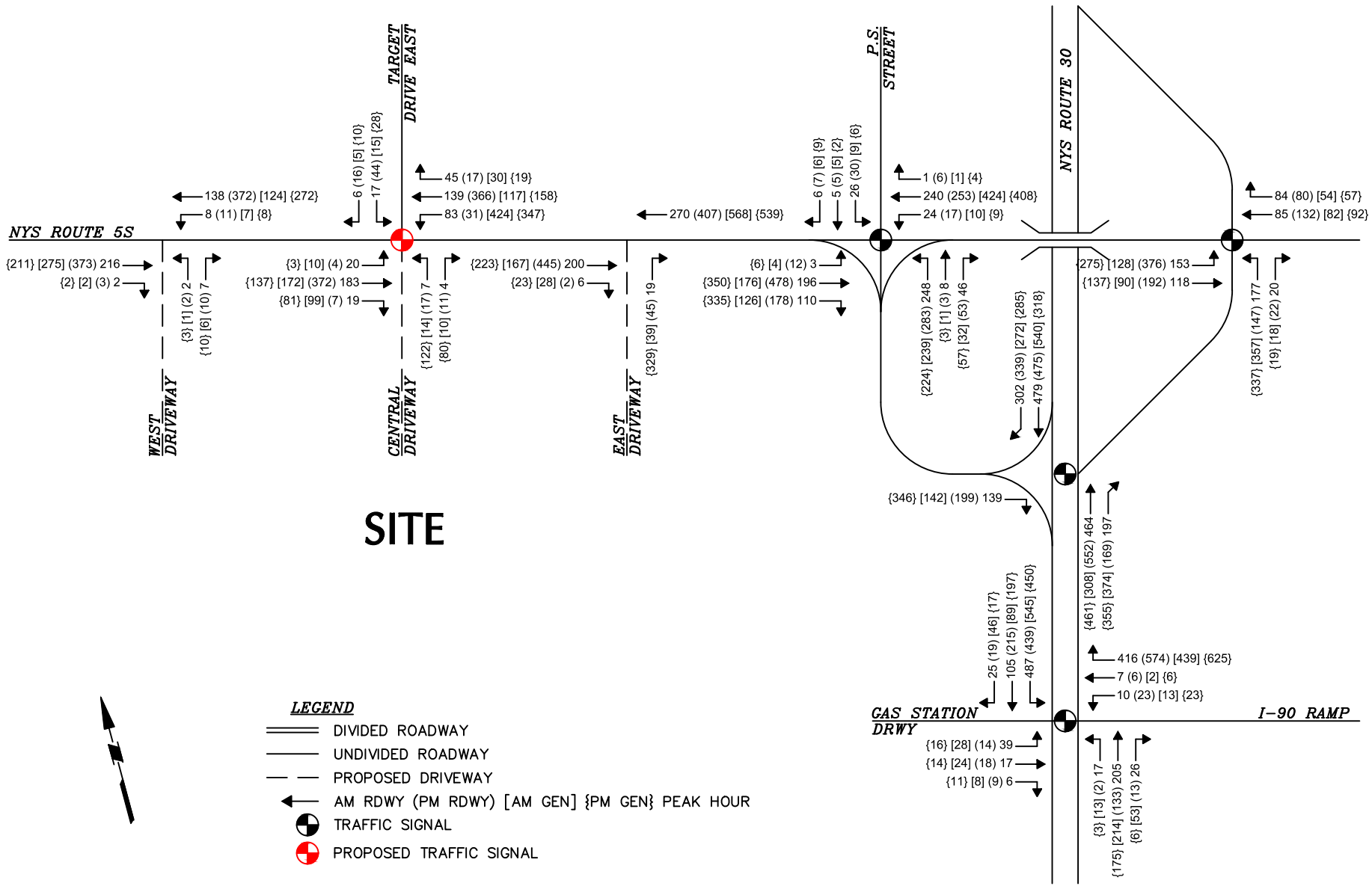

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Project
PROPOSED WAREHOUSE DEVELOPMENT
CITY OF FLORIDA
MONTGOMERY COUNTY NEW YORK

Drawing Title
2027 BUILD TRAFFIC VOLUMES

Project No.	140315501
Date	4/9/2025
Drawn By	PS
Checked By	KAMP

Figure 9

Sheet 9 of 9

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APPENDIX B
TRAFFIC COUNTS
CENSUS DATA
GAP COUNT

ROADWAY (ADJACENT STREET)
PEAK HOUR CONDITION

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2025-02-05 5:00AM	1	32	6	0	2	**41**	0	3	18	0	0	0	**21**	0
5:15AM	0	19	11	0	3	**33**	0	2	42	0	0	0	**44**	0
5:30AM	0	34	8	0	5	**47**	0	4	58	0	0	0	**62**	0
5:45AM	0	48	6	0	4	**58**	0	3	35	0	0	0	**38**	0
Hourly Total	1	133	31	0	14	**179**	0	12	153	0	0	0	**165**	0
6:00AM	0	37	14	0	4	**55**	0	2	11	0	0	0	**13**	0
6:15AM	3	34	10	0	5	**52**	0	3	16	0	0	0	**19**	0
6:30AM	1	29	15	0	14	**59**	0	2	28	0	0	0	**30**	0
6:45AM	1	37	15	0	4	**57**	0	2	28	0	0	0	**30**	0
Hourly Total	5	137	54	0	27	**223**	0	9	83	0	0	0	**92**	0
7:00AM	1	40	12	0	12	**65**	0	1	31	1	0	0	**33**	0
7:15AM	1	47	5	0	8	**61**	0	5	23	0	0	0	**28**	0
7:30AM	0	47	11	0	8	**66**	0	9	36	0	0	0	**45**	0
7:45AM	0	40	8	0	14	**62**	0	5	39	0	0	0	**44**	0
Hourly Total	2	174	36	0	42	**254**	0	20	129	1	0	0	**150**	0
8:00AM	2	36	10	0	10	**58**	0	6	39	0	0	0	**45**	0
8:15AM	1	58	15	0	9	**83**	0	3	53	0	0	1	**57**	0
8:30AM	2	45	9	0	8	**64**	0	3	46	0	0	0	**49**	0
8:45AM	1	53	11	0	6	**71**	0	2	43	0	0	0	**45**	0
Hourly Total	6	192	45	0	33	**276**	0	14	181	0	0	1	**196**	0
3:00PM	1	86	19	0	11	**117**	0	1	43	0	0	0	**44**	0
3:15PM	1	89	10	0	7	**107**	0	7	75	2	0	0	**84**	0
3:30PM	3	75	10	0	13	**101**	0	2	49	3	0	0	**54**	0
3:45PM	2	75	8	0	10	**95**	0	7	67	1	0	0	**75**	0
Hourly Total	7	325	47	0	41	**420**	0	17	234	6	0	0	**257**	0
4:00PM	7	148	24	0	18	**197**	0	3	46	1	0	0	**50**	0
4:15PM	0	144	29	0	14	**187**	0	4	50	1	0	0	**55**	0
4:30PM	3	101	25	0	5	**134**	0	2	55	1	0	0	**58**	0
4:45PM	1	63	6	0	10	**80**	0	3	58	3	0	2	**66**	0
Hourly Total	11	456	84	0	47	**598**	0	12	209	6	0	2	**229**	0
5:00PM	2	89	13	0	5	**109**	0	8	47	2	0	0	**57**	0
5:15PM	2	58	13	0	9	**82**	0	8	47	1	0	0	**56**	0
5:30PM	1	55	19	0	4	**79**	0	3	51	1	0	0	**55**	0
5:45PM	2	37	5	0	6	**50**	0	3	41	2	0	1	**47**	0
Hourly Total	7	239	50	0	24	**320**	0	22	186	6	0	1	**215**	0
6:00PM	2	59	11	0	4	**76**	0	2	33	0	0	0	**35**	0
6:15PM	1	49	6	0	2	**58**	0	1	22	0	0	0	**23**	0
6:30PM	2	36	4	0	3	**45**	0	2	21	0	0	0	**23**	0
6:45PM	4	23	6	0	3	**36**	0	0	20	2	0	0	**22**	0
Hourly Total	9	167	27	0	12	**215**	0	5	96	2	0	0	**103**	0
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Total	48	1823	374	0	240	**2485**	0	111	1271	21	0	4	**1407**	0
% Approach	1.9%	73.4%	15.1%	0%	9.7%	**-**	-	7.9%	90.3%	1.5%	0%	0.3%	**-**	-
% Total	0.8%	30.9%	6.3%	0%	4.1%	**42.1%**	-	1.9%	21.5%	0.4%	0%	0.1%	**23.8%**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	45	1696	291	0	192	**2224**	-	105	1063	21	0	4	**1193**	-
% Lights	93.8%	93.0%	77.8%	0%	80.0%	**89.5%**	-	94.6%	83.6%	100%	0%	100%	**84.8%**	-
Single-Unit Trucks	0	33	19	0	12	**64**	-	1	46	0	0	0	**47**	-
% Single-Unit Trucks	0%	1.8%	5.1%	0%	5.0%	**2.6%**	-	0.9%	3.6%	0%	0%	0%	**3.3%**	-
Articulated Trucks	0	45	62	0	34	**141**	-	4	149	0	0	0	**153**	-
% Articulated Trucks	0%	2.5%	16.6%	0%	14.2%	**5.7%**	-	3.6%	11.7%	0%	0%	0%	**10.9%**	-

Leg	Rt 5s							Rt 5s						
Direction	Eastbound							Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
Buses	3	49	2	0	2	**56**	-	1	13	0	0	0	**14**	-
% Buses	6.3%	2.7%	0.5%	0%	0.8%	**2.3%**	-	0.9%	1.0%	0%	0%	0%	**1.0%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

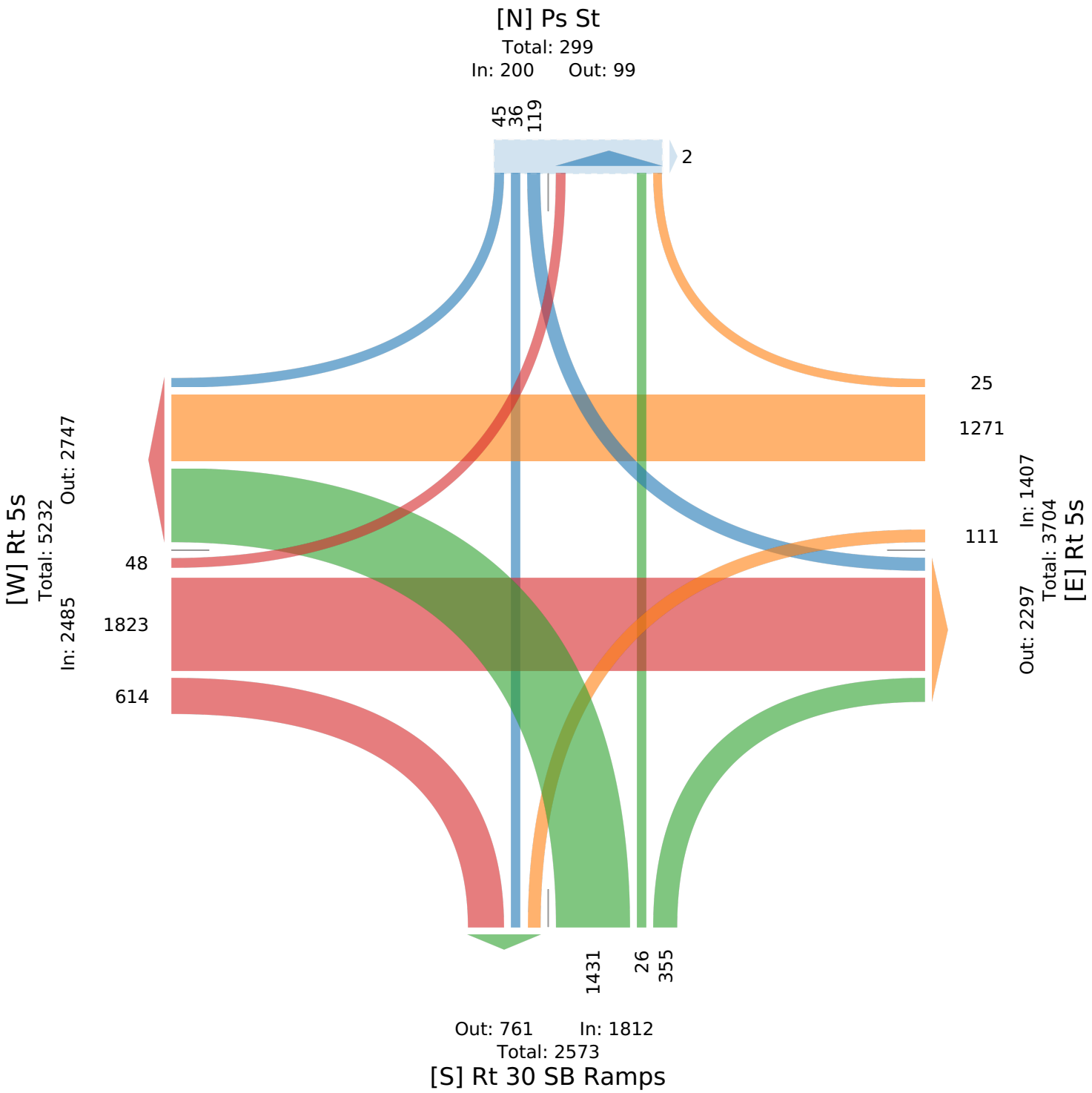
Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 5:00AM	27	0	3	0	1	**31**	0	1	2	0	0	0	**3**	0	**96**
5:15AM	46	0	2	0	2	**50**	0	1	0	0	0	2	**3**	0	**130**
5:30AM	81	0	3	0	3	**87**	0	1	1	0	0	1	**3**	0	**199**
5:45AM	62	0	4	0	4	**70**	0	0	0	0	0	1	**1**	0	**167**
Hourly Total	216	0	12	0	10	**238**	0	3	3	0	0	4	**10**	0	**592**
6:00AM	20	0	3	0	3	**26**	0	0	2	1	0	0	**3**	0	**97**
6:15AM	28	0	3	0	1	**32**	0	0	3	0	0	0	**3**	0	**106**
6:30AM	30	0	6	0	2	**38**	0	0	1	1	0	0	**2**	0	**129**
6:45AM	32	1	1	0	5	**39**	0	0	1	0	0	0	**1**	0	**127**
Hourly Total	110	1	13	0	11	**135**	0	0	7	2	0	0	**9**	0	**459**
7:00AM	15	0	3	0	5	**23**	0	5	2	1	0	0	**8**	0	**129**
7:15AM	37	0	8	0	1	**46**	0	4	1	4	0	0	**9**	0	**144**
7:30AM	42	3	9	0	3	**57**	0	5	1	0	0	0	**6**	0	**174**
7:45AM	50	0	5	0	4	**59**	0	4	2	1	0	1	**8**	0	**173**
Hourly Total	144	3	25	0	13	**185**	0	18	6	6	0	1	**31**	0	**620**
8:00AM	53	3	9	0	6	**71**	0	4	2	1	0	0	**7**	0	**181**
8:15AM	71	2	6	0	2	**81**	0	12	0	3	0	0	**15**	0	**236**
8:30AM	51	2	6	0	5	**64**	0	11	1	1	0	0	**13**	0	**190**
8:45AM	66	2	8	0	3	**79**	0	7	2	0	0	0	**9**	0	**204**
Hourly Total	241	9	29	0	16	**295**	0	34	5	5	0	0	**44**	0	**811**
3:00PM	57	1	10	0	3	**71**	0	18	2	1	0	0	**21**	0	**253**
3:15PM	60	0	7	0	7	**74**	0	2	0	0	0	0	**2**	1	**267**
3:30PM	95	1	9	0	5	**110**	0	8	0	3	0	0	**11**	0	**276**
3:45PM	70	1	8	0	6	**85**	0	4	0	1	0	0	**5**	0	**260**
Hourly Total	282	3	34	0	21	**340**	0	32	2	5	0	0	**39**	1	**1056**
4:00PM	58	1	8	0	4	**71**	0	5	3	0	0	1	**9**	0	**327**
4:15PM	41	0	7	0	4	**52**	0	12	2	2	0	0	**16**	0	**310**
4:30PM	29	2	9	0	6	**46**	0	5	0	2	0	1	**8**	0	**246**
4:45PM	48	2	14	0	7	**71**	0	2	2	0	0	1	**5**	0	**222**
Hourly Total	176	5	38	0	21	**240**	0	24	7	4	0	3	**38**	0	**1105**
5:00PM	44	2	10	0	3	**59**	0	0	3	1	0	1	**5**	1	**230**
5:15PM	49	0	11	0	8	**68**	0	1	0	0	0	0	**1**	0	**207**
5:30PM	32	0	5	0	9	**46**	0	2	1	2	0	2	**7**	0	**187**
5:45PM	36	2	12	0	3	**53**	0	4	0	0	0	0	**4**	0	**154**
Hourly Total	161	4	38	0	23	**226**	0	7	4	3	0	3	**17**	1	**778**
6:00PM	33	1	8	0	3	**45**	0	0	1	3	0	0	**4**	0	**160**
6:15PM	20	0	6	0	9	**35**	0	0	0	2	0	0	**2**	0	**118**
6:30PM	27	0	7	0	5	**39**	0	1	1	2	0	0	**4**	0	**111**
6:45PM	21	0	10	0	3	**34**	0	0	0	2	0	0	**2**	0	**94**
Hourly Total	101	1	31	0	20	**153**	0	1	2	9	0	0	**12**	0	**483**
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Total	1431	26	220	0	135	**1812**	0	119	36	34	0	11	**200**	2	**5904**
% Approach	79.0%	1.4%	12.1%	0%	7.5%	**-**	-	59.5%	18.0%	17.0%	0%	5.5%	**-**	-	-
% Total	24.2%	0.4%	3.7%	0%	2.3%	**30.7%**	-	2.0%	0.6%	0.6%	0%	0.2%	**3.4%**	-	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	1322	24	210	0	131	**1687**	-	108	35	31	0	11	**185**	-	5289
% Lights	92.4%	92.3%	95.5%	0%	97.0%	**93.1%**	-	90.8%	97.2%	91.2%	0%	100%	**92.5%**	-	89.6%
Single-Unit Trucks	9	0	4	0	3	**16**	-	0	0	0	0	0	**0**	-	127
% Single-Unit Trucks	0.6%	0%	1.8%	0%	2.2%	**0.9%**	-	0%	0%	0%	0%	0%	**0%**	-	2.2%
Articulated Trucks	35	0	3	0	0	**38**	-	0	0	0	0	0	**0**	-	332
% Articulated Trucks	2.4%	0%	1.4%	0%	0%	**2.1%**	-	0%	0%	0%	0%	0%	**0%**	-	5.6%

Leg	Rt 30 SB Ramps							Ps St							
Direction	Northbound							Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
Buses	65	2	3	0	1	**71**	-	11	1	3	0	0	**15**	-	156
% Buses	4.5%	7.7%	1.4%	0%	0.7%	**3.9%**	-	9.2%	2.8%	8.8%	0%	0%	**7.5%**	-	2.6%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 7:30AM	0	47	11	0	8	**66**	0	9	36	0	0	0	**45**	0
7:45AM	0	40	8	0	14	**62**	0	5	39	0	0	0	**44**	0
8:00AM	2	36	10	0	10	**58**	0	6	39	0	0	0	**45**	0
8:15AM	1	58	15	0	9	**83**	0	3	53	0	0	1	**57**	0
Total	3	181	44	0	41	**269**	0	23	167	0	0	1	**191**	0
% Approach	1.1%	67.3%	16.4%	0%	15.2%	**-**	-	12.0%	87.4%	0%	0%	0.5%	**-**	-
% Total	0.4%	23.7%	5.8%	0%	5.4%	**35.2%**	-	3.0%	21.9%	0%	0%	0.1%	**25.0%**	-
PHF	0.375	0.780	0.733	-	0.732	**0.810**	-	0.639	0.788	-	-	0.250	**0.838**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	3	159	28	0	29	**219**	-	23	136	0	0	1	**160**	-
% Lights	100%	87.8%	63.6%	0%	70.7%	**81.4%**	-	100%	81.4%	0%	0%	100%	**83.8%**	-
Single-Unit Trucks	0	9	2	0	3	**14**	-	0	11	0	0	0	**11**	-
% Single-Unit Trucks	0%	5.0%	4.5%	0%	7.3%	**5.2%**	-	0%	6.6%	0%	0%	0%	**5.8%**	-
Articulated Trucks	0	5	14	0	9	**28**	-	0	20	0	0	0	**20**	-
% Articulated Trucks	0%	2.8%	31.8%	0%	22.0%	**10.4%**	-	0%	12.0%	0%	0%	0%	**10.5%**	-
Buses	0	8	0	0	0	**8**	-	0	0	0	0	0	**0**	-
% Buses	0%	4.4%	0%	0%	0%	**3.0%**	-	0%	0%	0%	0%	0%	**0%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

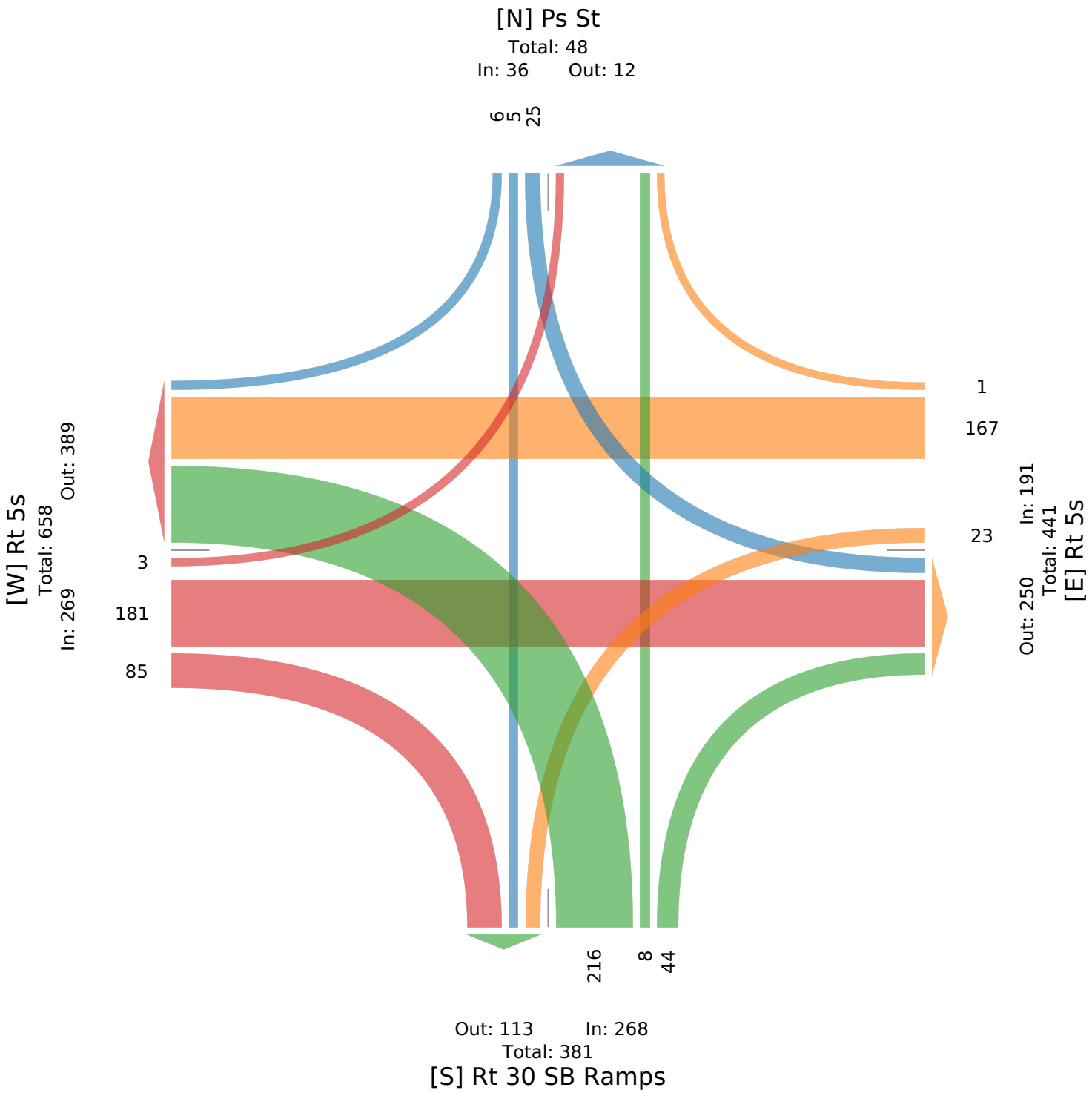
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 7:30AM	42	3	9	0	3	**57**	0	5	1	0	0	0	**6**	0	**174**
7:45AM	50	0	5	0	4	**59**	0	4	2	1	0	1	**8**	0	**173**
8:00AM	53	3	9	0	6	**71**	0	4	2	1	0	0	**7**	0	**181**
8:15AM	71	2	6	0	2	**81**	0	12	0	3	0	0	**15**	0	**236**
Total	216	8	29	0	15	**268**	0	25	5	5	0	1	**36**	0	**764**
% Approach	80.6%	3.0%	10.8%	0%	5.6%	**-**	-	69.4%	13.9%	13.9%	0%	2.8%	**-**	-	-
% Total	28.3%	1.0%	3.8%	0%	2.0%	**35.1%**	-	3.3%	0.7%	0.7%	0%	0.1%	**4.7%**	-	-
PHF	0.761	0.667	0.806	-	0.625	**0.827**	-	0.521	0.625	0.417	-	0.250	**0.600**	-	0.809
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	193	7	29	0	15	**244**	-	21	5	3	0	1	**30**	-	653
% Lights	89.4%	87.5%	100%	0%	100%	**91.0%**	-	84.0%	100%	60.0%	0%	100%	**83.3%**	-	85.5%
Single-Unit Trucks	4	0	0	0	0	**4**	-	0	0	0	0	0	**0**	-	29
% Single-Unit Trucks	1.9%	0%	0%	0%	0%	**1.5%**	-	0%	0%	0%	0%	0%	**0%**	-	3.8%
Articulated Trucks	9	0	0	0	0	**9**	-	0	0	0	0	0	**0**	-	57
% Articulated Trucks	4.2%	0%	0%	0%	0%	**3.4%**	-	0%	0%	0%	0%	0%	**0%**	-	7.5%
Buses	10	1	0	0	0	**11**	-	4	0	2	0	0	**6**	-	25
% Buses	4.6%	12.5%	0%	0%	0%	**4.1%**	-	16.0%	0%	40.0%	0%	0%	**16.7%**	-	3.3%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
PM Peak (3:30 PM - 4:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 3:30PM	3	75	10	0	13	**101**	0	2	49	3	0	0	**54**	0
3:45PM	2	75	8	0	10	**95**	0	7	67	1	0	0	**75**	0
4:00PM	7	148	24	0	18	**197**	0	3	46	1	0	0	**50**	0
4:15PM	0	144	29	0	14	**187**	0	4	50	1	0	0	**55**	0
Total	12	442	71	0	55	**580**	0	16	212	6	0	0	**234**	0
% Approach	2.1%	76.2%	12.2%	0%	9.5%	**-**	-	6.8%	90.6%	2.6%	0%	0%	**-**	-
% Total	1.0%	37.7%	6.1%	0%	4.7%	**49.4%**	-	1.4%	18.1%	0.5%	0%	0%	**19.9%**	-
PHF	0.429	0.747	0.612	-	0.764	**0.736**	-	0.571	0.791	0.500	-	-	**0.780**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	12	426	64	0	48	**550**	-	16	191	6	0	0	**213**	-
% Lights	100%	96.4%	90.1%	0%	87.3%	**94.8%**	-	100%	90.1%	100%	0%	0%	**91.0%**	-
Single-Unit Trucks	0	7	2	0	3	**12**	-	0	3	0	0	0	**3**	-
% Single-Unit Trucks	0%	1.6%	2.8%	0%	5.5%	**2.1%**	-	0%	1.4%	0%	0%	0%	**1.3%**	-
Articulated Trucks	0	6	5	0	3	**14**	-	0	12	0	0	0	**12**	-
% Articulated Trucks	0%	1.4%	7.0%	0%	5.5%	**2.4%**	-	0%	5.7%	0%	0%	0%	**5.1%**	-
Buses	0	3	0	0	1	**4**	-	0	6	0	0	0	**6**	-
% Buses	0%	0.7%	0%	0%	1.8%	**0.7%**	-	0%	2.8%	0%	0%	0%	**2.6%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
PM Peak (3:30 PM - 4:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

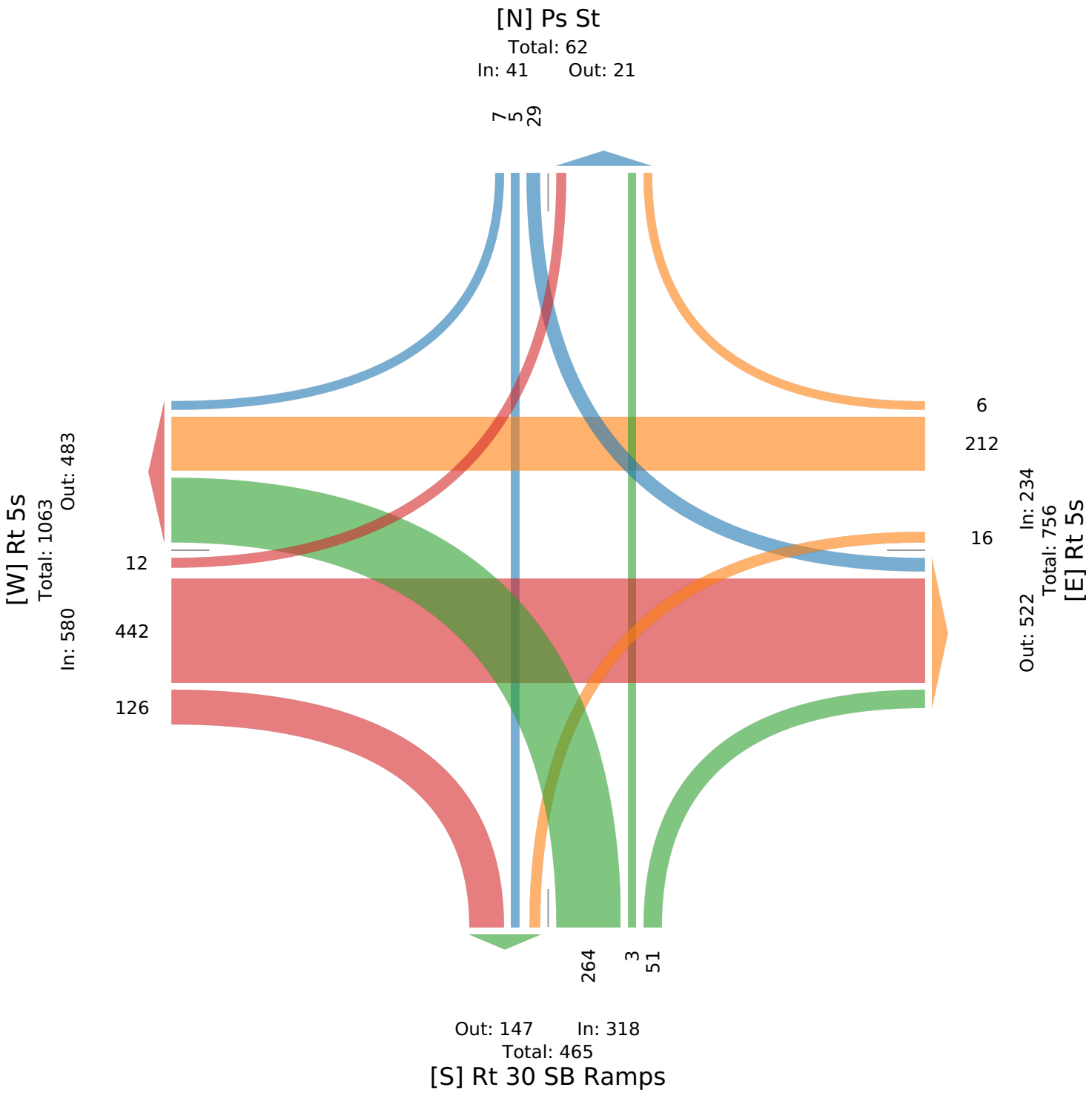
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 3:30PM	95	1	9	0	5	**110**	0	8	0	3	0	0	**11**	0	**276**
3:45PM	70	1	8	0	6	**85**	0	4	0	1	0	0	**5**	0	**260**
4:00PM	58	1	8	0	4	**71**	0	5	3	0	0	1	**9**	0	**327**
4:15PM	41	0	7	0	4	**52**	0	12	2	2	0	0	**16**	0	**310**
Total	264	3	32	0	19	**318**	0	29	5	6	0	1	**41**	0	**1173**
% Approach	83.0%	0.9%	10.1%	0%	6.0%	**-**	-	70.7%	12.2%	14.6%	0%	2.4%	**-**	-	-
% Total	22.5%	0.3%	2.7%	0%	1.6%	**27.1%**	-	2.5%	0.4%	0.5%	0%	0.1%	**3.5%**	-	-
PHF	0.695	0.750	0.889	-	0.792	**0.723**	-	0.604	0.417	0.500	-	0.250	**0.641**	-	0.897
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	236	3	30	0	19	**288**	-	27	5	5	0	1	**38**	-	1089
% Lights	89.4%	100%	93.8%	0%	100%	**90.6%**	-	93.1%	100%	83.3%	0%	100%	**92.7%**	-	92.8%
Single-Unit Trucks	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	15
% Single-Unit Trucks	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	1.3%
Articulated Trucks	6	0	2	0	0	**8**	-	0	0	0	0	0	**0**	-	34
% Articulated Trucks	2.3%	0%	6.3%	0%	0%	**2.5%**	-	0%	0%	0%	0%	0%	**0%**	-	2.9%
Buses	22	0	0	0	0	**22**	-	2	0	1	0	0	**3**	-	35
% Buses	8.3%	0%	0%	0%	0%	**6.9%**	-	6.9%	0%	16.7%	0%	0%	**7.3%**	-	3.0%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
PM Peak (3:30 PM - 4:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

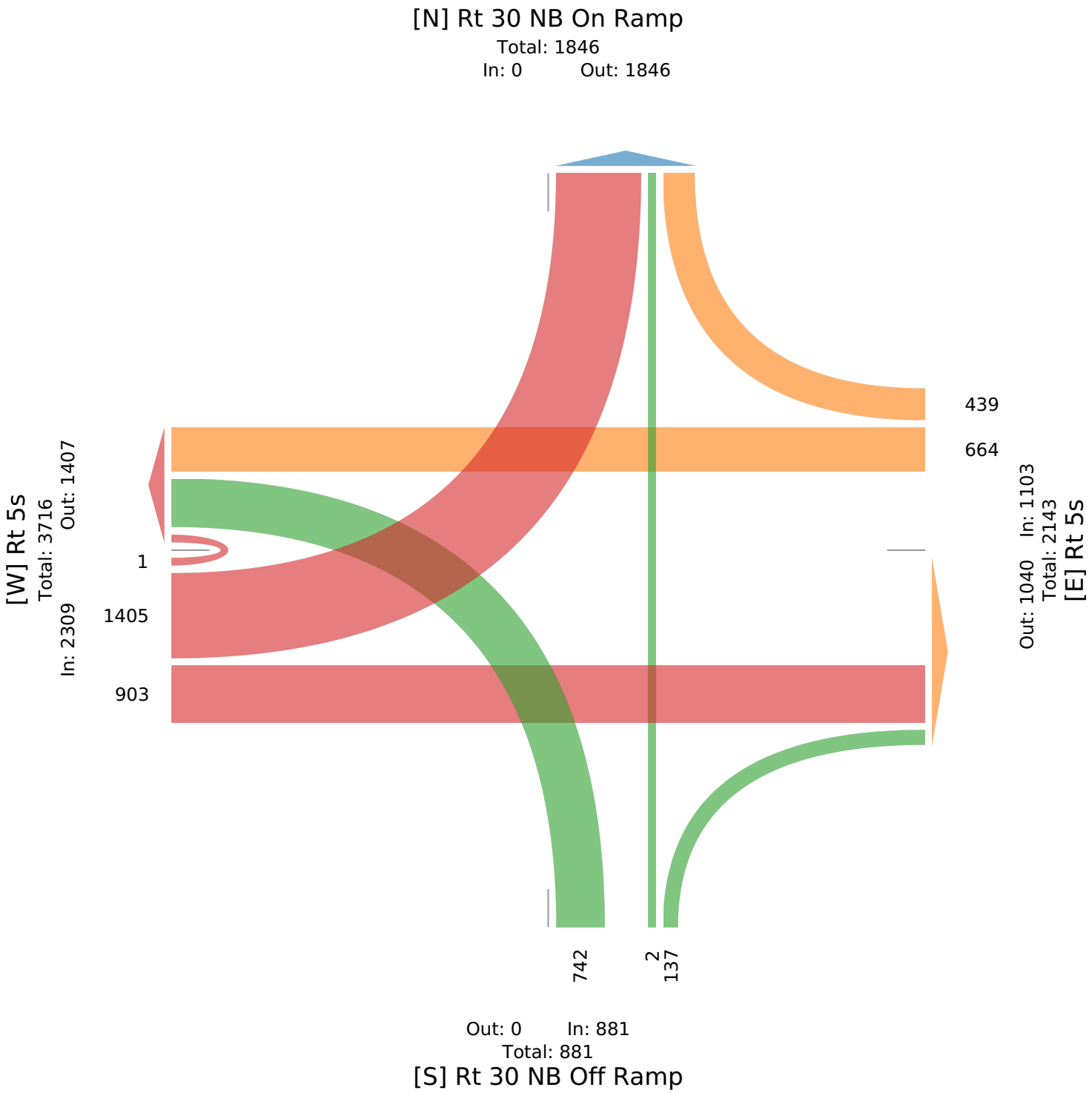
Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 5:00AM	18	19	0	**37**	0	10	0	0	**10**	0	11	0	3	0	**14**	0	**0**	0	**61**
5:15AM	11	13	0	**24**	0	25	1	0	**26**	0	19	0	2	2	**23**	0	**0**	0	**73**
5:30AM	22	21	0	**43**	0	28	2	0	**30**	0	33	0	3	2	**38**	0	**0**	0	**111**
5:45AM	33	24	0	**57**	0	18	3	0	**21**	0	22	0	1	2	**25**	0	**0**	0	**103**
Hourly Total	84	77	0	**161**	0	81	6	0	**87**	0	85	0	9	6	**100**	0	**0**	0	**348**
6:00AM	15	20	0	**35**	0	5	9	0	**14**	0	9	0	6	1	**16**	0	**0**	0	**65**
6:15AM	27	18	0	**45**	0	9	7	0	**16**	0	9	0	3	0	**12**	0	**0**	0	**73**
6:30AM	18	19	0	**37**	0	14	8	0	**22**	0	19	0	4	0	**23**	0	**0**	0	**82**
6:45AM	24	20	0	**44**	0	14	10	0	**24**	0	13	0	0	2	**15**	0	**0**	0	**83**
Hourly Total	84	77	0	**161**	0	42	34	0	**76**	0	50	0	13	3	**66**	0	**0**	0	**303**
7:00AM	30	19	0	**49**	0	10	13	0	**23**	0	23	0	1	1	**25**	0	**0**	0	**97**
7:15AM	38	26	0	**64**	0	14	21	0	**35**	0	16	0	5	4	**25**	0	**0**	0	**124**
7:30AM	34	31	0	**65**	0	21	29	0	**50**	0	21	0	2	5	**28**	0	**0**	0	**143**
7:45AM	31	21	0	**52**	0	13	22	0	**35**	0	31	0	4	0	**35**	0	**0**	0	**122**
Hourly Total	133	97	0	**230**	0	58	85	0	**143**	0	91	0	12	10	**113**	0	**0**	0	**486**
8:00AM	24	31	0	**55**	0	20	16	0	**36**	0	24	0	4	2	**30**	0	**0**	0	**121**
8:15AM	52	29	0	**81**	0	23	14	0	**37**	0	35	0	2	0	**37**	0	**0**	0	**155**
8:30AM	41	27	0	**68**	0	19	17	0	**36**	0	26	0	1	1	**28**	0	**0**	0	**132**
8:45AM	47	22	0	**69**	0	16	12	0	**28**	0	25	0	2	0	**27**	0	**0**	0	**124**
Hourly Total	164	109	0	**273**	0	78	59	0	**137**	0	110	0	9	3	**122**	0	**0**	0	**532**
3:00PM	84	34	0	**118**	0	21	22	0	**43**	0	29	0	3	0	**32**	0	**0**	0	**193**
3:15PM	68	34	0	**102**	0	47	19	0	**66**	0	31	0	1	3	**35**	0	**0**	0	**203**
3:30PM	62	37	0	**99**	0	36	24	0	**60**	0	29	0	3	5	**37**	0	**0**	0	**196**
3:45PM	57	40	0	**97**	0	34	20	0	**54**	0	33	0	1	1	**35**	0	**0**	0	**186**
Hourly Total	271	145	0	**416**	0	138	85	0	**223**	0	122	0	8	9	**139**	0	**0**	0	**778**
4:00PM	117	45	0	**162**	0	24	17	0	**41**	0	27	0	6	1	**34**	0	**0**	0	**237**
4:15PM	111	59	0	**170**	0	31	16	0	**47**	0	23	0	3	1	**27**	0	**0**	0	**244**
4:30PM	91	32	0	**123**	0	26	18	0	**44**	0	32	2	1	1	**36**	0	**0**	0	**203**
4:45PM	47	42	0	**89**	0	33	20	0	**53**	0	33	0	5	2	**40**	0	**0**	0	**182**
Hourly Total	366	178	0	**544**	0	114	71	0	**185**	0	115	2	15	5	**137**	0	**0**	0	**866**
5:00PM	72	30	0	**102**	0	33	13	0	**46**	0	21	0	3	2	**26**	0	**0**	0	**174**
5:15PM	36	42	0	**78**	0	29	14	0	**43**	0	26	0	8	1	**35**	0	**0**	0	**156**
5:30PM	43	26	0	**69**	0	25	21	0	**46**	0	31	0	0	2	**33**	0	**0**	0	**148**
5:45PM	31	26	0	**57**	0	18	11	0	**29**	0	31	0	3	2	**36**	0	**0**	0	**122**
Hourly Total	182	124	0	**306**	0	105	59	0	**164**	0	109	0	14	7	**130**	0	**0**	0	**600**
6:00PM	44	24	0	**68**	0	15	14	0	**29**	0	22	0	2	4	**28**	0	**0**	0	**125**
6:15PM	34	30	0	**64**	0	9	9	0	**18**	0	15	0	5	0	**20**	0	**0**	0	**102**
6:30PM	22	27	0	**49**	0	13	13	0	**26**	0	10	0	1	0	**11**	0	**0**	0	**86**
6:45PM	21	15	1	**37**	0	11	4	0	**15**	0	13	0	2	0	**15**	0	**0**	0	**67**
Hourly Total	121	96	1	**218**	0	48	40	0	**88**	0	60	0	10	4	**74**	0	**0**	0	**380**
Total	1405	903	1	**2309**	0	664	439	0	**1103**	0	742	2	90	47	**881**	0	**0**	0	**4293**
% Approach	60.8%	39.1%	0%	**-**	-	60.2%	39.8%	0%	**-**	-	84.2%	0.2%	10.2%	5.3%	**-**	-	**-**	-	-
% Total	32.7%	21.0%	0%	**53.8%**	-	15.5%	10.2%	0%	**25.7%**	-	17.3%	0%	2.1%	1.1%	**20.5%**	-	**0%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	1292	860	1	**2153**	-	633	428	0	**1061**	-	561	2	82	45	**690**	-	**0**	-	3904
% Lights	92.0%	95.2%	100%	**93.2%**	-	95.3%	97.5%	0%	**96.2%**	-	75.6%	100%	91.1%	95.7%	**78.3%**	-	**-**	-	90.9%
Single-Unit Trucks	25	21	0	**46**	-	12	7	0	**19**	-	27	0	4	1	**32**	-	**0**	-	97
% Single-Unit Trucks	1.8%	2.3%	0%	**2.0%**	-	1.8%	1.6%	0%	**1.7%**	-	3.6%	0%	4.4%	2.1%	**3.6%**	-	**-**	-	2.3%
Articulated Trucks	32	14	0	**46**	-	12	1	0	**13**	-	147	0	3	1	**151**	-	**0**	-	210
% Articulated Trucks	2.3%	1.6%	0%	**2.0%**	-	1.8%	0.2%	0%	**1.2%**	-	19.8%	0%	3.3%	2.1%	**17.1%**	-	**-**	-	4.9%
Buses	56	8	0	**64**	-	7	3	0	**10**	-	7	0	1	0	**8**	-	**0**	-	82
% Buses	4.0%	0.9%	0%	**2.8%**	-	1.1%	0.7%	0%	**0.9%**	-	0.9%	0%	1.1%	0%	**0.9%**	-	**-**	-	1.9%

Leg	Rt 5s					Rt 5s					Rt 30 NB Off Ramp						Rt 30 NB On Ramp		
Direction	Eastbound					Westbound					Northbound						Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
AM Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

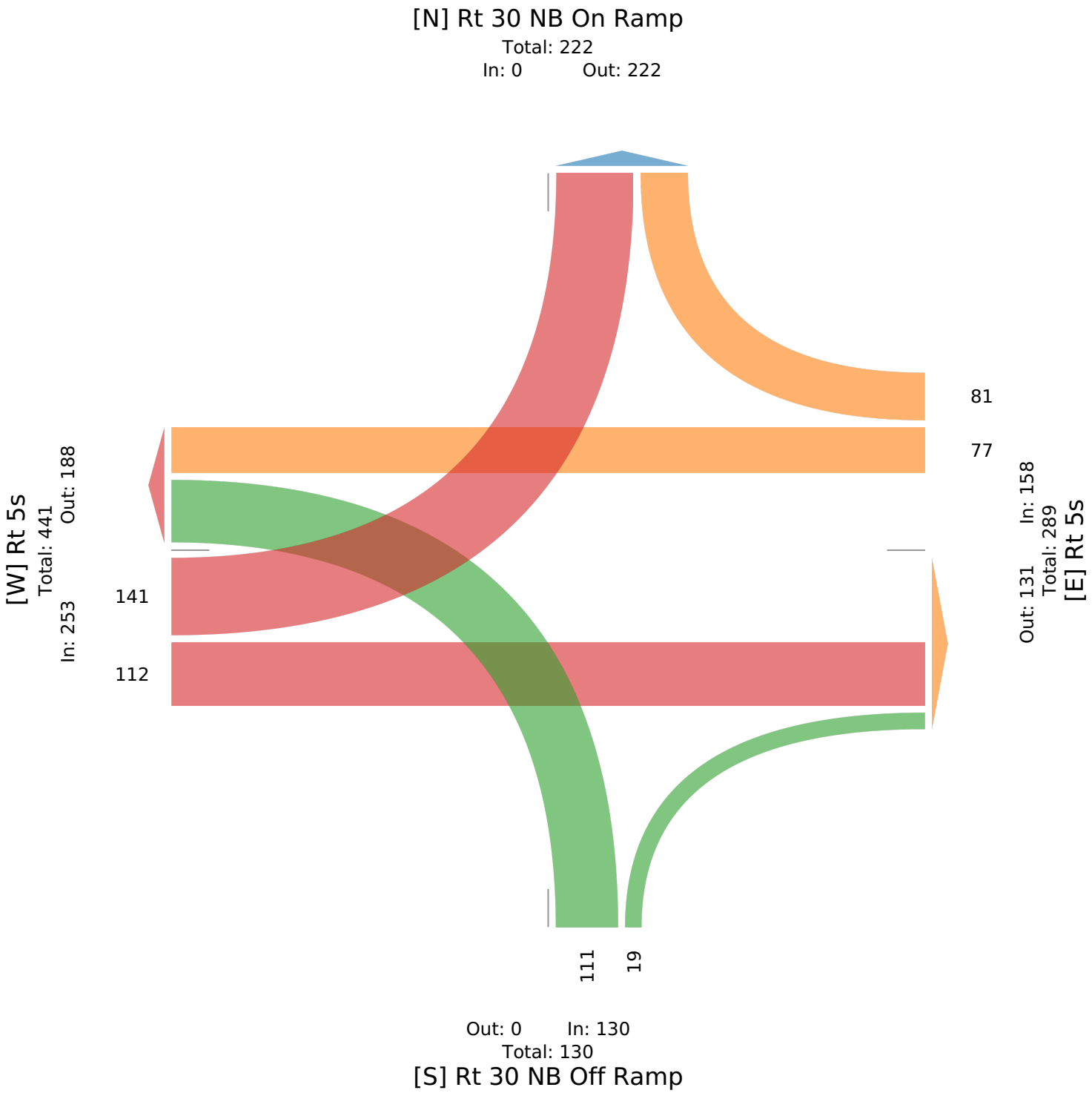
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 7:30AM	34	31	0	**65**	0	21	29	0	**50**	0	21	0	2	5	**28**	0	**0**	0	**143**
7:45AM	31	21	0	**52**	0	13	22	0	**35**	0	31	0	4	0	**35**	0	**0**	0	**122**
8:00AM	24	31	0	**55**	0	20	16	0	**36**	0	24	0	4	2	**30**	0	**0**	0	**121**
8:15AM	52	29	0	**81**	0	23	14	0	**37**	0	35	0	2	0	**37**	0	**0**	0	**155**
Total	141	112	0	**253**	0	77	81	0	**158**	0	111	0	12	7	**130**	0	**0**	0	**541**
% Approach	55.7%	44.3%	0%	**-**	-	48.7%	51.3%	0%	**-**	-	85.4%	0%	9.2%	5.4%	**-**	-	**-**	-	-
% Total	26.1%	20.7%	0%	**46.8%**	-	14.2%	15.0%	0%	**29.2%**	-	20.5%	0%	2.2%	1.3%	**24.0%**	-	**0%**	-	-
PHF	0.678	0.903	-	**0.781**	-	0.837	0.698	-	**0.790**	-	0.793	-	0.750	0.350	**0.878**	-	**-**	-	0.873
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	124	103	0	**227**	-	71	79	0	**150**	-	85	0	9	7	**101**	-	**0**	-	478
% Lights	87.9%	92.0%	0%	**89.7%**	-	92.2%	97.5%	0%	**94.9%**	-	76.6%	0%	75.0%	100%	**77.7%**	-	**-**	-	88.4%
Single-Unit Trucks	3	6	0	**9**	-	4	2	0	**6**	-	7	0	1	0	**8**	-	**0**	-	23
% Single-Unit Trucks	2.1%	5.4%	0%	**3.6%**	-	5.2%	2.5%	0%	**3.8%**	-	6.3%	0%	8.3%	0%	**6.2%**	-	**-**	-	4.3%
Articulated Trucks	4	1	0	**5**	-	2	0	0	**2**	-	19	0	1	0	**20**	-	**0**	-	27
% Articulated Trucks	2.8%	0.9%	0%	**2.0%**	-	2.6%	0%	0%	**1.3%**	-	17.1%	0%	8.3%	0%	**15.4%**	-	**-**	-	5.0%
Buses	10	2	0	**12**	-	0	0	0	**0**	-	0	0	1	0	**1**	-	**0**	-	13
% Buses	7.1%	1.8%	0%	**4.7%**	-	0%	0%	0%	**0%**	-	0%	0%	8.3%	0%	**0.8%**	-	**-**	-	2.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
AM Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
Forced Peak (3:30 PM - 4:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

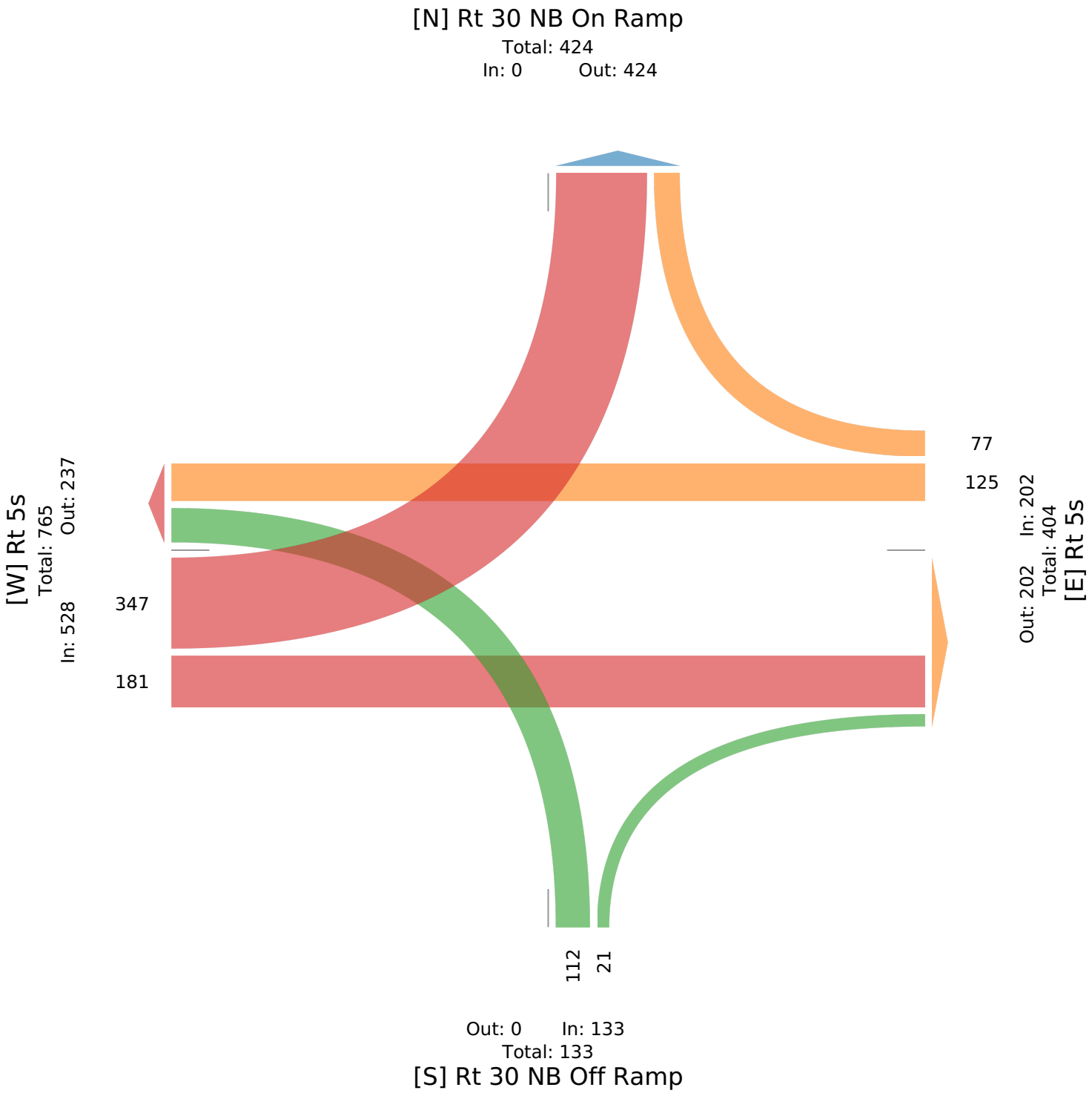
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 3:30PM	62	37	0	**99**	0	36	24	0	**60**	0	29	0	3	5	**37**	0	**0**	0	**196**
3:45PM	57	40	0	**97**	0	34	20	0	**54**	0	33	0	1	1	**35**	0	**0**	0	**186**
4:00PM	117	45	0	**162**	0	24	17	0	**41**	0	27	0	6	1	**34**	0	**0**	0	**237**
4:15PM	111	59	0	**170**	0	31	16	0	**47**	0	23	0	3	1	**27**	0	**0**	0	**244**
Total	347	181	0	**528**	0	125	77	0	**202**	0	112	0	13	8	**133**	0	**0**	0	**863**
% Approach	65.7%	34.3%	0%	**-**	-	61.9%	38.1%	0%	**-**	-	84.2%	0%	9.8%	6.0%	**-**	-	**-**	-	-
% Total	40.2%	21.0%	0%	**61.2%**	-	14.5%	8.9%	0%	**23.4%**	-	13.0%	0%	1.5%	0.9%	**15.4%**	-	**0%**	-	-
PHF	0.741	0.767	-	**0.776**	-	0.868	0.802	-	**0.842**	-	0.848	-	0.542	0.400	**0.899**	-	**-**	-	0.884
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	332	175	0	**507**	-	119	74	0	**193**	-	96	0	13	8	**117**	-	**0**	-	817
% Lights	95.7%	96.7%	0%	**96.0%**	-	95.2%	96.1%	0%	**95.5%**	-	85.7%	0%	100%	100%	**88.0%**	-	**-**	-	94.7%
Single-Unit Trucks	6	1	0	**7**	-	1	3	0	**4**	-	2	0	0	0	**2**	-	**0**	-	13
% Single-Unit Trucks	1.7%	0.6%	0%	**1.3%**	-	0.8%	3.9%	0%	**2.0%**	-	1.8%	0%	0%	0%	**1.5%**	-	**-**	-	1.5%
Articulated Trucks	5	4	0	**9**	-	1	0	0	**1**	-	12	0	0	0	**12**	-	**0**	-	22
% Articulated Trucks	1.4%	2.2%	0%	**1.7%**	-	0.8%	0%	0%	**0.5%**	-	10.7%	0%	0%	0%	**9.0%**	-	**-**	-	2.5%
Buses	4	1	0	**5**	-	4	0	0	**4**	-	2	0	0	0	**2**	-	**0**	-	11
% Buses	1.2%	0.6%	0%	**0.9%**	-	3.2%	0%	0%	**2.0%**	-	1.8%	0%	0%	0%	**1.5%**	-	**-**	-	1.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
Forced Peak (3:30 PM - 4:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 5:00AM	1	0	0	0	0	**1**	0	0	0	4	0	9	**13**	0
5:15AM	3	3	0	0	0	**6**	0	1	0	10	0	17	**28**	0
5:30AM	4	2	1	0	0	**7**	0	2	0	15	0	20	**37**	0
5:45AM	1	3	0	0	1	**5**	0	2	1	7	0	22	**32**	0
Hourly Total	9	8	1	0	1	**19**	0	5	1	36	0	68	**110**	0
6:00AM	7	4	0	0	0	**11**	0	3	1	7	0	23	**34**	0
6:15AM	1	13	0	0	1	**15**	0	2	0	4	0	25	**31**	0
6:30AM	3	3	0	0	0	**6**	0	3	0	6	0	44	**53**	0
6:45AM	5	7	2	0	0	**14**	0	3	0	7	0	38	**48**	0
Hourly Total	16	27	2	0	1	**46**	0	11	1	24	0	130	**166**	0
7:00AM	9	8	0	0	1	**18**	2	3	2	16	0	32	**53**	0
7:15AM	11	6	3	0	2	**22**	0	4	0	10	0	46	**60**	0
7:30AM	12	5	4	0	0	**21**	0	2	1	24	0	64	**91**	0
7:45AM	8	5	1	0	1	**15**	0	3	1	31	0	62	**97**	0
Hourly Total	40	24	8	0	4	**76**	2	12	4	81	0	204	**301**	0
8:00AM	8	4	0	0	0	**12**	0	3	4	28	0	52	**87**	0
8:15AM	11	3	0	0	0	**14**	0	2	1	29	0	61	**93**	0
8:30AM	4	4	2	0	3	**13**	0	0	2	14	0	47	**63**	0
8:45AM	7	6	1	0	0	**14**	0	3	2	28	0	43	**76**	0
Hourly Total	30	17	3	0	3	**53**	0	8	9	99	0	203	**319**	0
3:00PM	8	2	0	0	0	**10**	0	3	5	36	0	81	**125**	0
3:15PM	7	4	1	0	0	**12**	0	8	4	9	0	89	**110**	0
3:30PM	4	7	3	0	0	**14**	0	3	2	53	0	78	**136**	0
3:45PM	2	4	1	0	0	**7**	0	7	2	69	0	80	**158**	0
Hourly Total	21	17	5	0	0	**43**	0	21	13	167	0	328	**529**	0
4:00PM	3	5	1	0	1	**10**	0	5	1	8	0	112	**126**	0
4:15PM	5	2	3	0	0	**10**	0	7	1	11	0	117	**136**	0
4:30PM	2	1	3	0	1	**7**	0	9	3	19	0	106	**137**	0
4:45PM	5	0	2	0	1	**8**	0	10	1	21	0	135	**167**	0
Hourly Total	15	8	9	0	3	**35**	0	31	6	59	0	470	**566**	0
5:00PM	3	2	6	0	0	**11**	0	7	5	85	0	44	**141**	0
5:15PM	4	4	5	0	0	**13**	0	10	3	44	0	88	**145**	0
5:30PM	6	4	2	0	0	**12**	0	10	2	50	0	81	**143**	0
5:45PM	3	6	0	0	0	**9**	0	5	1	53	0	69	**128**	0
Hourly Total	16	16	13	0	0	**45**	0	32	11	232	0	282	**557**	0
6:00PM	4	2	5	0	0	**11**	0	3	1	33	0	54	**91**	0
6:15PM	3	2	3	0	1	**9**	0	4	2	28	0	49	**83**	0
6:30PM	2	3	0	0	2	**7**	0	3	2	18	0	45	**68**	0
6:45PM	1	2	2	0	0	**5**	0	0	1	18	0	29	**48**	0
Hourly Total	10	9	10	0	3	**32**	0	10	6	97	0	177	**290**	0
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Total	157	126	51	0	15	**349**	2	130	51	795	0	1862	**2838**	0
% Approach	45.0%	36.1%	14.6%	0%	4.3%	**-**	-	4.6%	1.8%	28.0%	0%	65.6%	**-**	-
% Total	1.9%	1.5%	0.6%	0%	0.2%	**4.2%**	-	1.6%	0.6%	9.6%	0%	22.5%	**34.2%**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	152	123	50	0	15	**340**	-	115	48	691	0	1654	**2508**	-
% Lights	96.8%	97.6%	98.0%	0%	100%	**97.4%**	-	88.5%	94.1%	86.9%	0%	88.8%	**88.4%**	-
Single-Unit Trucks	2	2	1	0	0	**5**	-	3	2	19	0	59	**83**	-
% Single-Unit Trucks	1.3%	1.6%	2.0%	0%	0%	**1.4%**	-	2.3%	3.9%	2.4%	0%	3.2%	**2.9%**	-
Articulated Trucks	3	1	0	0	0	**4**	-	10	1	83	0	143	**237**	-
% Articulated Trucks	1.9%	0.8%	0%	0%	0%	**1.1%**	-	7.7%	2.0%	10.4%	0%	7.7%	**8.4%**	-

Leg	Dunkin Driveway							I-90 Ramps						
Direction	Eastbound							Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
Buses	0	0	0	0	0	**0**	-	2	0	2	0	6	**10**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	1.5%	0%	0.3%	0%	0.3%	**0.4%**	-
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

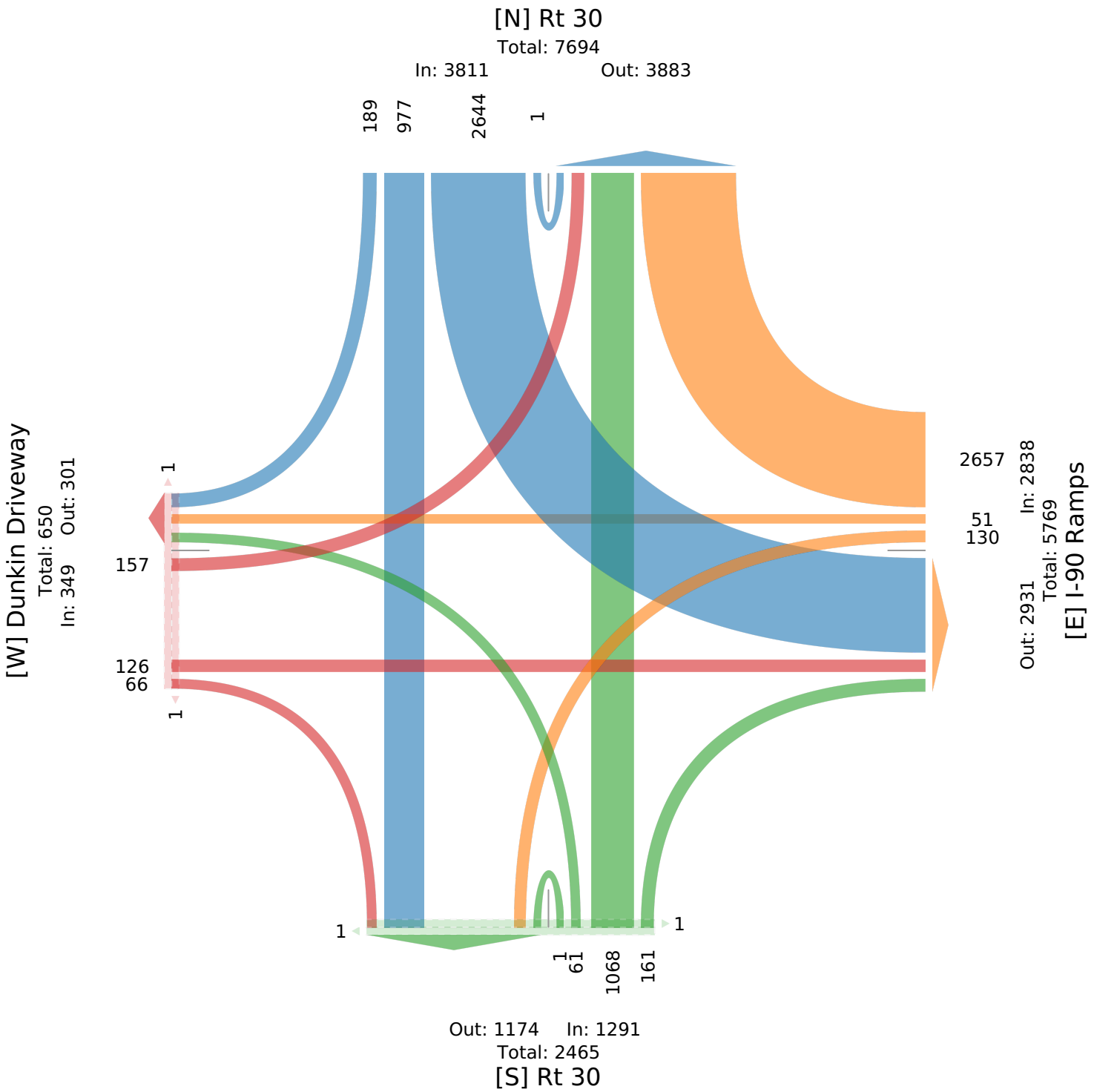
Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*	Int
2025-02-05 5:00AM	0	10	3	0	0	**13**	0	34	5	2	0	0	**41**	0	**68**
5:15AM	2	13	8	0	0	**23**	0	54	9	2	0	0	**65**	0	**122**
5:30AM	3	28	3	0	0	**34**	0	48	7	1	0	0	**56**	0	**134**
5:45AM	2	22	9	0	0	**33**	0	49	22	5	0	0	**76**	0	**146**
Hourly Total	7	73	23	0	0	**103**	0	185	43	10	0	0	**238**	0	**470**
6:00AM	1	28	4	0	1	**34**	0	89	12	4	0	2	**107**	0	**186**
6:15AM	1	28	6	0	5	**40**	0	102	12	10	0	0	**124**	0	**210**
6:30AM	0	19	7	0	7	**33**	0	120	21	6	0	0	**147**	0	**239**
6:45AM	1	45	9	0	5	**60**	0	109	16	11	0	1	**137**	0	**259**
Hourly Total	3	120	26	0	18	**167**	0	420	61	31	0	3	**515**	0	**894**
7:00AM	7	38	5	0	6	**56**	0	138	24	12	0	1	**175**	0	**302**
7:15AM	5	56	9	0	3	**73**	0	128	19	15	0	0	**162**	0	**317**
7:30AM	4	46	6	0	1	**57**	0	142	15	6	0	0	**163**	0	**332**
7:45AM	3	57	8	0	1	**69**	0	106	27	10	0	1	**144**	0	**325**
Hourly Total	19	197	28	0	11	**255**	0	514	85	43	0	2	**644**	0	**1276**
8:00AM	5	44	5	0	2	**56**	0	107	36	2	0	0	**145**	0	**300**
8:15AM	5	41	2	0	0	**48**	0	97	20	5	0	1	**123**	0	**278**
8:30AM	1	37	1	0	0	**39**	0	98	28	7	0	0	**133**	0	**248**
8:45AM	2	25	3	0	0	**30**	0	78	29	8	0	1	**116**	0	**236**
Hourly Total	13	147	11	0	2	**173**	0	380	113	22	0	2	**517**	0	**1062**
3:00PM	0	47	2	0	0	**49**	0	83	58	4	1	1	**147**	0	**331**
3:15PM	2	33	2	0	1	**38**	1	91	34	4	0	1	**130**	0	**290**
3:30PM	0	31	3	0	1	**35**	1	86	39	4	0	0	**129**	0	**314**
3:45PM	0	25	1	0	2	**28**	0	89	46	2	0	0	**137**	0	**330**
Hourly Total	2	136	8	0	4	**150**	2	349	177	14	1	2	**543**	0	**1265**
4:00PM	1	38	2	0	1	**42**	0	107	57	8	0	0	**172**	0	**350**
4:15PM	1	30	3	0	0	**34**	0	103	59	5	0	0	**167**	0	**347**
4:30PM	0	32	1	0	1	**34**	0	84	49	5	0	0	**138**	0	**316**
4:45PM	0	40	1	0	4	**45**	0	69	51	6	0	0	**126**	0	**346**
Hourly Total	2	140	7	0	6	**155**	0	363	216	24	0	0	**603**	0	**1359**
5:00PM	2	50	4	0	1	**57**	0	83	36	5	0	0	**124**	0	**333**
5:15PM	6	30	2	0	0	**38**	0	88	41	7	0	3	**139**	0	**335**
5:30PM	0	39	1	0	1	**41**	0	60	41	5	0	1	**107**	0	**303**
5:45PM	1	40	2	0	0	**43**	0	58	36	2	0	2	**98**	0	**278**
Hourly Total	9	159	9	0	2	**179**	0	289	154	19	0	6	**468**	0	**1249**
6:00PM	1	23	0	1	0	**25**	0	55	36	4	0	1	**96**	0	**223**
6:15PM	1	27	1	0	1	**30**	0	41	31	2	0	0	**74**	0	**196**
6:30PM	1	30	3	0	0	**34**	0	31	44	3	0	0	**78**	0	**187**
6:45PM	3	16	1	0	0	**20**	0	17	17	1	0	0	**35**	0	**108**
Hourly Total	6	96	5	1	1	**109**	0	144	128	10	0	1	**283**	0	**714**
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Total	61	1068	117	1	44	**1291**	2	2644	977	173	1	16	**3811**	0	**8289**
% Approach	4.7%	82.7%	9.1%	0.1%	3.4%	**-**	-	69.4%	25.6%	4.5%	0%	0.4%	**-**	-	-
% Total	0.7%	12.9%	1.4%	0%	0.5%	**15.6%**	-	31.9%	11.8%	2.1%	0%	0.2%	**46.0%**	-	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	60	1024	108	1	41	**1234**	-	2392	947	171	1	16	**3527**	-	7609
% Lights	98.4%	95.9%	92.3%	100%	93.2%	**95.6%**	-	90.5%	96.9%	98.8%	100%	100%	**92.5%**	-	91.8%
Single-Unit Trucks	1	23	2	0	0	**26**	-	54	14	1	0	0	**69**	-	183
% Single-Unit Trucks	1.6%	2.2%	1.7%	0%	0%	**2.0%**	-	2.0%	1.4%	0.6%	0%	0%	**1.8%**	-	2.2%
Articulated Trucks	0	6	6	0	1	**13**	-	180	8	1	0	0	**189**	-	443
% Articulated Trucks	0%	0.6%	5.1%	0%	2.3%	**1.0%**	-	6.8%	0.8%	0.6%	0%	0%	**5.0%**	-	5.3%

Leg	Rt 30							Rt 30							
Direction	Northbound							Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
Buses	0	15	1	0	2	**18**	-	18	8	0	0	0	**26**	-	54
% Buses	0%	1.4%	0.9%	0%	4.5%	**1.4%**	-	0.7%	0.8%	0%	0%	0%	**0.7%**	-	0.7%
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 7:30AM	12	5	4	0	0	**21**	0	2	1	24	0	64	**91**	0
7:45AM	8	5	1	0	1	**15**	0	3	1	31	0	62	**97**	0
8:00AM	8	4	0	0	0	**12**	0	3	4	28	0	52	**87**	0
8:15AM	11	3	0	0	0	**14**	0	2	1	29	0	61	**93**	0
Total	39	17	5	0	1	**62**	0	10	7	112	0	239	**368**	0
% Approach	62.9%	27.4%	8.1%	0%	1.6%	**-**	-	2.7%	1.9%	30.4%	0%	64.9%	**-**	-
% Total	3.2%	1.4%	0.4%	0%	0.1%	**5.0%**	-	0.8%	0.6%	9.1%	0%	19.4%	**29.8%**	-
PHF	0.813	0.850	0.313	-	0.250	**0.738**	-	0.833	0.438	0.903	-	0.934	**0.948**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	38	17	5	0	1	**61**	-	5	6	100	0	203	**314**	-
% Lights	97.4%	100%	100%	0%	100%	**98.4%**	-	50.0%	85.7%	89.3%	0%	84.9%	**85.3%**	-
Single-Unit Trucks	0	0	0	0	0	**0**	-	2	1	4	0	14	**21**	-
% Single-Unit Trucks	0%	0%	0%	0%	0%	**0%**	-	20.0%	14.3%	3.6%	0%	5.9%	**5.7%**	-
Articulated Trucks	1	0	0	0	0	**1**	-	3	0	8	0	22	**33**	-
% Articulated Trucks	2.6%	0%	0%	0%	0%	**1.6%**	-	30.0%	0%	7.1%	0%	9.2%	**9.0%**	-
Buses	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

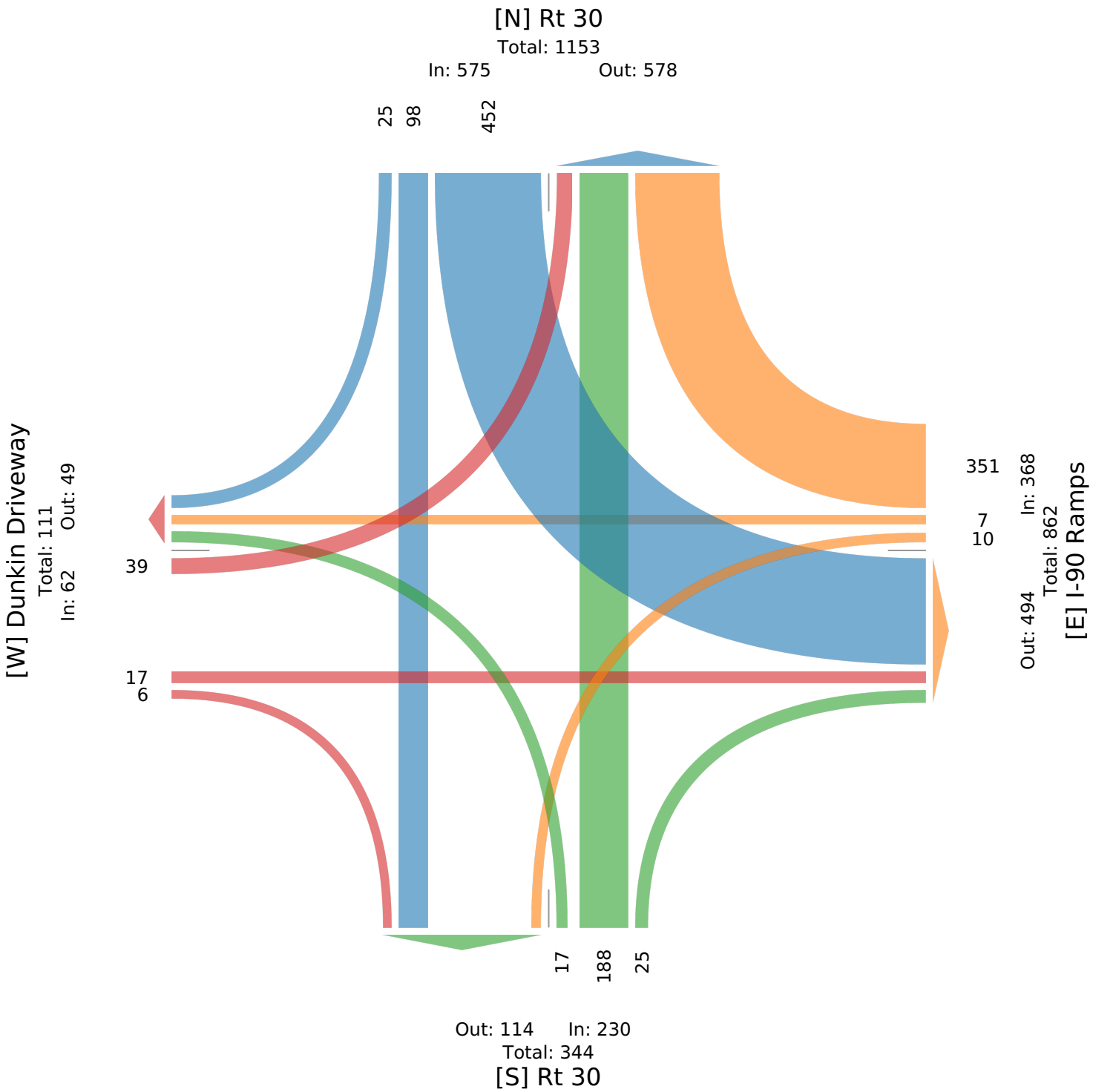
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 7:30AM	4	46	6	0	1	**57**	0	142	15	6	0	0	**163**	0	**332**
7:45AM	3	57	8	0	1	**69**	0	106	27	10	0	1	**144**	0	**325**
8:00AM	5	44	5	0	2	**56**	0	107	36	2	0	0	**145**	0	**300**
8:15AM	5	41	2	0	0	**48**	0	97	20	5	0	1	**123**	0	**278**
Total	17	188	21	0	4	**230**	0	452	98	23	0	2	**575**	0	**1235**
% Approach	7.4%	81.7%	9.1%	0%	1.7%	**-**	-	78.6%	17.0%	4.0%	0%	0.3%	**-**	-	-
% Total	1.4%	15.2%	1.7%	0%	0.3%	**18.6%**	-	36.6%	7.9%	1.9%	0%	0.2%	**46.6%**	-	-
PHF	0.850	0.825	0.656	-	0.500	**0.833**	-	0.796	0.681	0.575	-	0.500	**0.882**	-	0.930
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	17	177	20	0	4	**218**	-	408	90	21	0	2	**521**	-	1114
% Lights	100%	94.1%	95.2%	0%	100%	**94.8%**	-	90.3%	91.8%	91.3%	0%	100%	**90.6%**	-	90.2%
Single-Unit Trucks	0	7	1	0	0	**8**	-	9	4	1	0	0	**14**	-	43
% Single-Unit Trucks	0%	3.7%	4.8%	0%	0%	**3.5%**	-	2.0%	4.1%	4.3%	0%	0%	**2.4%**	-	3.5%
Articulated Trucks	0	1	0	0	0	**1**	-	35	3	1	0	0	**39**	-	74
% Articulated Trucks	0%	0.5%	0%	0%	0%	**0.4%**	-	7.7%	3.1%	4.3%	0%	0%	**6.8%**	-	6.0%
Buses	0	3	0	0	0	**3**	-	0	1	0	0	0	**1**	-	4
% Buses	0%	1.6%	0%	0%	0%	**1.3%**	-	0%	1.0%	0%	0%	0%	**0.2%**	-	0.3%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (3:30 PM - 4:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 3:30PM	4	7	3	0	0	**14**	0	3	2	53	0	78	**136**	0
3:45PM	2	4	1	0	0	**7**	0	7	2	69	0	80	**158**	0
4:00PM	3	5	1	0	1	**10**	0	5	1	8	0	112	**126**	0
4:15PM	5	2	3	0	0	**10**	0	7	1	11	0	117	**136**	0
Total	14	18	8	0	1	**41**	0	22	6	141	0	387	**556**	0
% Approach	34.1%	43.9%	19.5%	0%	2.4%	**-**	-	4.0%	1.1%	25.4%	0%	69.6%	**-**	-
% Total	1.0%	1.3%	0.6%	0%	0.1%	**3.1%**	-	1.6%	0.4%	10.5%	0%	28.9%	**41.5%**	-
PHF	0.700	0.643	0.667	-	0.250	**0.732**	-	0.786	0.750	0.511	-	0.827	**0.880**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	13	17	8	0	1	**39**	-	22	6	132	0	363	**523**	-
% Lights	92.9%	94.4%	100%	0%	100%	**95.1%**	-	100%	100%	93.6%	0%	93.8%	**94.1%**	-
Single-Unit Trucks	1	1	0	0	0	**2**	-	0	0	3	0	7	**10**	-
% Single-Unit Trucks	7.1%	5.6%	0%	0%	0%	**4.9%**	-	0%	0%	2.1%	0%	1.8%	**1.8%**	-
Articulated Trucks	0	0	0	0	0	**0**	-	0	0	6	0	16	**22**	-
% Articulated Trucks	0%	0%	0%	0%	0%	**0%**	-	0%	0%	4.3%	0%	4.1%	**4.0%**	-
Buses	0	0	0	0	0	**0**	-	0	0	0	0	1	**1**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0.3%	**0.2%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (3:30 PM - 4:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

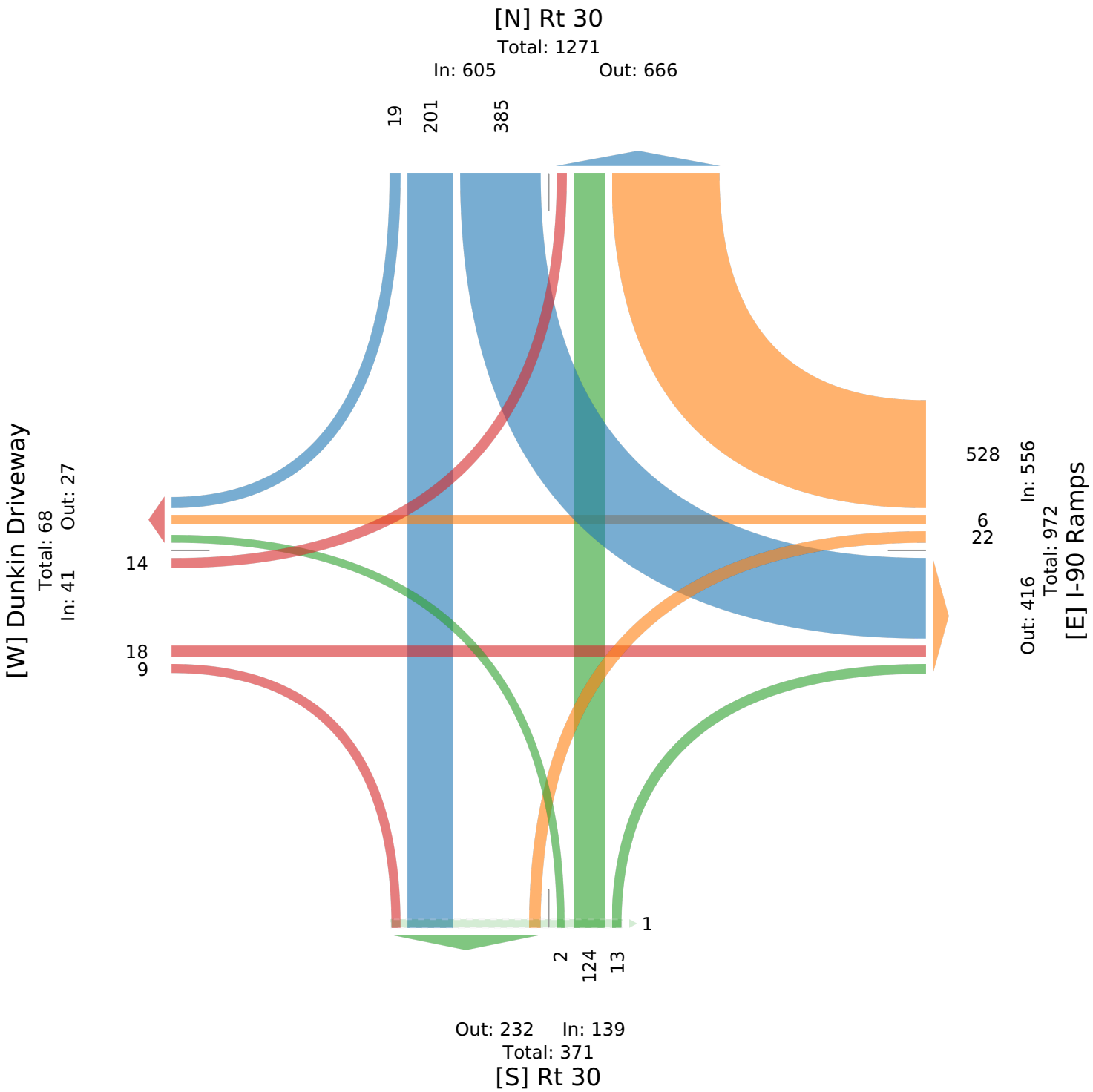
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 3:30PM	0	31	3	0	1	**35**	1	86	39	4	0	0	**129**	0	**314**
3:45PM	0	25	1	0	2	**28**	0	89	46	2	0	0	**137**	0	**330**
4:00PM	1	38	2	0	1	**42**	0	107	57	8	0	0	**172**	0	**350**
4:15PM	1	30	3	0	0	**34**	0	103	59	5	0	0	**167**	0	**347**
Total	2	124	9	0	4	**139**	1	385	201	19	0	0	**605**	0	**1341**
% Approach	1.4%	89.2%	6.5%	0%	2.9%	**-**	-	63.6%	33.2%	3.1%	0%	0%	**-**	-	**-**
% Total	0.1%	9.2%	0.7%	0%	0.3%	**10.4%**	-	28.7%	15.0%	1.4%	0%	0%	**45.1%**	-	**-**
PHF	0.500	0.816	0.750	-	0.500	**0.827**	-	0.900	0.852	0.594	-	-	**0.879**	-	0.958
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	1	118	9	0	4	**132**	-	354	200	19	0	0	**573**	-	1267
% Lights	50.0%	95.2%	100%	0%	100%	**95.0%**	-	91.9%	99.5%	100%	0%	0%	**94.7%**	-	94.5%
Single-Unit Trucks	1	2	0	0	0	**3**	-	10	0	0	0	0	**10**	-	25
% Single-Unit Trucks	50.0%	1.6%	0%	0%	0%	**2.2%**	-	2.6%	0%	0%	0%	0%	**1.7%**	-	1.9%
Articulated Trucks	0	1	0	0	0	**1**	-	18	1	0	0	0	**19**	-	42
% Articulated Trucks	0%	0.8%	0%	0%	0%	**0.7%**	-	4.7%	0.5%	0%	0%	0%	**3.1%**	-	3.1%
Buses	0	3	0	0	0	**3**	-	3	0	0	0	0	**3**	-	7
% Buses	0%	2.4%	0%	0%	0%	**2.2%**	-	0.8%	0%	0%	0%	0%	**0.5%**	-	0.5%
Pedestrians	-	-	-	-	-	-	1	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Forced Peak (3:30 PM - 4:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

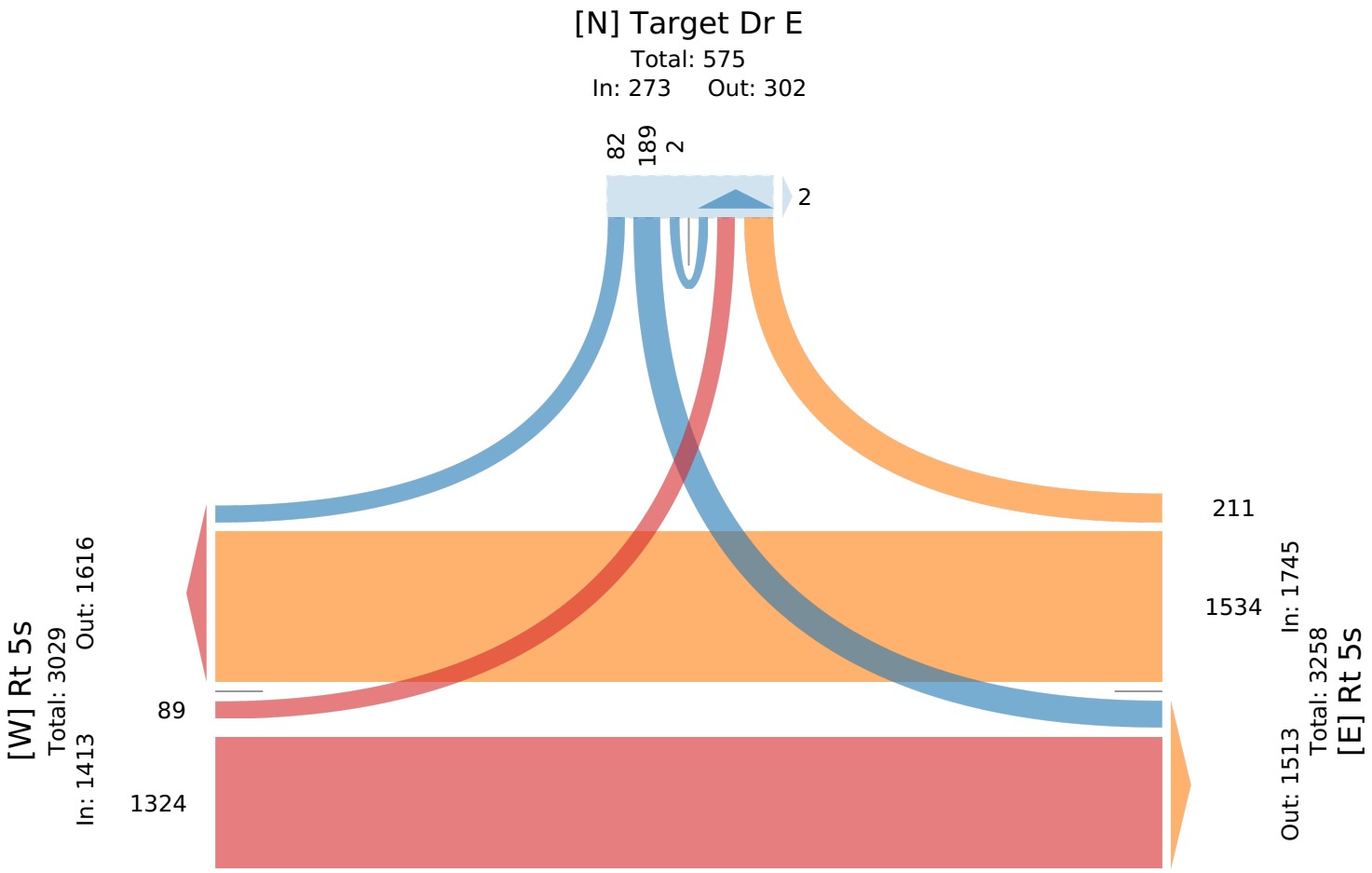
Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2025-02-05 5:00AM	8	27	0	**35**	0	27	3	0	**30**	0	4	2	0	**6**	0	**71**
5:15AM	6	37	0	**43**	0	53	9	0	**62**	0	1	0	0	**1**	0	**106**
5:30AM	8	39	0	**47**	0	130	5	0	**135**	0	0	0	0	**0**	0	**182**
5:45AM	4	43	0	**47**	0	89	6	0	**95**	0	0	0	0	**0**	0	**142**
Hourly Total	26	146	0	**172**	0	299	23	0	**322**	0	5	2	0	**7**	0	**501**
6:00AM	6	41	0	**47**	0	11	10	0	**21**	0	4	7	0	**11**	0	**79**
6:15AM	6	25	0	**31**	0	21	6	0	**27**	0	1	1	0	**2**	0	**60**
6:30AM	4	24	0	**28**	0	25	4	0	**29**	0	6	1	0	**7**	0	**64**
6:45AM	2	43	0	**45**	0	27	11	0	**38**	0	5	1	0	**6**	0	**89**
Hourly Total	18	133	0	**151**	0	84	31	0	**115**	0	16	10	0	**26**	0	**292**
7:00AM	3	33	0	**36**	0	29	5	0	**34**	0	2	1	0	**3**	0	**73**
7:15AM	1	33	0	**34**	0	25	10	0	**35**	0	2	2	0	**4**	0	**73**
7:30AM	3	43	0	**46**	0	30	7	0	**37**	0	7	2	0	**9**	0	**92**
7:45AM	7	29	0	**36**	0	32	13	0	**45**	0	2	2	0	**4**	0	**85**
Hourly Total	14	138	0	**152**	0	116	35	0	**151**	0	13	7	0	**20**	0	**323**
8:00AM	5	44	0	**49**	0	36	9	0	**45**	0	2	1	0	**3**	0	**97**
8:15AM	5	48	0	**53**	0	28	16	0	**44**	0	6	1	1	**8**	0	**105**
8:30AM	3	31	0	**34**	0	30	13	0	**43**	0	5	0	0	**5**	0	**82**
8:45AM	3	29	0	**32**	0	40	9	0	**49**	0	3	3	0	**6**	1	**87**
Hourly Total	16	152	0	**168**	0	134	47	0	**181**	0	16	5	1	**22**	1	**371**
9:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
3:00PM	1	48	0	**49**	0	57	5	0	**62**	0	13	9	0	**22**	0	**133**
3:15PM	3	35	0	**38**	0	82	10	0	**92**	0	8	3	1	**12**	0	**142**
3:30PM	0	45	0	**45**	0	104	7	0	**111**	0	17	7	0	**24**	0	**180**
3:45PM	2	46	0	**48**	0	99	5	0	**104**	0	13	3	0	**16**	0	**168**
Hourly Total	6	174	0	**180**	0	342	27	0	**369**	0	51	22	1	**74**	0	**623**
4:00PM	1	148	0	**149**	0	74	2	0	**76**	0	6	6	0	**12**	0	**237**
4:15PM	1	108	0	**109**	0	66	3	0	**69**	0	8	0	0	**8**	0	**186**
4:30PM	2	68	0	**70**	0	57	4	0	**61**	0	9	2	0	**11**	1	**142**
4:45PM	0	37	0	**37**	0	47	7	0	**54**	0	6	2	0	**8**	0	**99**
Hourly Total	4	361	0	**365**	0	244	16	0	**260**	0	29	10	0	**39**	1	**664**
5:00PM	0	49	0	**49**	0	62	6	0	**68**	0	15	6	0	**21**	0	**138**
5:15PM	1	41	0	**42**	0	53	2	0	**55**	0	9	6	0	**15**	0	**112**
5:30PM	1	31	0	**32**	0	55	6	0	**61**	0	10	3	0	**13**	0	**106**
5:45PM	1	21	0	**22**	0	31	5	0	**36**	0	3	1	0	**4**	0	**62**
Hourly Total	3	142	0	**145**	0	201	19	0	**220**	0	37	16	0	**53**	0	**418**
6:00PM	0	26	0	**26**	0	30	5	0	**35**	0	5	0	0	**5**	0	**66**
6:15PM	1	22	0	**23**	0	29	3	0	**32**	0	10	6	0	**16**	0	**71**
6:30PM	1	15	0	**16**	0	29	2	0	**31**	0	3	4	0	**7**	0	**54**
6:45PM	0	15	0	**15**	0	26	3	0	**29**	0	4	0	0	**4**	0	**48**
Hourly Total	2	78	0	**80**	0	114	13	0	**127**	0	22	10	0	**32**	0	**239**
7:00PM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Total	89	1324	0	**1413**	0	1534	211	0	**1745**	0	189	82	2	**273**	2	**3431**
% Approach	6.3%	93.7%	0%	**-**	-	87.9%	12.1%	0%	**-**	-	69.2%	30.0%	0.7%	**-**	-	-
% Total	2.6%	38.6%	0%	**41.2%**	-	44.7%	6.1%	0%	**50.9%**	-	5.5%	2.4%	0.1%	**8.0%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	62	1230	0	**1292**	-	1433	114	0	**1547**	-	110	56	0	**166**	-	3005
% Lights	69.7%	92.9%	0%	**91.4%**	-	93.4%	54.0%	0%	**88.7%**	-	58.2%	68.3%	0%	**60.8%**	-	87.6%
Single-Unit Trucks	10	40	0	**50**	-	31	11	0	**42**	-	20	8	0	**28**	-	120
% Single-Unit Trucks	11.2%	3.0%	0%	**3.5%**	-	2.0%	5.2%	0%	**2.4%**	-	10.6%	9.8%	0%	**10.3%**	-	3.5%

Leg	Rt 5s					Rt 5s					Target Dr E					
Direction	Eastbound					Westbound					Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
Articulated Trucks	17	48	0	**65**	-	67	86	0	**153**	-	59	18	2	**79**	-	297
% Articulated Trucks	19.1%	3.6%	0%	**4.6%**	-	4.4%	40.8%	0%	**8.8%**	-	31.2%	22.0%	100%	**28.9%**	-	8.7%
Buses	0	6	0	**6**	-	3	0	0	**3**	-	0	0	0	**0**	-	9
% Buses	0%	0.5%	0%	**0.4%**	-	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam



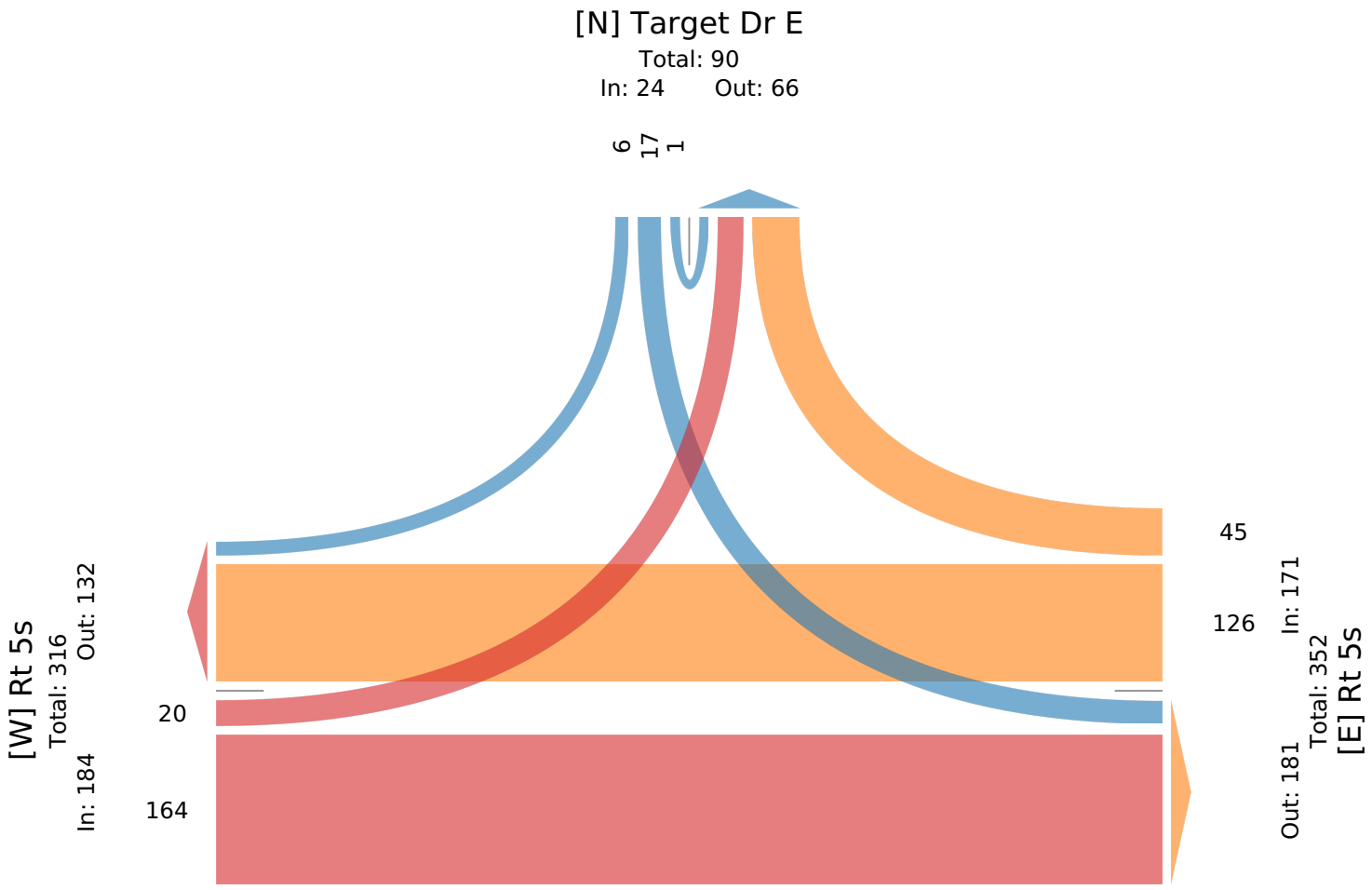
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-02-05 7:30AM	3	43	0	**46**	0	30	7	0	**37**	0	7	2	0	**9**	0	**92**
7:45AM	7	29	0	**36**	0	32	13	0	**45**	0	2	2	0	**4**	0	**85**
8:00AM	5	44	0	**49**	0	36	9	0	**45**	0	2	1	0	**3**	0	**97**
8:15AM	5	48	0	**53**	0	28	16	0	**44**	0	6	1	1	**8**	0	**105**
Total	20	164	0	**184**	0	126	45	0	**171**	0	17	6	1	**24**	0	**379**
% Approach	10.9%	89.1%	0%	**-**	-	73.7%	26.3%	0%	**-**	-	70.8%	25.0%	4.2%	**-**	-	-
% Total	5.3%	43.3%	0%	**48.5%**	-	33.2%	11.9%	0%	**45.1%**	-	4.5%	1.6%	0.3%	**6.3%**	-	-
PHF	0.714	0.854	-	**0.868**	-	0.875	0.703	-	**0.950**	-	0.607	0.750	0.250	**0.667**	-	0.902
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	15	144	0	**159**	-	111	30	0	**141**	-	4	3	0	**7**	-	307
% Lights	75.0%	87.8%	0%	**86.4%**	-	88.1%	66.7%	0%	**82.5%**	-	23.5%	50.0%	0%	**29.2%**	-	81.0%
Single-Unit Trucks	3	7	0	**10**	-	2	3	0	**5**	-	3	0	0	**3**	-	18
% Single-Unit Trucks	15.0%	4.3%	0%	**5.4%**	-	1.6%	6.7%	0%	**2.9%**	-	17.6%	0%	0%	**12.5%**	-	4.7%
Articulated Trucks	2	11	0	**13**	-	13	12	0	**25**	-	10	3	1	**14**	-	52
% Articulated Trucks	10.0%	6.7%	0%	**7.1%**	-	10.3%	26.7%	0%	**14.6%**	-	58.8%	50.0%	100%	**58.3%**	-	13.7%
Buses	0	2	0	**2**	-	0	0	0	**0**	-	0	0	0	**0**	-	2
% Buses	0%	1.2%	0%	**1.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.5%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
Forced Peak (7:30 AM - 8:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
PM Peak (3:30 PM - 4:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam



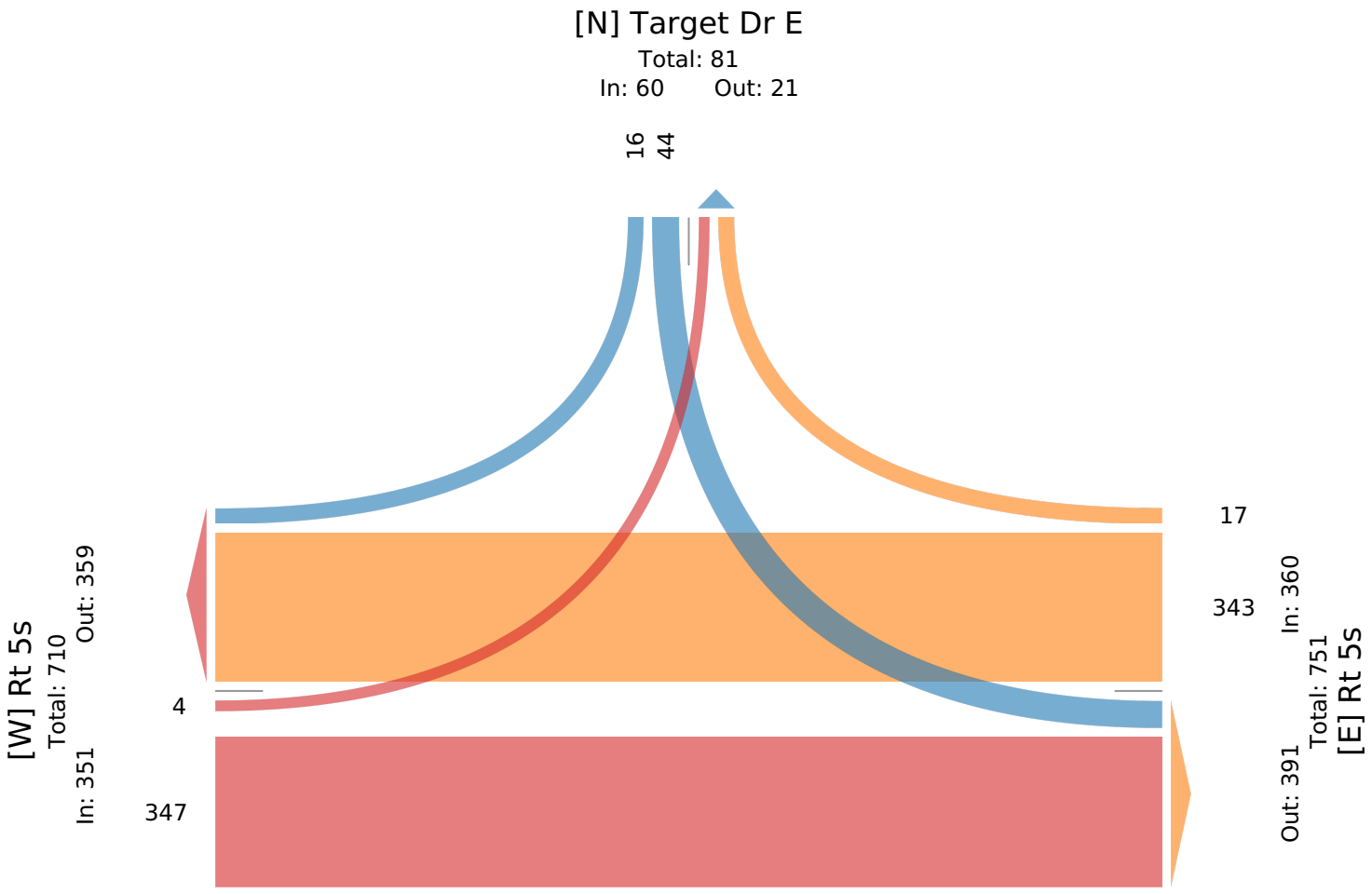
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-02-05 3:30PM	0	45	0	**45**	0	104	7	0	**111**	0	17	7	0	**24**	0	**180**
3:45PM	2	46	0	**48**	0	99	5	0	**104**	0	13	3	0	**16**	0	**168**
4:00PM	1	148	0	**149**	0	74	2	0	**76**	0	6	6	0	**12**	0	**237**
4:15PM	1	108	0	**109**	0	66	3	0	**69**	0	8	0	0	**8**	0	**186**
Total	4	347	0	**351**	0	343	17	0	**360**	0	44	16	0	**60**	0	**771**
% Approach	1.1%	98.9%	0%	**-**	-	95.3%	4.7%	0%	**-**	-	73.3%	26.7%	0%	**-**	-	-
% Total	0.5%	45.0%	0%	**45.5%**	-	44.5%	2.2%	0%	**46.7%**	-	5.7%	2.1%	0%	**7.8%**	-	-
PHF	0.500	0.586	-	**0.589**	-	0.825	0.607	-	**0.811**	-	0.647	0.571	-	**0.625**	-	0.813
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	1	338	0	**339**	-	328	8	0	**336**	-	33	14	0	**47**	-	722
% Lights	25.0%	97.4%	0%	**96.6%**	-	95.6%	47.1%	0%	**93.3%**	-	75.0%	87.5%	0%	**78.3%**	-	93.6%
Single-Unit Trucks	1	4	0	**5**	-	8	2	0	**10**	-	7	2	0	**9**	-	24
% Single-Unit Trucks	25.0%	1.2%	0%	**1.4%**	-	2.3%	11.8%	0%	**2.8%**	-	15.9%	12.5%	0%	**15.0%**	-	3.1%
Articulated Trucks	2	3	0	**5**	-	7	7	0	**14**	-	4	0	0	**4**	-	23
% Articulated Trucks	50.0%	0.9%	0%	**1.4%**	-	2.0%	41.2%	0%	**3.9%**	-	9.1%	0%	0%	**6.7%**	-	3.0%
Buses	0	2	0	**2**	-	0	0	0	**0**	-	0	0	0	**0**	-	2
% Buses	0%	0.6%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
PM Peak (3:30 PM - 4:30 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



GENERATOR (TENANT SPECIFIC)
PEAK HOUR CONDITION

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2025-02-05 5:00AM	1	32	6	0	2	**41**	0	3	18	0	0	0	**21**	0
5:15AM	0	19	11	0	3	**33**	0	2	42	0	0	0	**44**	0
5:30AM	0	34	8	0	5	**47**	0	4	58	0	0	0	**62**	0
5:45AM	0	48	6	0	4	**58**	0	3	35	0	0	0	**38**	0
Hourly Total	1	133	31	0	14	**179**	0	12	153	0	0	0	**165**	0
6:00AM	0	37	14	0	4	**55**	0	2	11	0	0	0	**13**	0
6:15AM	3	34	10	0	5	**52**	0	3	16	0	0	0	**19**	0
6:30AM	1	29	15	0	14	**59**	0	2	28	0	0	0	**30**	0
6:45AM	1	37	15	0	4	**57**	0	2	28	0	0	0	**30**	0
Hourly Total	5	137	54	0	27	**223**	0	9	83	0	0	0	**92**	0
7:00AM	1	40	12	0	12	**65**	0	1	31	1	0	0	**33**	0
7:15AM	1	47	5	0	8	**61**	0	5	23	0	0	0	**28**	0
7:30AM	0	47	11	0	8	**66**	0	9	36	0	0	0	**45**	0
7:45AM	0	40	8	0	14	**62**	0	5	39	0	0	0	**44**	0
Hourly Total	2	174	36	0	42	**254**	0	20	129	1	0	0	**150**	0
8:00AM	2	36	10	0	10	**58**	0	6	39	0	0	0	**45**	0
8:15AM	1	58	15	0	9	**83**	0	3	53	0	0	1	**57**	0
8:30AM	2	45	9	0	8	**64**	0	3	46	0	0	0	**49**	0
8:45AM	1	53	11	0	6	**71**	0	2	43	0	0	0	**45**	0
Hourly Total	6	192	45	0	33	**276**	0	14	181	0	0	1	**196**	0
3:00PM	1	86	19	0	11	**117**	0	1	43	0	0	0	**44**	0
3:15PM	1	89	10	0	7	**107**	0	7	75	2	0	0	**84**	0
3:30PM	3	75	10	0	13	**101**	0	2	49	3	0	0	**54**	0
3:45PM	2	75	8	0	10	**95**	0	7	67	1	0	0	**75**	0
Hourly Total	7	325	47	0	41	**420**	0	17	234	6	0	0	**257**	0
4:00PM	7	148	24	0	18	**197**	0	3	46	1	0	0	**50**	0
4:15PM	0	144	29	0	14	**187**	0	4	50	1	0	0	**55**	0
4:30PM	3	101	25	0	5	**134**	0	2	55	1	0	0	**58**	0
4:45PM	1	63	6	0	10	**80**	0	3	58	3	0	2	**66**	0
Hourly Total	11	456	84	0	47	**598**	0	12	209	6	0	2	**229**	0
5:00PM	2	89	13	0	5	**109**	0	8	47	2	0	0	**57**	0
5:15PM	2	58	13	0	9	**82**	0	8	47	1	0	0	**56**	0
5:30PM	1	55	19	0	4	**79**	0	3	51	1	0	0	**55**	0
5:45PM	2	37	5	0	6	**50**	0	3	41	2	0	1	**47**	0
Hourly Total	7	239	50	0	24	**320**	0	22	186	6	0	1	**215**	0
6:00PM	2	59	11	0	4	**76**	0	2	33	0	0	0	**35**	0
6:15PM	1	49	6	0	2	**58**	0	1	22	0	0	0	**23**	0
6:30PM	2	36	4	0	3	**45**	0	2	21	0	0	0	**23**	0
6:45PM	4	23	6	0	3	**36**	0	0	20	2	0	0	**22**	0
Hourly Total	9	167	27	0	12	**215**	0	5	96	2	0	0	**103**	0
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Total	48	1823	374	0	240	**2485**	0	111	1271	21	0	4	**1407**	0
% Approach	1.9%	73.4%	15.1%	0%	9.7%	**-**	-	7.9%	90.3%	1.5%	0%	0.3%	**-**	-
% Total	0.8%	30.9%	6.3%	0%	4.1%	**42.1%**	-	1.9%	21.5%	0.4%	0%	0.1%	**23.8%**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	45	1696	291	0	192	**2224**	-	105	1063	21	0	4	**1193**	-
% Lights	93.8%	93.0%	77.8%	0%	80.0%	**89.5%**	-	94.6%	83.6%	100%	0%	100%	**84.8%**	-
Single-Unit Trucks	0	33	19	0	12	**64**	-	1	46	0	0	0	**47**	-
% Single-Unit Trucks	0%	1.8%	5.1%	0%	5.0%	**2.6%**	-	0.9%	3.6%	0%	0%	0%	**3.3%**	-
Articulated Trucks	0	45	62	0	34	**141**	-	4	149	0	0	0	**153**	-
% Articulated Trucks	0%	2.5%	16.6%	0%	14.2%	**5.7%**	-	3.6%	11.7%	0%	0%	0%	**10.9%**	-

Leg	Rt 5s							Rt 5s						
Direction	Eastbound							Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
Buses	3	49	2	0	2	**56**	-	1	13	0	0	0	**14**	-
% Buses	6.3%	2.7%	0.5%	0%	0.8%	**2.3%**	-	0.9%	1.0%	0%	0%	0%	**1.0%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

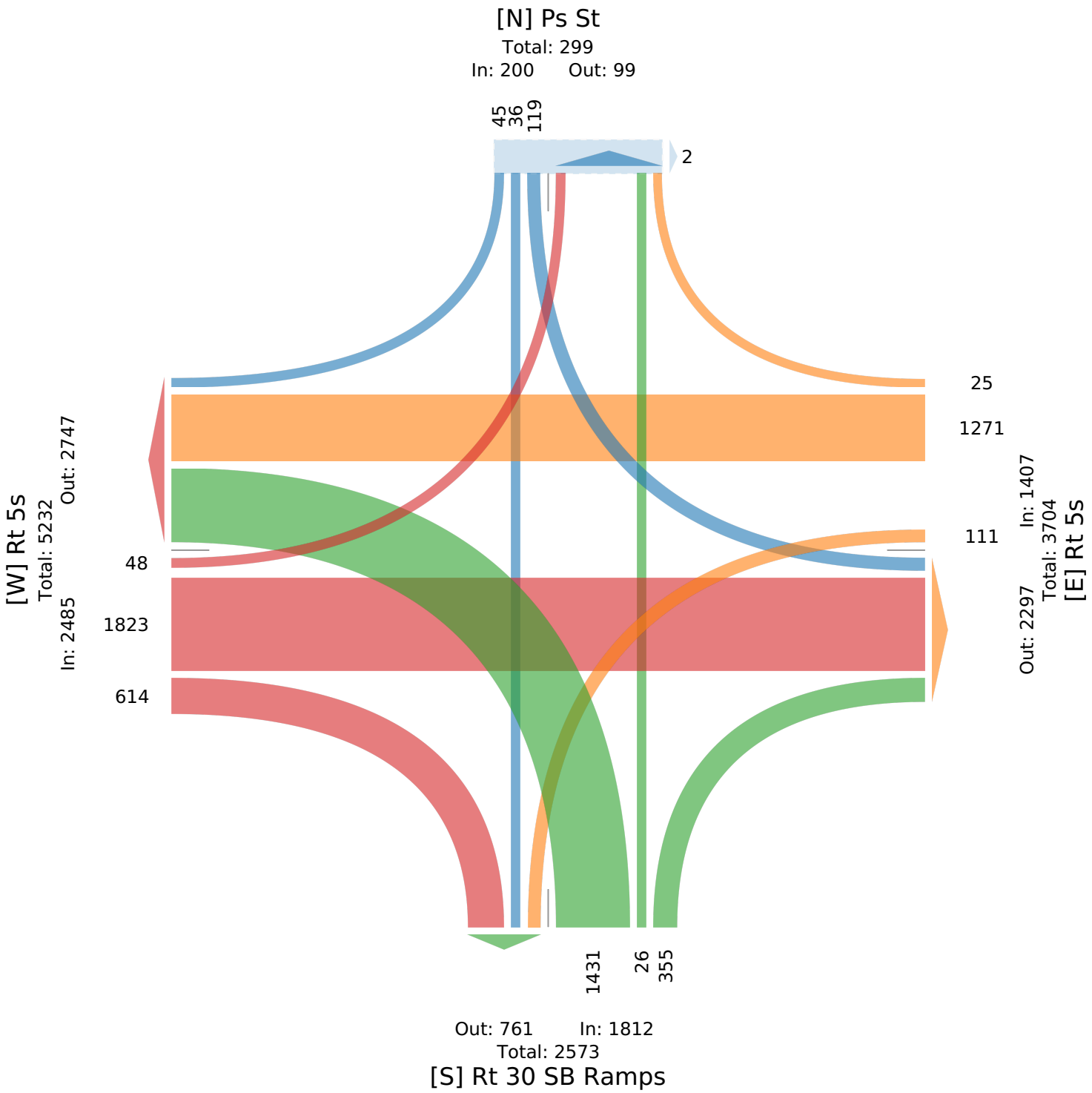
Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 5:00AM	27	0	3	0	1	**31**	0	1	2	0	0	0	**3**	0	**96**
5:15AM	46	0	2	0	2	**50**	0	1	0	0	0	2	**3**	0	**130**
5:30AM	81	0	3	0	3	**87**	0	1	1	0	0	1	**3**	0	**199**
5:45AM	62	0	4	0	4	**70**	0	0	0	0	0	1	**1**	0	**167**
Hourly Total	216	0	12	0	10	**238**	0	3	3	0	0	4	**10**	0	**592**
6:00AM	20	0	3	0	3	**26**	0	0	2	1	0	0	**3**	0	**97**
6:15AM	28	0	3	0	1	**32**	0	0	3	0	0	0	**3**	0	**106**
6:30AM	30	0	6	0	2	**38**	0	0	1	1	0	0	**2**	0	**129**
6:45AM	32	1	1	0	5	**39**	0	0	1	0	0	0	**1**	0	**127**
Hourly Total	110	1	13	0	11	**135**	0	0	7	2	0	0	**9**	0	**459**
7:00AM	15	0	3	0	5	**23**	0	5	2	1	0	0	**8**	0	**129**
7:15AM	37	0	8	0	1	**46**	0	4	1	4	0	0	**9**	0	**144**
7:30AM	42	3	9	0	3	**57**	0	5	1	0	0	0	**6**	0	**174**
7:45AM	50	0	5	0	4	**59**	0	4	2	1	0	1	**8**	0	**173**
Hourly Total	144	3	25	0	13	**185**	0	18	6	6	0	1	**31**	0	**620**
8:00AM	53	3	9	0	6	**71**	0	4	2	1	0	0	**7**	0	**181**
8:15AM	71	2	6	0	2	**81**	0	12	0	3	0	0	**15**	0	**236**
8:30AM	51	2	6	0	5	**64**	0	11	1	1	0	0	**13**	0	**190**
8:45AM	66	2	8	0	3	**79**	0	7	2	0	0	0	**9**	0	**204**
Hourly Total	241	9	29	0	16	**295**	0	34	5	5	0	0	**44**	0	**811**
3:00PM	57	1	10	0	3	**71**	0	18	2	1	0	0	**21**	0	**253**
3:15PM	60	0	7	0	7	**74**	0	2	0	0	0	0	**2**	1	**267**
3:30PM	95	1	9	0	5	**110**	0	8	0	3	0	0	**11**	0	**276**
3:45PM	70	1	8	0	6	**85**	0	4	0	1	0	0	**5**	0	**260**
Hourly Total	282	3	34	0	21	**340**	0	32	2	5	0	0	**39**	1	**1056**
4:00PM	58	1	8	0	4	**71**	0	5	3	0	0	1	**9**	0	**327**
4:15PM	41	0	7	0	4	**52**	0	12	2	2	0	0	**16**	0	**310**
4:30PM	29	2	9	0	6	**46**	0	5	0	2	0	1	**8**	0	**246**
4:45PM	48	2	14	0	7	**71**	0	2	2	0	0	1	**5**	0	**222**
Hourly Total	176	5	38	0	21	**240**	0	24	7	4	0	3	**38**	0	**1105**
5:00PM	44	2	10	0	3	**59**	0	0	3	1	0	1	**5**	1	**230**
5:15PM	49	0	11	0	8	**68**	0	1	0	0	0	0	**1**	0	**207**
5:30PM	32	0	5	0	9	**46**	0	2	1	2	0	2	**7**	0	**187**
5:45PM	36	2	12	0	3	**53**	0	4	0	0	0	0	**4**	0	**154**
Hourly Total	161	4	38	0	23	**226**	0	7	4	3	0	3	**17**	1	**778**
6:00PM	33	1	8	0	3	**45**	0	0	1	3	0	0	**4**	0	**160**
6:15PM	20	0	6	0	9	**35**	0	0	0	2	0	0	**2**	0	**118**
6:30PM	27	0	7	0	5	**39**	0	1	1	2	0	0	**4**	0	**111**
6:45PM	21	0	10	0	3	**34**	0	0	0	2	0	0	**2**	0	**94**
Hourly Total	101	1	31	0	20	**153**	0	1	2	9	0	0	**12**	0	**483**
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Total	1431	26	220	0	135	**1812**	0	119	36	34	0	11	**200**	2	**5904**
% Approach	79.0%	1.4%	12.1%	0%	7.5%	**-**	-	59.5%	18.0%	17.0%	0%	5.5%	**-**	-	-
% Total	24.2%	0.4%	3.7%	0%	2.3%	**30.7%**	-	2.0%	0.6%	0.6%	0%	0.2%	**3.4%**	-	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	1322	24	210	0	131	**1687**	-	108	35	31	0	11	**185**	-	5289
% Lights	92.4%	92.3%	95.5%	0%	97.0%	**93.1%**	-	90.8%	97.2%	91.2%	0%	100%	**92.5%**	-	89.6%
Single-Unit Trucks	9	0	4	0	3	**16**	-	0	0	0	0	0	**0**	-	127
% Single-Unit Trucks	0.6%	0%	1.8%	0%	2.2%	**0.9%**	-	0%	0%	0%	0%	0%	**0%**	-	2.2%
Articulated Trucks	35	0	3	0	0	**38**	-	0	0	0	0	0	**0**	-	332
% Articulated Trucks	2.4%	0%	1.4%	0%	0%	**2.1%**	-	0%	0%	0%	0%	0%	**0%**	-	5.6%

Leg	Rt 30 SB Ramps							Ps St							
Direction	Northbound							Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
Buses	65	2	3	0	1	**71**	-	11	1	3	0	0	**15**	-	156
% Buses	4.5%	7.7%	1.4%	0%	0.7%	**3.9%**	-	9.2%	2.8%	8.8%	0%	0%	**7.5%**	-	2.6%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 6:30AM	1	29	15	0	14	**59**	0	2	28	0	0	0	**30**	0
6:45AM	1	37	15	0	4	**57**	0	2	28	0	0	0	**30**	0
7:00AM	1	40	12	0	12	**65**	0	1	31	1	0	0	**33**	0
7:15AM	1	47	5	0	8	**61**	0	5	23	0	0	0	**28**	0
Total	4	153	47	0	38	**242**	0	10	110	1	0	0	**121**	0
% Approach	1.7%	63.2%	19.4%	0%	15.7%	**-**	-	8.3%	90.9%	0.8%	0%	0%	**-**	-
% Total	0.8%	28.9%	8.9%	0%	7.2%	**45.7%**	-	1.9%	20.8%	0.2%	0%	0%	**22.9%**	-
PHF	1.000	0.814	0.783	-	0.679	**0.931**	-	0.500	0.887	0.250	-	-	**0.917**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	3	126	38	0	31	**198**	-	9	77	1	0	0	**87**	-
% Lights	75.0%	82.4%	80.9%	0%	81.6%	**81.8%**	-	90.0%	70.0%	100%	0%	0%	**71.9%**	-
Single-Unit Trucks	0	3	3	0	2	**8**	-	0	8	0	0	0	**8**	-
% Single-Unit Trucks	0%	2.0%	6.4%	0%	5.3%	**3.3%**	-	0%	7.3%	0%	0%	0%	**6.6%**	-
Articulated Trucks	0	6	6	0	4	**16**	-	0	22	0	0	0	**22**	-
% Articulated Trucks	0%	3.9%	12.8%	0%	10.5%	**6.6%**	-	0%	20.0%	0%	0%	0%	**18.2%**	-
Buses	1	18	0	0	1	**20**	-	1	3	0	0	0	**4**	-
% Buses	25.0%	11.8%	0%	0%	2.6%	**8.3%**	-	10.0%	2.7%	0%	0%	0%	**3.3%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

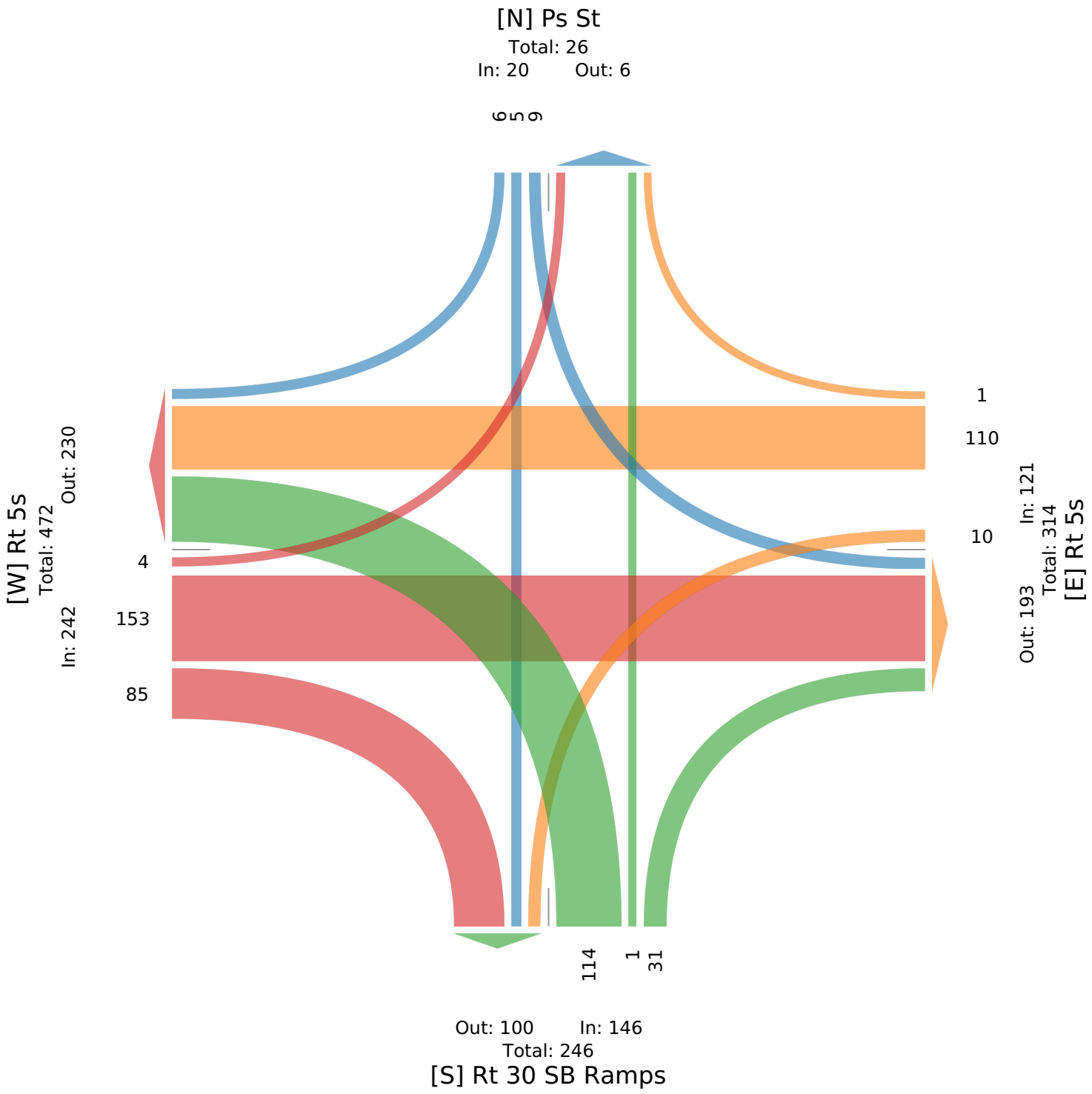
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 6:30AM	30	0	6	0	2	**38**	0	0	1	1	0	0	**2**	0	**129**
6:45AM	32	1	1	0	5	**39**	0	0	1	0	0	0	**1**	0	**127**
7:00AM	15	0	3	0	5	**23**	0	5	2	1	0	0	**8**	0	**129**
7:15AM	37	0	8	0	1	**46**	0	4	1	4	0	0	**9**	0	**144**
Total	114	1	18	0	13	**146**	0	9	5	6	0	0	**20**	0	**529**
% Approach	78.1%	0.7%	12.3%	0%	8.9%	**-**	-	45.0%	25.0%	30.0%	0%	0%	**-**	-	**-**
% Total	21.6%	0.2%	3.4%	0%	2.5%	**27.6%**	-	1.7%	0.9%	1.1%	0%	0%	**3.8%**	-	**-**
PHF	0.770	0.250	0.563	-	0.650	**0.793**	-	0.450	0.625	0.375	-	-	**0.556**	-	0.918
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	111	1	16	0	13	**141**	-	9	5	6	0	0	**20**	-	446
% Lights	97.4%	100%	88.9%	0%	100%	**96.6%**	-	100%	100%	100%	0%	0%	**100%**	-	84.3%
Single-Unit Trucks	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	16
% Single-Unit Trucks	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	3.0%
Articulated Trucks	2	0	0	0	0	**2**	-	0	0	0	0	0	**0**	-	40
% Articulated Trucks	1.8%	0%	0%	0%	0%	**1.4%**	-	0%	0%	0%	0%	0%	**0%**	-	7.6%
Buses	1	0	2	0	0	**3**	-	0	0	0	0	0	**0**	-	27
% Buses	0.9%	0%	11.1%	0%	0%	**2.1%**	-	0%	0%	0%	0%	0%	**0%**	-	5.1%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound							Rt 5s Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 5:30PM	1	55	19	0	4	**79**	0	3	51	1	0	0	**55**	0
5:45PM	2	37	5	0	6	**50**	0	3	41	2	0	1	**47**	0
6:00PM	2	59	11	0	4	**76**	0	2	33	0	0	0	**35**	0
6:15PM	1	49	6	0	2	**58**	0	1	22	0	0	0	**23**	0
Total	6	200	41	0	16	**263**	0	9	147	3	0	1	**160**	0
% Approach	2.3%	76.0%	15.6%	0%	6.1%	**-**	-	5.6%	91.9%	1.9%	0%	0.6%	**-**	-
% Total	1.0%	32.3%	6.6%	0%	2.6%	**42.5%**	-	1.5%	23.7%	0.5%	0%	0.2%	**25.8%**	-
PHF	0.750	0.847	0.539	-	0.667	**0.832**	-	0.750	0.721	0.375	-	0.250	**0.727**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	6	188	29	0	13	**236**	-	9	116	3	0	1	**129**	-
% Lights	100%	94.0%	70.7%	0%	81.3%	**89.7%**	-	100%	78.9%	100%	0%	100%	**80.6%**	-
Single-Unit Trucks	0	5	4	0	1	**10**	-	0	6	0	0	0	**6**	-
% Single-Unit Trucks	0%	2.5%	9.8%	0%	6.3%	**3.8%**	-	0%	4.1%	0%	0%	0%	**3.8%**	-
Articulated Trucks	0	5	8	0	2	**15**	-	0	24	0	0	0	**24**	-
% Articulated Trucks	0%	2.5%	19.5%	0%	12.5%	**5.7%**	-	0%	16.3%	0%	0%	0%	**15.0%**	-
Buses	0	2	0	0	0	**2**	-	0	1	0	0	0	**1**	-
% Buses	0%	1.0%	0%	0%	0%	**0.8%**	-	0%	0.7%	0%	0%	0%	**0.6%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

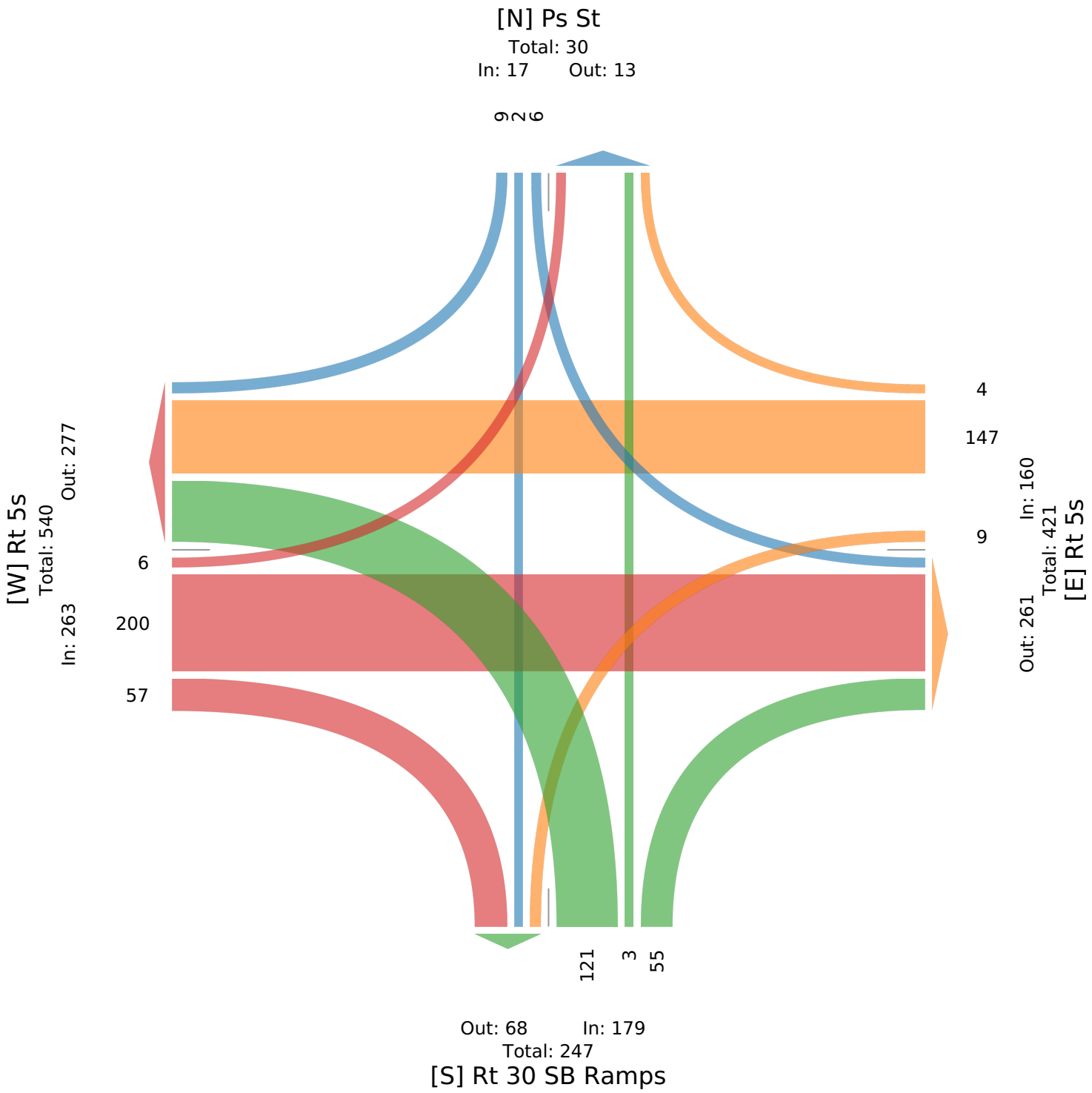
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 SB Ramps Northbound							Ps St Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 5:30PM	32	0	5	0	9	**46**	0	2	1	2	0	2	**7**	0	**187**
5:45PM	36	2	12	0	3	**53**	0	4	0	0	0	0	**4**	0	**154**
6:00PM	33	1	8	0	3	**45**	0	0	1	3	0	0	**4**	0	**160**
6:15PM	20	0	6	0	9	**35**	0	0	0	2	0	0	**2**	0	**118**
Total	121	3	31	0	24	**179**	0	6	2	7	0	2	**17**	0	**619**
% Approach	67.6%	1.7%	17.3%	0%	13.4%	**-**	-	35.3%	11.8%	41.2%	0%	11.8%	**-**	-	-
% Total	19.5%	0.5%	5.0%	0%	3.9%	**28.9%**	-	1.0%	0.3%	1.1%	0%	0.3%	**2.7%**	-	-
PHF	0.840	0.375	0.646	-	0.667	**0.844**	-	0.375	0.500	0.583	-	0.250	**0.607**	-	0.828
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	111	3	30	0	24	**168**	-	6	2	7	0	2	**17**	-	550
% Lights	91.7%	100%	96.8%	0%	100%	**93.9%**	-	100%	100%	100%	0%	100%	**100%**	-	88.9%
Single-Unit Trucks	1	0	0	0	0	**1**	-	0	0	0	0	0	**0**	-	17
% Single-Unit Trucks	0.8%	0%	0%	0%	0%	**0.6%**	-	0%	0%	0%	0%	0%	**0%**	-	2.7%
Articulated Trucks	6	0	0	0	0	**6**	-	0	0	0	0	0	**0**	-	45
% Articulated Trucks	5.0%	0%	0%	0%	0%	**3.4%**	-	0%	0%	0%	0%	0%	**0%**	-	7.3%
Buses	3	0	1	0	0	**4**	-	0	0	0	0	0	**0**	-	7
% Buses	2.5%	0%	3.2%	0%	0%	**2.2%**	-	0%	0%	0%	0%	0%	**0%**	-	1.1%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 SB Ramps / Ps Street - TMC
Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267587, Location: 42.928622, -74.199475, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

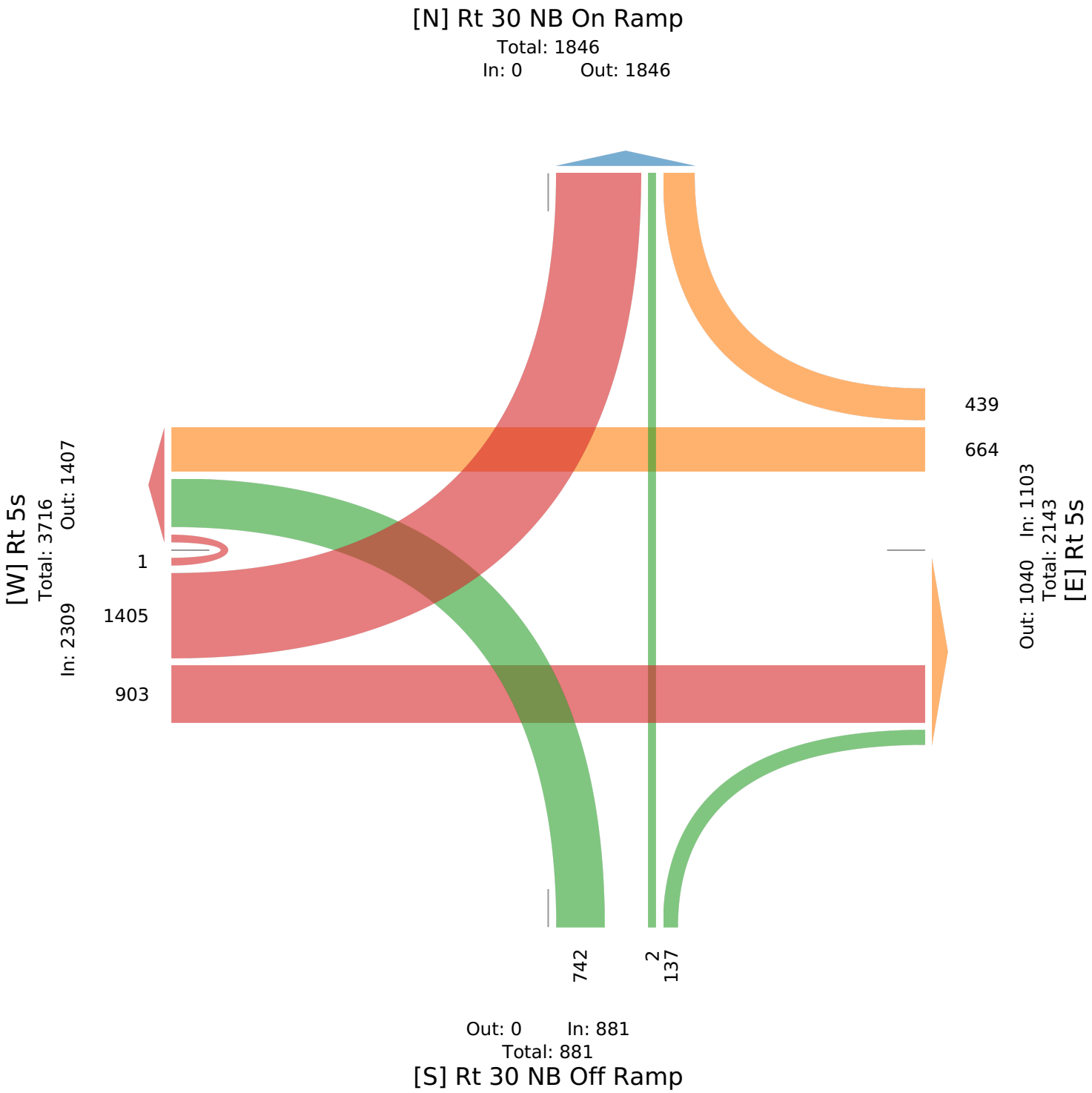
Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 5:00AM	18	19	0	**37**	0	10	0	0	**10**	0	11	0	3	0	**14**	0	**0**	0	**61**
5:15AM	11	13	0	**24**	0	25	1	0	**26**	0	19	0	2	2	**23**	0	**0**	0	**73**
5:30AM	22	21	0	**43**	0	28	2	0	**30**	0	33	0	3	2	**38**	0	**0**	0	**111**
5:45AM	33	24	0	**57**	0	18	3	0	**21**	0	22	0	1	2	**25**	0	**0**	0	**103**
Hourly Total	84	77	0	**161**	0	81	6	0	**87**	0	85	0	9	6	**100**	0	**0**	0	**348**
6:00AM	15	20	0	**35**	0	5	9	0	**14**	0	9	0	6	1	**16**	0	**0**	0	**65**
6:15AM	27	18	0	**45**	0	9	7	0	**16**	0	9	0	3	0	**12**	0	**0**	0	**73**
6:30AM	18	19	0	**37**	0	14	8	0	**22**	0	19	0	4	0	**23**	0	**0**	0	**82**
6:45AM	24	20	0	**44**	0	14	10	0	**24**	0	13	0	0	2	**15**	0	**0**	0	**83**
Hourly Total	84	77	0	**161**	0	42	34	0	**76**	0	50	0	13	3	**66**	0	**0**	0	**303**
7:00AM	30	19	0	**49**	0	10	13	0	**23**	0	23	0	1	1	**25**	0	**0**	0	**97**
7:15AM	38	26	0	**64**	0	14	21	0	**35**	0	16	0	5	4	**25**	0	**0**	0	**124**
7:30AM	34	31	0	**65**	0	21	29	0	**50**	0	21	0	2	5	**28**	0	**0**	0	**143**
7:45AM	31	21	0	**52**	0	13	22	0	**35**	0	31	0	4	0	**35**	0	**0**	0	**122**
Hourly Total	133	97	0	**230**	0	58	85	0	**143**	0	91	0	12	10	**113**	0	**0**	0	**486**
8:00AM	24	31	0	**55**	0	20	16	0	**36**	0	24	0	4	2	**30**	0	**0**	0	**121**
8:15AM	52	29	0	**81**	0	23	14	0	**37**	0	35	0	2	0	**37**	0	**0**	0	**155**
8:30AM	41	27	0	**68**	0	19	17	0	**36**	0	26	0	1	1	**28**	0	**0**	0	**132**
8:45AM	47	22	0	**69**	0	16	12	0	**28**	0	25	0	2	0	**27**	0	**0**	0	**124**
Hourly Total	164	109	0	**273**	0	78	59	0	**137**	0	110	0	9	3	**122**	0	**0**	0	**532**
3:00PM	84	34	0	**118**	0	21	22	0	**43**	0	29	0	3	0	**32**	0	**0**	0	**193**
3:15PM	68	34	0	**102**	0	47	19	0	**66**	0	31	0	1	3	**35**	0	**0**	0	**203**
3:30PM	62	37	0	**99**	0	36	24	0	**60**	0	29	0	3	5	**37**	0	**0**	0	**196**
3:45PM	57	40	0	**97**	0	34	20	0	**54**	0	33	0	1	1	**35**	0	**0**	0	**186**
Hourly Total	271	145	0	**416**	0	138	85	0	**223**	0	122	0	8	9	**139**	0	**0**	0	**778**
4:00PM	117	45	0	**162**	0	24	17	0	**41**	0	27	0	6	1	**34**	0	**0**	0	**237**
4:15PM	111	59	0	**170**	0	31	16	0	**47**	0	23	0	3	1	**27**	0	**0**	0	**244**
4:30PM	91	32	0	**123**	0	26	18	0	**44**	0	32	2	1	1	**36**	0	**0**	0	**203**
4:45PM	47	42	0	**89**	0	33	20	0	**53**	0	33	0	5	2	**40**	0	**0**	0	**182**
Hourly Total	366	178	0	**544**	0	114	71	0	**185**	0	115	2	15	5	**137**	0	**0**	0	**866**
5:00PM	72	30	0	**102**	0	33	13	0	**46**	0	21	0	3	2	**26**	0	**0**	0	**174**
5:15PM	36	42	0	**78**	0	29	14	0	**43**	0	26	0	8	1	**35**	0	**0**	0	**156**
5:30PM	43	26	0	**69**	0	25	21	0	**46**	0	31	0	0	2	**33**	0	**0**	0	**148**
5:45PM	31	26	0	**57**	0	18	11	0	**29**	0	31	0	3	2	**36**	0	**0**	0	**122**
Hourly Total	182	124	0	**306**	0	105	59	0	**164**	0	109	0	14	7	**130**	0	**0**	0	**600**
6:00PM	44	24	0	**68**	0	15	14	0	**29**	0	22	0	2	4	**28**	0	**0**	0	**125**
6:15PM	34	30	0	**64**	0	9	9	0	**18**	0	15	0	5	0	**20**	0	**0**	0	**102**
6:30PM	22	27	0	**49**	0	13	13	0	**26**	0	10	0	1	0	**11**	0	**0**	0	**86**
6:45PM	21	15	1	**37**	0	11	4	0	**15**	0	13	0	2	0	**15**	0	**0**	0	**67**
Hourly Total	121	96	1	**218**	0	48	40	0	**88**	0	60	0	10	4	**74**	0	**0**	0	**380**
Total	1405	903	1	**2309**	0	664	439	0	**1103**	0	742	2	90	47	**881**	0	**0**	0	**4293**
% Approach	60.8%	39.1%	0%	**-**	-	60.2%	39.8%	0%	**-**	-	84.2%	0.2%	10.2%	5.3%	**-**	-	**-**	-	-
% Total	32.7%	21.0%	0%	**53.8%**	-	15.5%	10.2%	0%	**25.7%**	-	17.3%	0%	2.1%	1.1%	**20.5%**	-	**0%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	1292	860	1	**2153**	-	633	428	0	**1061**	-	561	2	82	45	**690**	-	**0**	-	3904
% Lights	92.0%	95.2%	100%	**93.2%**	-	95.3%	97.5%	0%	**96.2%**	-	75.6%	100%	91.1%	95.7%	**78.3%**	-	**-**	-	90.9%
Single-Unit Trucks	25	21	0	**46**	-	12	7	0	**19**	-	27	0	4	1	**32**	-	**0**	-	97
% Single-Unit Trucks	1.8%	2.3%	0%	**2.0%**	-	1.8%	1.6%	0%	**1.7%**	-	3.6%	0%	4.4%	2.1%	**3.6%**	-	**-**	-	2.3%
Articulated Trucks	32	14	0	**46**	-	12	1	0	**13**	-	147	0	3	1	**151**	-	**0**	-	210
% Articulated Trucks	2.3%	1.6%	0%	**2.0%**	-	1.8%	0.2%	0%	**1.2%**	-	19.8%	0%	3.3%	2.1%	**17.1%**	-	**-**	-	4.9%
Buses	56	8	0	**64**	-	7	3	0	**10**	-	7	0	1	0	**8**	-	**0**	-	82
% Buses	4.0%	0.9%	0%	**2.8%**	-	1.1%	0.7%	0%	**0.9%**	-	0.9%	0%	1.1%	0%	**0.9%**	-	**-**	-	1.9%

Leg	Rt 5s					Rt 5s					Rt 30 NB Off Ramp						Rt 30 NB On Ramp		
Direction	Eastbound					Westbound					Northbound						Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

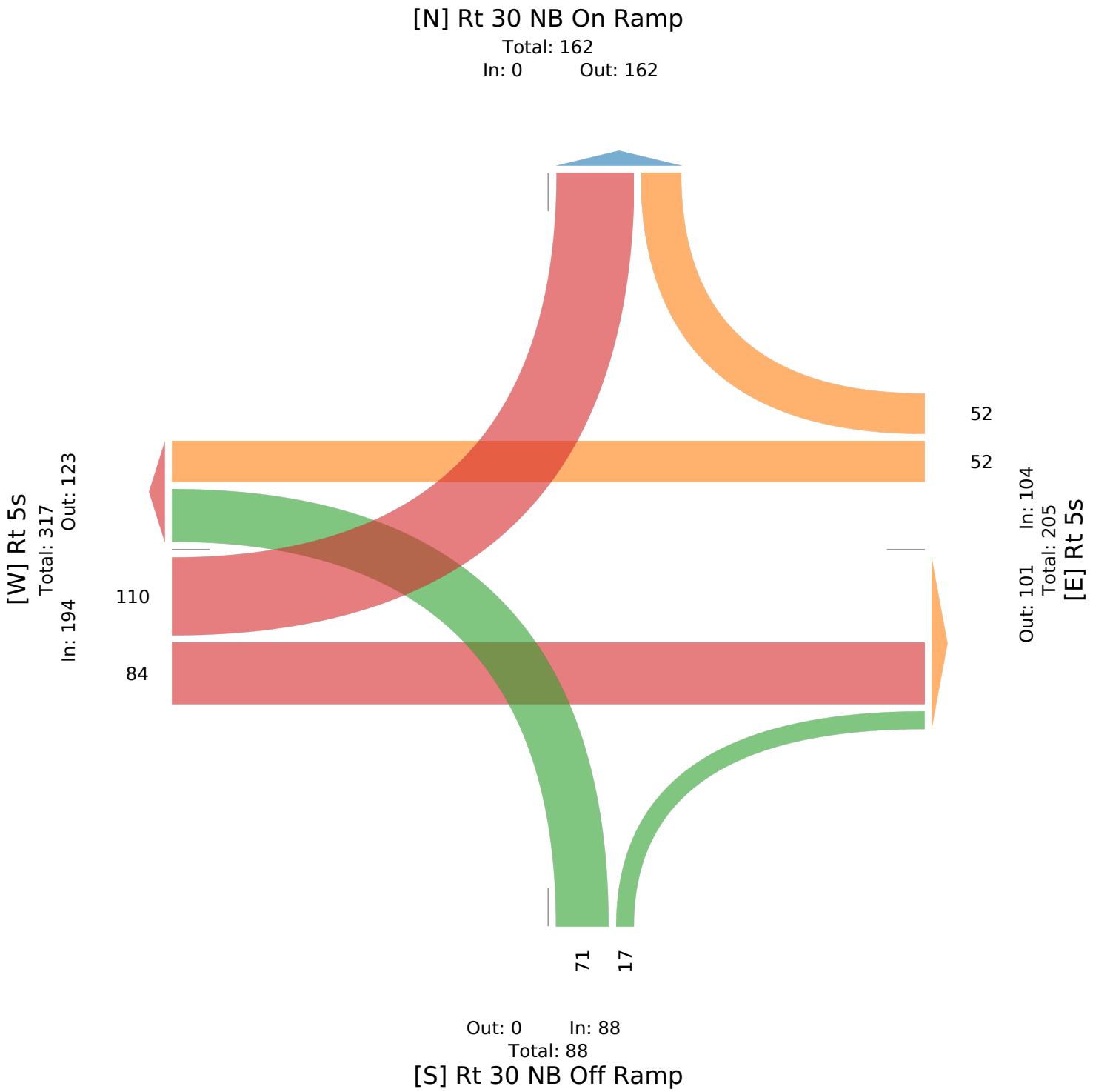
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 6:30AM	18	19	0	**37**	0	14	8	0	**22**	0	19	0	4	0	**23**	0	**0**	0	**82**
6:45AM	24	20	0	**44**	0	14	10	0	**24**	0	13	0	0	2	**15**	0	**0**	0	**83**
7:00AM	30	19	0	**49**	0	10	13	0	**23**	0	23	0	1	1	**25**	0	**0**	0	**97**
7:15AM	38	26	0	**64**	0	14	21	0	**35**	0	16	0	5	4	**25**	0	**0**	0	**124**
Total	110	84	0	**194**	0	52	52	0	**104**	0	71	0	10	7	**88**	0	**0**	0	**386**
% Approach	56.7%	43.3%	0%	**-**	-	50.0%	50.0%	0%	**-**	-	80.7%	0%	11.4%	8.0%	**-**	-	**-**	-	-
% Total	28.5%	21.8%	0%	**50.3%**	-	13.5%	13.5%	0%	**26.9%**	-	18.4%	0%	2.6%	1.8%	**22.8%**	-	**0%**	-	-
PHF	0.724	0.808	-	**0.758**	-	0.929	0.619	-	**0.743**	-	0.772	-	0.500	0.438	**0.880**	-	**-**	-	0.778
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	88	77	0	**165**	-	48	48	0	**96**	-	41	0	10	6	**57**	-	**0**	-	318
% Lights	80.0%	91.7%	0%	**85.1%**	-	92.3%	92.3%	0%	**92.3%**	-	57.7%	0%	100%	85.7%	**64.8%**	-	**-**	-	82.4%
Single-Unit Trucks	2	2	0	**4**	-	2	0	0	**2**	-	4	0	0	0	**4**	-	**0**	-	10
% Single-Unit Trucks	1.8%	2.4%	0%	**2.1%**	-	3.8%	0%	0%	**1.9%**	-	5.6%	0%	0%	0%	**4.5%**	-	**-**	-	2.6%
Articulated Trucks	4	2	0	**6**	-	1	1	0	**2**	-	23	0	0	1	**24**	-	**0**	-	32
% Articulated Trucks	3.6%	2.4%	0%	**3.1%**	-	1.9%	1.9%	0%	**1.9%**	-	32.4%	0%	0%	14.3%	**27.3%**	-	**-**	-	8.3%
Buses	16	3	0	**19**	-	1	3	0	**4**	-	3	0	0	0	**3**	-	**0**	-	26
% Buses	14.5%	3.6%	0%	**9.8%**	-	1.9%	5.8%	0%	**3.8%**	-	4.2%	0%	0%	0%	**3.4%**	-	**-**	-	6.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Rt 30 NB Ramps - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

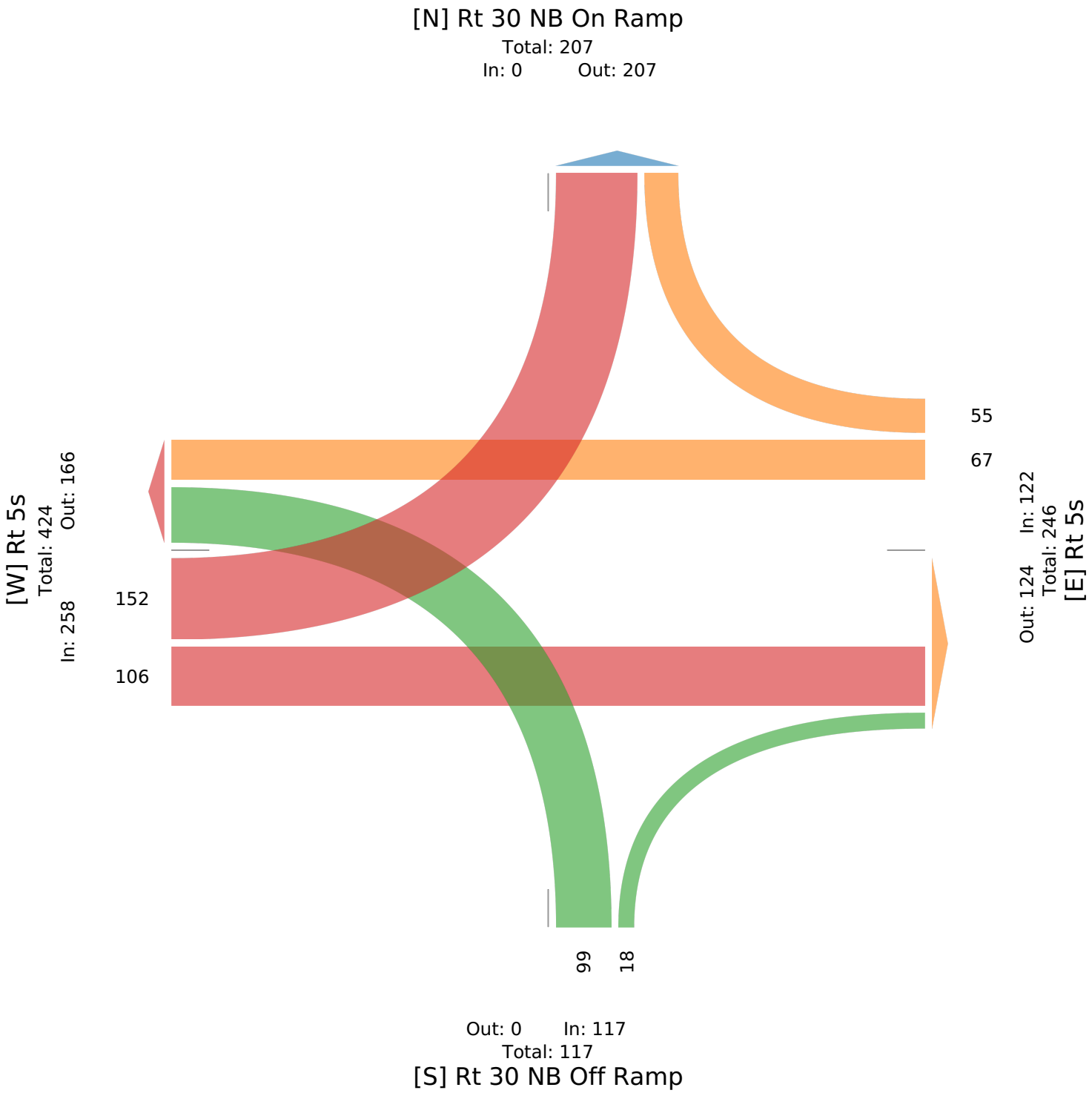
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound					Rt 5s Westbound					Rt 30 NB Off Ramp Northbound						Rt 30 NB On Ramp Southbound		
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	R	RR	**App**	Ped*	**App**	Ped*	**Int**
2025-02-05 5:30PM	43	26	0	**69**	0	25	21	0	**46**	0	31	0	0	2	**33**	0	**0**	0	**148**
5:45PM	31	26	0	**57**	0	18	11	0	**29**	0	31	0	3	2	**36**	0	**0**	0	**122**
6:00PM	44	24	0	**68**	0	15	14	0	**29**	0	22	0	2	4	**28**	0	**0**	0	**125**
6:15PM	34	30	0	**64**	0	9	9	0	**18**	0	15	0	5	0	**20**	0	**0**	0	**102**
Total	152	106	0	**258**	0	67	55	0	**122**	0	99	0	10	8	**117**	0	**0**	0	**497**
% Approach	58.9%	41.1%	0%	**-**	-	54.9%	45.1%	0%	**-**	-	84.6%	0%	8.5%	6.8%	**-**	-	**-**	-	-
% Total	30.6%	21.3%	0%	**51.9%**	-	13.5%	11.1%	0%	**24.5%**	-	19.9%	0%	2.0%	1.6%	**23.5%**	-	**0%**	-	-
PHF	0.864	0.883	-	**0.935**	-	0.670	0.655	-	**0.663**	-	0.798	-	0.500	0.500	**0.813**	-	**-**	-	0.840
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0%
Lights	140	103	0	**243**	-	65	55	0	**120**	-	73	0	9	8	**90**	-	**0**	-	453
% Lights	92.1%	97.2%	0%	**94.2%**	-	97.0%	100%	0%	**98.4%**	-	73.7%	0%	90.0%	100%	**76.9%**	-	**-**	-	91.1%
Single-Unit Trucks	8	1	0	**9**	-	1	0	0	**1**	-	2	0	1	0	**3**	-	**0**	-	13
% Single-Unit Trucks	5.3%	0.9%	0%	**3.5%**	-	1.5%	0%	0%	**0.8%**	-	2.0%	0%	10.0%	0%	**2.6%**	-	**-**	-	2.6%
Articulated Trucks	3	2	0	**5**	-	0	0	0	**0**	-	24	0	0	0	**24**	-	**0**	-	29
% Articulated Trucks	2.0%	1.9%	0%	**1.9%**	-	0%	0%	0%	**0%**	-	24.2%	0%	0%	0%	**20.5%**	-	**-**	-	5.8%
Buses	1	0	0	**1**	-	1	0	0	**1**	-	0	0	0	0	**0**	-	**0**	-	2
% Buses	0.7%	0%	0%	**0.4%**	-	1.5%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	**-**	-	0.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 5s & Rt 30 NB Ramps - TMC
Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267588, Location: 42.928196, -74.197875, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 5:00AM	1	0	0	0	0	**1**	0	0	0	4	0	9	**13**	0
5:15AM	3	3	0	0	0	**6**	0	1	0	10	0	17	**28**	0
5:30AM	4	2	1	0	0	**7**	0	2	0	15	0	20	**37**	0
5:45AM	1	3	0	0	1	**5**	0	2	1	7	0	22	**32**	0
Hourly Total	9	8	1	0	1	**19**	0	5	1	36	0	68	**110**	0
6:00AM	7	4	0	0	0	**11**	0	3	1	7	0	23	**34**	0
6:15AM	1	13	0	0	1	**15**	0	2	0	4	0	25	**31**	0
6:30AM	3	3	0	0	0	**6**	0	3	0	6	0	44	**53**	0
6:45AM	5	7	2	0	0	**14**	0	3	0	7	0	38	**48**	0
Hourly Total	16	27	2	0	1	**46**	0	11	1	24	0	130	**166**	0
7:00AM	9	8	0	0	1	**18**	2	3	2	16	0	32	**53**	0
7:15AM	11	6	3	0	2	**22**	0	4	0	10	0	46	**60**	0
7:30AM	12	5	4	0	0	**21**	0	2	1	24	0	64	**91**	0
7:45AM	8	5	1	0	1	**15**	0	3	1	31	0	62	**97**	0
Hourly Total	40	24	8	0	4	**76**	2	12	4	81	0	204	**301**	0
8:00AM	8	4	0	0	0	**12**	0	3	4	28	0	52	**87**	0
8:15AM	11	3	0	0	0	**14**	0	2	1	29	0	61	**93**	0
8:30AM	4	4	2	0	3	**13**	0	0	2	14	0	47	**63**	0
8:45AM	7	6	1	0	0	**14**	0	3	2	28	0	43	**76**	0
Hourly Total	30	17	3	0	3	**53**	0	8	9	99	0	203	**319**	0
3:00PM	8	2	0	0	0	**10**	0	3	5	36	0	81	**125**	0
3:15PM	7	4	1	0	0	**12**	0	8	4	9	0	89	**110**	0
3:30PM	4	7	3	0	0	**14**	0	3	2	53	0	78	**136**	0
3:45PM	2	4	1	0	0	**7**	0	7	2	69	0	80	**158**	0
Hourly Total	21	17	5	0	0	**43**	0	21	13	167	0	328	**529**	0
4:00PM	3	5	1	0	1	**10**	0	5	1	8	0	112	**126**	0
4:15PM	5	2	3	0	0	**10**	0	7	1	11	0	117	**136**	0
4:30PM	2	1	3	0	1	**7**	0	9	3	19	0	106	**137**	0
4:45PM	5	0	2	0	1	**8**	0	10	1	21	0	135	**167**	0
Hourly Total	15	8	9	0	3	**35**	0	31	6	59	0	470	**566**	0
5:00PM	3	2	6	0	0	**11**	0	7	5	85	0	44	**141**	0
5:15PM	4	4	5	0	0	**13**	0	10	3	44	0	88	**145**	0
5:30PM	6	4	2	0	0	**12**	0	10	2	50	0	81	**143**	0
5:45PM	3	6	0	0	0	**9**	0	5	1	53	0	69	**128**	0
Hourly Total	16	16	13	0	0	**45**	0	32	11	232	0	282	**557**	0
6:00PM	4	2	5	0	0	**11**	0	3	1	33	0	54	**91**	0
6:15PM	3	2	3	0	1	**9**	0	4	2	28	0	49	**83**	0
6:30PM	2	3	0	0	2	**7**	0	3	2	18	0	45	**68**	0
6:45PM	1	2	2	0	0	**5**	0	0	1	18	0	29	**48**	0
Hourly Total	10	9	10	0	3	**32**	0	10	6	97	0	177	**290**	0
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0
Total	157	126	51	0	15	**349**	2	130	51	795	0	1862	**2838**	0
% Approach	45.0%	36.1%	14.6%	0%	4.3%	**-**	-	4.6%	1.8%	28.0%	0%	65.6%	**-**	-
% Total	1.9%	1.5%	0.6%	0%	0.2%	**4.2%**	-	1.6%	0.6%	9.6%	0%	22.5%	**34.2%**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	152	123	50	0	15	**340**	-	115	48	691	0	1654	**2508**	-
% Lights	96.8%	97.6%	98.0%	0%	100%	**97.4%**	-	88.5%	94.1%	86.9%	0%	88.8%	**88.4%**	-
Single-Unit Trucks	2	2	1	0	0	**5**	-	3	2	19	0	59	**83**	-
% Single-Unit Trucks	1.3%	1.6%	2.0%	0%	0%	**1.4%**	-	2.3%	3.9%	2.4%	0%	3.2%	**2.9%**	-
Articulated Trucks	3	1	0	0	0	**4**	-	10	1	83	0	143	**237**	-
% Articulated Trucks	1.9%	0.8%	0%	0%	0%	**1.1%**	-	7.7%	2.0%	10.4%	0%	7.7%	**8.4%**	-

Leg	Dunkin Driveway							I-90 Ramps						
Direction	Eastbound							Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
Buses	0	0	0	0	0	**0**	-	2	0	2	0	6	**10**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	1.5%	0%	0.3%	0%	0.3%	**0.4%**	-
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

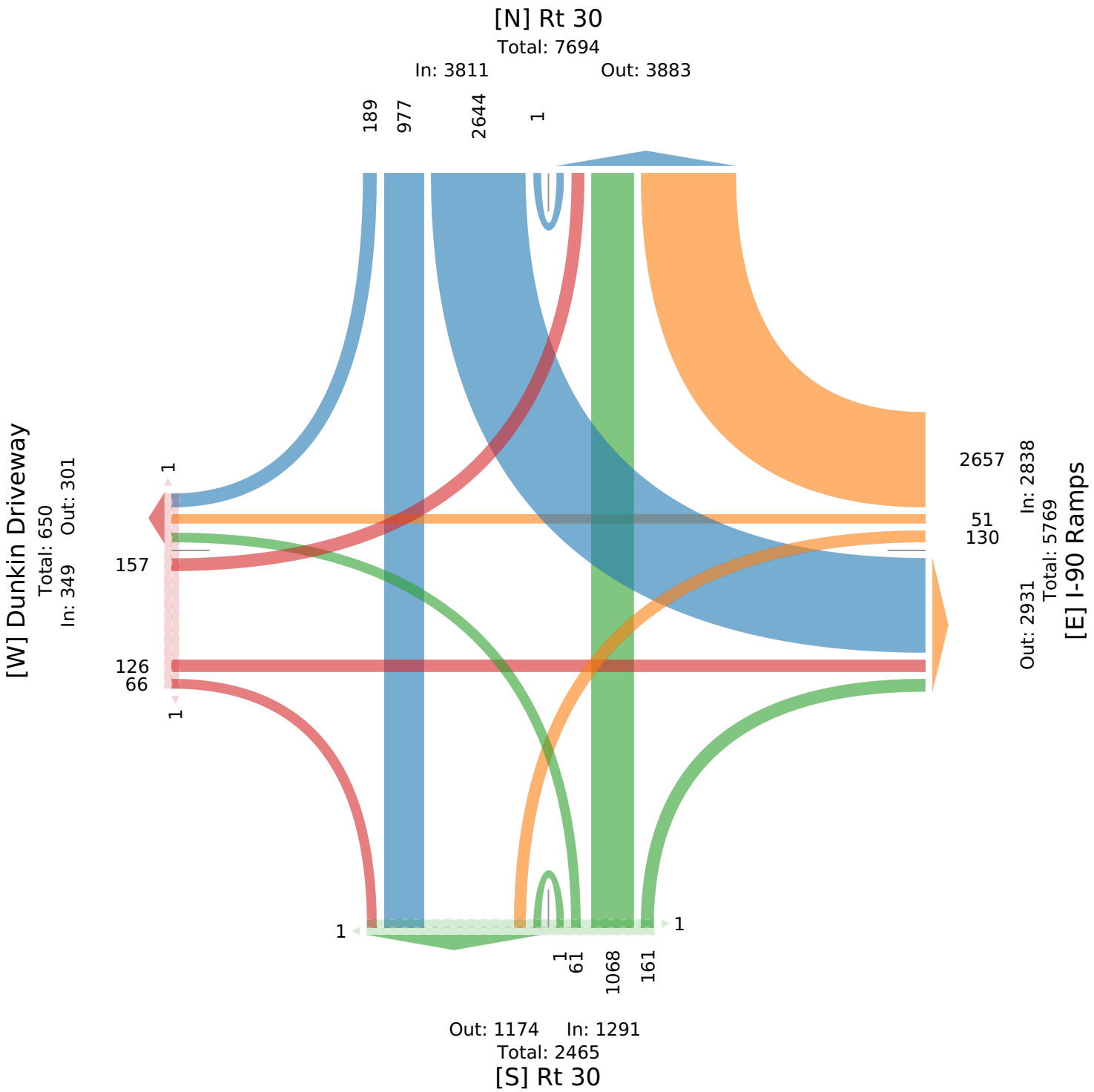
Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*	Int
2025-02-05 5:00AM	0	10	3	0	0	**13**	0	34	5	2	0	0	**41**	0	**68**
5:15AM	2	13	8	0	0	**23**	0	54	9	2	0	0	**65**	0	**122**
5:30AM	3	28	3	0	0	**34**	0	48	7	1	0	0	**56**	0	**134**
5:45AM	2	22	9	0	0	**33**	0	49	22	5	0	0	**76**	0	**146**
Hourly Total	7	73	23	0	0	**103**	0	185	43	10	0	0	**238**	0	**470**
6:00AM	1	28	4	0	1	**34**	0	89	12	4	0	2	**107**	0	**186**
6:15AM	1	28	6	0	5	**40**	0	102	12	10	0	0	**124**	0	**210**
6:30AM	0	19	7	0	7	**33**	0	120	21	6	0	0	**147**	0	**239**
6:45AM	1	45	9	0	5	**60**	0	109	16	11	0	1	**137**	0	**259**
Hourly Total	3	120	26	0	18	**167**	0	420	61	31	0	3	**515**	0	**894**
7:00AM	7	38	5	0	6	**56**	0	138	24	12	0	1	**175**	0	**302**
7:15AM	5	56	9	0	3	**73**	0	128	19	15	0	0	**162**	0	**317**
7:30AM	4	46	6	0	1	**57**	0	142	15	6	0	0	**163**	0	**332**
7:45AM	3	57	8	0	1	**69**	0	106	27	10	0	1	**144**	0	**325**
Hourly Total	19	197	28	0	11	**255**	0	514	85	43	0	2	**644**	0	**1276**
8:00AM	5	44	5	0	2	**56**	0	107	36	2	0	0	**145**	0	**300**
8:15AM	5	41	2	0	0	**48**	0	97	20	5	0	1	**123**	0	**278**
8:30AM	1	37	1	0	0	**39**	0	98	28	7	0	0	**133**	0	**248**
8:45AM	2	25	3	0	0	**30**	0	78	29	8	0	1	**116**	0	**236**
Hourly Total	13	147	11	0	2	**173**	0	380	113	22	0	2	**517**	0	**1062**
3:00PM	0	47	2	0	0	**49**	0	83	58	4	1	1	**147**	0	**331**
3:15PM	2	33	2	0	1	**38**	1	91	34	4	0	1	**130**	0	**290**
3:30PM	0	31	3	0	1	**35**	1	86	39	4	0	0	**129**	0	**314**
3:45PM	0	25	1	0	2	**28**	0	89	46	2	0	0	**137**	0	**330**
Hourly Total	2	136	8	0	4	**150**	2	349	177	14	1	2	**543**	0	**1265**
4:00PM	1	38	2	0	1	**42**	0	107	57	8	0	0	**172**	0	**350**
4:15PM	1	30	3	0	0	**34**	0	103	59	5	0	0	**167**	0	**347**
4:30PM	0	32	1	0	1	**34**	0	84	49	5	0	0	**138**	0	**316**
4:45PM	0	40	1	0	4	**45**	0	69	51	6	0	0	**126**	0	**346**
Hourly Total	2	140	7	0	6	**155**	0	363	216	24	0	0	**603**	0	**1359**
5:00PM	2	50	4	0	1	**57**	0	83	36	5	0	0	**124**	0	**333**
5:15PM	6	30	2	0	0	**38**	0	88	41	7	0	3	**139**	0	**335**
5:30PM	0	39	1	0	1	**41**	0	60	41	5	0	1	**107**	0	**303**
5:45PM	1	40	2	0	0	**43**	0	58	36	2	0	2	**98**	0	**278**
Hourly Total	9	159	9	0	2	**179**	0	289	154	19	0	6	**468**	0	**1249**
6:00PM	1	23	0	1	0	**25**	0	55	36	4	0	1	**96**	0	**223**
6:15PM	1	27	1	0	1	**30**	0	41	31	2	0	0	**74**	0	**196**
6:30PM	1	30	3	0	0	**34**	0	31	44	3	0	0	**78**	0	**187**
6:45PM	3	16	1	0	0	**20**	0	17	17	1	0	0	**35**	0	**108**
Hourly Total	6	96	5	1	1	**109**	0	144	128	10	0	1	**283**	0	**714**
7:00PM	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	**0**
Total	61	1068	117	1	44	**1291**	2	2644	977	173	1	16	**3811**	0	**8289**
% Approach	4.7%	82.7%	9.1%	0.1%	3.4%	**-**	-	69.4%	25.6%	4.5%	0%	0.4%	**-**	-	-
% Total	0.7%	12.9%	1.4%	0%	0.5%	**15.6%**	-	31.9%	11.8%	2.1%	0%	0.2%	**46.0%**	-	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	60	1024	108	1	41	**1234**	-	2392	947	171	1	16	**3527**	-	7609
% Lights	98.4%	95.9%	92.3%	100%	93.2%	**95.6%**	-	90.5%	96.9%	98.8%	100%	100%	**92.5%**	-	91.8%
Single-Unit Trucks	1	23	2	0	0	**26**	-	54	14	1	0	0	**69**	-	183
% Single-Unit Trucks	1.6%	2.2%	1.7%	0%	0%	**2.0%**	-	2.0%	1.4%	0.6%	0%	0%	**1.8%**	-	2.2%
Articulated Trucks	0	6	6	0	1	**13**	-	180	8	1	0	0	**189**	-	443
% Articulated Trucks	0%	0.6%	5.1%	0%	2.3%	**1.0%**	-	6.8%	0.8%	0.6%	0%	0%	**5.0%**	-	5.3%

Leg	Rt 30							Rt 30							
Direction	Northbound							Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
Buses	0	15	1	0	2	**18**	-	18	8	0	0	0	**26**	-	54
% Buses	0%	1.4%	0.9%	0%	4.5%	**1.4%**	-	0.7%	0.8%	0%	0%	0%	**0.7%**	-	0.7%
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 6:30AM	3	3	0	0	0	**6**	0	3	0	6	0	44	**53**	0
6:45AM	5	7	2	0	0	**14**	0	3	0	7	0	38	**48**	0
7:00AM	9	8	0	0	1	**18**	2	3	2	16	0	32	**53**	0
7:15AM	11	6	3	0	2	**22**	0	4	0	10	0	46	**60**	0
Total	28	24	5	0	3	**60**	2	13	2	39	0	160	**214**	0
% Approach	46.7%	40.0%	8.3%	0%	5.0%	**-**	-	6.1%	0.9%	18.2%	0%	74.8%	**-**	-
% Total	2.5%	2.1%	0.4%	0%	0.3%	**5.4%**	-	1.2%	0.2%	3.5%	0%	14.3%	**19.2%**	-
PHF	0.636	0.750	0.417	-	0.375	**0.682**	-	0.813	0.250	0.609	-	0.870	**0.892**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	27	24	5	0	3	**59**	-	12	2	27	0	121	**162**	-
% Lights	96.4%	100%	100%	0%	100%	**98.3%**	-	92.3%	100%	69.2%	0%	75.6%	**75.7%**	-
Single-Unit Trucks	0	0	0	0	0	**0**	-	0	0	2	0	9	**11**	-
% Single-Unit Trucks	0%	0%	0%	0%	0%	**0%**	-	0%	0%	5.1%	0%	5.6%	**5.1%**	-
Articulated Trucks	1	0	0	0	0	**1**	-	1	0	9	0	29	**39**	-
% Articulated Trucks	3.6%	0%	0%	0%	0%	**1.7%**	-	7.7%	0%	23.1%	0%	18.1%	**18.2%**	-
Buses	0	0	0	0	0	**0**	-	0	0	1	0	1	**2**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	0%	0%	2.6%	0%	0.6%	**0.9%**	-
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

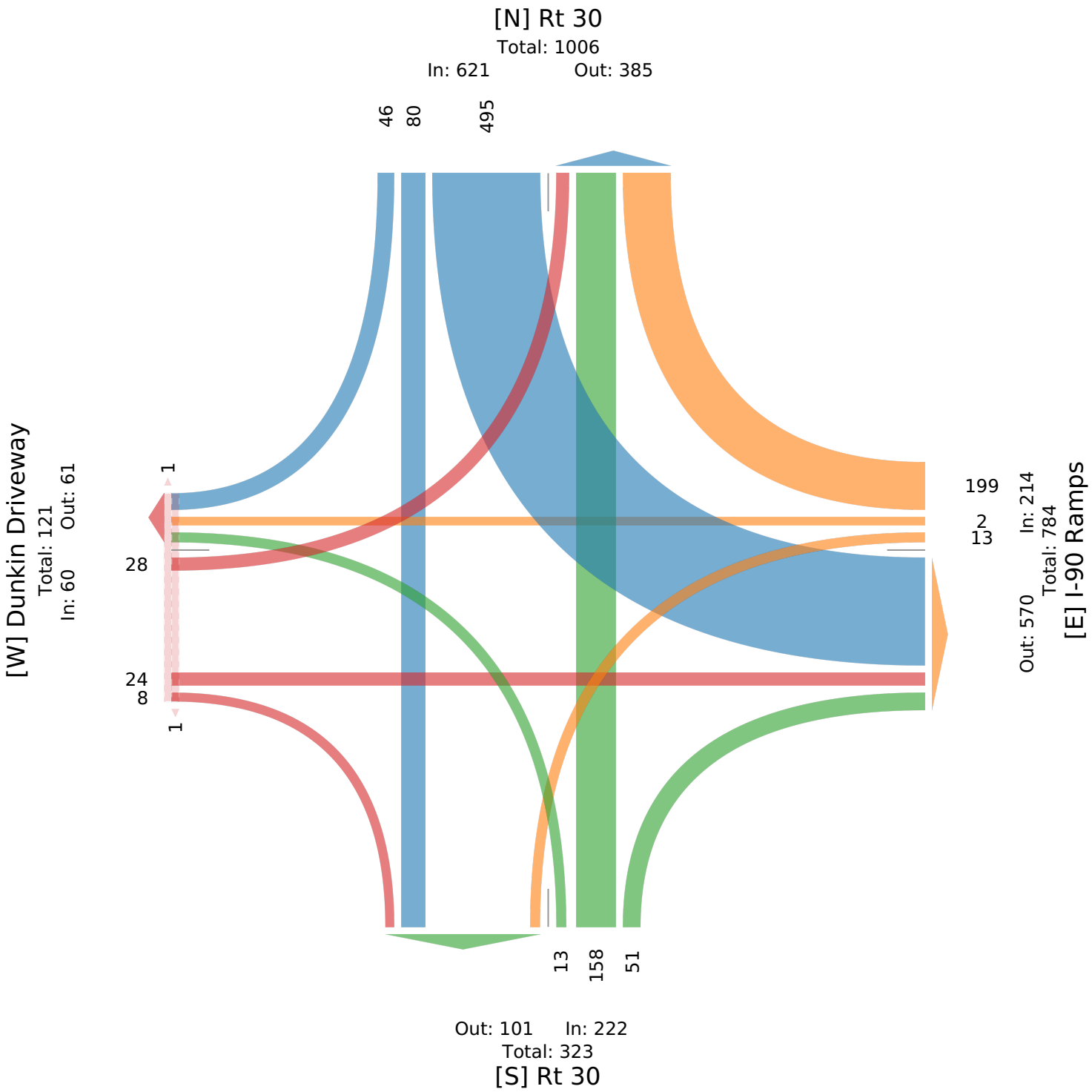
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 6:30AM	0	19	7	0	7	**33**	0	120	21	6	0	0	**147**	0	**239**
6:45AM	1	45	9	0	5	**60**	0	109	16	11	0	1	**137**	0	**259**
7:00AM	7	38	5	0	6	**56**	0	138	24	12	0	1	**175**	0	**302**
7:15AM	5	56	9	0	3	**73**	0	128	19	15	0	0	**162**	0	**317**
Total	13	158	30	0	21	**222**	0	495	80	44	0	2	**621**	0	**1117**
% Approach	5.9%	71.2%	13.5%	0%	9.5%	**-**	-	79.7%	12.9%	7.1%	0%	0.3%	**-**	-	-
% Total	1.2%	14.1%	2.7%	0%	1.9%	**19.9%**	-	44.3%	7.2%	3.9%	0%	0.2%	**55.6%**	-	-
PHF	0.464	0.705	0.833	-	0.750	**0.760**	-	0.897	0.833	0.733	-	0.500	**0.887**	-	0.881
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	13	151	27	0	19	**210**	-	462	76	44	0	2	**584**	-	1015
% Lights	100%	95.6%	90.0%	0%	90.5%	**94.6%**	-	93.3%	95.0%	100%	0%	100%	**94.0%**	-	90.9%
Single-Unit Trucks	0	3	1	0	0	**4**	-	7	1	0	0	0	**8**	-	23
% Single-Unit Trucks	0%	1.9%	3.3%	0%	0%	**1.8%**	-	1.4%	1.3%	0%	0%	0%	**1.3%**	-	2.1%
Articulated Trucks	0	0	2	0	1	**3**	-	18	1	0	0	0	**19**	-	62
% Articulated Trucks	0%	0%	6.7%	0%	4.8%	**1.4%**	-	3.6%	1.3%	0%	0%	0%	**3.1%**	-	5.6%
Buses	0	4	0	0	1	**5**	-	8	2	0	0	0	**10**	-	17
% Buses	0%	2.5%	0%	0%	4.8%	**2.3%**	-	1.6%	2.5%	0%	0%	0%	**1.6%**	-	1.5%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Dunkin Driveway Eastbound							I-90 Ramps Westbound						
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*
2025-02-05 5:30PM	6	4	2	0	0	**12**	0	10	2	50	0	81	**143**	0
5:45PM	3	6	0	0	0	**9**	0	5	1	53	0	69	**128**	0
6:00PM	4	2	5	0	0	**11**	0	3	1	33	0	54	**91**	0
6:15PM	3	2	3	0	1	**9**	0	4	2	28	0	49	**83**	0
Total	16	14	10	0	1	**41**	0	22	6	164	0	253	**445**	0
% Approach	39.0%	34.1%	24.4%	0%	2.4%	**-**	-	4.9%	1.3%	36.9%	0%	56.9%	**-**	-
% Total	1.6%	1.4%	1.0%	0%	0.1%	**4.1%**	-	2.2%	0.6%	16.4%	0%	25.3%	**44.5%**	-
PHF	0.667	0.583	0.500	-	0.250	**0.854**	-	0.550	0.750	0.774	-	0.781	**0.778**	-
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-
Lights	16	13	10	0	1	**40**	-	19	5	147	0	234	**405**	-
% Lights	100%	92.9%	100%	0%	100%	**97.6%**	-	86.4%	83.3%	89.6%	0%	92.5%	**91.0%**	-
Single-Unit Trucks	0	1	0	0	0	**1**	-	0	1	1	0	3	**5**	-
% Single-Unit Trucks	0%	7.1%	0%	0%	0%	**2.4%**	-	0%	16.7%	0.6%	0%	1.2%	**1.1%**	-
Articulated Trucks	0	0	0	0	0	**0**	-	2	0	16	0	15	**33**	-
% Articulated Trucks	0%	0%	0%	0%	0%	**0%**	-	9.1%	0%	9.8%	0%	5.9%	**7.4%**	-
Buses	0	0	0	0	0	**0**	-	1	0	0	0	1	**2**	-
% Buses	0%	0%	0%	0%	0%	**0%**	-	4.5%	0%	0%	0%	0.4%	**0.4%**	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

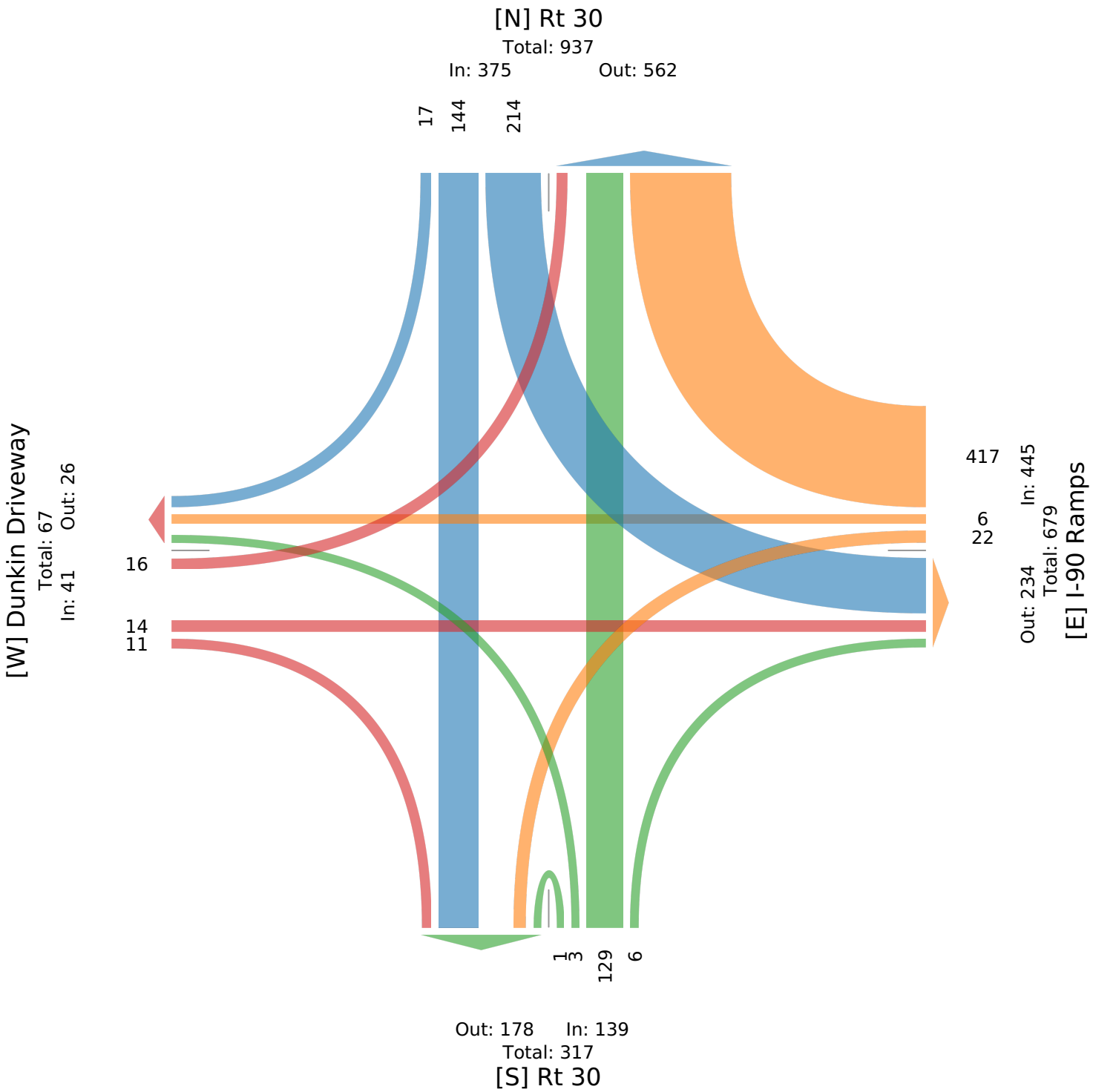
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 30 Northbound							Rt 30 Southbound							
Time	L	T	R	U	RR	**App**	Ped*	L	T	R	U	RR	**App**	Ped*	**Int**
2025-02-05 5:30PM	0	39	1	0	1	**41**	0	60	41	5	0	1	**107**	0	**303**
5:45PM	1	40	2	0	0	**43**	0	58	36	2	0	2	**98**	0	**278**
6:00PM	1	23	0	1	0	**25**	0	55	36	4	0	1	**96**	0	**223**
6:15PM	1	27	1	0	1	**30**	0	41	31	2	0	0	**74**	0	**196**
Total	3	129	4	1	2	**139**	0	214	144	13	0	4	**375**	0	**1000**
% Approach	2.2%	92.8%	2.9%	0.7%	1.4%	**-**	-	57.1%	38.4%	3.5%	0%	1.1%	**-**	-	-
% Total	0.3%	12.9%	0.4%	0.1%	0.2%	**13.9%**	-	21.4%	14.4%	1.3%	0%	0.4%	**37.5%**	-	-
PHF	0.750	0.806	0.500	0.250	0.500	**0.808**	-	0.892	0.878	0.650	-	0.500	**0.876**	-	0.825
Motorcycles	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Lights	3	123	4	1	2	**133**	-	188	142	13	0	4	**347**	-	925
% Lights	100%	95.3%	100%	100%	100%	**95.7%**	-	87.9%	98.6%	100%	0%	100%	**92.5%**	-	92.5%
Single-Unit Trucks	0	2	0	0	0	**2**	-	5	2	0	0	0	**7**	-	15
% Single-Unit Trucks	0%	1.6%	0%	0%	0%	**1.4%**	-	2.3%	1.4%	0%	0%	0%	**1.9%**	-	1.5%
Articulated Trucks	0	2	0	0	0	**2**	-	21	0	0	0	0	**21**	-	56
% Articulated Trucks	0%	1.6%	0%	0%	0%	**1.4%**	-	9.8%	0%	0%	0%	0%	**5.6%**	-	5.6%
Buses	0	2	0	0	0	**2**	-	0	0	0	0	0	**0**	-	4
% Buses	0%	1.6%	0%	0%	0%	**1.4%**	-	0%	0%	0%	0%	0%	**0%**	-	0.4%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Rt 30 & I-90 Ramps - TMC
Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267589, Location: 42.926843, -74.199667, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam



Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

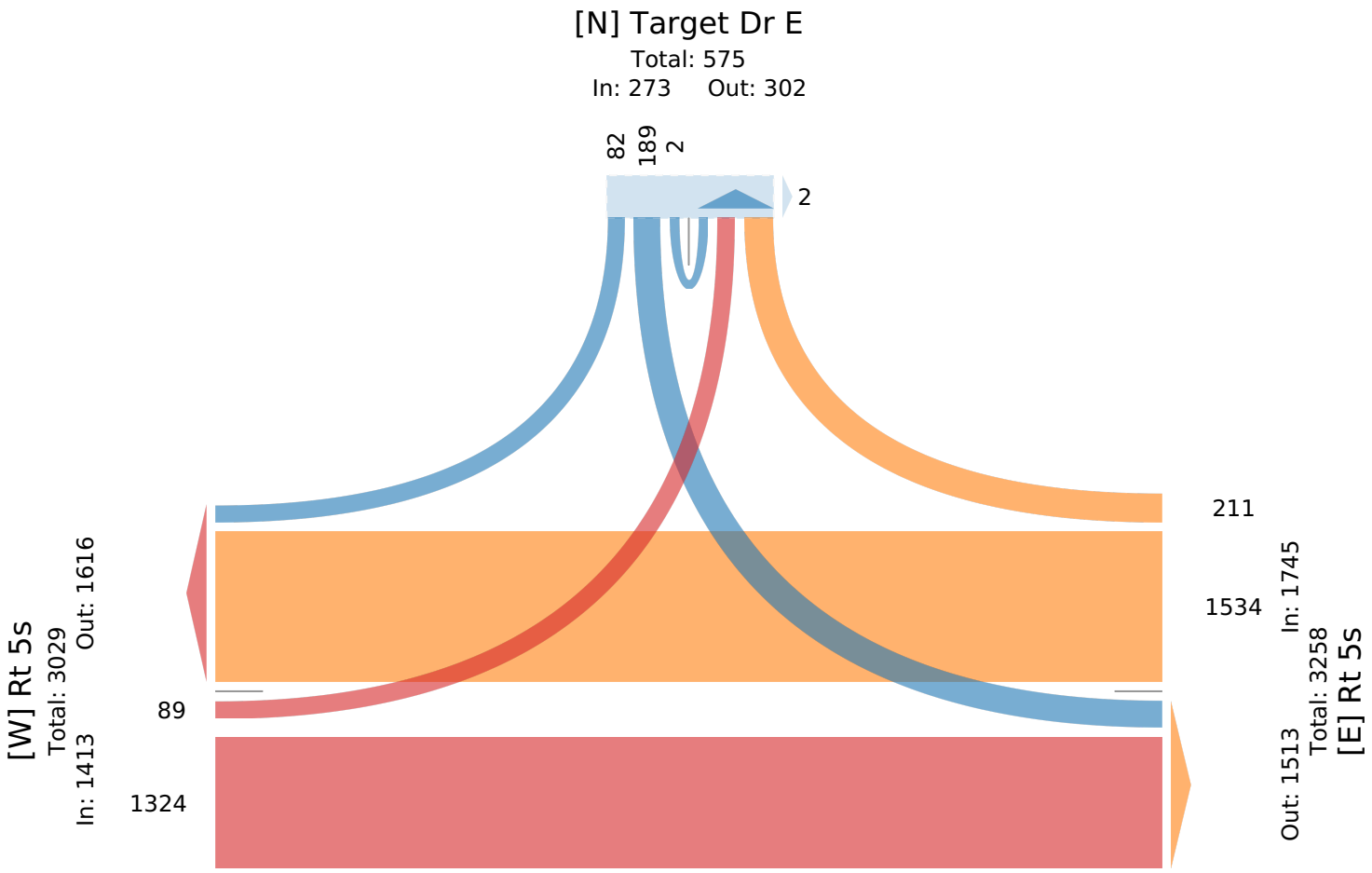
Leg / Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2025-02-05 5:00AM	8	27	0	**35**	0	27	3	0	**30**	0	4	2	0	**6**	0	**71**
5:15AM	6	37	0	**43**	0	53	9	0	**62**	0	1	0	0	**1**	0	**106**
5:30AM	8	39	0	**47**	0	130	5	0	**135**	0	0	0	0	**0**	0	**182**
5:45AM	4	43	0	**47**	0	89	6	0	**95**	0	0	0	0	**0**	0	**142**
Hourly Total	26	146	0	**172**	0	299	23	0	**322**	0	5	2	0	**7**	0	**501**
6:00AM	6	41	0	**47**	0	11	10	0	**21**	0	4	7	0	**11**	0	**79**
6:15AM	6	25	0	**31**	0	21	6	0	**27**	0	1	1	0	**2**	0	**60**
6:30AM	4	24	0	**28**	0	25	4	0	**29**	0	6	1	0	**7**	0	**64**
6:45AM	2	43	0	**45**	0	27	11	0	**38**	0	5	1	0	**6**	0	**89**
Hourly Total	18	133	0	**151**	0	84	31	0	**115**	0	16	10	0	**26**	0	**292**
7:00AM	3	33	0	**36**	0	29	5	0	**34**	0	2	1	0	**3**	0	**73**
7:15AM	1	33	0	**34**	0	25	10	0	**35**	0	2	2	0	**4**	0	**73**
7:30AM	3	43	0	**46**	0	30	7	0	**37**	0	7	2	0	**9**	0	**92**
7:45AM	7	29	0	**36**	0	32	13	0	**45**	0	2	2	0	**4**	0	**85**
Hourly Total	14	138	0	**152**	0	116	35	0	**151**	0	13	7	0	**20**	0	**323**
8:00AM	5	44	0	**49**	0	36	9	0	**45**	0	2	1	0	**3**	0	**97**
8:15AM	5	48	0	**53**	0	28	16	0	**44**	0	6	1	1	**8**	0	**105**
8:30AM	3	31	0	**34**	0	30	13	0	**43**	0	5	0	0	**5**	0	**82**
8:45AM	3	29	0	**32**	0	40	9	0	**49**	0	3	3	0	**6**	1	**87**
Hourly Total	16	152	0	**168**	0	134	47	0	**181**	0	16	5	1	**22**	1	**371**
9:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
3:00PM	1	48	0	**49**	0	57	5	0	**62**	0	13	9	0	**22**	0	**133**
3:15PM	3	35	0	**38**	0	82	10	0	**92**	0	8	3	1	**12**	0	**142**
3:30PM	0	45	0	**45**	0	104	7	0	**111**	0	17	7	0	**24**	0	**180**
3:45PM	2	46	0	**48**	0	99	5	0	**104**	0	13	3	0	**16**	0	**168**
Hourly Total	6	174	0	**180**	0	342	27	0	**369**	0	51	22	1	**74**	0	**623**
4:00PM	1	148	0	**149**	0	74	2	0	**76**	0	6	6	0	**12**	0	**237**
4:15PM	1	108	0	**109**	0	66	3	0	**69**	0	8	0	0	**8**	0	**186**
4:30PM	2	68	0	**70**	0	57	4	0	**61**	0	9	2	0	**11**	1	**142**
4:45PM	0	37	0	**37**	0	47	7	0	**54**	0	6	2	0	**8**	0	**99**
Hourly Total	4	361	0	**365**	0	244	16	0	**260**	0	29	10	0	**39**	1	**664**
5:00PM	0	49	0	**49**	0	62	6	0	**68**	0	15	6	0	**21**	0	**138**
5:15PM	1	41	0	**42**	0	53	2	0	**55**	0	9	6	0	**15**	0	**112**
5:30PM	1	31	0	**32**	0	55	6	0	**61**	0	10	3	0	**13**	0	**106**
5:45PM	1	21	0	**22**	0	31	5	0	**36**	0	3	1	0	**4**	0	**62**
Hourly Total	3	142	0	**145**	0	201	19	0	**220**	0	37	16	0	**53**	0	**418**
6:00PM	0	26	0	**26**	0	30	5	0	**35**	0	5	0	0	**5**	0	**66**
6:15PM	1	22	0	**23**	0	29	3	0	**32**	0	10	6	0	**16**	0	**71**
6:30PM	1	15	0	**16**	0	29	2	0	**31**	0	3	4	0	**7**	0	**54**
6:45PM	0	15	0	**15**	0	26	3	0	**29**	0	4	0	0	**4**	0	**48**
Hourly Total	2	78	0	**80**	0	114	13	0	**127**	0	22	10	0	**32**	0	**239**
7:00PM	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Hourly Total	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	**0**
Total	89	1324	0	**1413**	0	1534	211	0	**1745**	0	189	82	2	**273**	2	**3431**
% Approach	6.3%	93.7%	0%	**-**	-	87.9%	12.1%	0%	**-**	-	69.2%	30.0%	0.7%	**-**	-	-
% Total	2.6%	38.6%	0%	**41.2%**	-	44.7%	6.1%	0%	**50.9%**	-	5.5%	2.4%	0.1%	**8.0%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	62	1230	0	**1292**	-	1433	114	0	**1547**	-	110	56	0	**166**	-	3005
% Lights	69.7%	92.9%	0%	**91.4%**	-	93.4%	54.0%	0%	**88.7%**	-	58.2%	68.3%	0%	**60.8%**	-	87.6%
Single-Unit Trucks	10	40	0	**50**	-	31	11	0	**42**	-	20	8	0	**28**	-	120
% Single-Unit Trucks	11.2%	3.0%	0%	**3.5%**	-	2.0%	5.2%	0%	**2.4%**	-	10.6%	9.8%	0%	**10.3%**	-	3.5%

Leg	Rt 5s					Rt 5s					Target Dr E					
Direction	Eastbound					Westbound					Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
Articulated Trucks	17	48	0	**65**	-	67	86	0	**153**	-	59	18	2	**79**	-	297
% Articulated Trucks	19.1%	3.6%	0%	**4.6%**	-	4.4%	40.8%	0%	**8.8%**	-	31.2%	22.0%	100%	**28.9%**	-	8.7%
Buses	0	6	0	**6**	-	3	0	0	**3**	-	0	0	0	**0**	-	9
% Buses	0%	0.5%	0%	**0.4%**	-	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
Full Length (5 AM-9 AM, 3 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

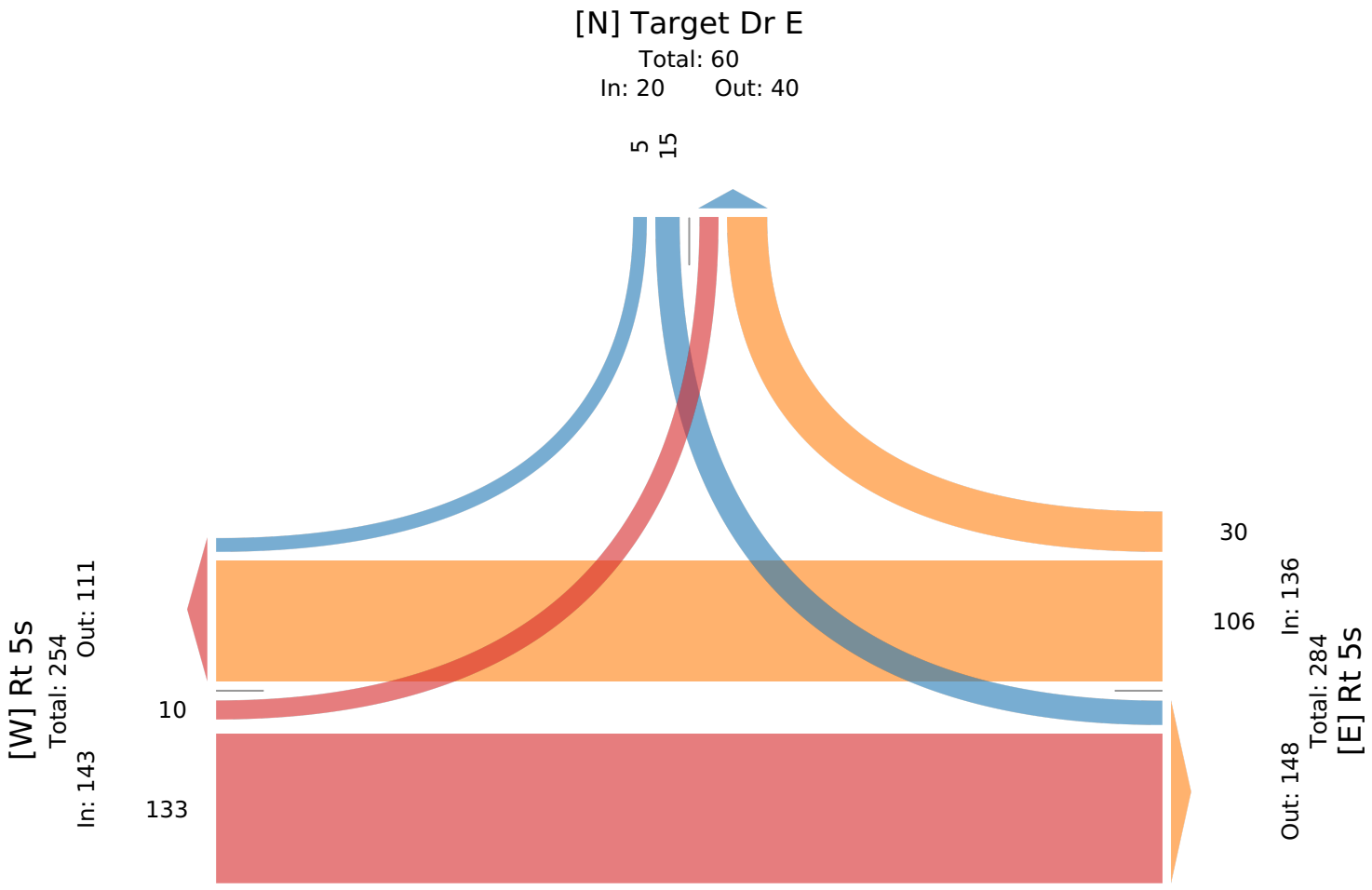
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-02-05 6:30AM	4	24	0	**28**	0	25	4	0	**29**	0	6	1	0	**7**	0	**64**
6:45AM	2	43	0	**45**	0	27	11	0	**38**	0	5	1	0	**6**	0	**89**
7:00AM	3	33	0	**36**	0	29	5	0	**34**	0	2	1	0	**3**	0	**73**
7:15AM	1	33	0	**34**	0	25	10	0	**35**	0	2	2	0	**4**	0	**73**
Total	10	133	0	**143**	0	106	30	0	**136**	0	15	5	0	**20**	0	**299**
% Approach	7.0%	93.0%	0%	**-**	-	77.9%	22.1%	0%	**-**	-	75.0%	25.0%	0%	**-**	-	-
% Total	3.3%	44.5%	0%	**47.8%**	-	35.5%	10.0%	0%	**45.5%**	-	5.0%	1.7%	0%	**6.7%**	-	-
PHF	0.625	0.773	-	**0.794**	-	0.914	0.682	-	**0.895**	-	0.625	0.625	-	**0.714**	-	0.840
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	9	118	0	**127**	-	87	21	0	**108**	-	7	3	0	**10**	-	245
% Lights	90.0%	88.7%	0%	**88.8%**	-	82.1%	70.0%	0%	**79.4%**	-	46.7%	60.0%	0%	**50.0%**	-	81.9%
Single-Unit Trucks	1	7	0	**8**	-	4	2	0	**6**	-	0	1	0	**1**	-	15
% Single-Unit Trucks	10.0%	5.3%	0%	**5.6%**	-	3.8%	6.7%	0%	**4.4%**	-	0%	20.0%	0%	**5.0%**	-	5.0%
Articulated Trucks	0	7	0	**7**	-	14	7	0	**21**	-	8	1	0	**9**	-	37
% Articulated Trucks	0%	5.3%	0%	**4.9%**	-	13.2%	23.3%	0%	**15.4%**	-	53.3%	20.0%	0%	**45.0%**	-	12.4%
Buses	0	1	0	**1**	-	1	0	0	**1**	-	0	0	0	**0**	-	2
% Buses	0%	0.8%	0%	**0.7%**	-	0.9%	0%	0%	**0.7%**	-	0%	0%	0%	**0%**	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
Forced Peak (6:30 AM - 7:30 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Rt 5s & Target Dr East - TMC

Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam



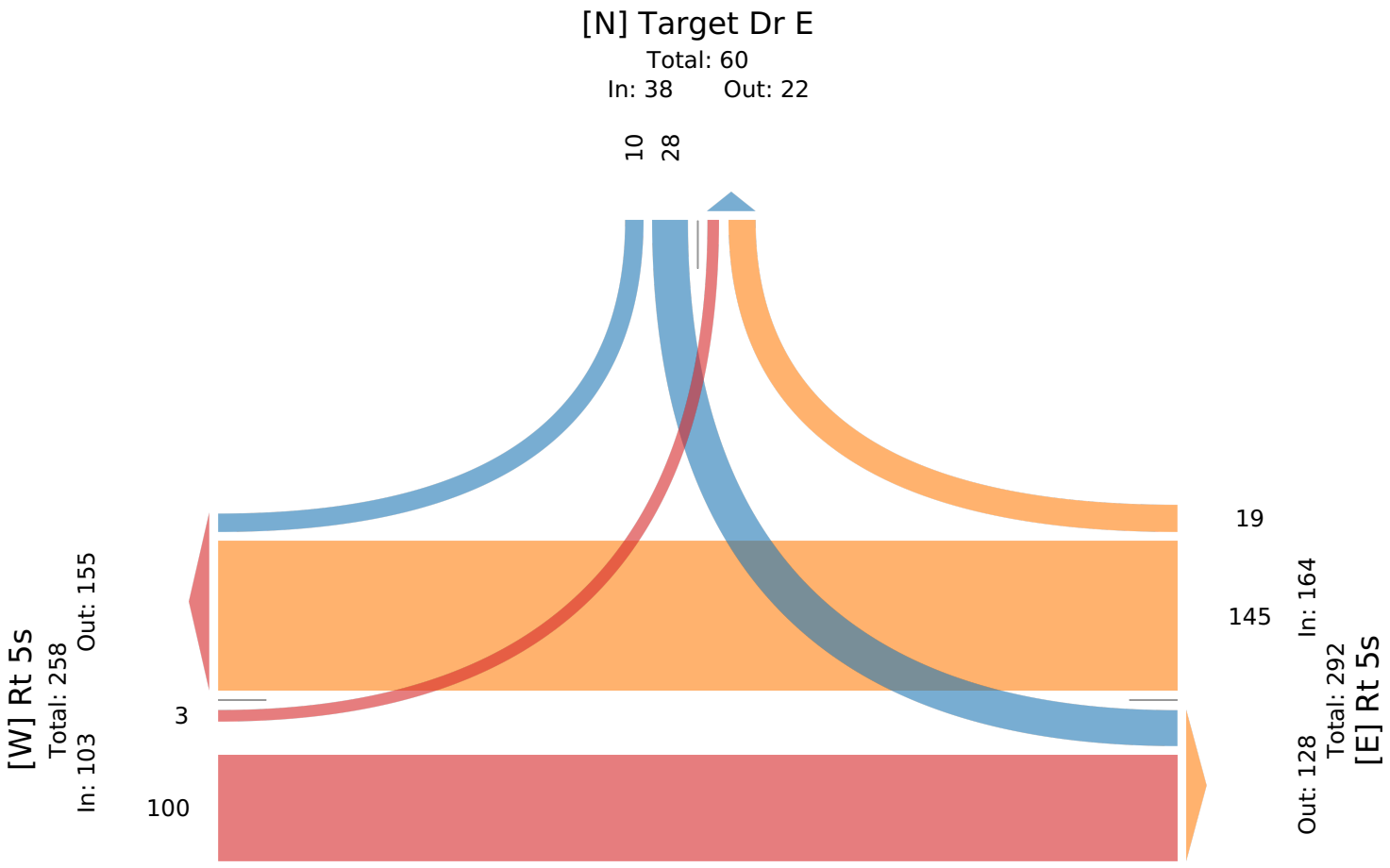
Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US

Leg Direction	Rt 5s Eastbound					Rt 5s Westbound					Target Dr E Southbound					
Time	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2025-02-05 5:30PM	1	31	0	**32**	0	55	6	0	**61**	0	10	3	0	**13**	0	**106**
5:45PM	1	21	0	**22**	0	31	5	0	**36**	0	3	1	0	**4**	0	**62**
6:00PM	0	26	0	**26**	0	30	5	0	**35**	0	5	0	0	**5**	0	**66**
6:15PM	1	22	0	**23**	0	29	3	0	**32**	0	10	6	0	**16**	0	**71**
Total	3	100	0	**103**	0	145	19	0	**164**	0	28	10	0	**38**	0	**305**
% Approach	2.9%	97.1%	0%	**-**	-	88.4%	11.6%	0%	**-**	-	73.7%	26.3%	0%	**-**	-	-
% Total	1.0%	32.8%	0%	**33.8%**	-	47.5%	6.2%	0%	**53.8%**	-	9.2%	3.3%	0%	**12.5%**	-	-
PHF	0.750	0.806	-	**0.805**	-	0.659	0.792	-	**0.672**	-	0.700	0.417	-	**0.594**	-	0.719
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	0	92	0	**92**	-	138	4	0	**142**	-	15	6	0	**21**	-	255
% Lights	0%	92.0%	0%	**89.3%**	-	95.2%	21.1%	0%	**86.6%**	-	53.6%	60.0%	0%	**55.3%**	-	83.6%
Single-Unit Trucks	0	4	0	**4**	-	0	1	0	**1**	-	4	0	0	**4**	-	9
% Single-Unit Trucks	0%	4.0%	0%	**3.9%**	-	0%	5.3%	0%	**0.6%**	-	14.3%	0%	0%	**10.5%**	-	3.0%
Articulated Trucks	3	4	0	**7**	-	7	14	0	**21**	-	9	4	0	**13**	-	41
% Articulated Trucks	100%	4.0%	0%	**6.8%**	-	4.8%	73.7%	0%	**12.8%**	-	32.1%	40.0%	0%	**34.2%**	-	13.4%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Rt 5s & Target Dr East - TMC
Wed Feb 5, 2025
Forced Peak (5:30 PM - 6:30 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1267586, Location: 42.935143, -74.233046, Site Code: Amsterdam

Provided by: Tri-State Traffic Data: New York Division
1016 Hoosick Rd, Troy, NY, 12180, US



Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

EASTBOUND

Location: Amsterdam
Road Name: Rte 5s
Segment: .242mi E/O Warehouse Driveway
Date: 2/4/2025

GPS: 42.935931, -74.228116

Start Time	Mon 03-Feb-25	Tue 04-Feb-25	Wed 05-Feb-25	Thu 06-Feb-25	Fri 07-Feb-25	Average Day	Sat 08-Feb-25	Sun 09-Feb-25	Week Average
12:00 AM	*	*	20	34	*	27	*	*	27
01:00	*	0	22	34	*	19	*	*	19
02:00	*	25	157	**163**	*	115	*	*	115
03:00	*	25	27	31	*	28	*	*	28
04:00	*	80	77	75	*	77	*	*	77
05:00	*	145	152	140	*	146	*	*	146
06:00	*	**231**	152	127	*	**170**	*	*	**170**
07:00	*	165	155	72	*	131	*	*	131
08:00	*	179	169	0	*	116	*	*	116
09:00	*	175	145	0	*	107	*	*	107
10:00	*	188	180	0	*	123	*	*	123
11:00	*	189	**185**	0	*	125	*	*	125
12:00 PM	*	163	159	0	*	107	*	*	107
01:00	*	146	174	0	*	107	*	*	107
02:00	*	143	164	0	*	102	*	*	102
03:00	*	228	238	0	*	155	*	*	155
04:00	*	**406**	**393**	0	*	**266**	*	*	**266**
05:00	*	191	178	0	*	123	*	*	123
06:00	*	76	101	0	*	59	*	*	59
07:00	*	82	56	0	*	46	*	*	46
08:00	*	77	64	0	*	47	*	*	47
09:00	*	59	43	0	*	34	*	*	34
10:00	*	31	48	0	*	26	*	*	26
11:00	*	36	43	0	*	26	*	*	26
Day Total	0	3040	3102	676	0	2282	0	0	2282
% Avg. WkDay	0.0%	133.2%	135.9%	29.6%	0.0%				
% Avg. Week	0.0%	133.2%	135.9%	29.6%	0.0%	100.0%	0.0%	0.0%	
AM Peak	-	06:00	11:00	02:00	-	- 06:00	-	-	- - 06:00 - -
Vol.	-	231	185	163	-	- 170	-	-	- - 170 - -
PM Peak	-	16:00	16:00	-	-	- 16:00	-	-	- - 16:00 - -
Vol.	-	406	393	-	-	- 266	-	-	- - 266 - -
Grand Total	0	3040	3102	676	0	2282	0	0	2282

 ADT ADT 2,282 AADT 2,282

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

WESTBOUND

Location: Amsterdam
Road Name: Rte 5s
Segment: .242mi E/O Warehouse Driveway
Date: 2/4/2025

GPS: 42.936046, -74.22824

Start Time	Mon 03-Feb-25	Tue 04-Feb-25	Wed 05-Feb-25	Thu 06-Feb-25	Fri 07-Feb-25	Average Day	Sat 08-Feb-25	Sun 09-Feb-25	Week Average
12:00 AM	*	*	29	32	*	30	*	*	30
01:00	*	5	21	34	*	20	*	*	20
02:00	*	23	15	22	*	20	*	*	20
03:00	*	21	23	29	*	24	*	*	24
04:00	*	58	55	52	*	55	*	*	55
05:00	*	**320**	**329**	**302**	*	**317**	*	*	**317**
06:00	*	127	111	111	*	116	*	*	116
07:00	*	156	152	109	*	139	*	*	139
08:00	*	163	179	11	*	118	*	*	118
09:00	*	179	136	0	*	105	*	*	105
10:00	*	151	156	0	*	102	*	*	102
11:00	*	134	132	0	*	89	*	*	89
12:00 PM	*	161	138	0	*	100	*	*	100
01:00	*	148	164	0	*	104	*	*	104
02:00	*	217	202	0	*	140	*	*	140
03:00	*	**376**	**370**	0	*	**249**	*	*	**249**
04:00	*	285	256	0	*	180	*	*	180
05:00	*	225	238	0	*	154	*	*	154
06:00	*	107	139	0	*	82	*	*	82
07:00	*	107	90	0	*	66	*	*	66
08:00	*	80	65	0	*	48	*	*	48
09:00	*	47	49	0	*	32	*	*	32
10:00	*	39	44	0	*	28	*	*	28
11:00	*	30	24	**1**	*	18	*	*	18
Day Total	0	3159	3117	703	0	2336	0	0	2336
% Avg. WkDay	0.0%	135.2%	133.4%	30.1%	0.0%				
% Avg. Week	0.0%	135.2%	133.4%	30.1%	0.0%	100.0%	0.0%	0.0%	
AM Peak	-	05:00	05:00	05:00	-	- 05:00	-	-	- - 05:00 - -
Vol.	-	320	329	302	-	- 317	-	-	- - 317 - -
PM Peak	-	15:00	15:00	23:00	-	- 15:00	-	-	- - 15:00 - -
Vol.	-	376	370	1	-	- 249	-	-	- - 249 - -
Grand Total	0	3159	3117	703	0	2336	0	0	2336

ADT ADT 2,336 AADT 2,336

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

EASTBOUND

Location: Amsterdam
Road Name: Rte 5S
Segment: .242mmi E/O Target Ave
Date: 2/27/2025

GPS: 42.935944, -74.228058

Start Time	Mon 24-Feb-25	Tue 25-Feb-25	Wed 26-Feb-25	Thu 27-Feb-25	Fri 28-Feb-25	Average Day	Sat 01-Mar-25	Sun 02-Mar-25	Week Average
12:00 AM	*	*	*	*	45	45	17	15	26
01:00	*	*	*	*	31	31	25	17	24
02:00	*	*	*	*	116	116	18	19	51
03:00	*	*	*	*	19	19	19	14	17
04:00	*	*	*	*	82	82	56	10	49
05:00	*	*	*	*	124	124	62	48	78
06:00	*	*	*	*	142	142	61	**141**	115
07:00	*	*	*	*	164	164	75	52	97
08:00	*	*	*	107	172	140	68	50	99
09:00	*	*	*	145	158	152	123	73	125
10:00	*	*	*	**182**	**202**	**192**	**149**	112	**161**
11:00	*	*	*	172	183	178	147	87	147
12:00 PM	*	*	*	168	196	182	112	87	141
01:00	*	*	*	163	133	148	103	111	128
02:00	*	*	*	165	169	167	88	63	121
03:00	*	*	*	233	255	244	89	82	165
04:00	*	*	*	**361**	**307**	**334**	108	72	**212**
05:00	*	*	*	199	168	184	117	147	158
06:00	*	*	*	95	112	104	**194**	**188**	147
07:00	*	*	*	65	84	74	47	48	61
08:00	*	*	*	56	151	104	43	44	74
09:00	*	*	*	41	52	46	26	21	35
10:00	*	*	*	48	39	44	15	34	34
11:00	*	*	*	32	36	34	20	14	26
Day Total	0	0	0	2232	3140	3050	1782	1549	2291
% Avg. WkDay	0.0%	0.0%	0.0%	73.2%	103.0%				
% Avg. Week	0.0%	0.0%	0.0%	97.4%	137.1%	133.1%	77.8%	67.6%	
AM Peak	-	-	-	10:00	10:00	- 10:00	- 10:00	06:00	- 10:00 - -
Vol.	-	-	-	182	202	- 192	- 149	141	- 161 - -
PM Peak	-	-	-	16:00	16:00	- 16:00	- 18:00	18:00	- 16:00 - -
Vol.	-	-	-	361	307	- 334	- 194	188	- 212 - -

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

Location: Amsterdam
Road Name: Rte 5S
Segment: .242mmi E/O Target Ave
Date: 2/27/2025

GPS: 42.935944, -74.228058

Start Time	Mon 03-Mar-25	Tue 04-Mar-25	Wed 05-Mar-25	Thu 06-Mar-25	Fri 07-Mar-25	Average Day	Sat 08-Mar-25	Sun 09-Mar-25	Week Average
12:00 AM	22	25	*	*	*	24	*	*	24
01:00	34	22	*	*	*	28	*	*	28
02:00	16	19	*	*	*	18	*	*	18
03:00	18	21	*	*	*	20	*	*	20
04:00	39	91	*	*	*	65	*	*	65
05:00	100	143	*	*	*	122	*	*	122
06:00	**221**	**239**	*	*	*	**230**	*	*	**230**
07:00	127	171	*	*	*	149	*	*	149
08:00	172	197	*	*	*	184	*	*	184
09:00	145	169	*	*	*	157	*	*	157
10:00	153	170	*	*	*	162	*	*	162
11:00	150	160	*	*	*	155	*	*	155
12:00 PM	137	**162**	*	*	*	150	*	*	150
01:00	156	53	*	*	*	104	*	*	104
02:00	157	*	*	*	*	157	*	*	157
03:00	192	*	*	*	*	192	*	*	192
04:00	**289**	*	*	*	*	**289**	*	*	**289**
05:00	217	*	*	*	*	217	*	*	217
06:00	188	*	*	*	*	188	*	*	188
07:00	59	*	*	*	*	59	*	*	59
08:00	35	*	*	*	*	35	*	*	35
09:00	39	*	*	*	*	39	*	*	39
10:00	39	*	*	*	*	39	*	*	39
11:00	29	*	*	*	*	29	*	*	29
Day Total	2734	1642	0	0	0	2812	0	0	2812
% Avg. WkDay	97.2%	58.4%	0.0%	0.0%	0.0%				
% Avg. Week	97.2%	58.4%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	06:00	06:00	-	-	-	06:00	-	-	06:00
Vol.	221	239	-	-	-	230	-	-	230
PM Peak	16:00	12:00	-	-	-	16:00	-	-	16:00
Vol.	289	162	-	-	-	289	-	-	289
Grand Total	2734	1642	0	2232	3140	5862	1782	1549	5103

ADT ADT 2,448 AADT 2,448

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

WESTBOUND

Location: Amsterdam
Road Name: Rte 5S
Segment: .242mi/ E/O Target Ave
Date: 2/27/2025

GPS: 42.936067, -74.228296

Start Time	Mon 24-Feb-25	Tue 25-Feb-25	Wed 26-Feb-25	Thu 27-Feb-25	Fri 28-Feb-25	Average Day	Sat 01-Mar-25	Sun 02-Mar-25	Week Average
12:00 AM	*	*	*	*	28	28	25	19	24
01:00	*	*	*	*	20	20	24	8	17
02:00	*	*	*	*	12	12	11	8	10
03:00	*	*	*	*	18	18	15	14	16
04:00	*	*	*	*	67	67	31	47	48
05:00	*	*	*	*	**288**	**288**	**204**	**192**	**228**
06:00	*	*	*	*	113	113	50	45	69
07:00	*	*	*	0	141	70	59	41	60
08:00	*	*	*	145	164	154	70	57	109
09:00	*	*	*	**157**	149	153	98	62	116
10:00	*	*	*	133	138	136	109	71	113
11:00	*	*	*	122	137	130	99	62	105
12:00 PM	*	*	*	175	171	173	89	102	134
01:00	*	*	*	160	156	158	91	76	121
02:00	*	*	*	197	191	194	111	88	147
03:00	*	*	*	**385**	**367**	**376**	93	79	**231**
04:00	*	*	*	283	206	244	99	106	174
05:00	*	*	*	209	195	202	**238**	**234**	219
06:00	*	*	*	126	131	128	74	95	106
07:00	*	*	*	106	96	101	74	54	82
08:00	*	*	*	68	72	70	41	39	55
09:00	*	*	*	41	64	52	28	24	39
10:00	*	*	*	35	39	37	27	22	31
11:00	*	*	*	27	28	28	17	15	22
Day Total	0	0	0	2369	2991	2952	1777	1560	2276
% Avg. WkDay	0.0%	0.0%	0.0%	80.3%	101.3%				
% Avg. Week	0.0%	0.0%	0.0%	104.1%	131.4%	129.7%	78.1%	68.5%	
AM Peak	-	-	-	09:00	05:00	- 05:00	- 05:00	05:00	- 05:00	-	-
Vol.	-	-	-	157	288	- 288	- 204	192	- 228	-	-
PM Peak	-	-	-	15:00	15:00	- 15:00	- 17:00	17:00	- 15:00	-	-
Vol.	-	-	-	385	367	- 376	- 238	234	- 231	-	-

Tri-State Traffic Data, Inc.

610-466-1469
TSTData.com

Location: Amsterdam
Road Name: Rte 5S
Segment: .242mi/ E/O Target Ave
Date: 2/27/2025

GPS: 42.936067, -74.228296

Start Time	Mon 03-Mar-25	Tue 04-Mar-25	Wed 05-Mar-25	Thu 06-Mar-25	Fri 07-Mar-25	Average Day	Sat 08-Mar-25	Sun 09-Mar-25	Week Average
12:00 AM	19	22	*	*	*	20	*	*	20
01:00	20	30	*	*	*	25	*	*	25
02:00	15	15	*	*	*	15	*	*	15
03:00	21	21	*	*	*	21	*	*	21
04:00	49	65	*	*	*	57	*	*	57
05:00	**314**	**324**	*	*	*	**319**	*	*	**319**
06:00	109	119	*	*	*	114	*	*	114
07:00	163	164	*	*	*	164	*	*	164
08:00	181	174	*	*	*	178	*	*	178
09:00	130	139	*	*	*	134	*	*	134
10:00	133	136	*	*	*	134	*	*	134
11:00	105	131	*	*	*	118	*	*	118
12:00 PM	125	**145**	*	*	*	135	*	*	135
01:00	163	30	*	*	*	96	*	*	96
02:00	150	*	*	*	*	150	*	*	150
03:00	212	*	*	*	*	212	*	*	212
04:00	243	*	*	*	*	243	*	*	243
05:00	**334**	*	*	*	*	**334**	*	*	**334**
06:00	132	*	*	*	*	132	*	*	132
07:00	74	*	*	*	*	74	*	*	74
08:00	41	*	*	*	*	41	*	*	41
09:00	49	*	*	*	*	49	*	*	49
10:00	31	*	*	*	*	31	*	*	31
11:00	28	*	*	*	*	28	*	*	28
Day Total	2841	1515	0	0	0	2824	0	0	2824
% Avg. WkDay	100.6%	53.6%	0.0%	0.0%	0.0%				
% Avg. Week	100.6%	53.6%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	
AM Peak	05:00	05:00	-	-	-	05:00	-	-	05:00
Vol.	314	324	-	-	-	319	-	-	319
PM Peak	17:00	12:00	-	-	-	17:00	-	-	17:00
Vol.	334	145	-	-	-	334	-	-	334
Grand Total	2841	1515	0	2369	2991	5776	1777	1560	5100

ADT ADT 2,445 AADT 2,445

Means of Transportation to Work

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Label	Florida town, Montgomery County, New York	
	Estimate	Margin of Error
Total:	1,538	±142
Car, truck, or van:	1,345	±135
Drove alone	1,182	±178
Carpooled:	163	±140
In 2-person carpool	163	±140
In 3-person carpool	0	±13
In 4-person carpool	0	±13
In 5- or 6-person carpool	0	±13
In 7-or-more-person carpool	0	±13
Public transportation (excluding taxicab):	0	±13
Bus	0	±13
Subway or elevated rail	0	±13
Long-distance train or commuter rail	0	±13
Light rail, streetcar or trolley (carro público in Puerto Rico)	0	±13
Ferryboat	0	±13
Taxicab	0	±13
Motorcycle	0	±13
Bicycle	92	±108
Walked	0	±13
Other means	0	±13
Worked from home	101	±50

Table Notes

Means of Transportation to Work

Survey/Program: American Community Survey
Universe: Workers 16 years and over
Year: 2023
Estimates: 5-Year
Table ID: B08301

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, the decennial census is the official source of population totals for April 1st each decennial year. In between censuses, the Census Bureau's Population Estimates Program produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units and the group quarters population for states and counties.

Information about the American Community Survey (ACS) can be found on the ACS website. Supporting documentation including code lists, subject definitions, data accuracy, and statisti testing, and a full list of ACS tables and table shells (without estimates) can be found on the Technical Documentation section of the ACS website.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Source: U.S. Census Bureau, 2019-2023 American Community Survey 5-Year Estimates

ACS data generally reflect the geographic boundaries of legal and statistical areas as of January 1 of the estimate year. For more information, see Geography Boundaries by Year.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin o error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

Users must consider potential differences in geographic boundaries, questionnaire content or coding, or other methodological issues when comparing ACS data from different years. Statistically significant differences shown in ACS Comparison Profiles, or in data users' own analysis, may be the result of these differences and thus might not necessarily reflect changes the social, economic, housing, or demographic characteristics being compared. For more information, see Comparing ACS Data.

Workers include members of the Armed Forces and civilians who were at work last week.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on 2020 Census data. As a result, data for urban and rural are from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

-
The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

N
The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

(X)
The estimate or margin of error is not applicable or not available.

median-
The median falls in the lowest interval of an open-ended distribution (for example "2,500-")

median+
The median falls in the highest interval of an open-ended distribution (for example "250,000+").

**
The margin of error could not be computed because there were an insufficient number of sample observations.

***
The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.

*****
A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.

NY Route 5S & Target Dr
Gap Count
Weekday AM & PM Peak Hours

AM Peak Hour				7.4		11.8		16.2		20.6		25			29.4		
Wednesday	0	0	0	1	1	2	2	3	3	4	4	5	5	5	6		

2/5/2025

Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Total Gaps 15-min	Total Gaps Hourly
8:15AM - 8:30PM	18	4	7	7	1	5	7	3	1	5	2	1	2	0	4	111	444

PM Peak Hour
Wednesday
2/5/2025

Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Total Gaps 15-min	Total Gaps Hourly
4:00PM - 4:15PM	48	31	19	12	3	3	3	0	3	1	0	0	0	0	0	40	160

7.4 seconds critial headway with 100% trucks
4.4 seconds base follow up headway with 100% trucks

GAP COUNT

7.4	4.4	7.4	1
critical gap	follow up	11.8	2
6.1 for 2stage		16.2	3
		20.6	4
		25	5
		29.4	6
		33.8	7
		38.2	8
		Total Gap	Veh Allowed

APPENDIX C
TRIP GENERATION DATA

Tenant Specific Data - Traffic Schedule

Cars			
Average Weekday			
Time	In	Out	Total
0:00	6	19	25
1:00	6	18	24
2:00	15	41	56
3:00	9	49	58
4:00	45	181	226
5:00	50	274	324
6:00	334	42	376
7:00	369	56	425
8:00	54	22	76
9:00	30	25	55
10:00	33	32	65
11:00	62	70	132
12:00	46	51	97
13:00	26	39	65
14:00	29	47	76
15:00	40	80	120
16:00	54	80	134
17:00	296	270	566
18:00	291	373	664
19:00	28	30	58
20:00	21	17	38
21:00	21	25	46
22:00	44	51	95
23:00	17	31	48
Total	**1,926**	**1,923**	**3,849**

Trucks			
Average Weekday			
Time	In	Out	Total
0:00	7	8	15
1:00	8	7	15
2:00	7	9	16
3:00	8	8	16
4:00	9	9	18
5:00	7	9	16
6:00	8	6	14
7:00	9	7	16
8:00	13	11	24
9:00	13	12	25
10:00	16	15	31
11:00	17	18	35
12:00	11	13	24
13:00	13	13	26
14:00	17	14	31
15:00	13	15	28
16:00	12	13	25
17:00	13	14	27
18:00	8	11	19
19:00	8	5	13
20:00	10	8	18
21:00	8	8	16
22:00	7	9	16
23:00	10	9	19
Total	**252**	**251**	**503**

Total Vehicles			
Cars + Trucks Average Weekday			
	In	Out	Total
0:00	13	27	40
1:00	14	25	39
2:00	22	50	72
3:00	17	57	74
4:00	54	190	244
5:00	57	283	340
6:00	342	48	390
7:00	378	63	441
8:00	67	33	100
9:00	43	37	80
10:00	49	47	96
11:00	79	88	167
12:00	57	64	121
13:00	39	52	91
14:00	46	61	107
15:00	53	95	148
16:00	66	93	159
17:00	309	284	593
18:00	299	384	683
19:00	36	35	71
20:00	31	25	56
21:00	29	33	62
22:00	51	60	111
23:00	27	40	67
Total	**2,178**	**2,174**	**4,352**

Morning Peak Hour of Generator:	6:30 AM	to	7:30 AM
	Enter	Exit	Total
Cars	551	63	614
Trucks	9	7	16
Total	560	70	630

Morning Peak Hour of Adjacent Street:	7:30 AM	to	8:30 AM
	Enter	Exit	Total
Cars	108	30	138
Trucks	10	9	19
Total	118	39	157

Evening Peak Hour of Adjacent Street:	3:30 PM	to	4:30 PM
	Enter	Exit	Total
Cars	40	73	113
Trucks	14	12	26
Total	54	85	139

Evening Peak Hour of Generator:	5:30 PM	to	6:30 PM
	Enter	Exit	Total
Cars	451	531	982
Trucks	10	13	23
Total	461	544	1,005

APPENDIX D
JOURNEY-TO-WORK MODEL

2022 Home Area Comparison Analysis

Workers: *In the "Trade, Transportation, and Utilities" Industry Class living in the Custom*

Rt 5S East
Rt 5S West
Main Street North (Fonda)
Rt 27 - Main St North (Fort Hunter)
Market St / N South Arterial - Rt 30 North
Rt 30 South
I-90 East
I-90 West
Market St / N South Arterial - Rt 67 North
N South Arterial (Amsterdam Disperse)
Auriesville Road South

Jobs by NAICS Industry Sector

		2022 Count	2022 Share
21624	Total All Jobs	21,624	100.0%
		21,624	

Jobs by NAICS Industry Sector

	2022 Count	2022 Share
Total All Jobs	1,530	7.1%

Job Counts by Counties Where Workers

Route	Alt Route	Alt Route 2		2022 Count	2022 Share	Excluded
			Montgomery County, NY	1,530	7.1%	
60%	40%	0%	Fulton County, NY	1,626	7.5%	
30%	50%	20%	Schenectady County, NY	3,509	16.2%	
			Saratoga County, NY	3,846	17.8%	
			Albany County, NY	5,144	23.8%	
			Warren County, NY	126	0.6%	I-87 North
			Washington County, NY	25	0.1%	I-87 North
			Herkimer County, NY	1,003	4.6%	
			Schoharie County, NY	621	2.9%	
			Rensselaer County, NY	2,060	9.5%	
			Oneida County, NY	1,603	7.4%	
			Otsego County, NY	374	1.7%	
			Delaware County, NY	68	0.3%	
			Greene County, NY	66	0.3%	
			Madison County, NY	13	0.1%	
			Chenango County, NY	1	0.0%	
			Hamilton County, NY	9	0.0%	
			All Other Locations		0.0%	

Job Counts by County Subdivisions (Montgomery, NY)

Route	Alt Route		2022 Count	2022 Share
		Amsterdam city (Montgomery, NY)	715	3.3%
		Florida town (Montgomery, NY)	82	0.4%
50%	50%	Amsterdam town (Montgomery, NY)	144	0.7%
		Minden town (Montgomery, NY)	112	0.5%
		Charleston town (Montgomery, NY)	36	0.2%
		Mohawk town (Montgomery, NY)	85	0.4%
		Canajoharie town (Montgomery, NY)	93	0.4%
		Glen town (Montgomery, NY)	66	0.3%
		St. Johnsville town (Montgomery, NY)	74	0.3%
		Palatine town (Montgomery, NY)	82	0.4%
		Root town (Montgomery, NY)	41	0.2%
		All Other Locations		0.0%

	Route	Arrival Count	Departure Count	Arrival Percent	Departure Percent	Arrival Percent	Departure Percent	Arrival	Departure
1	Rt 5S East	1052.70	0.00	4.87%		5%		5%	
2	Rt 5S West	205.00	0.00	0.95%		1%		22%	
3	Main Street North (Fonda)	1216.60	0.00	5.63%		6%			
4	Rt 27 - Main St North (Fort Hunter)	659.40	0.00	3.05%		3%			
5	Market St / N South Arterial - Rt 30 North	72.00	0.00	0.33%		0%			
6	Rt 30 South	1949.80	0.00	9.02%		9%		10%	
7	I-90 East	8958.50	0.00	41.43%		41%		41%	
8	I-90 West	2619.00	0.00	12.11%		12%			
9	Market St / N South Arterial - Rt 67 North	4069.00	0.00	18.82%		19%		22%	
10	N South Arterial (Amsterdam Disperse)	715.00	0.00	3.31%		3%			
11	Auriesville Road South	107.00	0.00	0.49%		1%			
12									
	Total	**21624.00**	**0.00**	**100.00%**	**0.00%**	**100%**	**0%**	**100%**	

1
2 3 4 8
6 11
7
5 9 10
5 9 10

USE: https://www.google.com/maps/@42.9353985,-74.2318909,1069m/data=!3m1!1e3?entry=ttu&g_ep=EgoyMDI1MDMwOC4wIKXMDSoJLDEwMjExNDUzSAFQAw%3D%3D

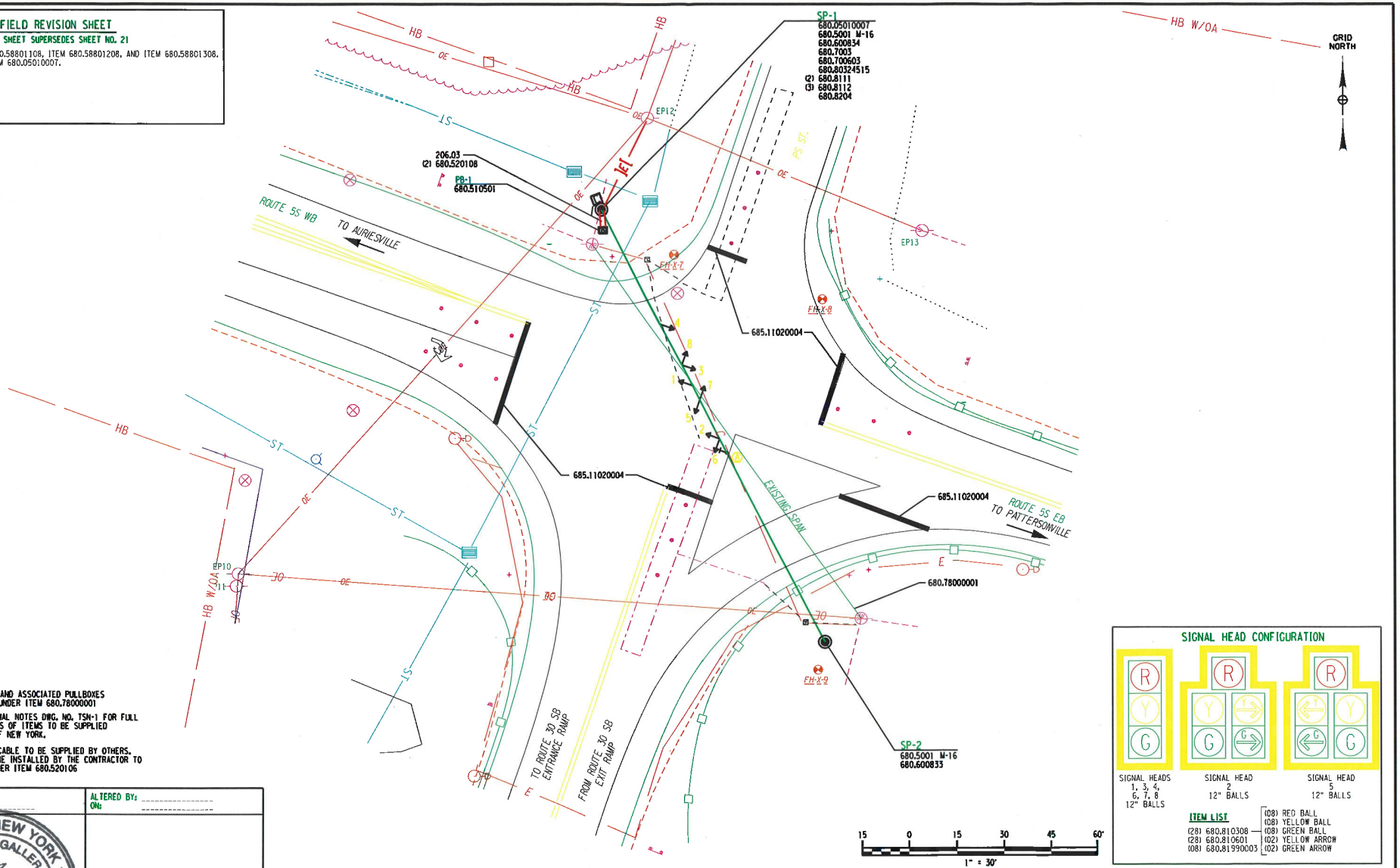
USE: Target Dr East

APPENDIX E
TIMING DIRECTIVES

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET NO. 21

- REMOVED ITEM 680.58801108, ITEM 680.58801208, AND ITEM 680.58801308. REPLACED WITH ITEM 680.05010007.



SIGNAL HEAD CONFIGURATION

ITEM LIST

(08) 680.810308	(08) RED BALL
(08) 680.810401	(08) YELLOW BALL
(28) 680.810601	(08) GREEN BALL
(08) 680.81990003	(02) YELLOW ARROW
	(02) GREEN ARROW

NOTES:

1. EXISTING SIGNAL AND ASSOCIATED PULLBOXES TO BE REMOVED UNDER ITEM 680.78000001
2. SEE TRAFFIC SIGNAL NOTES DWG. NO. TSN-1 FOR FULL LIST AND DETAILS OF ITEMS TO BE SUPPLIED BY THE STATE OF NEW YORK.
3. COMMUNICATIONS CABLE TO BE SUPPLIED BY OTHERS. CABLE WIRE TO BE INSTALLED BY THE CONTRACTOR TO BE INCLUDED UNDER ITEM 680.520106

AFFIX SEAL: ON: _____

ALTERED BY: _____ ON: _____

STATE OF NEW YORK * MICHAEL A. GALLERANI * LICENSED PROFESSIONAL ENGINEER 085911

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FAC 55-8 CITY OF AMSTERDAM-RTE 5S ARTERIAL CONNECTION

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 20
SIGNAL NO. 02-25-24

CONTRACT NUMBER
D264347

DRAWING NO. TSP-10

SHEET NO. 21R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

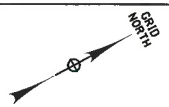
PROJECT MANAGER
CHECK
DRAFTING M. JONES
DESIGN M. JONES
CHECK
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITS

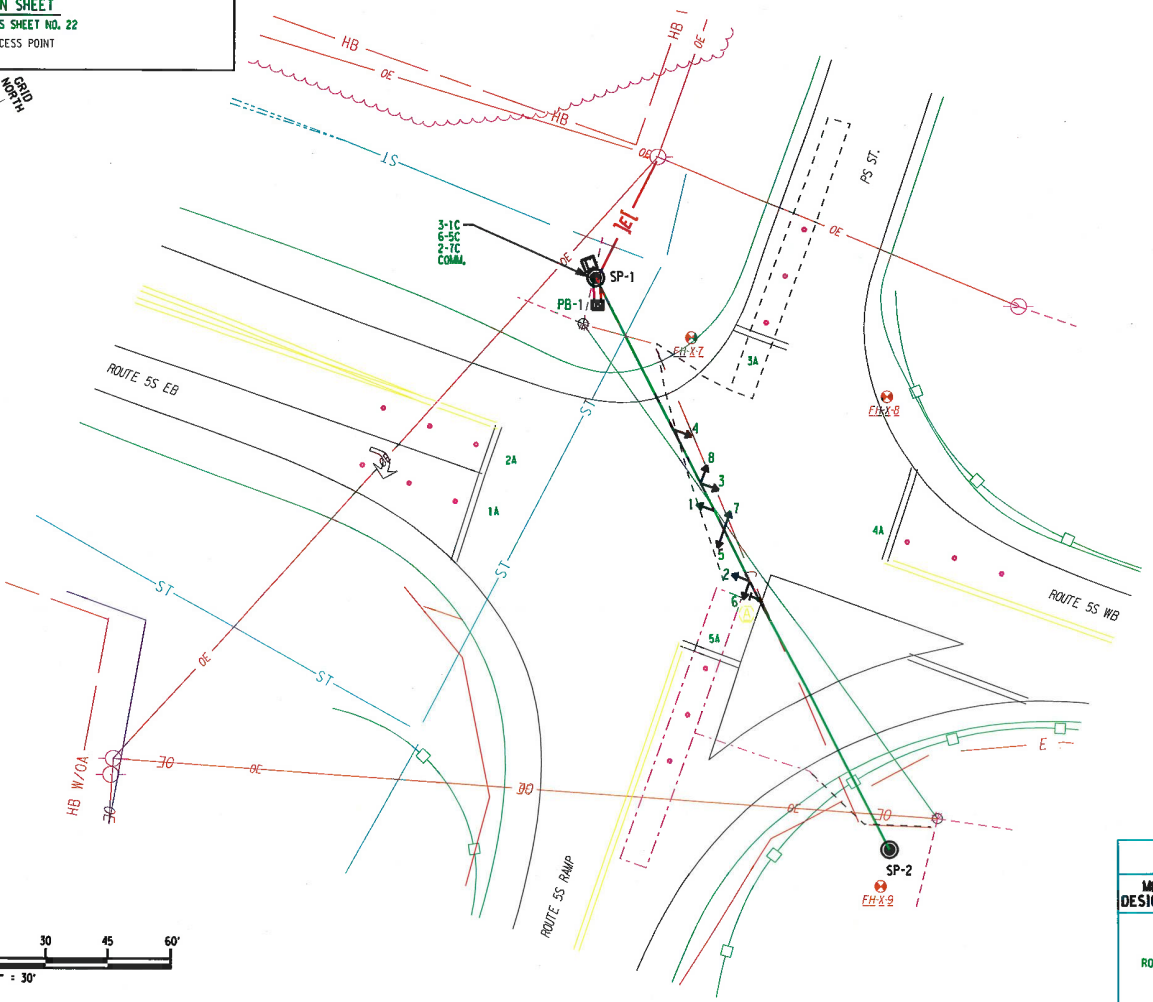
FILE NAME = 2806S7.cpd.P1.tsp1.dgn
DATE/TIME = 03/05/2025 09:23:56
USER = DANNOSERWAVE

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET NO. 22

- REMOVED ETHER WIRE FOR PUCKS ACCESS POINT







15 0 15 30 45 60'

1" = 30'

SIGN TEXT DATA SHEET

MUTCD DESIGNATION	LOCATION	TEXT	DIMENSIONS	ITEM NUMBER	QUANTITY
R03-05R	A	ONLY	30" X 36"	680.8204	1

LEGEND

1C - 680.95010615 - SERVICE CABLE 1 CONDUCTOR, 06 AWG
5C - 680.730514 - SIGNAL CABLE 5 CONDUCTOR, 14 AWG
7C - 680.730714 - SIGNAL CABLE 7 CONDUCTOR, 14 AWG
COMM. - WIRE PROVIDED FOR COMMUNICATION

AFFIX SEAL:
ON:

ALTERED BY:
ON:

STATE OF NEW YORK
MICHAEL A. GALLERANI
085911
LICENSED PROFESSIONAL ENGINEER

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FAC 55-8 CITY OF AMSTERDAM-RTE 5S ARTERIAL CONNECTION

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 20
SIGNAL NO. 02-25-24

CONTRACT NUMBER
D264347

DRAWING NO. TSP-11

SHEET NO. 22R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING M. JONES
CHECK
DESIGN M. JONES
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITS

FILE NAME = 280667.con.P1.tsp2.dgn
DATE/TIME = 03/05/2025 10:23:56
USER = DONOSEWAME

5524

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	20	10	6					
Gap, Ext	10	2	2					
Max 1	20	20	15					
Max 2								
Yel Clearance	4	4	4	3.5	3.5	3.5	3.5	3.5
Red Clearance	1	1	1	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON					
Min Recall	ON							
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		ON	ON	ON		ON		ON
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Red	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	OFF
5	2	Red	OFF
6	2	Red	OFF
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	Red
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock: OFF | Overlap Lock Inhibit: OFF | Parent Ph Clearance: OFF | Extra Included Ph: ON

1	Included Ø	2								Type	NORMAL	9	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
A	Conflict Olap									Red	1.5	I	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
2	Included Ø									Type	NORMAL	10	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
B	Conflict Olap									Red	1.5	J	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
3	Included Ø									Type	NORMAL	11	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
C	Conflict Olap									Red	1.5	K	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
4	Included Ø									Type	NORMAL	12	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
D	Conflict Olap									Red	1.5	L	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
5	Included Ø									Type	NORMAL	13	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
E	Conflict Olap									Red	1.5	M	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
6	Included Ø									Type	NORMAL	14	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
F	Conflict Olap									Red	1.5	N	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
7	Included Ø									Type	NORMAL	15	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
G	Conflict Olap									Red	1.5	O	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			
8	Included Ø									Type	NORMAL	16	Included Ø								Type	NORMAL		
	Modifier Ø									Grn			Modifier Ø								Grn			
	Conflict Ø									Yel	3.5		Conflict Ø								Yel	3.5		
H	Conflict Olap									Red	1.5	P	Conflict Olap								Red	1.5		
	Conflict Ped									LG			Conflict Ped								LG			

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	1	1	2	3																			
Channel Type	VEH	OLP	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø	E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22				EndGRN				
2	12	22				EndGRN				
3	12	22				EndGRN				
4	12	22				EndGRN				
5	12	22				EndGRN				
6	12	22				EndGRN				
7	12	22				EndGRN				
8	12	22				EndGRN				
9	12	22				EndGRN				
10	12	22				EndGRN				
11	12	22				EndGRN				
12	12	22				EndGRN				
13	12	22				EndGRN				
14	12	22				EndGRN				
15	12	22				EndGRN				
16	12	22				EndGRN				
17	12	22				EndGRN				
18	12	22				EndGRN				
19	12	22				EndGRN				
20	12	22				EndGRN				
21	12	22				EndGRN				
22	12	22				EndGRN				
23	12	22				EndGRN				
24	12	22				EndGRN				
25						BegGRN				
26						BegGRN				
27						BegGRN				
28						BegGRN				
29						BegGRN				
30						BegGRN				
31						BegGRN				
32						BegGRN				
33						BegGRN				
34						BegGRN				
35						BegGRN				
36						BegGRN				
37						BegGRN				
38						BegGRN				
39						BegGRN				
40						BegGRN				
41						BegGRN				
42						BegGRN				
43						BegGRN				
44						BegGRN				
45						BegGRN				
46						BegGRN				
47						BegGRN				
48						BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Ma	SINGLE	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	2		4				45	50	20
2	3		6				45	50	20
3							45	50	2
4							45	50	2
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddIni	Red Lock	Yell Lock	occ	vol
33	ON	ON		ON				
34	ON	ON		ON				
35	ON	ON		ON				
36	ON	ON		ON				
37	ON	ON		ON				
38	ON	ON		ON				
39	ON	ON		ON				
40	ON	ON		ON				
41	ON	ON		ON				
42	ON	ON		ON				
43	ON	ON		ON				
44	ON	ON		ON				
45	ON	ON		ON				
46	ON	ON		ON				
47	ON	ON		ON				
48	ON	ON		ON				
49	ON	ON		ON				
50	ON	ON		ON				
51	ON	ON		ON				
52	ON	ON		ON				
53	ON	ON		ON				
54	ON	ON		ON				
55	ON	ON		ON				
56	ON	ON		ON				
57	ON	ON		ON				
58	ON	ON		ON				
59	ON	ON		ON				
60	ON	ON		ON				
61	ON	ON		ON				
62	ON	ON		ON				
63	ON	ON		ON				
64	ON	ON		ON				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1			15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

RT 30 @ SB RAMP , RTE 5S AND P STREET

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	None
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlap	
	Peds	
2	Phases	
	Overlap	
	Peds	
3	Phases	
	Overlap	
	Peds	
4	Phases	
	Overlap	
	Peds	
5	Phases	
	Overlap	
	Peds	
6	Phases	
	Overlap	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

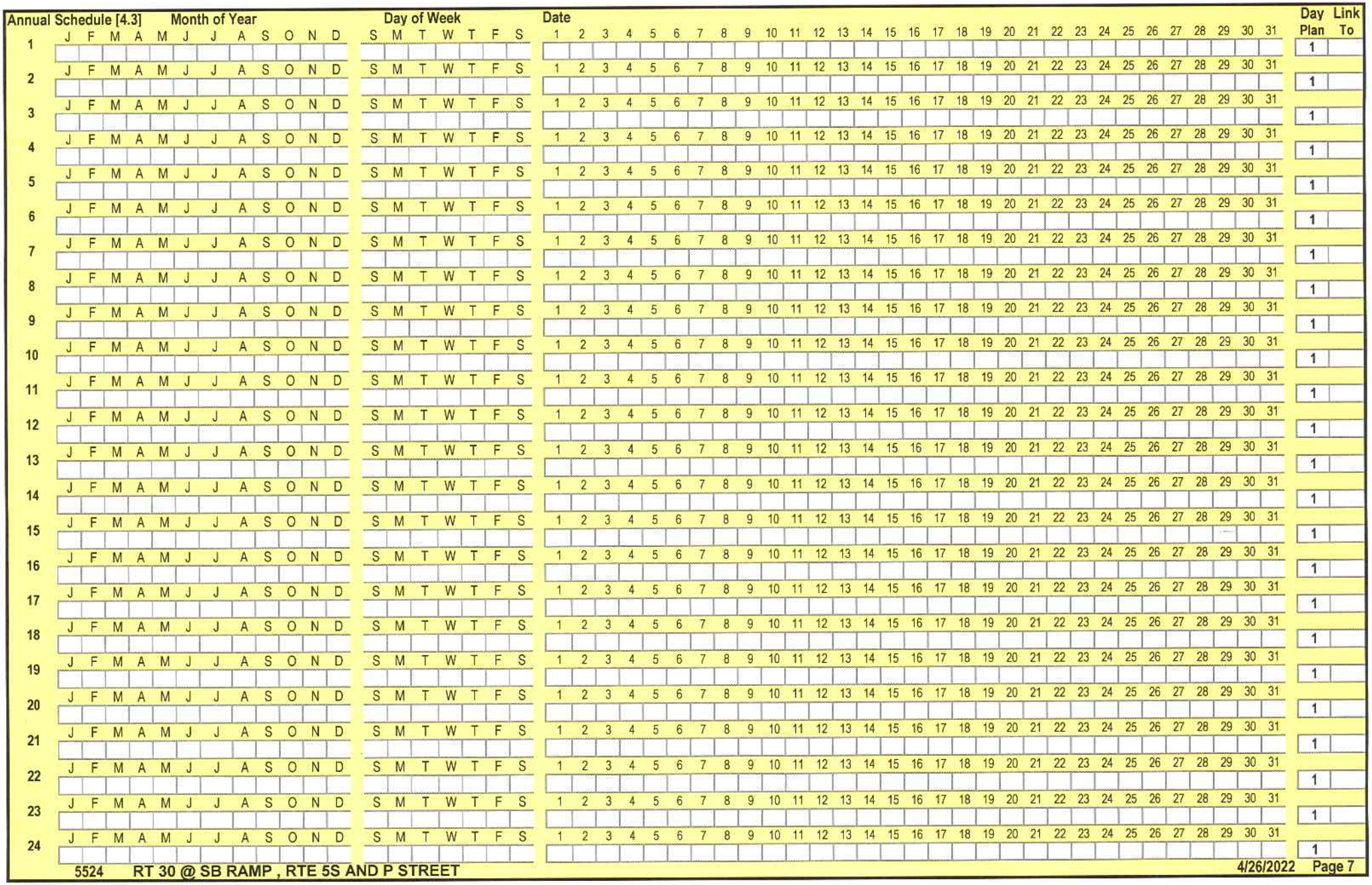
Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								



Annual Schedule [4.3]	Month of Year	Day of Week	Date	Day Plan	Link To
1	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
2	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
3	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
4	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
5	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
6	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
7	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
8	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
9	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
10	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
11	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
12	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
13	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
14	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
15	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
16	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
17	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
18	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
19	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
20	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
21	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
22	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
23	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
24	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	189	Unused
I1-4	189	Unused
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	189	Unused
I3-8	189	Unused
I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	IO1	Opn1	O2Fnc	Inv2	IO2	Opn2	O3Fnc	Inv3	IO3	Opn3	Dly	Sec
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None
22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None
43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	5524
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	None	SYSUp	ASYNC2
CMU/MMU	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop Det.	None		
GPS	-		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failur	ON	ON
27	BIU Detector Failure	ON	ON
32	Queue detector alarm	ON	
29	Ped Detector Fault	ON	
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø				
1						
2						
3						
4						
5						
6						
7						
8						

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø				
1						
2						
3						
4						
5						
6						
7						
8						

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

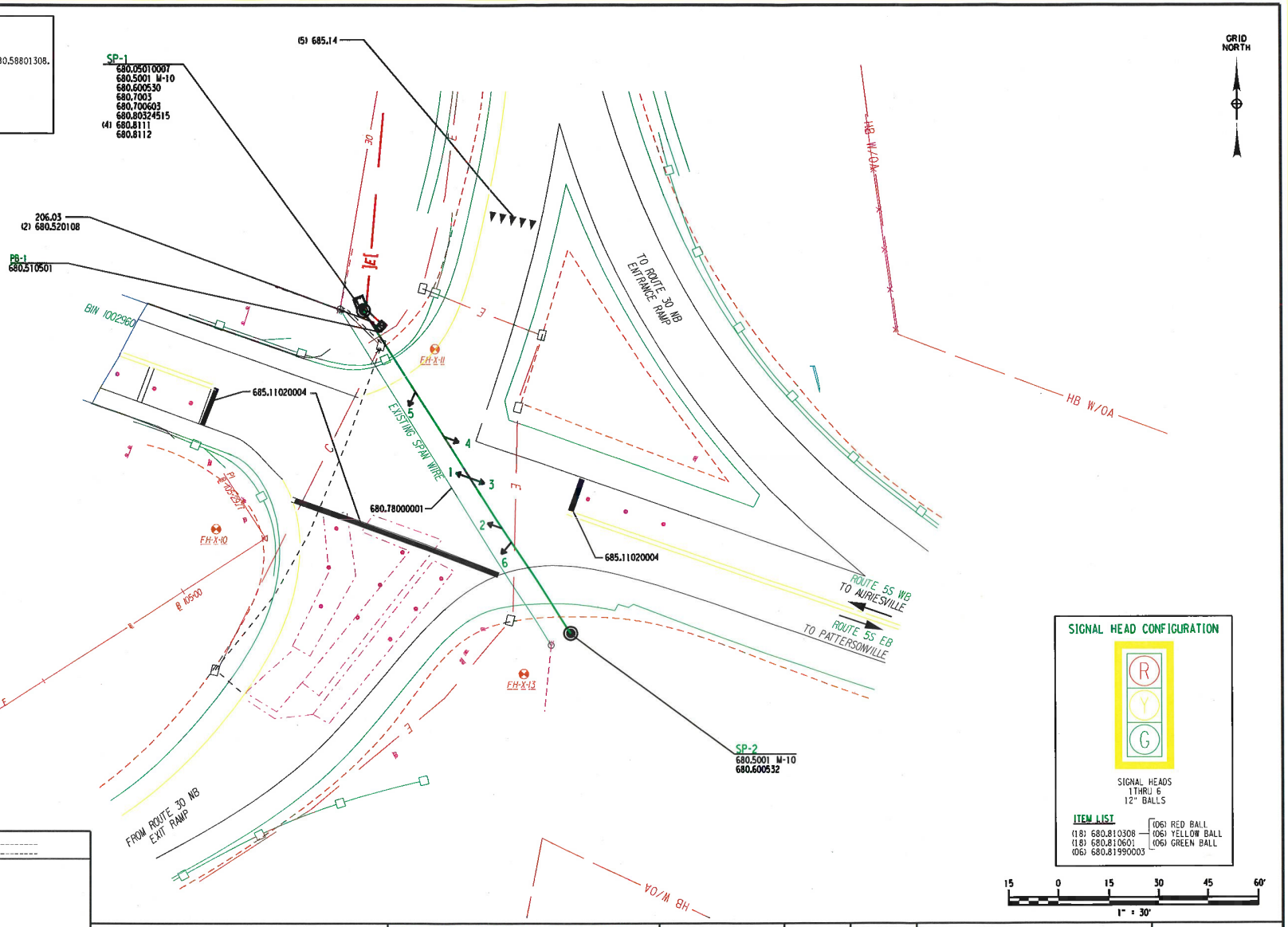
Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET 24

- REMOVED ITEM 680.58801108, ITEM 680.58801208 AND ITEM 680.58801308. REPLACED WITH ITEM 680.05010007.



SIGNAL HEAD CONFIGURATION

SIGNAL HEADS 1THRU 6 12" BALLS

ITEM LIST

(18) 680.810308	(06) RED BALL
(18) 680.810601	(06) YELLOW BALL
(06) 680.81990003	(06) GREEN BALL

15 0 15 30 45 60'
1" = 30'

NOTES:

1. EXISTING SIGNAL AND ASSOCIATED PULLBOXES TO BE REMOVED UNDER ITEM 680.78000001
2. SEE TRAFFIC SIGNAL NOTES DWG. NO. TSN-1 FOR FULL LIST AND DETAILS OF ITEMS TO BE SUPPLIED BY THE STATE OF NEW YORK.
3. COMMUNICATIONS CABLE TO BE SUPPLIED BY OTHERS. CABLE WIRE TO BE INSTALLED BY THE CONTRACTOR TO BE INCLUDED UNDER ITEM 680.520106

AFFIX SEAL: ON:

ALTERED BY: ON:

STATE OF NEW YORK * MICHAEL A. GALLERANI * LICENSED PROFESSIONAL ENGINEER 085911

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FAC 55-8 CITY OF AMSTERDAM-RTE 5S ARTERIAL CONNECTION

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 21
SIGNAL NO. 02-25-25

CONTRACT NUMBER D264347

DRAWING NO. TSP-13

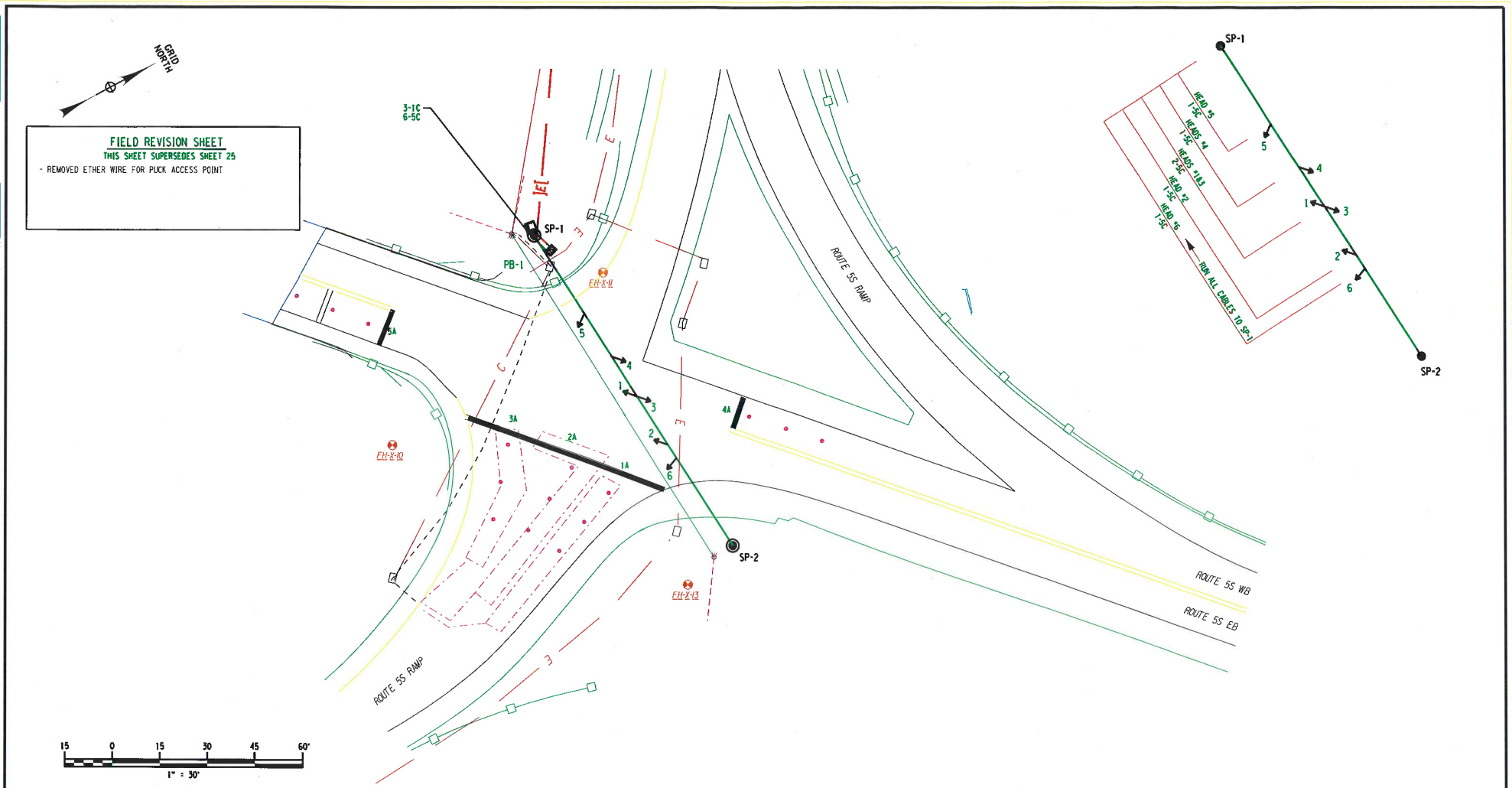
SHEET NO. 24R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING M. JONES
CHECK
DESIGN M. JONES
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITTS

FILE NAME = 280667.con.01.tsp1.dgn
DATE/TIME = 10/31/17 8:02:23 AM
USER = DOWNSTREAM



AFFIX SEAL:
ON: _____

ALTERED BY: _____
ON: _____

STATE OF NEW YORK
MICHAEL A. GALLERANI
LICENSED PROFESSIONAL ENGINEER
085911

LEGEND

1C - 680.95010615 - SERVICE CABLE 1 CONDUCTOR, 06 AWG
5C - 680.730514 - SIGNAL CABLE 5 CONDUCTOR, 14 AWG

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

FAC 55-8 CITY OF AMSTERDAM-RTE 5S ARTERIAL CONNECTION

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 21
SIGNAL NO. 02-25-25

CONTRACT NUMBER
D264347

DRAWING NO. TSP-14

SHEET NO. 25R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING M. JONES
CHECK
DESIGN M. JONES
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITS

FILE NAME = 280667_sch_01_tsp2.dgn
DATE/TIME = 10/9/2017 8:22:25 AM
USER = DOMAIN\SERNAME

5525

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	25	8						
Gap, Ext	10	2						
Max 1	25	20						
Max 2								
Yel Clearance	4	4	3.5	3.5	3.5	3.5	3.5	3.5
Red Clearance	1	1	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON						
Min Recall	ON							
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		ON		ON		ON		ON
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Gm/Ped Delay								

5525 RT 30 NB RAMP @ RT 5S

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1					
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1					
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1					
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1					
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1					
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1					
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1					
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1					
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1					
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1					
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1					
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1					
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8					

1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0					
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON					

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Red	ON
2	1	Red	ON
3	1	Red	OFF
4	1	Red	OFF
5	2	Red	OFF
6	2	Red	OFF
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	Red
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3*	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	OFF	Extra Included Ph	ON

1	Included Ø									Type	NORMAL	9	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
A	Conflict Olap									Red	1.5	I	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
2	Included Ø									Type	NORMAL	10	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1.5	J	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
3	Included Ø									Type	NORMAL	11	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
4	Included Ø									Type	NORMAL	12	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
5	Included Ø									Type	NORMAL	13	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
6	Included Ø									Type	NORMAL	14	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
7	Included Ø									Type	NORMAL	15	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
8	Included Ø									Type	NORMAL	16	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	1	2																					
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø					E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22								EndGRN				
2	12	22								EndGRN				
3	12	22								EndGRN				
4	12	22								EndGRN				
5	12	22								EndGRN				
6	12	22								EndGRN				
7	12	22								EndGRN				
8	12	22								EndGRN				
9	12	22								EndGRN				
10	12	22								EndGRN				
11	12	22								EndGRN				
12	12	22								EndGRN				
13	12	22								EndGRN				
14	12	22								EndGRN				
15	12	22								EndGRN				
16	12	22								EndGRN				
17	12	22								EndGRN				
18	12	22								EndGRN				
19	12	22								EndGRN				
20	12	22								EndGRN				
21	12	22								EndGRN				
22	12	22								EndGRN				
23	12	22								EndGRN				
24	12	22								EndGRN				
25										BegGRN				
26										BegGRN				
27										BegGRN				
28										BegGRN				
29										BegGRN				
30										BegGRN				
31										BegGRN				
32										BegGRN				
33										BegGRN				
34										BegGRN				
35										BegGRN				
36										BegGRN				
37										BegGRN				
38										BegGRN				
39										BegGRN				
40										BegGRN				
41										BegGRN				
42										BegGRN				
43										BegGRN				
44										BegGRN				
45										BegGRN				
46										BegGRN				
47										BegGRN				
48										BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Ma	SINGLE	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	2		6				45	50	20
2	2		6				45	50	20
3							45	50	2
4							45	50	2
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddIni	Red Lock	Yell Lock	occ	vol
33	ON	ON		ON				
34	ON	ON		ON				
35	ON	ON		ON				
36	ON	ON		ON				
37	ON	ON		ON				
38	ON	ON		ON				
39	ON	ON		ON				
40	ON	ON		ON				
41	ON	ON		ON				
42	ON	ON		ON				
43	ON	ON		ON				
44	ON	ON		ON				
45	ON	ON		ON				
46	ON	ON		ON				
47	ON	ON		ON				
48	ON	ON		ON				
49	ON	ON		ON				
50	ON	ON		ON				
51	ON	ON		ON				
52	ON	ON		ON				
53	ON	ON		ON				
54	ON	ON		ON				
55	ON	ON		ON				
56	ON	ON		ON				
57	ON	ON		ON				
58	ON	ON		ON				
59	ON	ON		ON				
60	ON	ON		ON				
61	ON	ON		ON				
62	ON	ON		ON				
63	ON	ON		ON				
64	ON	ON		ON				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1			15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

RT 30 NB RAMP @ RT 5S

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	None
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlap	
	Peds	
2	Phases	
	Overlap	
	Peds	
3	Phases	
	Overlap	
	Peds	
4	Phases	
	Overlap	
	Peds	
5	Phases	
	Overlap	
	Peds	
6	Phases	
	Overlap	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3]	Month of Year	Day of Week	Date	Day Plan	Link To
1	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
2	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
3	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
4	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
5	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
6	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
7	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
8	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
9	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
10	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
11	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
12	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
13	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
14	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
15	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
16	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
17	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
18	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
19	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
20	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
21	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
22	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
23	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
24	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	189	Unused
I1-4	189	Unused
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	189	Unused
I3-8	189	Unused
I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	IO1	Opn1	O2Fnc	Inv2	IO2	Opn2	O3Fnc	Inv3	IO3	Opn3	Dly	Sec
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None
22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None
43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	5525
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	None	SYSUp	ASYNC2
CMU/MMU	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop Det.	None		
GPS	-		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failur	ON	ON
27	BIU Detector Failure	ON	ON
32	Queue detector alarm	ON	
29	Ped Detector Fault		
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Ø Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø Phases Called By Ø															
1																
2																
3																
4																
5																
6																
7																
8																

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø Phases Called By Ø															
1																
2																
3																
4																
5																
6																
7																
8																

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

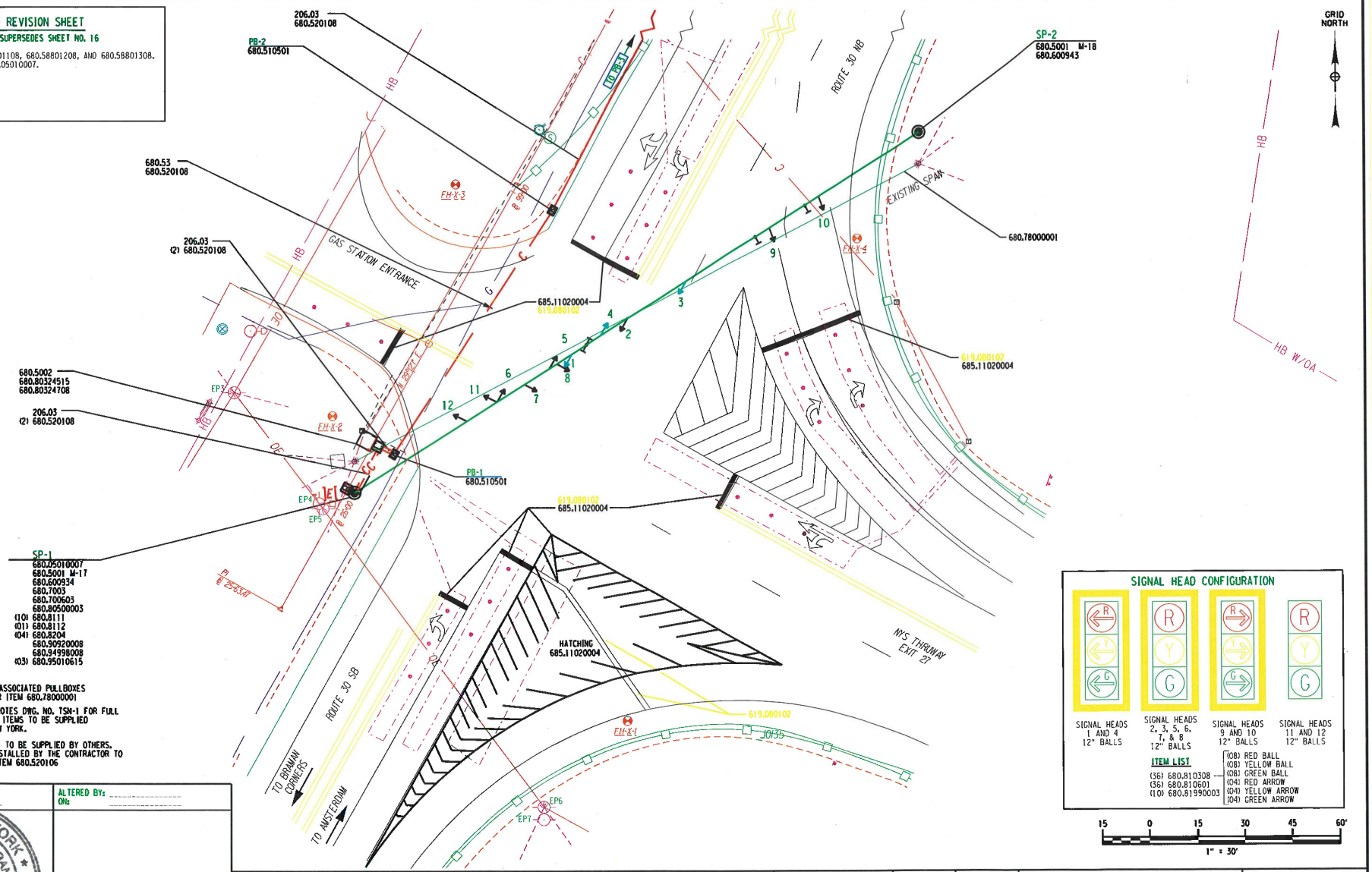
Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET NO. 16

- REMOVED ITEM 680.58801108, 680.58801208, AND 680.58801308. REPLACED WITH ITEM 680.05010007.



NOTES:

1. EXISTING SIGNAL AND ASSOCIATED PULLBOXES TO BE REMOVED UNDER ITEM 680.78000001
2. SEE TRAFFIC SIGNAL NOTES DWG. NO. TSN-1 FOR FULL LIST AND DETAILS OF ITEMS TO BE SUPPLIED BY THE STATE OF NEW YORK.
3. COMMUNICATIONS CABLE TO BE SUPPLIED BY OTHERS. CABLE WIRE TO BE INSTALLED BY THE CONTRACTOR TO BE INCLUDED UNDER ITEM 680.520106

SIGNAL HEAD CONFIGURATION

SIGNAL HEADS 1 AND 4 12" BALLS	SIGNAL HEADS 2, 3, 5, 6, 7, & 8 12" BALLS	SIGNAL HEADS 9 AND 10 12" BALLS	SIGNAL HEADS 11 AND 12 12" BALLS

ITEM LIST

(36) 680.810308	(08) RED BALL
(36) 680.810601	(08) YELLOW BALL
(10) 680.81990003	(08) GREEN BALL
	(04) RED ARROW
	(04) YELLOW ARROW
	(04) GREEN ARROW

15 0 15 30 45 60'

1" = 30'

AFFIX SEAL:
ON:

ALTERED BY:
ON:

STATE OF NEW YORK
MICHAEL A. GALLERANI
LICENSED PROFESSIONAL ENGINEER
085911

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

F.A.C. 58-16 CITY OF AMSTERDAM N-S ARTERIAL HWY

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 19
SIGNAL NO. 02-25-23

CONTRACT NUMBER
D264347

DRAWING NO. TSP-5

SHEET NO. 16R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

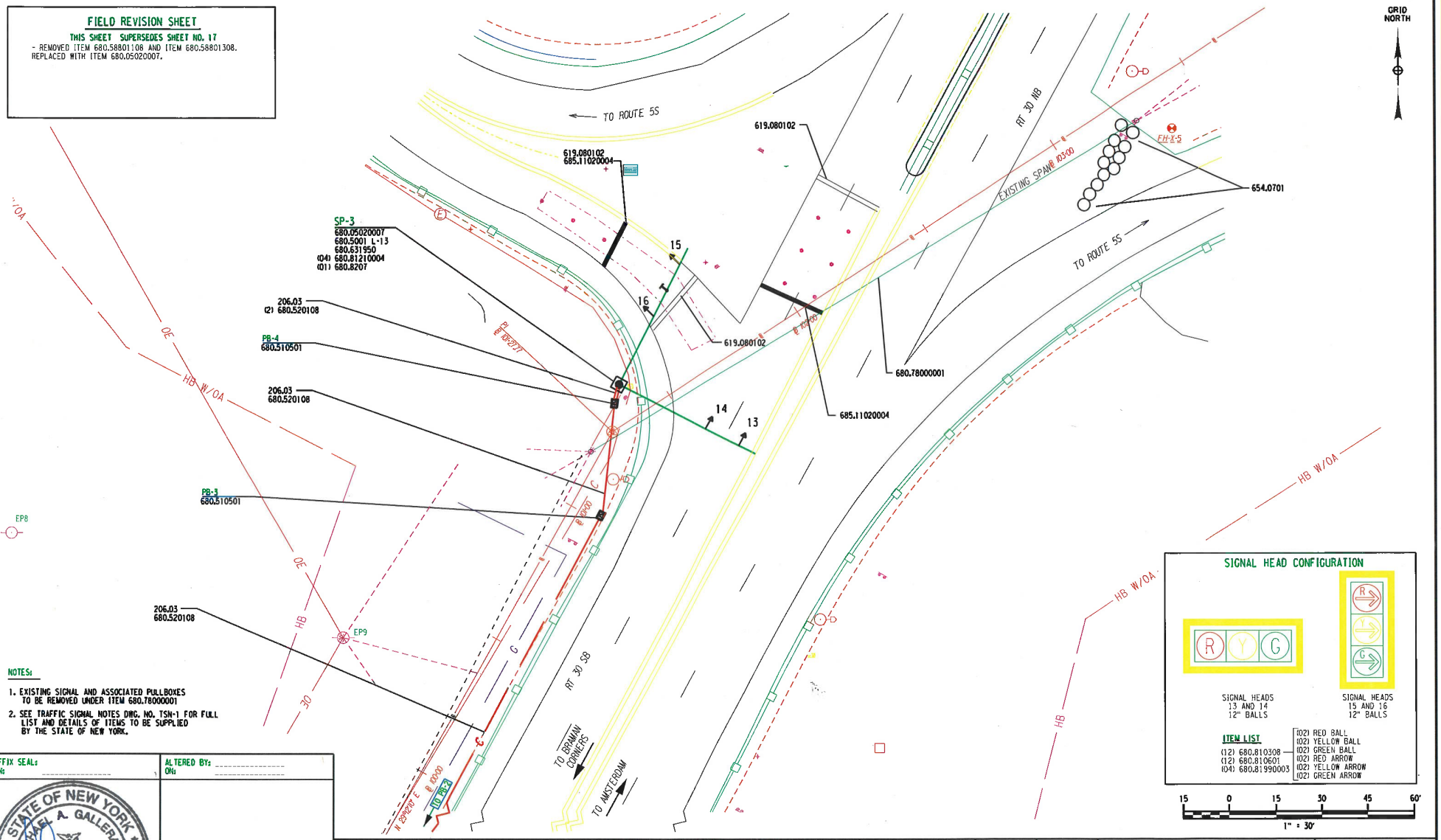
NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
DRAFTING M. JONES
CHECK
DESIGN M. JONES
CHECK
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITTS

FILE NAME = 280667.opn.01.tspl.dgn
DATE/TIME = 05/31/2023 13:23:45
USER = DOMAIN\SRNAME

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET NO. 17
- REMOVED ITEM 680.58801108 AND ITEM 680.58801308. REPLACED WITH ITEM 680.05020007.



SIGNAL HEAD CONFIGURATION

SIGNAL HEADS 13 AND 14 12" BALLS

SIGNAL HEADS 15 AND 16 12" BALLS

ITEM LIST

(12) 680.810308	(02) RED BALL
(12) 680.810601	(02) YELLOW BALL
(04) 680.81990003	(02) GREEN BALL
	(02) RED ARROW
	(02) YELLOW ARROW
	(02) GREEN ARROW

15 0 15 30 45 60'

1" = 30'

NOTES:

1. EXISTING SIGNAL AND ASSOCIATED PULLBOXES TO BE REMOVED UNDER ITEM 680.78000001
2. SEE TRAFFIC SIGNAL NOTES DWG. NO. TSN-1 FOR FULL LIST AND DETAILS OF ITEMS TO BE SUPPLIED BY THE STATE OF NEW YORK.

AFFIX SEAL: ON:

ALTERED BY: ON:

STATE OF NEW YORK
MICHAEL A. GALLERANI
085911
LICENSED PROFESSIONAL ENGINEER

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

F.A.C. 58-16 CITY OF AMSTERDAM N-S ARTERIAL HWY

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 19
SIGNAL NO. 02-25-23

CONTRACT NUMBER D264347

DRAWING NO. TSP-6

SHEET NO. 17R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

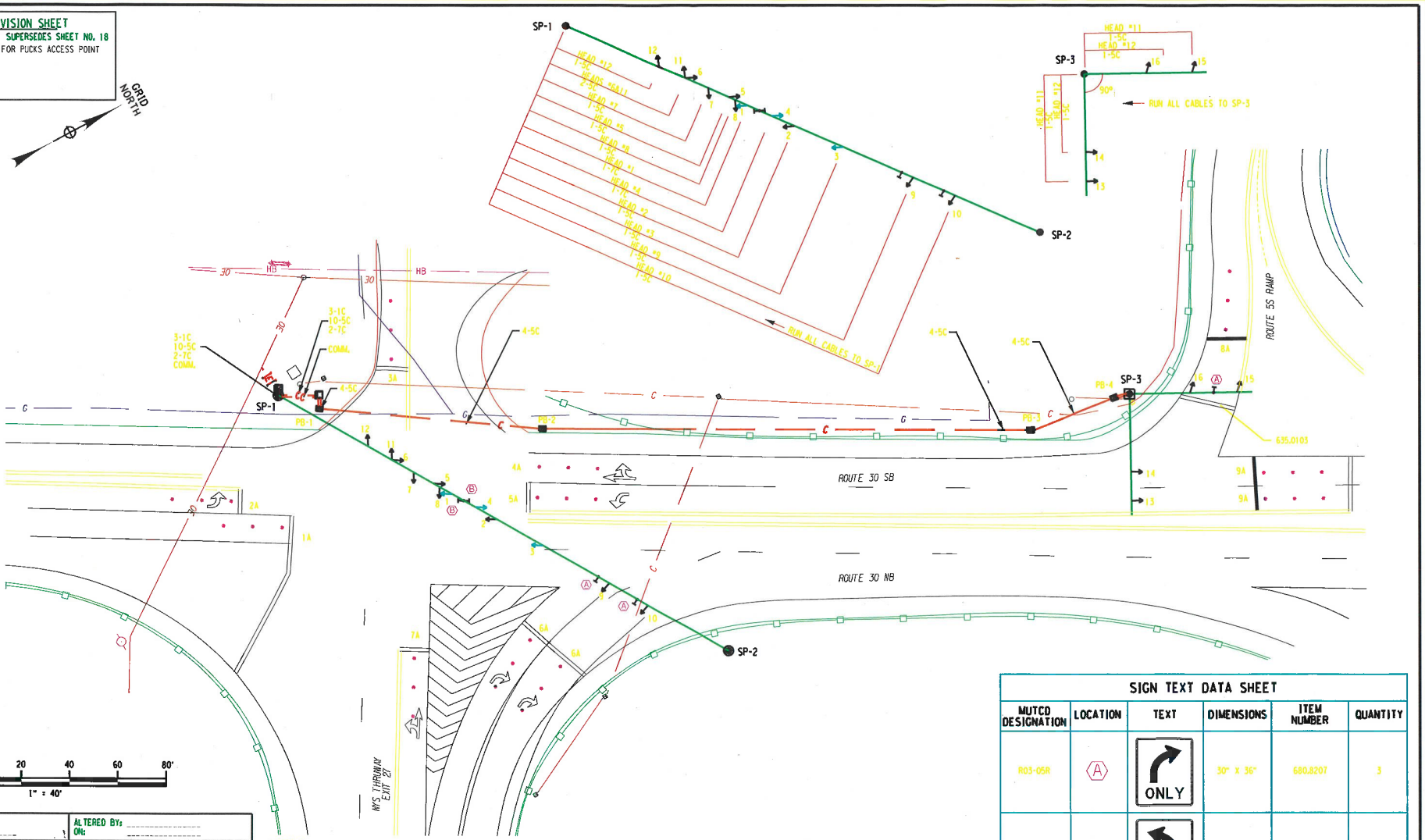
PROJECT MANAGER | CHECK | DRAFTING M. JONES | CHECK | DESIGN M. JONES | JOB MANAGER K. REILLY | DESIGN SUPERVISOR J. TIBBITTS

FILE NAME = 280667_cph_01_tsp2.dgn
DATE/TIME = DGN$SYTIME@123456
USER = DGN$USERNAME

FIELD REVISION SHEET

THIS SHEET SUPERSEDES SHEET NO. 18

- REMOVED ETHER WIRE FOR PUCKS ACCESS POINT



SIGN TEXT DATA SHEET

MUTCD DESIGNATION	LOCATION	TEXT	DIMENSIONS	ITEM NUMBER	QUANTITY
R03-05R	(A)	ONLY	30" X 36"	680.8207	3
R03-05L	(B)	ONLY	30" X 36"	680.8207	2

LEGEND

TC - 680.95010615 - SERVICE CABLE 1 CONDUCTOR, 06 AWG
5C - 680.730514 - SIGNAL CABLE 5 CONDUCTOR, 14 AWG
7C - 680.730714 - SIGNAL CABLE 7 CONDUCTOR, 14 AWG
COMM. - WIRE PROVIDED FOR COMMUNICATION

AFFIX SEAL: ON:

ALTERED BY: ON:

STATE OF NEW YORK * MICHAEL A. GALLERANI * LICENSED PROFESSIONAL ENGINEER 085911

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

F.A.C. 58-16 CITY OF AMSTERDAM N-S ARTERIAL HWY

COUNTY: MONTGOMERY REGION: 02

PIN 2806.67

UTILITY QUALITY LEVEL C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
SITE 19
SIGNAL NO. 02-25-23

CONTRACT NUMBER D264347

DRAWING NO. TSP-7

SHEET NO. 18R1

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING M. JONES
CHECK
DESIGN M. JONES
JOB MANAGER K. REILLY
DESIGN SUPERVISOR J. TIBBITS

FILE NAME = 280667.cpn.01.tsp3.dgn
DATE/TIME = 6/28/2023 11:49:23 AM
USER = DOWNSBRWAE

5523

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	12	2	6	6				
Gap, Ext	2	4	2	2				
Max 1	20	20	15	15				
Max 2								
Yel Clearance	4	4	4	4	3.5	3.5	3.5	3.5
Red Clearance	2	1	1	1	1.5	1.5	1.5	1.5
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON	ON				
Min Recall	ON							
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls		ON						
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		ON		ON		ON		ON
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

5523 RT 30 @ NYS THRUWAY

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8

1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Red	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	ON
5	2	Red	OFF
6	2	Red	OFF
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	User
IO Mode	User
Loc Flsh Start	Red
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	OFF	Extra Included Ph	ON

1	Included Ø	1	2	4						Type	NORMAL	9	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
A	Conflict Olap									Red	1.5	I	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
2	Included Ø	1	3	4						Type	NORMAL	10	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1.5	J	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
3	Included Ø	1	2	3						Type	NORMAL	11	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
4	Included Ø	1	4							Type	NORMAL	12	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
5	Included Ø									Type	NORMAL	13	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
6	Included Ø									Type	NORMAL	14	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
7	Included Ø									Type	NORMAL	15	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
8	Included Ø									Type	NORMAL	16	Included Ø									Type	NORMAL
	Modifier Ø									Grn			Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	4	2	3	2	4	3		9															
Channel Type	OLP	OLP	VEH	VEH	OLP	VEH	OLP	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø					E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22								EndGRN				
2	12	22								EndGRN				
3	12	22								EndGRN				
4	12	22								EndGRN				
5	12	22								EndGRN				
6	12	22								EndGRN				
7	12	22								EndGRN				
8	12	22								EndGRN				
9	12	22								EndGRN				
10	12	22								EndGRN				
11	12	22								EndGRN				
12	12	22								EndGRN				
13	12	22								EndGRN				
14	12	22								EndGRN				
15	12	22								EndGRN				
16	12	22								EndGRN				
17	12	22								EndGRN				
18	12	22								EndGRN				
19	12	22								EndGRN				
20	12	22								EndGRN				
21	12	22								EndGRN				
22	12	22								EndGRN				
23	12	22								EndGRN				
24	12	22								EndGRN				
25										BegGRN				
26										BegGRN				
27										BegGRN				
28										BegGRN				
29										BegGRN				
30										BegGRN				
31										BegGRN				
32										BegGRN				
33										BegGRN				
34										BegGRN				
35										BegGRN				
36										BegGRN				
37										BegGRN				
38										BegGRN				
39										BegGRN				
40										BegGRN				
41										BegGRN				
42										BegGRN				
43										BegGRN				
44										BegGRN				
45										BegGRN				
46										BegGRN				
47										BegGRN				
48										BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	SINGLE	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1						45	50	20
2	1						45	50	20
3	3		4				45	50	15
4	1						45	50	20
5	1						45	50	20
6	4		6				45	50	15
7	2		4				45	50	20
8	2		4				45	50	20
9	9		4				45	50	14
10	2		4				45	50	20
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	2
20							45	50	2
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddIni	Red Lock	Yell Lock	occ	vol
33	ON	ON		ON				
34	ON	ON		ON				
35	ON	ON		ON				
36	ON	ON		ON				
37	ON	ON		ON				
38	ON	ON		ON				
39	ON	ON		ON				
40	ON	ON		ON				
41	ON	ON		ON				
42	ON	ON		ON				
43	ON	ON		ON				
44	ON	ON		ON				
45	ON	ON		ON				
46	ON	ON		ON				
47	ON	ON		ON				
48	ON	ON		ON				
49	ON	ON		ON				
50	ON	ON		ON				
51	ON	ON		ON				
52	ON	ON		ON				
53	ON	ON		ON				
54	ON	ON		ON				
55	ON	ON		ON				
56	ON	ON		ON				
57	ON	ON		ON				
58	ON	ON		ON				
59	ON	ON		ON				
60	ON	ON		ON				
61	ON	ON		ON				
62	ON	ON		ON				
63	ON	ON		ON				
64	ON	ON		ON				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Gm	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1			15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

RT 30 @ NYS THRUWAY

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	None
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlap	
	Peds	
2	Phases	
	Overlap	
	Peds	
3	Phases	
	Overlap	
	Peds	
4	Phases	
	Overlap	
	Peds	
5	Phases	
	Overlap	
	Peds	
6	Phases	
	Overlap	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3] **Month of Year** **Day of Week** **Date**

	Month of Year	Day of Week	Date	Day Plan	Link To
1	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
2	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
3	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
4	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
5	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
6	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
7	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
8	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
9	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
10	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
11	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
12	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
13	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
14	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
15	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
16	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
17	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
18	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
19	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
20	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
21	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
22	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
23	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	
24	J F M A M J J A S O N D	S M T W T F S	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	5	Veh Call 5
I1-6	6	Veh Call 6
I1-7	7	Veh Call 7
I1-8	8	Veh Call 8
I2-1	9	Veh Call 9
I2-2	10	Veh Call 10
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	189	Unused
I3-8	189	Unused
I4-1	**189**	Unused
I4-2	**189**	Unused
I4-3	**189**	Unused
I4-4	**189**	Unused
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	IO1	Opn1	O2Fnc	Inv2	IO2	Opn2	O3Fnc	Inv3	IO3	Opn3	Dly	Sec
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0
I	0	=	----	-	I	0	----	-	I	0	----	-	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None

22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None

43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	5523
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	None	SYSUp	ASYNC2
CMU/MMU	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop Det.	None		
GPS	-		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failur	ON	ON
27	BIU Detector Failure	ON	ON
32	Queue detector alarm	ON	
29	Ped Detector Fault		
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø				
1						
2						
3						
4						
5						
6						
7						
8						

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø				
1						
2						
3						
4						
5						
6						
7						
8						

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

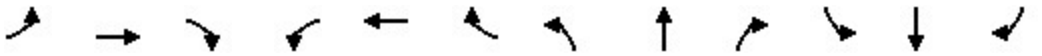
Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

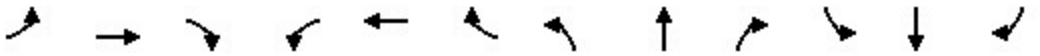
Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

APPENDIX F
CAPACITY ANALYSIS

ROADWAY (ADJACENT STREET)
PEAK HOUR CONDITION



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	188	88	24	173	1	224	8	46	26	5	6
Future Volume (vph)	3	188	88	24	173	1	224	8	46	26	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.978			0.979	
Flt Protected		0.999			0.994			0.961			0.966	
Satd. Flow (prot)	0	1698	1223	0	1630	0	0	1647	0	0	1552	0
Flt Permitted		0.995			0.944			0.961			0.966	
Satd. Flow (perm)	0	1691	1223	0	1548	0	0	1647	0	0	1552	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					14			7	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	12%	32%	0%	18%	0%	10%	13%	0%	15%	0%	33%
Adj. Flow (vph)	4	232	109	30	214	1	277	10	57	32	6	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	109	0	245	0	0	344	0	0	45	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

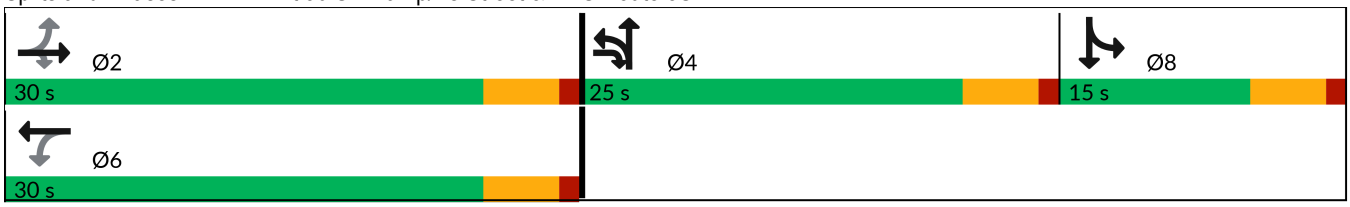


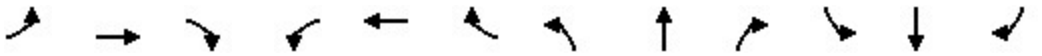
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		19.6	43.1		19.6			15.2			7.1	
Actuated g/C Ratio		0.38	0.83		0.38			0.29			0.14	
v/c Ratio		0.37	0.11		0.42			0.70			0.21	
Control Delay (s/veh)		16.3	0.9		17.2			26.5			25.1	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		16.3	0.9		17.2			26.5			25.1	
LOS		B	A		B			C			C	
Approach Delay (s/veh)		11.4			17.2			26.5			25.1	
Approach LOS		B			B			C			C	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		8.8	8.8	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	22.3	22.3	20.0	22.3	22.3		20.0	20.0		7.0	7.0	
70th %ile Term Code	Hold	Hold	Max	Gap	Gap		Max	Max		Gap	Gap	
50th %ile Green (s)	18.3	18.3	15.8	18.3	18.3		15.8	15.8		6.0	6.0	
50th %ile Term Code	Hold	Hold	Gap	Gap	Gap		Gap	Gap		Min	Min	
30th %ile Green (s)	15.0	15.0	10.5	15.0	15.0		10.5	10.5		0.0	0.0	
30th %ile Term Code	Min	Min	Gap	Min	Min		Gap	Gap		Skip	Skip	
10th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
10th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
Stops (vph)		128	6		137			215			30	
Fuel Used(gal)		11	4		3			4			0	
CO Emissions (g/hr)		799	303		209			260			28	
NOx Emissions (g/hr)		155	59		41			51			5	
VOC Emissions (g/hr)		185	70		48			60			6	
Dilemma Vehicles (#)		15	0		15			0			0	
Queue Length 50th (ft)		59	0		62			96			12	
Queue Length 95th (ft)		111	8		118			182			38	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		887	1055		812			699			331	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.27	0.10		0.30			0.49			0.14	

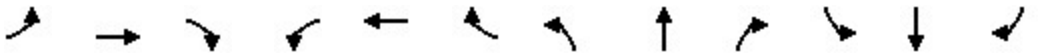
Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 51.7			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 18.8		Intersection LOS: B	
Intersection Capacity Utilization 56.2%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 68.8			
70th %ile Actuated Cycle: 64.3			
50th %ile Actuated Cycle: 55.1			
30th %ile Actuated Cycle: 35.5			
10th %ile Actuated Cycle: 35			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	458	131	17	220	6	274	3	53	30	5	7
Future Volume (vph)	12	458	131	17	220	6	274	3	53	30	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.996			0.978			0.977	
Flt Protected		0.999			0.996			0.960			0.966	
Satd. Flow (prot)	0	1844	1455	0	1729	0	0	1637	0	0	1671	0
Flt Permitted		0.990			0.953			0.960			0.966	
Satd. Flow (perm)	0	1828	1455	0	1654	0	0	1637	0	0	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146		2			14			8	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	3%	11%	0%	10%	0%	10%	0%	4%	7%	0%	14%
Adj. Flow (vph)	13	509	146	19	244	7	304	3	59	33	6	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	522	146	0	270	0	0	366	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

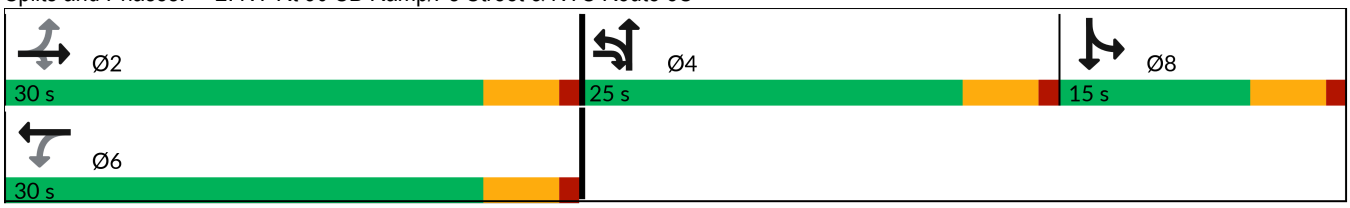


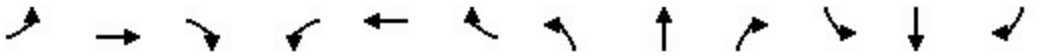
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		23.8	48.0		23.8			16.2			6.9	
Actuated g/C Ratio		0.42	0.85		0.42			0.29			0.12	
v/c Ratio		0.68	0.12		0.39			0.77			0.22	
Control Delay (s/veh)		22.4	0.8		16.2			32.0			26.4	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		22.4	0.8		16.2			32.0			26.4	
LOS		C	A		B			C			C	
Approach Delay (s/veh)		17.6			16.2			32.0			26.4	
Approach LOS		B			B			C			C	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		8.5	8.5	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		7.0	7.0	
70th %ile Term Code	Max	Max	Max	Hold	Hold		Max	Max		Gap	Gap	
50th %ile Green (s)	25.0	25.0	18.8	25.0	25.0		18.8	18.8		6.0	6.0	
50th %ile Term Code	Max	Max	Gap	Hold	Hold		Gap	Gap		Min	Min	
30th %ile Green (s)	23.4	23.4	13.1	23.4	23.4		13.1	13.1		0.0	0.0	
30th %ile Term Code	Gap	Gap	Gap	Hold	Hold		Gap	Gap		Skip	Skip	
10th %ile Green (s)	17.3	17.3	10.0	17.3	17.3		10.0	10.0		0.0	0.0	
10th %ile Term Code	Gap	Gap	Min	Hold	Hold		Min	Min		Skip	Skip	
Stops (vph)		351	7		158			259			34	
Fuel Used(gal)		29	6		3			5			0	
CO Emissions (g/hr)		2037	449		244			335			33	
NOx Emissions (g/hr)		396	87		48			65			6	
VOC Emissions (g/hr)		472	104		57			78			8	
Dilemma Vehicles (#)		37	0		18			0			0	
Queue Length 50th (ft)		172	0		75			125			15	
Queue Length 95th (ft)		#342	11		145			#258			43	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		852	1258		772			619			318	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.61	0.12		0.35			0.59			0.15	

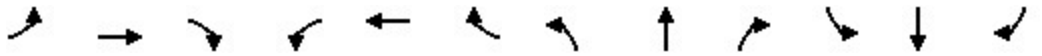
Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 56.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay (s/veh): 21.6		Intersection LOS: C	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 68.5			
70th %ile Actuated Cycle: 67			
50th %ile Actuated Cycle: 64.8			
30th %ile Actuated Cycle: 46.5			
10th %ile Actuated Cycle: 37.3			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	196	110	24	240	1	248	8	46	26	5	6
Future Volume (vph)	3	196	110	24	240	1	248	8	46	26	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.979			0.979	
Flt Protected		0.999			0.995			0.961			0.966	
Satd. Flow (prot)	0	1713	1223	0	1651	0	0	1659	0	0	1552	0
Flt Permitted		0.994			0.957			0.961			0.966	
Satd. Flow (perm)	0	1704	1223	0	1588	0	0	1659	0	0	1552	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136					13			7	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	11%	32%	0%	16%	0%	9%	13%	0%	15%	0%	33%
Adj. Flow (vph)	4	242	136	30	296	1	306	10	57	32	6	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	136	0	327	0	0	373	0	0	45	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

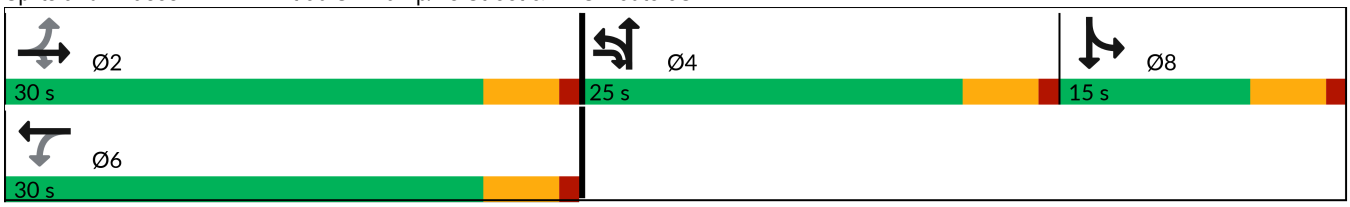


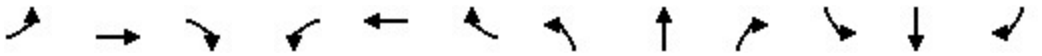
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		21.2	45.8		21.2			16.2			7.2	
Actuated g/C Ratio		0.39	0.84		0.39			0.30			0.13	
v/c Ratio		0.37	0.13		0.53			0.74			0.21	
Control Delay (s/veh)		16.3	0.9		19.0			29.7			26.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		16.3	0.9		19.0			29.7			26.3	
LOS		B	A		B			C			C	
Approach Delay (s/veh)		10.8			19.0			29.7			26.3	
Approach LOS		B			B			C			C	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		8.8	8.8	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		7.1	7.1	
70th %ile Term Code	Hold	Hold	Max	Max	Max		Max	Max		Gap	Gap	
50th %ile Green (s)	22.7	22.7	18.6	22.7	22.7		18.6	18.6		6.0	6.0	
50th %ile Term Code	Hold	Hold	Gap	Gap	Gap		Gap	Gap		Min	Min	
30th %ile Green (s)	16.1	16.1	12.1	16.1	16.1		12.1	12.1		0.0	0.0	
30th %ile Term Code	Hold	Hold	Gap	Gap	Gap		Gap	Gap		Skip	Skip	
10th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
10th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
Stops (vph)		132	6		190			233			30	
Fuel Used(gal)		12	5		4			4			0	
CO Emissions (g/hr)		831	377		292			295			28	
NOx Emissions (g/hr)		162	73		57			57			6	
VOC Emissions (g/hr)		193	87		68			68			7	
Dilemma Vehicles (#)		15	0		21			0			0	
Queue Length 50th (ft)		67	0		96			121			14	
Queue Length 95th (ft)		116	8		159			199			38	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		854	1057		796			672			316	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.29	0.13		0.41			0.56			0.14	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 54.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay (s/veh): 20.0		Intersection LOS: C	
Intersection Capacity Utilization 59.5%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 68.8			
70th %ile Actuated Cycle: 67.1			
50th %ile Actuated Cycle: 62.3			
30th %ile Actuated Cycle: 38.2			
10th %ile Actuated Cycle: 35			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S





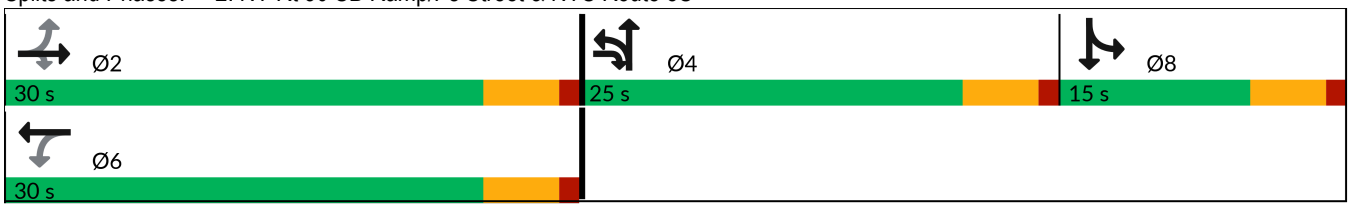
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	478	178	17	253	6	283	3	53	30	5	7
Future Volume (vph)	12	478	178	17	253	6	283	3	53	30	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.979			0.977	
Flt Protected		0.999			0.997			0.960			0.966	
Satd. Flow (prot)	0	1844	1429	0	1688	0	0	1639	0	0	1671	0
Flt Permitted		0.990			0.956			0.960			0.966	
Satd. Flow (perm)	0	1827	1429	0	1618	0	0	1639	0	0	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198		2			13			8	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	3%	13%	0%	13%	0%	10%	0%	4%	7%	0%	14%
Adj. Flow (vph)	13	531	198	19	281	7	314	3	59	33	6	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	544	198	0	307	0	0	376	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		24.2	48.7		24.2			16.5			6.9	
Actuated g/C Ratio		0.42	0.85		0.42			0.29			0.12	
v/c Ratio		0.71	0.16		0.45			0.79			0.23	
Control Delay (s/veh)		23.4	0.8		17.2			33.6			26.5	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		23.4	0.8		17.2			33.6			26.5	
LOS		C	A		B			C			C	
Approach Delay (s/veh)		17.4			17.2			33.6			26.5	
Approach LOS		B			B			C			C	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		8.5	8.5	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		7.0	7.0	
70th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
50th %ile Green (s)	25.0	25.0	19.5	25.0	25.0		19.5	19.5		6.0	6.0	
50th %ile Term Code	Max	Max	Gap	Hold	Hold		Gap	Gap		Min	Min	
30th %ile Green (s)	24.7	24.7	13.6	24.7	24.7		13.6	13.6		0.0	0.0	
30th %ile Term Code	Gap	Gap	Gap	Hold	Hold		Gap	Gap		Skip	Skip	
10th %ile Green (s)	18.2	18.2	10.0	18.2	18.2		10.0	10.0		0.0	0.0	
10th %ile Term Code	Gap	Gap	Min	Hold	Hold		Min	Min		Skip	Skip	
Stops (vph)		364	8		189			267			34	
Fuel Used(gal)		30	9		4			5			0	
CO Emissions (g/hr)		2130	608		290			352			33	
NOx Emissions (g/hr)		414	118		56			68			6	
VOC Emissions (g/hr)		494	141		67			82			8	
Dilemma Vehicles (#)		37	0		21			0			0	
Queue Length 50th (ft)		186	0		90			130			15	
Queue Length 95th (ft)		#365	13		169			#268			43	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		837	1241		742			609			312	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

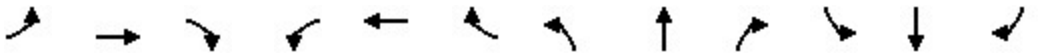
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.65	0.16		0.41			0.62			0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 57.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 21.8		Intersection LOS: C	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 68.5			
70th %ile Actuated Cycle: 67			
50th %ile Actuated Cycle: 65.5			
30th %ile Actuated Cycle: 48.3			
10th %ile Actuated Cycle: 38.2			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	146	116	0	0	80	84	115	0	20	0	0	0
Future Volume (vph)	146	116	0	0	80	84	115	0	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.931			0.980				
Flt Protected		0.973						0.959				
Satd. Flow (prot)	0	1677	0	0	1686	0	0	1661	0	0	0	0
Flt Permitted		0.741						0.959				
Satd. Flow (perm)	0	1277	0	0	1686	0	0	1661	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					97			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	12%	8%	0%	0%	8%	2%	23%	0%	15%	0%	0%	0%
Adj. Flow (vph)	168	133	0	0	92	97	132	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	0	0	189	0	0	155	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

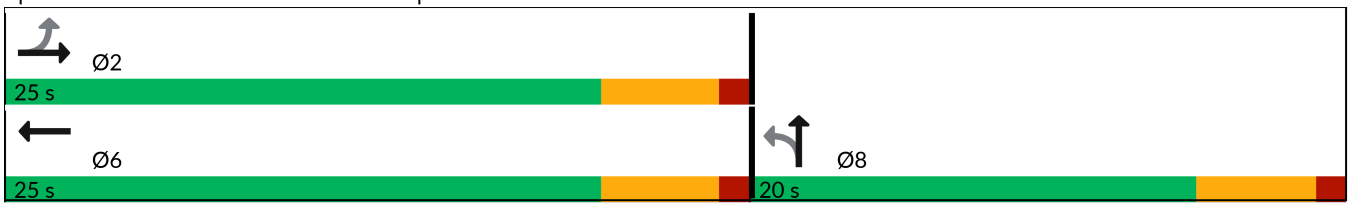


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		22.5			22.5			8.5				
Actuated g/C Ratio		0.60			0.60			0.23				
v/c Ratio		0.39			0.18			0.37				
Control Delay (s/veh)		7.9			3.4			12.1				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		7.9			3.4			12.1				
LOS		A			A			B				
Approach Delay (s/veh)		7.9			3.4			12.1				
Approach LOS		A			A			B				
90th %ile Green (s)	20.0	20.0			20.0		10.4	10.4				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	20.0	20.0			20.0		8.2	8.2				
70th %ile Term Code	Max	Max			Hold		Gap	Gap				
50th %ile Green (s)	17.9	17.9			17.9		8.0	8.0				
50th %ile Term Code	Gap	Gap			Hold		Min	Min				
30th %ile Green (s)	18.3	18.3			18.3		8.0	8.0				
30th %ile Term Code	Dwell	Dwell			Dwell		Min	Min				
10th %ile Green (s)	30.0	30.0			30.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		151			44			80				
Fuel Used(gal)		3			3			1				
CO Emissions (g/hr)		216			180			82				
NOx Emissions (g/hr)		42			35			16				
VOC Emissions (g/hr)		50			42			19				
Dilemma Vehicles (#)		31			17			0				
Queue Length 50th (ft)		33			8			17				
Queue Length 95th (ft)		82			30			50				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		798			1090			700				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.38			0.17			0.22				

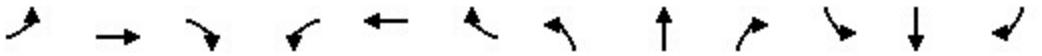
Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 37.2			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay (s/veh): 7.6		Intersection LOS: A	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 40.4			
70th %ile Actuated Cycle: 38.2			
50th %ile Actuated Cycle: 35.9			
30th %ile Actuated Cycle: 36.3			
10th %ile Actuated Cycle: 35			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	188	0	0	130	80	116	0	22	0	0	0
Future Volume (vph)	360	188	0	0	130	80	116	0	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949			0.979				
Flt Protected		0.968						0.960				
Satd. Flow (prot)	0	1774	0	0	1723	0	0	1811	0	0	0	0
Flt Permitted		0.665						0.960				
Satd. Flow (perm)	0	1219	0	0	1723	0	0	1811	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					89			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	3%	0%	0%	5%	4%	14%	0%	0%	0%	0%	0%
Adj. Flow (vph)	409	214	0	0	148	91	132	0	25	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	623	0	0	239	0	0	157	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

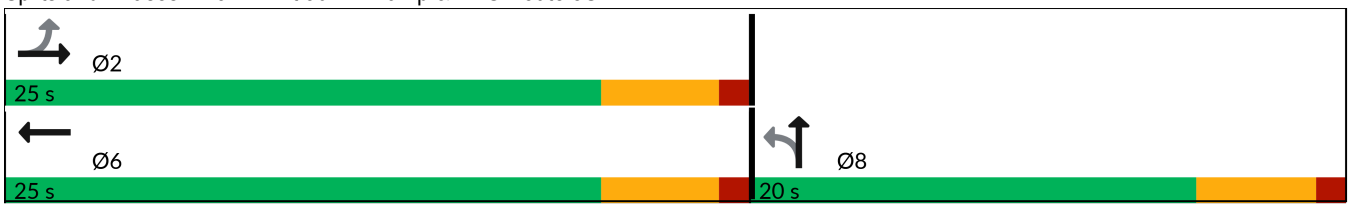


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		24.5			24.5			8.4				
Actuated g/C Ratio		0.62			0.62			0.21				
v/c Ratio		0.82			0.22			0.37				
Control Delay (s/veh)		24.4			4.0			12.3				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		24.4			4.0			12.3				
LOS		C			A			B				
Approach Delay (s/veh)		24.4			4.0			12.3				
Approach LOS		C			A			B				
90th %ile Green (s)	20.0	20.0			20.0		9.9	9.9				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	20.0	20.0			20.0		8.0	8.0				
70th %ile Term Code	Max	Max			Hold		Min	Min				
50th %ile Green (s)	20.0	20.0			20.0		8.0	8.0				
50th %ile Term Code	Max	Max			Hold		Min	Min				
30th %ile Green (s)	23.0	23.0			23.0		8.0	8.0				
30th %ile Term Code	Dwell	Dwell			Dwell		Min	Min				
10th %ile Green (s)	35.0	35.0			35.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		338			68			82				
Fuel Used(gal)		9			3			1				
CO Emissions (g/hr)		599			242			85				
NOx Emissions (g/hr)		117			47			17				
VOC Emissions (g/hr)		139			56			20				
Dilemma Vehicles (#)		53			21			0				
Queue Length 50th (ft)		107			14			19				
Queue Length 95th (ft)		#292			40			51				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		759			1107			720				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.82			0.22			0.22				

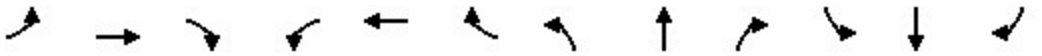
Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 39.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 17.8		Intersection LOS: B	
Intersection Capacity Utilization 62.6%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 39.9			
70th %ile Actuated Cycle: 38			
50th %ile Actuated Cycle: 38			
30th %ile Actuated Cycle: 41			
10th %ile Actuated Cycle: 40			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	118	0	0	85	84	177	0	20	0	0	0
Future Volume (vph)	153	118	0	0	85	84	177	0	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.933			0.986				
Flt Protected		0.973						0.957				
Satd. Flow (prot)	0	1685	0	0	1696	0	0	1713	0	0	0	0
Flt Permitted		0.731						0.957				
Satd. Flow (perm)	0	1266	0	0	1696	0	0	1713	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					97			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	11%	8%	0%	0%	7%	2%	19%	0%	15%	0%	0%	0%
Adj. Flow (vph)	176	136	0	0	98	97	203	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	0	0	195	0	0	226	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

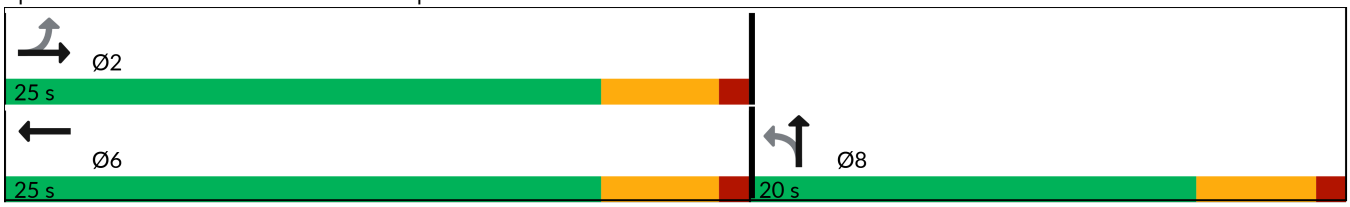


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		22.0			22.0			9.4				
Actuated g/C Ratio		0.59			0.59			0.25				
v/c Ratio		0.42			0.19			0.49				
Control Delay (s/veh)		9.3			4.0			13.6				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		9.3			4.0			13.6				
LOS		A			A			B				
Approach Delay (s/veh)		9.3			4.0			13.6				
Approach LOS		A			A			B				
90th %ile Green (s)	20.0	20.0			20.0		13.1	13.1				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	20.0	20.0			20.0		10.2	10.2				
70th %ile Term Code	Max	Max			Hold		Gap	Gap				
50th %ile Green (s)	18.4	18.4			18.4		8.3	8.3				
50th %ile Term Code	Gap	Gap			Hold		Gap	Gap				
30th %ile Green (s)	15.1	15.1			15.1		8.0	8.0				
30th %ile Term Code	Gap	Gap			Hold		Min	Min				
10th %ile Green (s)	30.0	30.0			30.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		168			51			124				
Fuel Used(gal)		3			3			2				
CO Emissions (g/hr)		239			193			127				
NOx Emissions (g/hr)		46			38			25				
VOC Emissions (g/hr)		55			45			30				
Dilemma Vehicles (#)		30			17			0				
Queue Length 50th (ft)		35			9			31				
Queue Length 95th (ft)		99			36			72				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		787			1091			717				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.40			0.18			0.32				

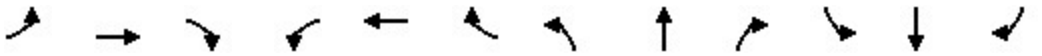
Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 37.6			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay (s/veh): 9.2		Intersection LOS: A	
Intersection Capacity Utilization 50.7%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 43.1			
70th %ile Actuated Cycle: 40.2			
50th %ile Actuated Cycle: 36.7			
30th %ile Actuated Cycle: 33.1			
10th %ile Actuated Cycle: 35			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	376	192	0	0	132	80	147	0	22	0	0	0
Future Volume (vph)	376	192	0	0	132	80	147	0	22	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.949			0.982				
Flt Protected		0.968						0.958				
Satd. Flow (prot)	0	1774	0	0	1723	0	0	1752	0	0	0	0
Flt Permitted		0.662						0.958				
Satd. Flow (perm)	0	1213	0	0	1723	0	0	1752	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					87			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	3%	0%	0%	5%	4%	18%	0%	0%	0%	0%	0%
Adj. Flow (vph)	427	218	0	0	150	91	167	0	25	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	645	0	0	241	0	0	192	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		24.0			24.0			8.9				
Actuated g/C Ratio		0.61			0.61			0.23				
v/c Ratio		0.87			0.22			0.44				
Control Delay (s/veh)		30.0			4.4			13.4				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		30.0			4.4			13.4				
LOS		C			A			B				
Approach Delay (s/veh)		30.0			4.4			13.4				
Approach LOS		C			A			B				
90th %ile Green (s)	20.0	20.0			20.0		11.5	11.5				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	20.0	20.0			20.0		9.0	9.0				
70th %ile Term Code	Max	Max			Hold		Gap	Gap				
50th %ile Green (s)	20.0	20.0			20.0		8.0	8.0				
50th %ile Term Code	Max	Max			Hold		Min	Min				
30th %ile Green (s)	20.0	20.0			20.0		8.0	8.0				
30th %ile Term Code	Max	Max			Hold		Min	Min				
10th %ile Green (s)	35.0	35.0			35.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		350			71			105				
Fuel Used(gal)		10			4			2				
CO Emissions (g/hr)		666			248			108				
NOx Emissions (g/hr)		129			48			21				
VOC Emissions (g/hr)		154			57			25				
Dilemma Vehicles (#)		53			20			0				
Queue Length 50th (ft)		~118			14			26				
Queue Length 95th (ft)		#322			45			62				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		739			1084			699				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.87			0.22			0.27				

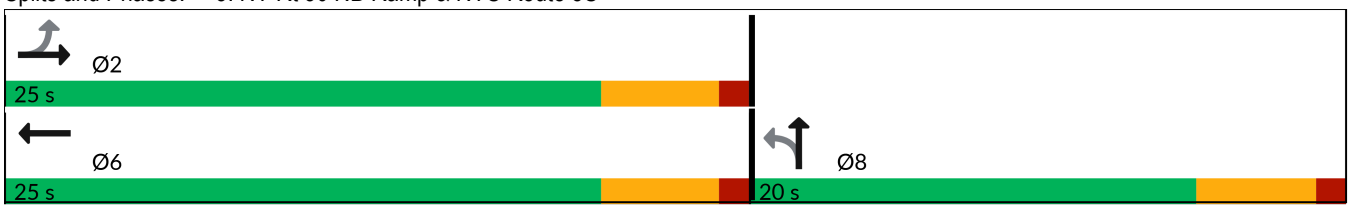
Intersection Summary

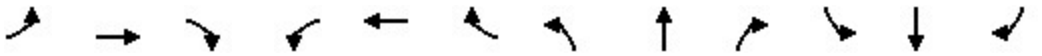
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 39.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay (s/veh): 21.3		Intersection LOS: C	
Intersection Capacity Utilization 65.4%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 41.5			
70th %ile Actuated Cycle: 39			
50th %ile Actuated Cycle: 38			
30th %ile Actuated Cycle: 38			
10th %ile Actuated Cycle: 40			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

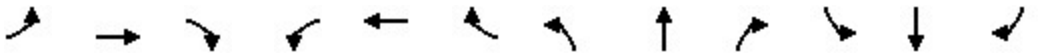
Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	117	0	0	0	0	464	135	0	479	278
Future Volume (vph)	0	0	117	0	0	0	0	464	135	0	479	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.966				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1325	0	0	0	0	3166	0	0	3438	1482
Flt Permitted												
Satd. Flow (perm)	0	0	1325	0	0	0	0	3166	0	0	3438	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			352					27				299
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	24%	0%	0%	0%	0%	7%	21%	0%	5%	9%
Adj. Flow (vph)	0	0	126	0	0	0	0	499	145	0	515	299
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	126	0	0	0	0	644	0	0	515	299
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



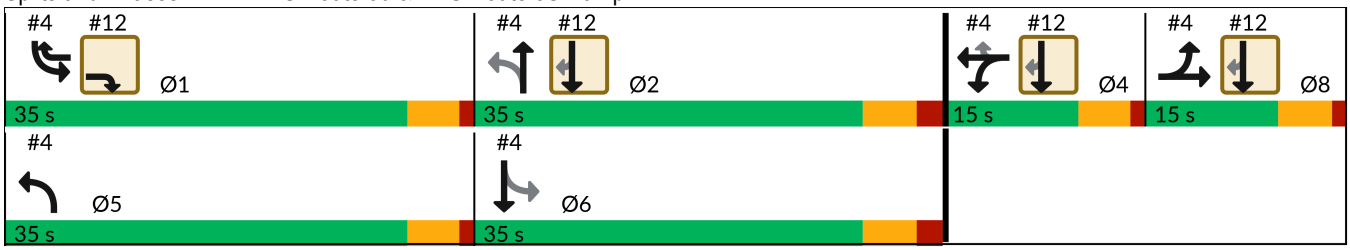
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			22.4					73.2			39.5	39.5
Actuated g/C Ratio			0.31					1.00			0.54	0.54
v/c Ratio			0.19					0.20			0.28	0.32
Control Delay (s/veh)			0.7					0.2			10.3	2.3
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			0.7					0.2			10.3	2.3
LOS			A					A			B	A
Approach Delay (s/veh)		0.7						0.2			7.4	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			28.3									
70th %ile Term Code			Gap									
50th %ile Green (s)			23.2									
50th %ile Term Code			Gap									
30th %ile Green (s)			18.5									
30th %ile Term Code			Gap									
10th %ile Green (s)			14.2									
10th %ile Term Code			Gap									
Stops (vph)			0					5			238	20
Fuel Used(gal)			0					1			8	2
CO Emissions (g/hr)			31					96			552	136
NOx Emissions (g/hr)			6					19			107	26
VOC Emissions (g/hr)			7					22			128	31
Dilemma Vehicles (#)			0					0			26	0
Queue Length 50th (ft)			0					0			62	0
Queue Length 95th (ft)			0					0			108	36
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			759					3166			1903	953
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			51					0			36	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	17.7	10.0	7.5	40.2	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	14.5	8.4	0.0	47.8	10.0
70th %ile Term Code	Gap	Gap	Skip	Hold	Max
50th %ile Green (s)	12.0	6.5	0.0	40.2	8.9
50th %ile Term Code	Min	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.3	0.0	35.5	6.7
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	31.2	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.18					0.20			0.28	0.31

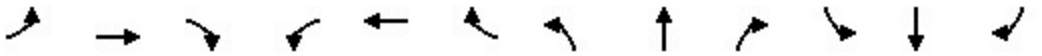
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 73.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 3.9		Intersection LOS: A	
Intersection Capacity Utilization 29.7%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.7			
70th %ile Actuated Cycle: 82.2			
50th %ile Actuated Cycle: 71.6			
30th %ile Actuated Cycle: 64.5			
10th %ile Actuated Cycle: 59.2			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp



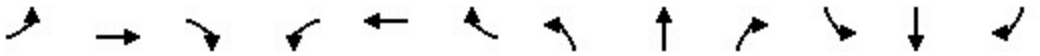
Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	152	0	0	0	0	552	138	0	475	330
Future Volume (vph)	0	0	152	0	0	0	0	552	138	0	475	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.970				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1508	0	0	0	0	3316	0	0	3471	1482
Flt Permitted												
Satd. Flow (perm)	0	0	1508	0	0	0	0	3316	0	0	3471	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			369					22				344
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	9%	0%	0%	0%	0%	4%	12%	0%	4%	9%
Adj. Flow (vph)	0	0	158	0	0	0	0	575	144	0	495	344
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	158	0	0	0	0	719	0	0	495	344
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



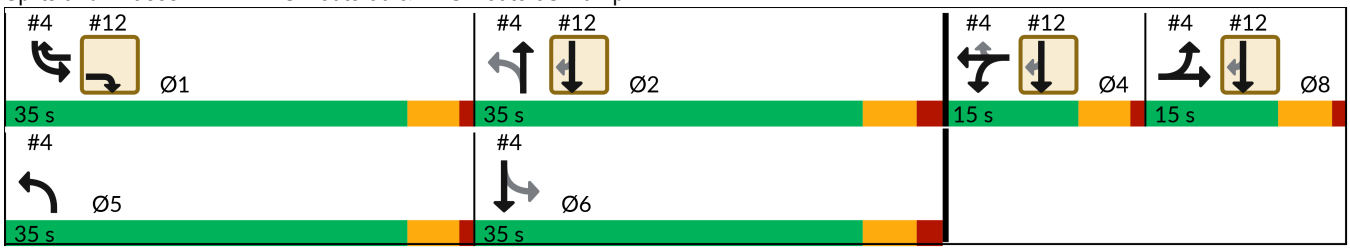
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			20.7					71.0			39.0	39.0
Actuated g/C Ratio			0.29					1.00			0.55	0.55
v/c Ratio			0.23					0.22			0.26	0.36
Control Delay (s/veh)			0.7					0.2			9.6	2.4
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			0.7					0.2			9.6	2.4
LOS			A					A			A	A
Approach Delay (s/veh)		0.7						0.2			6.6	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			26.1									
70th %ile Term Code			Gap									
50th %ile Green (s)			20.5									
50th %ile Term Code			Gap									
30th %ile Green (s)			16.7									
30th %ile Term Code			Gap									
10th %ile Green (s)			12.5									
10th %ile Term Code			Gap									
Stops (vph)			0					3			229	22
Fuel Used(gal)			1					2			8	2
CO Emissions (g/hr)			41					106			534	159
NOx Emissions (g/hr)			8					21			104	31
VOC Emissions (g/hr)			9					25			124	37
Dilemma Vehicles (#)			0					0			24	0
Queue Length 50th (ft)			0					0			53	0
Queue Length 95th (ft)			0					0			103	38
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			862					3316			1976	991
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			4					0			0	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	17.2	10.0	6.8	40.4	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	13.7	8.4	0.0	44.8	9.9
70th %ile Term Code	Gap	Gap	Skip	Hold	Gap
50th %ile Green (s)	12.0	6.5	0.0	37.5	7.8
50th %ile Term Code	Min	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.3	0.0	33.7	6.3
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	29.5	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.18					0.22			0.25	0.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 71			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 3.4		Intersection LOS: A	
Intersection Capacity Utilization 31.7%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.2			
70th %ile Actuated Cycle: 79.1			
50th %ile Actuated Cycle: 67.8			
30th %ile Actuated Cycle: 62.3			
10th %ile Actuated Cycle: 57.5			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp

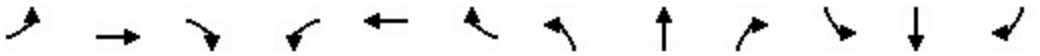


Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	139	0	0	0	0	464	197	0	479	302
Future Volume (vph)	0	0	139	0	0	0	0	464	197	0	479	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.955				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1315	0	0	0	0	3118	0	0	3438	1495
Flt Permitted												
Satd. Flow (perm)	0	0	1315	0	0	0	0	3118	0	0	3438	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			352					47				325
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	25%	0%	0%	0%	0%	7%	19%	0%	5%	8%
Adj. Flow (vph)	0	0	149	0	0	0	0	499	212	0	515	325
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	149	0	0	0	0	711	0	0	515	325
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



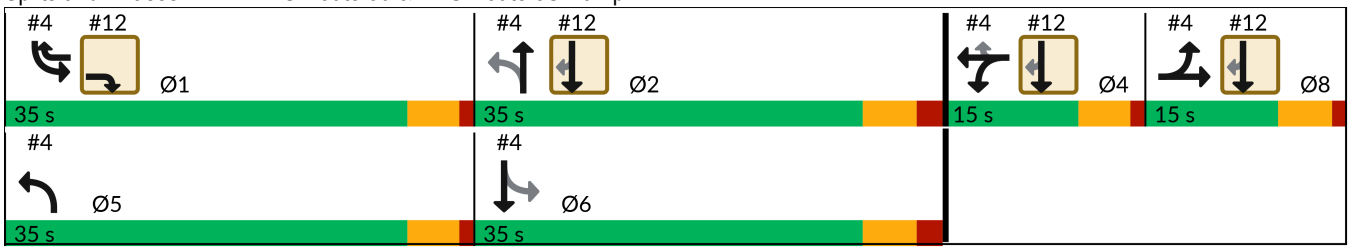
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			23.7					74.7			39.8	39.8
Actuated g/C Ratio			0.32					1.00			0.53	0.53
v/c Ratio			0.23					0.23			0.28	0.34
Control Delay (s/veh)			0.8					0.2			10.7	2.4
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			0.8					0.2			10.7	2.4
LOS			A					A			B	A
Approach Delay (s/veh)		0.8						0.2			7.5	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			30.0									
70th %ile Term Code			Max									
50th %ile Green (s)			25.3									
50th %ile Term Code			Gap									
30th %ile Green (s)			20.2									
30th %ile Term Code			Gap									
10th %ile Green (s)			14.7									
10th %ile Term Code			Gap									
Stops (vph)			0					9			242	20
Fuel Used(gal)			1					2			8	2
CO Emissions (g/hr)			37					110			560	145
NOx Emissions (g/hr)			7					21			109	28
VOC Emissions (g/hr)			9					26			130	34
Dilemma Vehicles (#)			0					0			25	0
Queue Length 50th (ft)			0					0			67	0
Queue Length 95th (ft)			0					0			108	37
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			746					3118			1869	960
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			53					0			52	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	17.7	10.0	7.5	40.2	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	14.9	8.4	0.0	49.9	10.0
70th %ile Term Code	Gap	Gap	Skip	Hold	Max
50th %ile Green (s)	12.8	6.5	0.0	43.1	9.0
50th %ile Term Code	Gap	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.3	0.0	37.2	6.8
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	31.7	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.22					0.23			0.28	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 74.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 3.9		Intersection LOS: A	
Intersection Capacity Utilization 31.0%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.7			
70th %ile Actuated Cycle: 84.3			
50th %ile Actuated Cycle: 74.6			
30th %ile Actuated Cycle: 66.3			
10th %ile Actuated Cycle: 59.7			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp

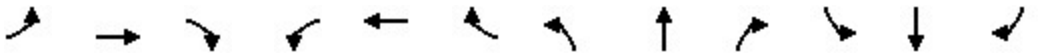


Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	199	0	0	0	0	552	169	0	475	339
Future Volume (vph)	0	0	199	0	0	0	0	552	169	0	475	339
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.965				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1467	0	0	0	0	3261	0	0	3471	1482
Flt Permitted												
Satd. Flow (perm)	0	0	1467	0	0	0	0	3261	0	0	3471	1482
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			369					29				353
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	12%	0%	0%	0%	0%	4%	16%	0%	4%	9%
Adj. Flow (vph)	0	0	207	0	0	0	0	575	176	0	495	353
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	207	0	0	0	0	751	0	0	495	353
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



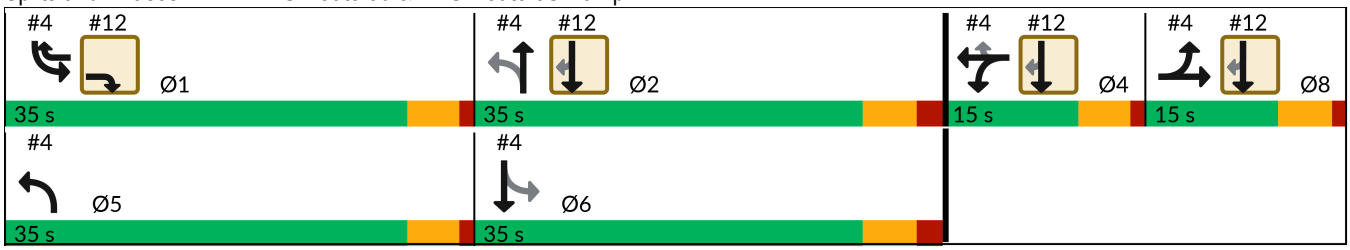
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			22.7					73.3			39.3	39.3
Actuated g/C Ratio			0.31					1.00			0.54	0.54
v/c Ratio			0.29					0.23			0.27	0.37
Control Delay (s/veh)			1.0					0.2			10.3	2.5
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			1.1					0.2			10.3	2.5
LOS			A					A			B	A
Approach Delay (s/veh)		1.1						0.2			7.1	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			29.1									
70th %ile Term Code			Gap									
50th %ile Green (s)			23.4									
50th %ile Term Code			Gap									
30th %ile Green (s)			18.9									
30th %ile Term Code			Gap									
10th %ile Green (s)			14.3									
10th %ile Term Code			Gap									
Stops (vph)			0					3			237	22
Fuel Used(gal)			1					2			8	2
CO Emissions (g/hr)			54					111			549	163
NOx Emissions (g/hr)			11					22			107	32
VOC Emissions (g/hr)			13					26			127	38
Dilemma Vehicles (#)			0					0			26	0
Queue Length 50th (ft)			0					0			60	0
Queue Length 95th (ft)			0					0			103	38
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			828					3261			1913	975
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			51					0			0	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	17.2	10.0	6.8	40.4	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	14.2	8.5	0.0	48.3	10.0
70th %ile Term Code	Gap	Gap	Skip	Hold	Max
50th %ile Green (s)	12.0	7.6	0.0	40.4	7.8
50th %ile Term Code	Min	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.3	0.0	35.9	6.3
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	31.3	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.27					0.23			0.26	0.36

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 73.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 3.5		Intersection LOS: A	
Intersection Capacity Utilization 34.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.2			
70th %ile Actuated Cycle: 82.8			
50th %ile Actuated Cycle: 71.8			
30th %ile Actuated Cycle: 64.5			
10th %ile Actuated Cycle: 59.3			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp



Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary

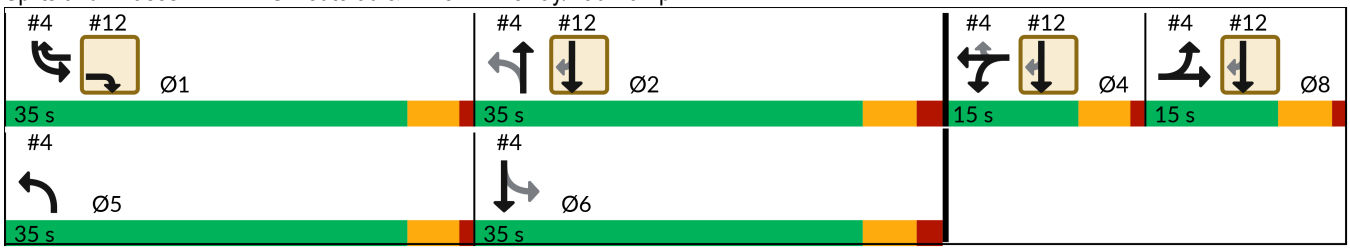
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	17	6	10	7	364	17	195	26	468	102	25
Future Volume (vph)	39	17	6	10	7	364	17	195	26	468	102	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.988				0.850		0.982			0.970	
Flt Protected		0.969			0.972		0.950			0.950		
Satd. Flow (prot)	0	1785	0	0	1370	2515	1805	3352	0	1656	1706	0
Flt Permitted		0.969			0.972		0.669			0.472		
Satd. Flow (perm)	0	1785	0	0	1370	2515	1271	3352	0	823	1706	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		4				391					12	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	0%	50%	14%	13%	0%	6%	4%	9%	8%	8%
Adj. Flow (vph)	42	18	6	11	8	391	18	210	28	503	110	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	19	391	18	238	0	503	137	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

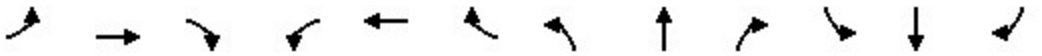
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		8.3			7.4	29.8	21.6	13.6		42.2	39.1	
Actuated g/C Ratio		0.11			0.10	0.41	0.30	0.19		0.58	0.53	
v/c Ratio		0.32			0.14	0.31	0.04	0.38		0.69	0.15	
Control Delay (s/veh)		35.9			36.4	1.5	11.3	29.9		29.7	9.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		1.0	0.0	
Total Delay (s/veh)		35.9			36.4	1.5	11.3	29.9		30.7	9.1	
LOS		D			D	A	B	C		C	A	
Approach Delay (s/veh)		35.9			3.1			28.6			26.1	
Approach LOS		D			A			C			C	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	7.5	17.7		30.0	40.2	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	10.0	10.0		8.4	8.4	28.3	0.0	14.5		28.3	47.8	
70th %ile Term Code	Max	Max		Gap	Gap	Gap	Skip	Gap		Gap	Hold	
50th %ile Green (s)	8.9	8.9		6.5	6.5	23.2	0.0	12.0		23.2	40.2	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
30th %ile Green (s)	6.7	6.7		6.3	6.3	18.5	0.0	12.0		18.5	35.5	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	14.2	0.0	12.0		14.2	31.2	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		52			18	22	12	182		515	45	
Fuel Used(gal)		1			0	4	0	6		13	1	
CO Emissions (g/hr)		57			29	247	27	437		935	93	
NOx Emissions (g/hr)		11			6	48	5	85		182	18	
VOC Emissions (g/hr)		13			7	57	6	101		217	22	
Dilemma Vehicles (#)		0			1	0	0	12		0	7	
Queue Length 50th (ft)		25			8	0	3	50		184	24	
Queue Length 95th (ft)		72			31	14	12	95		310	56	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		252			191	1494	932	1357		823	917	
Starvation Cap Reductn		0			0	0	0	0		131	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.26			0.10	0.26	0.02	0.18		0.73	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 73.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 20.2		Intersection LOS: C	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.7			
70th %ile Actuated Cycle: 82.2			
50th %ile Actuated Cycle: 71.6			
30th %ile Actuated Cycle: 64.5			
10th %ile Actuated Cycle: 59.2			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp





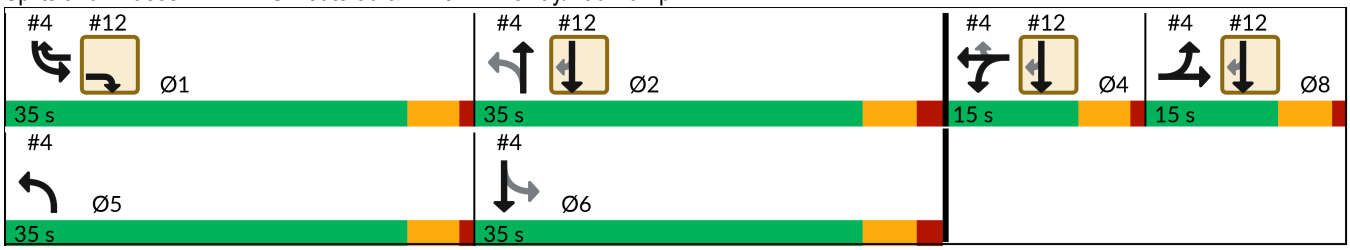
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	18	9	23	6	547	2	129	13	399	208	19
Future Volume (vph)	14	18	9	23	6	547	2	129	13	399	208	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.972				0.850		0.986			0.987	
Flt Protected		0.983			0.962		0.950			0.950		
Satd. Flow (prot)	0	1727	0	0	1828	2682	1203	3405	0	1671	1875	0
Flt Permitted		0.983			0.962		0.611			0.514		
Satd. Flow (perm)	0	1727	0	0	1828	2682	774	3405	0	904	1875	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		9				570					5	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	7%	6%	0%	0%	0%	6%	50%	5%	0%	8%	0%	0%
Adj. Flow (vph)	15	19	9	24	6	570	2	134	14	416	217	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	30	570	2	148	0	416	237	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		7.9			7.4	28.1	21.2	13.4		40.3	37.4	
Actuated g/C Ratio		0.11			0.10	0.40	0.30	0.19		0.57	0.53	
v/c Ratio		0.21			0.16	0.41	0.01	0.23		0.57	0.24	
Control Delay (s/veh)		29.9			34.8	1.6	11.0	27.8		22.0	10.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.4	0.4	
Total Delay (s/veh)		29.9			34.8	1.6	11.0	27.8		22.4	10.4	
LOS		C			C	A	B	C		C	B	
Approach Delay (s/veh)		29.9			3.3			27.6			18.0	
Approach LOS		C			A			C			B	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	6.8	17.2		30.0	40.4	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	9.9	9.9		8.4	8.4	26.1	0.0	13.7		26.1	44.8	
70th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Gap		Gap	Hold	
50th %ile Green (s)	7.8	7.8		6.5	6.5	20.5	0.0	12.0		20.5	37.5	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
30th %ile Green (s)	6.3	6.3		6.3	6.3	16.7	0.0	12.0		16.7	33.7	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	12.5	0.0	12.0		12.5	29.5	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		31			27	29	3	112		353	93	
Fuel Used(gal)		0			1	5	0	4		9	3	
CO Emissions (g/hr)		33			44	370	5	270		641	187	
NOx Emissions (g/hr)		6			9	72	1	53		125	36	
VOC Emissions (g/hr)		8			10	86	1	63		149	43	
Dilemma Vehicles (#)		0			1	0	0	8		0	13	
Queue Length 50th (ft)		13			12	0	0	28		123	45	
Queue Length 95th (ft)		49			41	15	3	63		235	93	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		256			263	1704	614	1425		845	989	
Starvation Cap Reductn		0			0	0	0	0		121	371	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.17			0.11	0.33	0.00	0.10		0.57	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 71			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 13.2		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.2			
70th %ile Actuated Cycle: 79.1			
50th %ile Actuated Cycle: 67.8			
30th %ile Actuated Cycle: 62.3			
10th %ile Actuated Cycle: 57.5			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp



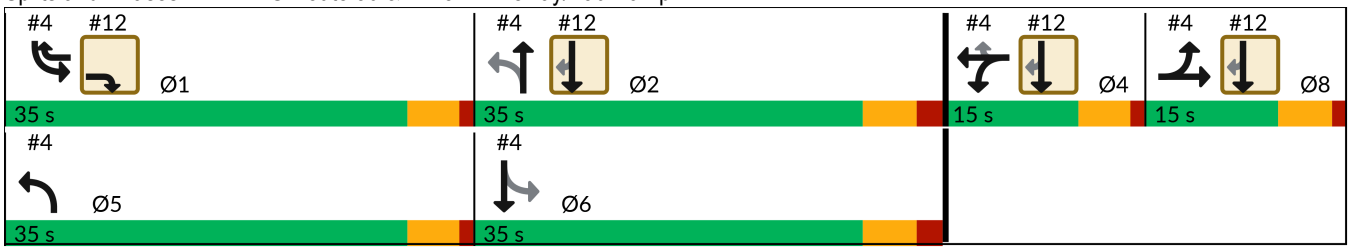
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	17	6	10	7	416	17	205	26	487	105	25
Future Volume (vph)	39	17	6	10	7	416	17	205	26	487	105	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.988				0.850		0.983			0.971	
Flt Protected		0.969			0.972		0.950			0.950		
Satd. Flow (prot)	0	1785	0	0	1370	2515	1805	3383	0	1641	1708	0
Flt Permitted		0.969			0.972		0.668			0.469		
Satd. Flow (perm)	0	1785	0	0	1370	2515	1269	3383	0	810	1708	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		4				447					12	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	0%	50%	14%	13%	0%	5%	4%	10%	8%	8%
Adj. Flow (vph)	42	18	6	11	8	447	18	220	28	524	113	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	19	447	18	248	0	524	140	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

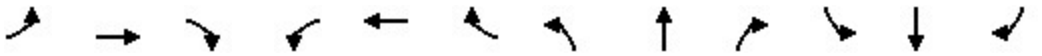
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		8.3			7.4	31.1	21.9	13.9		43.7	40.6	
Actuated g/C Ratio		0.11			0.10	0.42	0.29	0.19		0.59	0.54	
v/c Ratio		0.33			0.14	0.34	0.04	0.39		0.71	0.15	
Control Delay (s/veh)		36.8			37.1	1.5	11.4	30.5		30.7	9.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		1.5	0.0	
Total Delay (s/veh)		36.8			37.1	1.5	11.4	30.5		32.2	9.0	
LOS		D			D	A	B	C		C	A	
Approach Delay (s/veh)		36.8			3.0			29.2			27.3	
Approach LOS		D			A			C			C	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	7.5	17.7		30.0	40.2	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	10.0	10.0		8.4	8.4	30.0	0.0	14.9		30.0	49.9	
70th %ile Term Code	Max	Max		Gap	Gap	Max	Skip	Gap		Max	Hold	
50th %ile Green (s)	9.0	9.0		6.5	6.5	25.3	0.0	12.8		25.3	43.1	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Gap		Gap	Hold	
30th %ile Green (s)	6.8	6.8		6.3	6.3	20.2	0.0	12.0		20.2	37.2	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	14.7	0.0	12.0		14.7	31.7	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		52			18	24	12	190		546	46	
Fuel Used(gal)		1			0	4	0	7		14	1	
CO Emissions (g/hr)		58			29	282	27	459		993	95	
NOx Emissions (g/hr)		11			6	55	5	89		193	19	
VOC Emissions (g/hr)		13			7	65	6	106		230	22	
Dilemma Vehicles (#)		0			1	0	0	13		0	7	
Queue Length 50th (ft)		27			8	0	3	54		198	25	
Queue Length 95th (ft)		72			31	14	12	99		324	57	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		247			187	1500	931	1341		814	932	
Starvation Cap Reductn		0			0	0	0	0		138	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.27			0.10	0.30	0.02	0.18		0.78	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 74.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay (s/veh): 20.3		Intersection LOS: C	
Intersection Capacity Utilization 60.4%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.7			
70th %ile Actuated Cycle: 84.3			
50th %ile Actuated Cycle: 74.6			
30th %ile Actuated Cycle: 66.3			
10th %ile Actuated Cycle: 59.7			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp





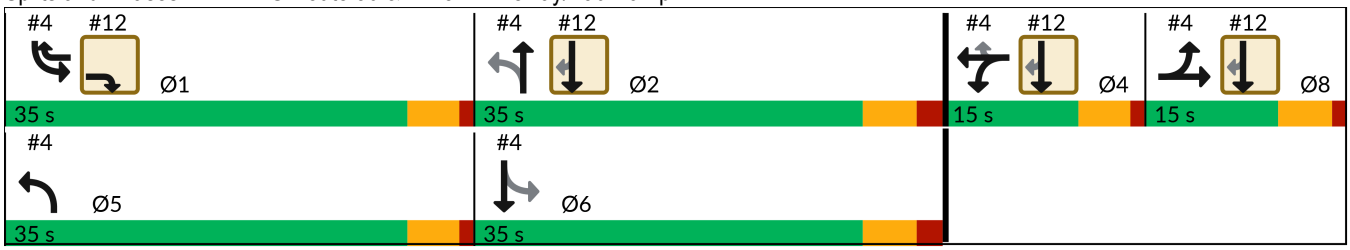
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	18	9	23	6	574	2	133	13	439	215	19
Future Volume (vph)	14	18	9	23	6	574	2	133	13	439	215	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.972				0.850		0.986			0.988	
Flt Protected		0.983			0.962		0.950			0.950		
Satd. Flow (prot)	0	1727	0	0	1828	2632	1203	3405	0	1656	1877	0
Flt Permitted		0.983			0.962		0.607			0.511		
Satd. Flow (perm)	0	1727	0	0	1828	2632	769	3405	0	891	1877	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		9				598					5	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	7%	6%	0%	0%	0%	8%	50%	5%	0%	9%	0%	0%
Adj. Flow (vph)	15	19	9	24	6	598	2	139	14	457	224	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	30	598	2	153	0	457	244	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		7.9			7.6	30.4	21.2	13.5		42.4	39.4	
Actuated g/C Ratio		0.11			0.10	0.41	0.29	0.18		0.58	0.54	
v/c Ratio		0.22			0.16	0.41	0.01	0.24		0.61	0.24	
Control Delay (s/veh)		30.9			35.5	1.6	11.5	28.9		23.4	10.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.6	0.4	
Total Delay (s/veh)		30.9			35.5	1.6	11.5	28.9		24.0	10.4	
LOS		C			D	A	B	C		C	B	
Approach Delay (s/veh)		30.9			3.2			28.7			19.3	
Approach LOS		C			A			C			B	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	6.8	17.2		30.0	40.4	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	10.0	10.0		8.5	8.5	29.1	0.0	14.2		29.1	48.3	
70th %ile Term Code	Max	Max		Gap	Gap	Gap	Skip	Gap		Gap	Hold	
50th %ile Green (s)	7.8	7.8		7.6	7.6	23.4	0.0	12.0		23.4	40.4	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
30th %ile Green (s)	6.3	6.3		6.3	6.3	18.9	0.0	12.0		18.9	35.9	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	14.3	0.0	12.0		14.3	31.3	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		31			28	30	3	115		404	95	
Fuel Used(gal)		0			1	6	0	4		11	3	
CO Emissions (g/hr)		34			45	388	5	281		735	191	
NOx Emissions (g/hr)		7			9	75	1	55		143	37	
VOC Emissions (g/hr)		8			10	90	1	65		170	44	
Dilemma Vehicles (#)		0			2	0	0	8		0	13	
Queue Length 50th (ft)		14			12	0	0	31		149	48	
Queue Length 95th (ft)		49			41	15	3	65		261	97	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		248			254	1660	609	1376		835	1011	
Starvation Cap Reductn		0			0	0	0	0		123	396	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.17			0.12	0.36	0.00	0.11		0.64	0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 73.3			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 13.9		Intersection LOS: B	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.2			
70th %ile Actuated Cycle: 82.8			
50th %ile Actuated Cycle: 71.8			
30th %ile Actuated Cycle: 64.5			
10th %ile Actuated Cycle: 59.3			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp



Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	170	131	45	17	6
Future Vol, veh/h	20	170	131	45	17	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	25	12	11	33	76	50
Mvmt Flow	22	189	146	50	19	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	196	0	-	0	379	146
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	4.35	-	-	-	7.16	6.7
Critical Hdwy Stg 1	-	-	-	-	6.16	-
Critical Hdwy Stg 2	-	-	-	-	6.16	-
Follow-up Hdwy	2.425	-	-	-	4.184	3.75
Pot Cap-1 Maneuver	1251	-	-	-	501	789
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	659	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1251	-	-	-	492	789
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	659	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.83	0	11.83
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1251	-	-	-	492	789
HCM Lane V/C Ratio	0.018	-	-	-	0.038	0.008
HCM Ctrl Dly (s/v)	7.9	-	-	-	12.6	9.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	360	355	17	44	16
Future Vol, veh/h	4	360	355	17	44	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	75	3	4	53	25	13
Mvmt Flow	5	444	438	21	54	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	459	0	-	0	893	438
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	454	-
Critical Hdwy	4.85	-	-	-	6.65	6.33
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	2.875	-	-	-	3.725	3.417
Pot Cap-1 Maneuver	806	-	-	-	285	596
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	594	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	806	-	-	-	283	596
Mov Cap-2 Maneuver	-	-	-	-	283	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	806	-	-	-	283	596
HCM Lane V/C Ratio	0.006	-	-	-	0.192	0.033
HCM Ctrl Dly (s/v)	9.5	-	-	-	20.7	11.2
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	183	19	83	139	45	7	0	4	17	0	6
Future Vol, veh/h	20	183	19	83	139	45	7	0	4	17	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	275	-	-	400	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	25	15	0	0	17	33	0	0	0	76	0	50
Mvmt Flow	22	203	21	92	154	50	8	0	4	19	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	204	0	0	224	0	0	597	647	214	587	608	154
Stage 1	-	-	-	-	-	-	258	258	-	339	339	-
Stage 2	-	-	-	-	-	-	339	389	-	248	269	-
Critical Hdwy	4.35	-	-	4.1	-	-	7.1	6.5	6.2	7.86	6.5	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.86	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.86	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-	3.5	4	3.3	4.184	4	3.75
Pot Cap-1 Maneuver	1241	-	-	1356	-	-	418	392	831	330	413	780
Stage 1	-	-	-	-	-	-	751	698	-	546	644	-
Stage 2	-	-	-	-	-	-	680	612	-	618	690	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1241	-	-	1356	-	-	379	359	831	300	378	780
Mov Cap-2 Maneuver	-	-	-	-	-	-	379	359	-	300	378	-
Stage 1	-	-	-	-	-	-	737	685	-	509	600	-
Stage 2	-	-	-	-	-	-	628	570	-	603	678	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.72	2.44	12.76	15.67
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	379	831	1241	-	-	1356	-	-	300	780
HCM Lane V/C Ratio	0.021	0.005	0.018	-	-	0.068	-	-	0.063	0.009
HCM Ctrl Dly (s/v)	14.7	9.4	8	-	-	7.8	-	-	17.8	9.7
HCM Lane LOS	B	A	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0.2	-	-	0.2	0

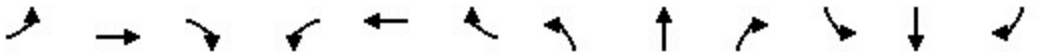
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	372	7	31	366	17	17	0	11	44	0	16
Future Vol, veh/h	4	372	7	31	366	17	17	0	11	44	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	275	-	-	400	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	75	5	0	0	7	53	0	0	0	25	0	13
Mvmt Flow	5	459	9	38	452	21	21	0	14	54	0	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	473	0	0	468	0	0	1002	1023	464	998	1006	452
Stage 1	-	-	-	-	-	-	473	473	-	528	528	-
Stage 2	-	-	-	-	-	-	528	549	-	469	478	-
Critical Hdwy	4.85	-	-	4.1	-	-	7.1	6.5	6.2	7.35	6.5	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.35	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.35	5.5	-
Follow-up Hdwy	2.875	-	-	2.2	-	-	3.5	4	3.3	3.725	4	3.417
Pot Cap-1 Maneuver	795	-	-	1104	-	-	223	238	603	202	243	585
Stage 1	-	-	-	-	-	-	575	561	-	494	531	-
Stage 2	-	-	-	-	-	-	537	519	-	533	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	795	-	-	1104	-	-	207	228	603	190	233	585
Mov Cap-2 Maneuver	-	-	-	-	-	-	207	228	-	190	233	-
Stage 1	-	-	-	-	-	-	572	558	-	477	512	-
Stage 2	-	-	-	-	-	-	501	501	-	518	556	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.63	19.15	26.09
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	207	603	795	-	-	1104	-	-	190	585
HCM Lane V/C Ratio	0.101	0.023	0.006	-	-	0.035	-	-	0.287	0.034
HCM Ctrl Dly (s/v)	24.4	11.1	9.6	-	-	8.4	-	-	31.4	11.4
HCM Lane LOS	C	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0.1	-	-	1.1	0.1



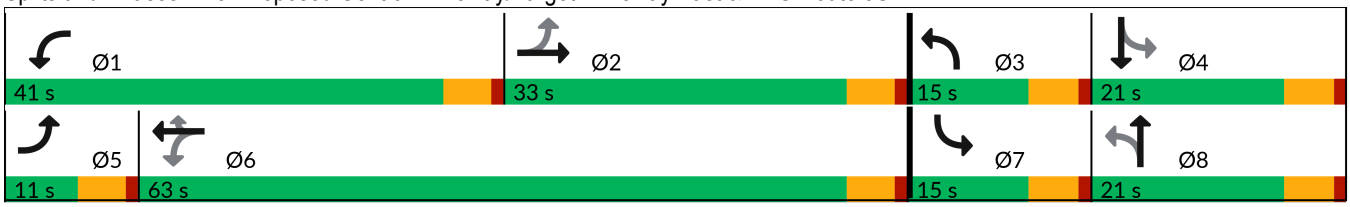
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	183	19	83	139	45	7	0	4	17	0	6
Future Volume (vph)	20	183	19	83	139	45	7	0	4	17	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	400		0	0		200	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986				0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1444	1649	0	1805	1624	1214	1805	1615	0	1026	1077	0
Flt Permitted	0.659			0.545								
Satd. Flow (perm)	1002	1649	0	1036	1624	1214	1900	1615	0	1080	1077	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				119		791			823	
Link Speed (mph)		45			45			25			30	
Link Distance (ft)		326			665			187			358	
Travel Time (s)		4.9			10.1			5.1			8.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	25%	15%	0%	0%	17%	33%	0%	0%	0%	76%	0%	50%
Adj. Flow (vph)	22	203	21	92	154	50	8	0	4	19	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	224	0	92	154	50	8	4	0	19	7	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	15.0		6.0	15.0	15.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	20.0		11.0	20.0	20.0	11.0	11.0		11.0	11.0	
Total Split (s)	11.0	33.0		41.0	63.0	63.0	15.0	21.0		15.0	21.0	
Total Split (%)	10.0%	30.0%		37.3%	57.3%	57.3%	13.6%	19.1%		13.6%	19.1%	
Maximum Green (s)	6.0	28.0		36.0	58.0	58.0	10.0	16.0		10.0	16.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	26.4	24.9		29.6	33.2	33.2	7.1	6.3		7.9	6.6	
Actuated g/C Ratio	0.69	0.65		0.77	0.86	0.86	0.18	0.16		0.21	0.17	
v/c Ratio	0.03	0.21		0.10	0.11	0.05	0.02	0.00		0.09	0.01	
Control Delay (s/veh)	4.6	9.5		3.7	6.3	0.2	12.7	0.0		13.2	0.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	4.6	9.5		3.7	6.3	0.2	12.7	0.0		13.2	0.0	
LOS	A	A		A	A	A	B	A		B	A	
Approach Delay (s/veh)		9.0			4.5			8.5			9.6	
Approach LOS		A			A			A			A	
90th %ile Green (s)	6.0	17.0		8.3	19.3	19.3	6.1	6.0		8.2	8.1	
90th %ile Term Code	Max	Gap		Gap	Hold	Hold	Gap	Min		Gap	Hold	
70th %ile Green (s)	0.0	15.0		6.7	26.7	26.7	0.0	0.0		0.0	0.0	
70th %ile Term Code	Skip	Min		Gap	Hold	Hold	Skip	Skip		Skip	Skip	
50th %ile Green (s)	0.0	15.0		6.0	26.0	26.0	0.0	0.0		0.0	0.0	
50th %ile Term Code	Skip	Min		Min	Hold	Hold	Skip	Skip		Skip	Skip	
30th %ile Green (s)	0.0	30.0		0.0	30.0	30.0	0.0	0.0		0.0	0.0	
30th %ile Term Code	Skip	Dwell		Skip	Dwell	Dwell	Skip	Skip		Skip	Skip	
10th %ile Green (s)	0.0	30.0		0.0	30.0	30.0	0.0	0.0		0.0	0.0	
10th %ile Term Code	Skip	Dwell		Skip	Dwell	Dwell	Skip	Skip		Skip	Skip	
Stops (vph)	9	104		21	38	0	8	0		15	0	
Fuel Used(gal)	0	3		2	3	1	0	0		0	0	
CO Emissions (g/hr)	16	191		105	184	45	6	1		15	2	
NOx Emissions (g/hr)	3	37		21	36	9	1	0		3	0	
VOC Emissions (g/hr)	4	44		24	43	10	1	0		4	1	
Dilemma Vehicles (#)	0	17		0	4	0	0	0		0	0	
Queue Length 50th (ft)	1	18		0	0	0	1	0		3	0	
Queue Length 95th (ft)	13	121		35	81	2	10	0		17	0	
Internal Link Dist (ft)		246			585			107			278	
Turn Bay Length (ft)	275			400								
Base Capacity (vph)	762	1404		1662	1616	1208	535	1154		312	935	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.03	0.16		0.06	0.10	0.04	0.01	0.00		0.06	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 38.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay (s/veh): 6.7		Intersection LOS: A	
Intersection Capacity Utilization 37.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 59.5			
70th %ile Actuated Cycle: 31.7			
50th %ile Actuated Cycle: 31			
30th %ile Actuated Cycle: 35			
10th %ile Actuated Cycle: 35			

Splits and Phases: 8: Proposed Central Driveway/Target Driveway East & NYS Route 5S



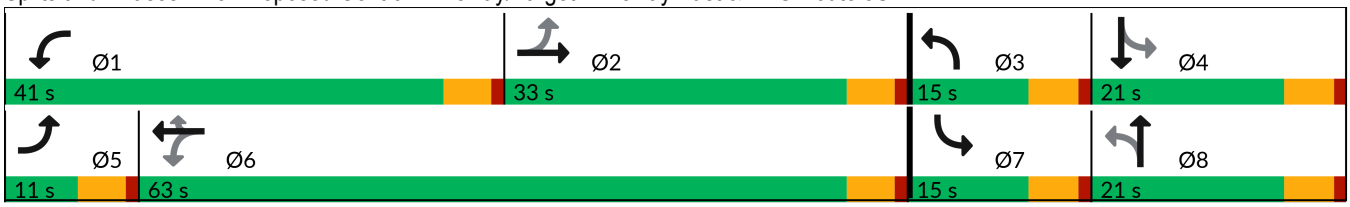
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	372	7	31	366	17	17	0	11	44	0	16
Future Volume (vph)	4	372	7	31	366	17	17	0	11	44	0	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	400		0	0		200	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1031	1806	0	1805	1776	1056	1805	1615	0	1444	1429	0
Flt Permitted	0.502			0.338						0.909		
Satd. Flow (perm)	545	1806	0	642	1776	1056	1900	1615	0	1382	1429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				119		648			513	
Link Speed (mph)		45			45			25			30	
Link Distance (ft)		326			665			187			358	
Travel Time (s)		4.9			10.1			5.1			8.1	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	75%	5%	0%	0%	7%	53%	0%	0%	0%	25%	0%	13%
Adj. Flow (vph)	5	459	9	38	452	21	21	0	14	54	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	468	0	38	452	21	21	14	0	54	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	15.0		6.0	15.0	15.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	20.0		11.0	20.0	20.0	11.0	11.0		11.0	11.0	
Total Split (s)	11.0	33.0		41.0	63.0	63.0	15.0	21.0		15.0	21.0	
Total Split (%)	10.0%	30.0%		37.3%	57.3%	57.3%	13.6%	19.1%		13.6%	19.1%	
Maximum Green (s)	6.0	28.0		36.0	58.0	58.0	10.0	16.0		10.0	16.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	32.3	25.9		37.1	38.7	38.7	7.5	6.3		9.1	7.5	
Actuated g/C Ratio	0.62	0.50		0.72	0.75	0.75	0.15	0.12		0.18	0.15	
v/c Ratio	0.01	0.52		0.06	0.34	0.03	0.08	0.02		0.21	0.03	
Control Delay (s/veh)	5.5	14.0		5.1	8.3	0.1	20.8	0.0		21.8	0.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	5.5	14.0		5.1	8.3	0.1	20.8	0.0		21.8	0.1	
LOS	A	B		A	A	A	C	A		C	A	
Approach Delay (s/veh)		14.0			7.7			12.5			15.9	
Approach LOS		B			A			B			B	
90th %ile Green (s)	6.0	28.7		6.9	29.6	29.6	7.0	6.0		10.0	9.0	
90th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Min		Max	Hold	
70th %ile Green (s)	0.0	26.5		6.3	37.8	37.8	0.0	0.0		8.4	8.4	
70th %ile Term Code	Skip	Gap		Gap	Hold	Hold	Skip	Skip		Gap	Hold	
50th %ile Green (s)	0.0	22.9		6.0	33.9	33.9	0.0	0.0		7.5	7.5	
50th %ile Term Code	Skip	Gap		Min	Hold	Hold	Skip	Skip		Gap	Hold	
30th %ile Green (s)	0.0	23.8		6.0	34.8	34.8	0.0	0.0		0.0	0.0	
30th %ile Term Code	Skip	Gap		Min	Hold	Hold	Skip	Skip		Skip	Skip	
10th %ile Green (s)	0.0	23.3		6.0	34.3	34.3	0.0	0.0		0.0	0.0	
10th %ile Term Code	Skip	Gap		Min	Hold	Hold	Skip	Skip		Skip	Skip	
Stops (vph)	2	245		11	152	0	17	0		36	0	
Fuel Used(gal)	0	6		1	8	0	0	0		1	0	
CO Emissions (g/hr)	4	427		43	540	17	15	3		44	6	
NOx Emissions (g/hr)	1	83		8	105	3	3	1		9	1	
VOC Emissions (g/hr)	1	99		10	125	4	3	1		10	1	
Dilemma Vehicles (#)	0	29		0	18	0	0	0		0	0	
Queue Length 50th (ft)	1	98		3	49	0	6	0		15	0	
Queue Length 95th (ft)	4	220		16	208	0	19	0		38	0	
Internal Link Dist (ft)		246			585			107			278	
Turn Bay Length (ft)	275			400								
Base Capacity (vph)	399	1033		1335	1708	1020	399	963		328	811	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.01	0.45		0.03	0.26	0.02	0.05	0.01		0.16	0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 51.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 11.1		Intersection LOS: B	
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 71.6			
70th %ile Actuated Cycle: 56.2			
50th %ile Actuated Cycle: 51.4			
30th %ile Actuated Cycle: 39.8			
10th %ile Actuated Cycle: 39.3			

Splits and Phases: 8: Proposed Central Driveway/Target Driveway East & NYS Route 5S



Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	216	2	8	138	2	7
Future Vol, veh/h	216	2	8	138	2	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	100	100	11	100	100
Mvmt Flow	235	2	9	150	2	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	237	0	403	236
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	167	-
Critical Hdwy	-	-	5.1	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	3.1	-	4.4	4.2
Pot Cap-1 Maneuver	-	-	918	-	452	612
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	918	-	448	612
Mov Cap-2 Maneuver	-	-	-	-	448	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.49	11.47
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	918	-
HCM Lane V/C Ratio	0.017	-	-	0.009	-
HCM Ctrl Dly (s/v)	11.5	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	373	3	11	372	2	10
Future Vol, veh/h	373	3	11	372	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	100	100	4	100	100
Mvmt Flow	405	3	12	404	2	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	409	0	835	407
Stage 1	-	-	-	-	407	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	-	-	5.1	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	3.1	-	4.4	4.2
Pot Cap-1 Maneuver	-	-	772	-	234	477
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	772	-	231	477
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	483	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.28	14.18
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	405	-	-	772	-
HCM Lane V/C Ratio	0.032	-	-	0.015	-
HCM Ctrl Dly (s/v)	14.2	-	-	9.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	200	6	0	270	0	19
Future Vol, veh/h	200	6	0	270	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	21	0	0	15	0	0
Mvmt Flow	217	7	0	293	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	217
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	827
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	827
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.46
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	827	-	-
HCM Lane V/C Ratio	0.025	-	-
HCM Ctrl Dly (s/v)	9.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

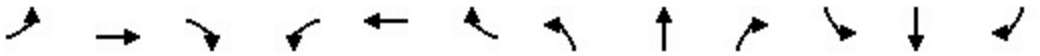
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	445	2	0	407	0	45
Future Vol, veh/h	445	2	0	407	0	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	8	0	0
Mvmt Flow	484	2	0	442	0	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	484
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	587
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	587
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

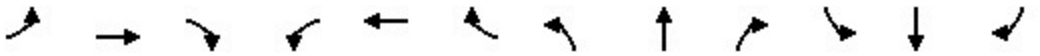
Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	11.69
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	587	-	-
HCM Lane V/C Ratio	0.083	-	-
HCM Ctrl Dly (s/v)	11.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

GENERATOR (SITE SPECIFIC)
PEAK HOUR CONDITION



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	159	88	10	114	1	118	1	32	9	5	6
Future Volume (vph)	4	159	88	10	114	1	118	1	32	9	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.971			0.957	
Flt Protected		0.999			0.996			0.962			0.978	
Satd. Flow (prot)	0	1620	1369	0	1486	0	0	1713	0	0	1778	0
Flt Permitted		0.995			0.976			0.962			0.978	
Satd. Flow (perm)	0	1613	1369	0	1456	0	0	1713	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		1			20			7	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	25%	17%	18%	10%	29%	0%	3%	0%	6%	0%	0%	0%
Adj. Flow (vph)	4	173	96	11	124	1	128	1	35	10	5	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	96	0	136	0	0	164	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

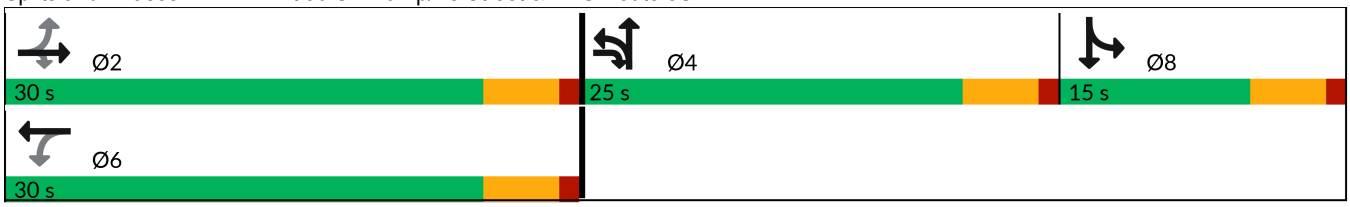


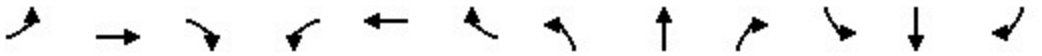
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		20.9	36.8		20.9			10.7			6.2	
Actuated g/C Ratio		0.53	0.94		0.53			0.27			0.16	
v/c Ratio		0.21	0.07		0.17			0.34			0.08	
Control Delay (s/veh)		9.4	0.7		9.4			14.0			15.6	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		9.4	0.7		9.4			14.0			15.6	
LOS		A	A		A			B			B	
Approach Delay (s/veh)		6.3			9.4			14.0			15.6	
Approach LOS		A			A			B			B	
90th %ile Green (s)	20.1	20.1	12.9	20.1	20.1		12.9	12.9		6.3	6.3	
90th %ile Term Code	Gap	Gap	Gap	Hold	Hold		Gap	Gap		Gap	Gap	
70th %ile Green (s)	16.1	16.1	10.0	16.1	16.1		10.0	10.0		0.0	0.0	
70th %ile Term Code	Gap	Gap	Min	Hold	Hold		Min	Min		Skip	Skip	
50th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
50th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
30th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
30th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
10th %ile Green (s)	30.0	30.0	0.0	30.0	30.0		0.0	0.0		0.0	0.0	
10th %ile Term Code	Dwell	Dwell	Skip	Dwell	Dwell		Skip	Skip		Skip	Skip	
Stops (vph)		95	6		74			99			17	
Fuel Used(gal)		9	4		2			2			0	
CO Emissions (g/hr)		653	302		107			107			13	
NOx Emissions (g/hr)		127	59		21			21			2	
VOC Emissions (g/hr)		151	70		25			25			3	
Dilemma Vehicles (#)		16	0		12			0			0	
Queue Length 50th (ft)		19	0		15			21			2	
Queue Length 95th (ft)		78	8		63			83			21	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		1155	1326		1043			912			474	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.15	0.07		0.13			0.18			0.05	

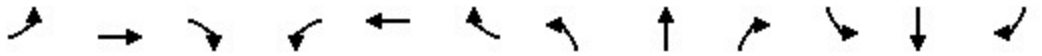
Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 39.1			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay (s/veh): 9.5		Intersection LOS: A	
Intersection Capacity Utilization 38.3%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 54.3			
70th %ile Actuated Cycle: 36.1			
50th %ile Actuated Cycle: 35			
30th %ile Actuated Cycle: 35			
10th %ile Actuated Cycle: 35			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	207	59	9	152	4	125	3	57	6	2	9
Future Volume (vph)	6	207	59	9	152	4	125	3	57	6	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997			0.958			0.926	
Flt Protected		0.999			0.997			0.967			0.983	
Satd. Flow (prot)	0	1793	1292	0	1595	0	0	1660	0	0	1729	0
Flt Permitted		0.992			0.979			0.967			0.983	
Satd. Flow (perm)	0	1781	1292	0	1566	0	0	1660	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71		2			32			11	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	6%	25%	0%	20%	0%	8%	0%	2%	0%	0%	0%
Adj. Flow (vph)	7	249	71	11	183	5	151	4	69	7	2	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	256	71	0	199	0	0	224	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

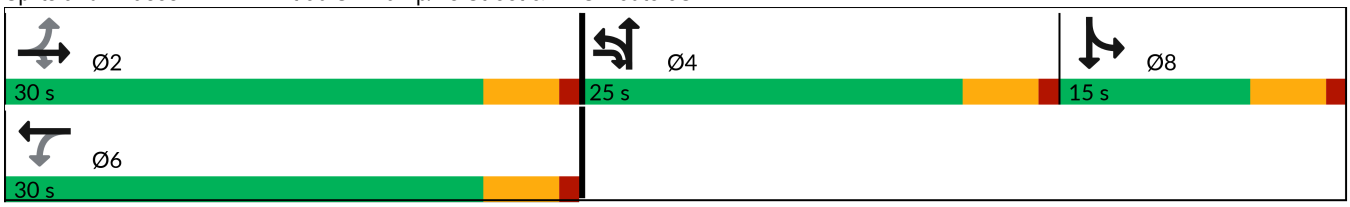


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		18.8	40.2		18.8			11.6			6.3	
Actuated g/C Ratio		0.44	0.95		0.44			0.27			0.15	
v/c Ratio		0.32	0.06		0.29			0.47			0.07	
Control Delay (s/veh)		10.5	0.6		10.3			15.7			15.6	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		10.5	0.6		10.3			15.7			15.6	
LOS		B	A		B			B			B	
Approach Delay (s/veh)		8.3			10.3			15.7			15.6	
Approach LOS		A			B			B			B	
90th %ile Green (s)	24.6	24.6	16.9	24.6	24.6		16.9	16.9		6.3	6.3	
90th %ile Term Code	Gap	Gap	Gap	Hold	Hold		Gap	Gap		Gap	Gap	
70th %ile Green (s)	17.1	17.1	10.6	17.1	17.1		10.6	10.6		0.0	0.0	
70th %ile Term Code	Gap	Gap	Gap	Hold	Hold		Gap	Gap		Skip	Skip	
50th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
50th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
30th %ile Green (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		0.0	0.0	
30th %ile Term Code	Min	Min	Min	Min	Min		Min	Min		Skip	Skip	
10th %ile Green (s)	21.5	21.5	10.0	21.5	21.5		10.0	10.0		0.0	0.0	
10th %ile Term Code	Dwell	Dwell	Min	Dwell	Dwell		Min	Min		Skip	Skip	
Stops (vph)		127	3		96			122			13	
Fuel Used(gal)		12	3		2			2			0	
CO Emissions (g/hr)		856	202		142			137			11	
NOx Emissions (g/hr)		167	39		28			27			2	
VOC Emissions (g/hr)		198	47		33			32			2	
Dilemma Vehicles (#)		20	0		16			0			0	
Queue Length 50th (ft)		29	0		22			29			1	
Queue Length 95th (ft)		107	6		86			106			19	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		1101	1241		969			837			435	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

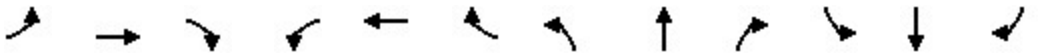
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.23	0.06		0.21			0.27			0.05	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 42.4			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay (s/veh): 11.2		Intersection LOS: B	
Intersection Capacity Utilization 41.2%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 62.8			
70th %ile Actuated Cycle: 37.7			
50th %ile Actuated Cycle: 35			
30th %ile Actuated Cycle: 35			
10th %ile Actuated Cycle: 41.5			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	176	126	10	424	1	239	1	32	9	5	6
Future Volume (vph)	4	176	126	10	424	1	239	1	32	9	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.984			0.957	
Flt Protected		0.999			0.999			0.958			0.978	
Satd. Flow (prot)	0	1648	1380	0	1741	0	0	1763	0	0	1778	0
Flt Permitted		0.991			0.993			0.958			0.978	
Satd. Flow (perm)	0	1634	1380	0	1731	0	0	1763	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			137					10			7	
Link Speed (mph)		55			55			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		7.5			5.7			5.6			8.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	25%	15%	17%	10%	9%	0%	1%	0%	6%	0%	0%	0%
Adj. Flow (vph)	4	191	137	11	461	1	260	1	35	10	5	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	195	137	0	473	0	0	296	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

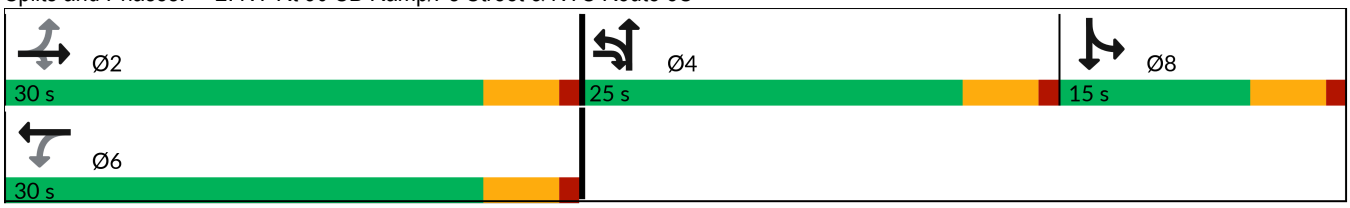


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		22.6	45.8		22.6			13.5			6.4	
Actuated g/C Ratio		0.47	0.95		0.47			0.28			0.13	
v/c Ratio		0.25	0.10		0.58			0.59			0.09	
Control Delay (s/veh)		10.9	0.5		15.3			21.2			21.0	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		10.9	0.5		15.3			21.2			21.0	
LOS		B	A		B			C			C	
Approach Delay (s/veh)		6.6			15.3			21.2			21.0	
Approach LOS		A			B			C			C	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		6.6	6.6	
90th %ile Term Code	Hold	Hold	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	25.0	25.0	16.6	25.0	25.0		16.6	16.6		0.0	0.0	
70th %ile Term Code	Hold	Hold	Gap	Max	Max		Gap	Gap		Skip	Skip	
50th %ile Green (s)	24.5	24.5	11.8	24.5	24.5		11.8	11.8		0.0	0.0	
50th %ile Term Code	Hold	Hold	Gap	Gap	Gap		Gap	Gap		Skip	Skip	
30th %ile Green (s)	20.3	20.3	10.0	20.3	20.3		10.0	10.0		0.0	0.0	
30th %ile Term Code	Hold	Hold	Min	Gap	Gap		Min	Min		Skip	Skip	
10th %ile Green (s)	16.3	16.3	10.0	16.3	16.3		10.0	10.0		0.0	0.0	
10th %ile Term Code	Hold	Hold	Min	Gap	Gap		Min	Min		Skip	Skip	
Stops (vph)		99	5		289			207			16	
Fuel Used(gal)		11	6		8			3			0	
CO Emissions (g/hr)		744	421		559			232			14	
NOx Emissions (g/hr)		145	82		109			45			3	
VOC Emissions (g/hr)		173	98		129			54			3	
Dilemma Vehicles (#)		15	0		40			0			0	
Queue Length 50th (ft)		24	0		71			68			4	
Queue Length 95th (ft)		101	9		#274			168			25	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		885	1310		937			769			390	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.22	0.10		0.50			0.38			0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 48.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay (s/veh): 14.4		Intersection LOS: B	
Intersection Capacity Utilization 60.7%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 66.6			
70th %ile Actuated Cycle: 51.6			
50th %ile Actuated Cycle: 46.3			
30th %ile Actuated Cycle: 40.3			
10th %ile Actuated Cycle: 36.3			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S



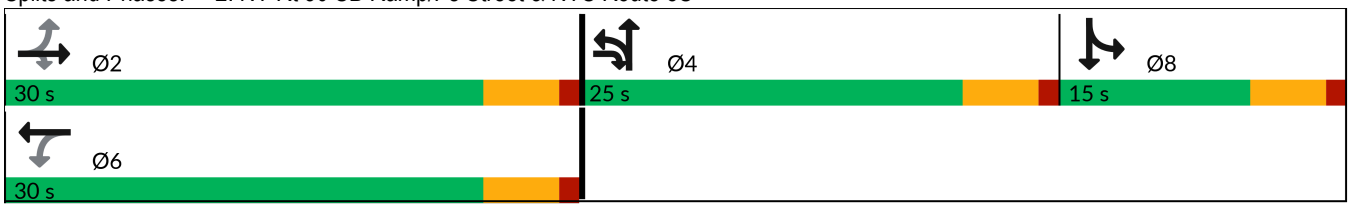
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	350	335	9	408	4	224	3	57	6	2	9
Future Volume (vph)	6	350	335	9	408	4	224	3	57	6	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.973			0.926	
Flt Protected		0.999			0.999			0.962			0.983	
Satd. Flow (prot)	0	1844	1509	0	1729	0	0	1717	0	0	1729	0
Flt Permitted		0.992			0.989			0.962			0.983	
Satd. Flow (perm)	0	1831	1509	0	1711	0	0	1717	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			404		1			18			11	
Link Speed (mph)		45			45			30			25	
Link Distance (ft)		605			462			246			324	
Travel Time (s)		9.2			7.0			5.6			8.8	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	3%	7%	0%	10%	0%	4%	0%	2%	0%	0%	0%
Adj. Flow (vph)	7	422	404	11	492	5	270	4	69	7	2	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	404	0	508	0	0	343	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	pm+ov	Perm	NA		Split	NA		Split	NA	
Protected Phases		2	4		6		4	4		8	8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		2	6								
Detector Phase	2	2	4	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0	10.0	15.0	15.0		10.0	10.0		6.0	6.0	
Minimum Split (s)	20.0	20.0	15.0	20.0	20.0		15.0	15.0		11.0	11.0	
Total Split (s)	30.0	30.0	25.0	30.0	30.0		25.0	25.0		15.0	15.0	
Total Split (%)	42.9%	42.9%	35.7%	42.9%	42.9%		35.7%	35.7%		21.4%	21.4%	
Maximum Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		10.0	10.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0	2.0	8.0	8.0		2.0	2.0		2.0	2.0	
Recall Mode	Min	Min	None	Min	Min		None	None		None	None	
Act Effct Green (s)		23.7	48.0		23.7			14.8			6.3	
Actuated g/C Ratio		0.47	0.95		0.47			0.29			0.12	
v/c Ratio		0.50	0.28		0.63			0.67			0.09	
Control Delay (s/veh)		13.6	0.7		17.2			23.1			18.9	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay (s/veh)		13.6	0.7		17.2			23.1			18.9	
LOS		B	A		B			C			B	
Approach Delay (s/veh)		7.4			17.2			23.1			18.9	
Approach LOS		A			B			C			B	
90th %ile Green (s)	25.0	25.0	20.0	25.0	25.0		20.0	20.0		6.3	6.3	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Gap	Gap	
70th %ile Green (s)	25.0	25.0	17.9	25.0	25.0		17.9	17.9		0.0	0.0	
70th %ile Term Code	Max	Max	Gap	Max	Max		Gap	Gap		Skip	Skip	
50th %ile Green (s)	25.0	25.0	14.4	25.0	25.0		14.4	14.4		0.0	0.0	
50th %ile Term Code	Hold	Hold	Gap	Max	Max		Gap	Gap		Skip	Skip	
30th %ile Green (s)	24.0	24.0	12.2	24.0	24.0		12.2	12.2		0.0	0.0	
30th %ile Term Code	Hold	Hold	Gap	Gap	Gap		Gap	Gap		Skip	Skip	
10th %ile Green (s)	17.7	17.7	10.0	17.7	17.7		10.0	10.0		0.0	0.0	
10th %ile Term Code	Hold	Hold	Min	Gap	Gap		Min	Min		Skip	Skip	
Stops (vph)		232	8		283			220			13	
Fuel Used(gal)		21	16		6			4			0	
CO Emissions (g/hr)		1470	1138		438			252			11	
NOx Emissions (g/hr)		286	221		85			49			2	
VOC Emissions (g/hr)		341	264		102			58			3	
Dilemma Vehicles (#)		31	0		37			0			0	
Queue Length 50th (ft)		72	0		92			81			2	
Queue Length 95th (ft)		200	11		#257			174			19	
Internal Link Dist (ft)		525			382			166			244	
Turn Bay Length (ft)			125									
Base Capacity (vph)		937	1442		876			713			362	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	

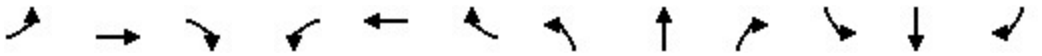
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.46	0.28		0.58			0.48			0.06	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 50.5			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 13.6		Intersection LOS: B	
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 66.3			
70th %ile Actuated Cycle: 52.9			
50th %ile Actuated Cycle: 49.4			
30th %ile Actuated Cycle: 46.2			
10th %ile Actuated Cycle: 37.7			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 2: NY Rt 30 SB Ramp/Ps Street & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	87	0	0	54	54	74	0	18	0	0	0
Future Volume (vph)	114	87	0	0	54	54	74	0	18	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.932			0.974				
Flt Protected		0.972						0.961				
Satd. Flow (prot)	0	1617	0	0	1655	0	0	1502	0	0	0	0
Flt Permitted		0.776						0.961				
Satd. Flow (perm)	0	1291	0	0	1655	0	0	1502	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	19%	8%	0%	0%	7%	7%	41%	0%	6%	0%	0%	0%
Adj. Flow (vph)	146	112	0	0	69	69	95	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	0	138	0	0	118	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

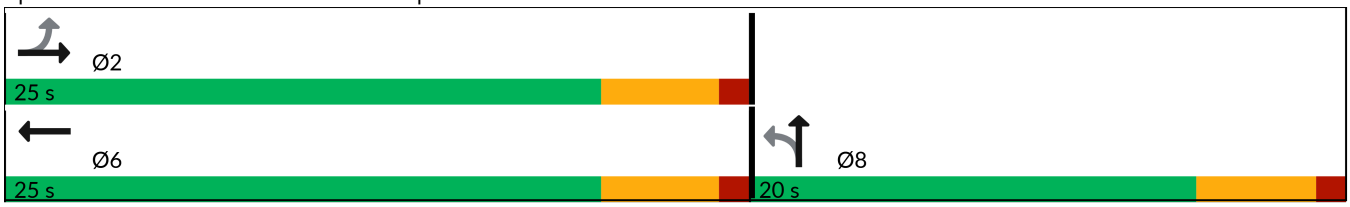


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		25.1			25.1			8.3				
Actuated g/C Ratio		0.70			0.70			0.23				
v/c Ratio		0.29			0.12			0.31				
Control Delay (s/veh)		6.2			3.3			10.5				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		6.2			3.3			10.5				
LOS		A			A			B				
Approach Delay (s/veh)		6.2			3.3			10.5				
Approach LOS		A			A			B				
90th %ile Green (s)	20.0	20.0			20.0		9.5	9.5				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	18.8	18.8			18.8		8.0	8.0				
70th %ile Term Code	Gap	Gap			Hold		Min	Min				
50th %ile Green (s)	15.7	15.7			15.7		8.0	8.0				
50th %ile Term Code	Gap	Gap			Hold		Min	Min				
30th %ile Green (s)	30.0	30.0			30.0		0.0	0.0				
30th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
10th %ile Green (s)	30.0	30.0			30.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		97			30			50				
Fuel Used(gal)		2			2			1				
CO Emissions (g/hr)		144			119			52				
NOx Emissions (g/hr)		28			23			10				
VOC Emissions (g/hr)		33			28			12				
Dilemma Vehicles (#)		19			10			0				
Queue Length 50th (ft)		27			6			10				
Queue Length 95th (ft)		54			19			34				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		940			1224			655				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.27			0.11			0.18				

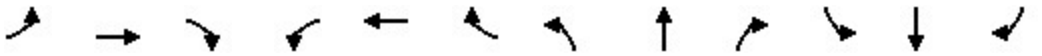
Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 36			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay (s/veh): 6.4		Intersection LOS: A	
Intersection Capacity Utilization 32.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 39.5			
70th %ile Actuated Cycle: 36.8			
50th %ile Actuated Cycle: 33.7			
30th %ile Actuated Cycle: 35			
10th %ile Actuated Cycle: 35			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	110	0	0	69	57	103	0	19	0	0	0
Future Volume (vph)	158	110	0	0	69	57	103	0	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.939			0.979				
Flt Protected		0.971						0.960				
Satd. Flow (prot)	0	1741	0	0	1755	0	0	1661	0	0	0	0
Flt Permitted		0.744						0.960				
Satd. Flow (perm)	0	1334	0	0	1755	0	0	1661	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					68			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	8%	3%	0%	0%	3%	0%	25%	0%	5%	0%	0%	0%
Adj. Flow (vph)	188	131	0	0	82	68	123	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	150	0	0	146	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

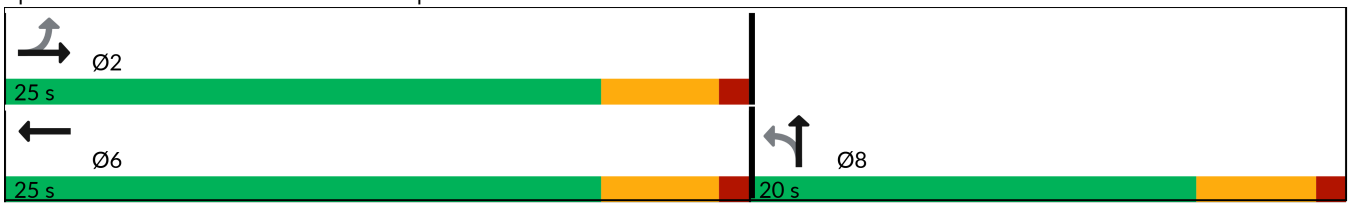


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		22.9			22.9			8.4				
Actuated g/C Ratio		0.61			0.61			0.22				
v/c Ratio		0.39			0.14			0.36				
Control Delay (s/veh)		7.7			3.6			11.9				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		7.7			3.6			11.9				
LOS		A			A			B				
Approach Delay (s/veh)		7.7			3.6			11.9				
Approach LOS		A			A			B				
90th %ile Green (s)	20.0	20.0			20.0		10.0	10.0				
90th %ile Term Code	Max	Max			Hold		Gap	Gap				
70th %ile Green (s)	20.0	20.0			20.0		8.0	8.0				
70th %ile Term Code	Max	Max			Hold		Min	Min				
50th %ile Green (s)	18.0	18.0			18.0		8.0	8.0				
50th %ile Term Code	Gap	Gap			Hold		Min	Min				
30th %ile Green (s)	20.6	20.6			20.6		8.0	8.0				
30th %ile Term Code	Dwell	Dwell			Dwell		Min	Min				
10th %ile Green (s)	30.0	30.0			30.0		0.0	0.0				
10th %ile Term Code	Dwell	Dwell			Dwell		Skip	Skip				
Stops (vph)		153			37			72				
Fuel Used(gal)		3			2			1				
CO Emissions (g/hr)		219			141			74				
NOx Emissions (g/hr)		43			28			14				
VOC Emissions (g/hr)		51			33			17				
Dilemma Vehicles (#)		31			14			0				
Queue Length 50th (ft)		35			7			16				
Queue Length 95th (ft)		79			24			45				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		831			1119			694				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.38			0.13			0.21				

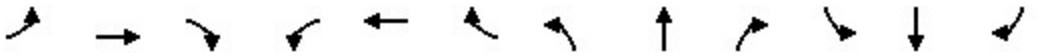
Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 37.5			
Natural Cycle: 40			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay (s/veh): 7.7		Intersection LOS: A	
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 40			
70th %ile Actuated Cycle: 38			
50th %ile Actuated Cycle: 36			
30th %ile Actuated Cycle: 38.6			
10th %ile Actuated Cycle: 35			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	90	0	0	82	54	357	0	18	0	0	0
Future Volume (vph)	128	90	0	0	82	54	357	0	18	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.946			0.994				
Flt Protected		0.971						0.955				
Satd. Flow (prot)	0	1628	0	0	1699	0	0	1862	0	0	0	0
Flt Permitted		0.724						0.955				
Satd. Flow (perm)	0	1214	0	0	1699	0	0	1862	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69			48				
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		5.7			22.3			4.3			11.9	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	17%	8%	0%	0%	5%	7%	10%	0%	6%	0%	0%	0%
Adj. Flow (vph)	164	115	0	0	105	69	458	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	0	0	174	0	0	481	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

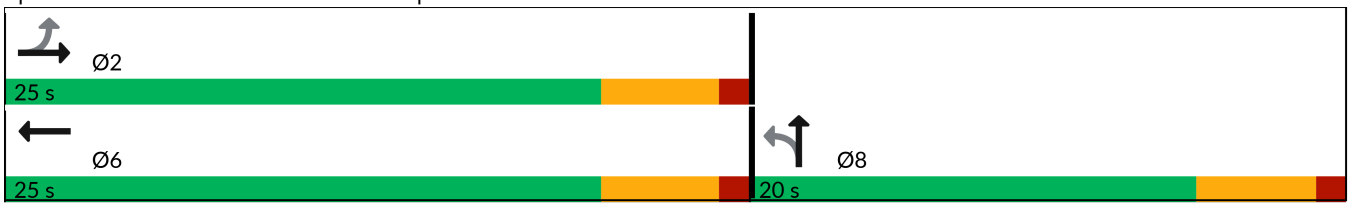


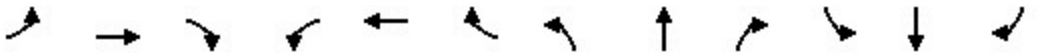
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		18.0			18.0			12.7				
Actuated g/C Ratio		0.44			0.44			0.31				
v/c Ratio		0.52			0.22			0.79				
Control Delay (s/veh)		13.2			5.8			23.3				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		13.2			5.8			23.3				
LOS		B			A			C				
Approach Delay (s/veh)		13.2			5.8			23.3				
Approach LOS		B			A			C				
90th %ile Green (s)	20.0	20.0			20.0		15.0	15.0				
90th %ile Term Code	Max	Max			Hold		Max	Max				
70th %ile Green (s)	20.0	20.0			20.0		15.0	15.0				
70th %ile Term Code	Max	Max			Hold		Max	Max				
50th %ile Green (s)	19.6	19.6			19.6		15.0	15.0				
50th %ile Term Code	Gap	Gap			Hold		Max	Max				
30th %ile Green (s)	15.4	15.4			15.4		11.4	11.4				
30th %ile Term Code	Gap	Gap			Hold		Gap	Gap				
10th %ile Green (s)	15.0	15.0			15.0		8.1	8.1				
10th %ile Term Code	Min	Min			Min		Gap	Gap				
Stops (vph)		151			49			274				
Fuel Used(gal)		4			3			4				
CO Emissions (g/hr)		282			183			309				
NOx Emissions (g/hr)		55			36			60				
VOC Emissions (g/hr)		65			42			72				
Dilemma Vehicles (#)		24			14			0				
Queue Length 50th (ft)		48			15			93				
Queue Length 95th (ft)		82			33			143				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		603			878			724				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.20			0.66				

Intersection Summary

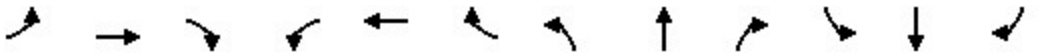
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 40.9			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay (s/veh): 17.0		Intersection LOS: B	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 45			
70th %ile Actuated Cycle: 45			
50th %ile Actuated Cycle: 44.6			
30th %ile Actuated Cycle: 36.8			
10th %ile Actuated Cycle: 33.1			

Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	137	0	0	92	57	337	0	19	0	0	0
Future Volume (vph)	275	137	0	0	92	57	337	0	19	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	16	16	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.948			0.993				
Flt Protected		0.968						0.955				
Satd. Flow (prot)	0	1780	0	0	1779	0	0	1861	0	0	0	0
Flt Permitted		0.694						0.955				
Satd. Flow (perm)	0	1276	0	0	1779	0	0	1861	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					68			48				
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		462			1798			190			522	
Travel Time (s)		7.0			27.2			4.3			11.9	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	4%	2%	0%	0%	2%	0%	10%	0%	5%	0%	0%	0%
Adj. Flow (vph)	327	163	0	0	110	68	401	0	23	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	490	0	0	178	0	0	424	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		40			25			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Detector Phase	2	2			6		8	8				

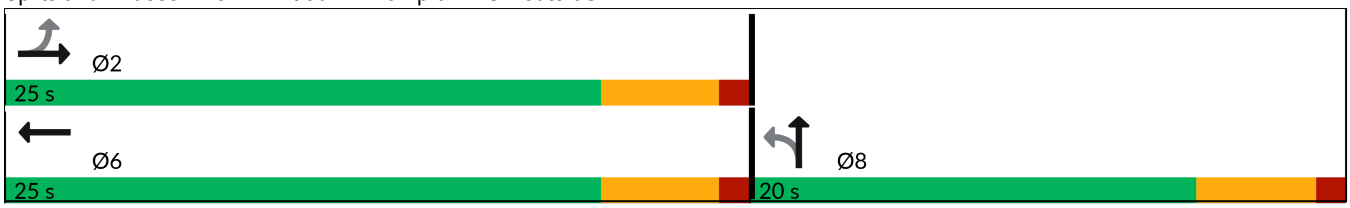


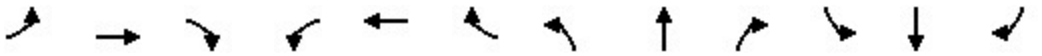
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	15.0	15.0			15.0		8.0	8.0				
Minimum Split (s)	20.0	20.0			20.0		13.0	13.0				
Total Split (s)	25.0	25.0			25.0		20.0	20.0				
Total Split (%)	55.6%	55.6%			55.6%		44.4%	44.4%				
Maximum Green (s)	20.0	20.0			20.0		15.0	15.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	8.0	8.0			8.0		2.0	2.0				
Recall Mode	Min	Min			Min		None	None				
Act Effct Green (s)		19.7			19.7			12.1				
Actuated g/C Ratio		0.47			0.47			0.29				
v/c Ratio		0.82			0.20			0.74				
Control Delay (s/veh)		26.3			5.6			20.7				
Queue Delay		0.0			0.0			0.0				
Total Delay (s/veh)		26.3			5.6			20.7				
LOS		C			A			C				
Approach Delay (s/veh)		26.3			5.6			20.7				
Approach LOS		C			A			C				
90th %ile Green (s)	20.0	20.0			20.0		15.0	15.0				
90th %ile Term Code	Max	Max			Hold		Max	Max				
70th %ile Green (s)	20.0	20.0			20.0		15.0	15.0				
70th %ile Term Code	Max	Max			Hold		Max	Max				
50th %ile Green (s)	20.0	20.0			20.0		13.0	13.0				
50th %ile Term Code	Max	Max			Hold		Gap	Gap				
30th %ile Green (s)	20.0	20.0			20.0		10.4	10.4				
30th %ile Term Code	Max	Max			Hold		Gap	Gap				
10th %ile Green (s)	18.0	18.0			18.0		8.0	8.0				
10th %ile Term Code	Gap	Gap			Hold		Min	Min				
Stops (vph)		294			55			266				
Fuel Used(gal)		7			3			4				
CO Emissions (g/hr)		496			182			282				
NOx Emissions (g/hr)		97			35			55				
VOC Emissions (g/hr)		115			42			65				
Dilemma Vehicles (#)		43			14			0				
Queue Length 50th (ft)		94			14			79				
Queue Length 95th (ft)		#229			38			137				
Internal Link Dist (ft)		382			1718			110			442	
Turn Bay Length (ft)												
Base Capacity (vph)		613			890			702				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.80			0.20			0.60				

Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 41.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay (s/veh): 20.7		Intersection LOS: C	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 45			
70th %ile Actuated Cycle: 45			
50th %ile Actuated Cycle: 43			
30th %ile Actuated Cycle: 40.4			
10th %ile Actuated Cycle: 36			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

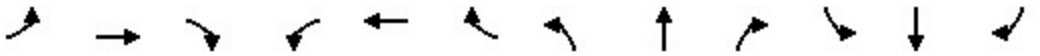
Splits and Phases: 3: NY Rt 30 NB Ramp & NYS Route 5S





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	104	0	0	0	0	308	91	0	540	151
Future Volume (vph)	0	0	104	0	0	0	0	308	91	0	540	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.966				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1417	0	0	0	0	3041	0	0	3471	1568
Flt Permitted												
Satd. Flow (perm)	0	0	1417	0	0	0	0	3041	0	0	3471	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			282					27				172
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	16%	0%	0%	0%	0%	9%	34%	0%	4%	3%
Adj. Flow (vph)	0	0	118	0	0	0	0	350	103	0	614	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	118	0	0	0	0	453	0	0	614	172
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



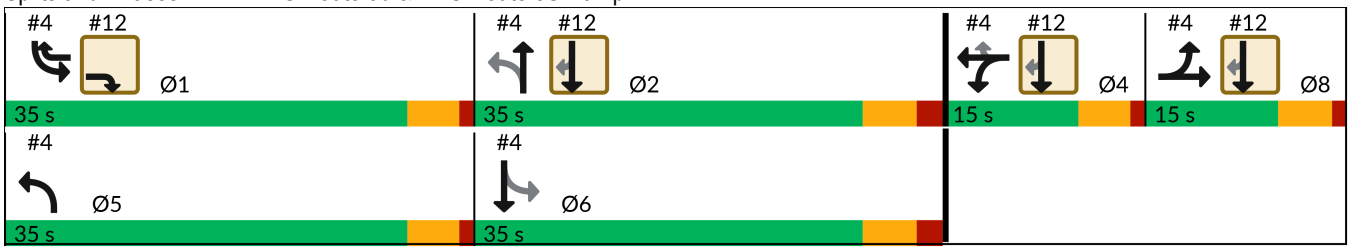
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			23.8					75.7			40.6	40.6
Actuated g/C Ratio			0.31					1.00			0.54	0.54
v/c Ratio			0.18					0.15			0.33	0.19
Control Delay (s/veh)			0.6					0.1			11.0	2.3
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			0.7					0.1			11.1	2.3
LOS			A					A			B	A
Approach Delay (s/veh)		0.7						0.1			9.1	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			30.0									
70th %ile Term Code			Max									
50th %ile Green (s)			25.7									
50th %ile Term Code			Gap									
30th %ile Green (s)			20.5									
30th %ile Term Code			Gap									
10th %ile Green (s)			14.7									
10th %ile Term Code			Gap									
Stops (vph)			0					1			279	12
Fuel Used(gal)			0					1			9	1
CO Emissions (g/hr)			28					60			642	75
NOx Emissions (g/hr)			5					12			125	15
VOC Emissions (g/hr)			6					14			149	17
Dilemma Vehicles (#)			0					0			29	0
Queue Length 50th (ft)			0					0			83	0
Queue Length 95th (ft)			0					0			125	26
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			742					3041			1850	916
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			56					0			108	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	19.8	9.9	7.3	42.5	10.0
90th %ile Term Code	Gap	Gap	Gap	Hold	Max
70th %ile Green (s)	16.7	7.9	0.0	51.7	10.0
70th %ile Term Code	Gap	Gap	Skip	Hold	Max
50th %ile Green (s)	13.3	6.7	0.0	44.0	9.0
50th %ile Term Code	Gap	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.5	0.0	37.5	6.8
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	31.7	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.17					0.15			0.35	0.19

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 75.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 5.4		Intersection LOS: A	
Intersection Capacity Utilization 30.5%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90.7			
70th %ile Actuated Cycle: 85.6			
50th %ile Actuated Cycle: 75.7			
30th %ile Actuated Cycle: 66.8			
10th %ile Actuated Cycle: 59.7			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp

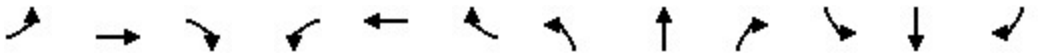


Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	70	0	0	0	0	461	121	0	318	186
Future Volume (vph)	0	0	70	0	0	0	0	461	121	0	318	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.969				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1358	0	0	0	0	3271	0	0	3471	1524
Flt Permitted												
Satd. Flow (perm)	0	0	1358	0	0	0	0	3271	0	0	3471	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			473					24				224
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	21%	0%	0%	0%	0%	3%	22%	0%	4%	6%
Adj. Flow (vph)	0	0	84	0	0	0	0	555	146	0	383	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	84	0	0	0	0	701	0	0	383	224
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



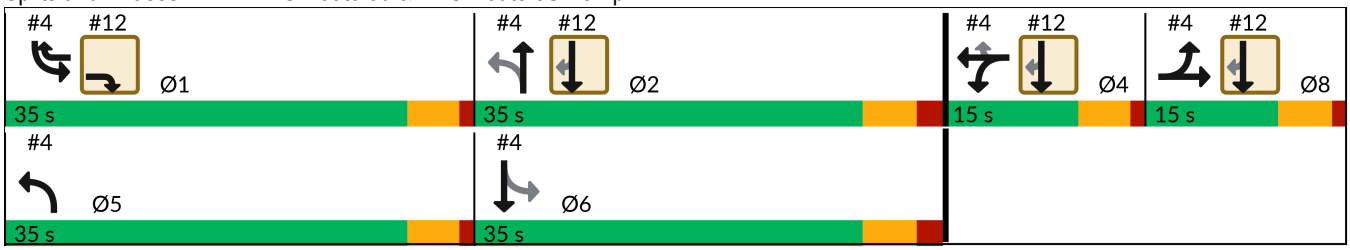
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			14.8					62.8			36.8	36.8
Actuated g/C Ratio			0.24					1.00			0.59	0.59
v/c Ratio			0.12					0.21			0.19	0.23
Control Delay (s/veh)			0.4					0.2			7.0	1.9
Queue Delay			0.0					0.0			0.0	0.0
Total Delay (s/veh)			0.4					0.2			7.0	1.9
LOS			A					A			A	A
Approach Delay (s/veh)		0.4						0.2			5.1	
Approach LOS		A						A			A	
90th %ile Green (s)			22.7									
90th %ile Term Code			Gap									
70th %ile Green (s)			17.4									
70th %ile Term Code			Gap									
50th %ile Green (s)			14.4									
50th %ile Term Code			Gap									
30th %ile Green (s)			11.9									
30th %ile Term Code			Gap									
10th %ile Green (s)			9.2									
10th %ile Term Code			Gap									
Stops (vph)			0					4			134	14
Fuel Used(gal)			0					1			5	1
CO Emissions (g/hr)			18					92			320	90
NOx Emissions (g/hr)			4					18			62	18
VOC Emissions (g/hr)			4					21			74	21
Dilemma Vehicles (#)			0					0			18	0
Queue Length 50th (ft)			0					0			30	0
Queue Length 95th (ft)			0					0			59	21
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			901					3271			2132	1022
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			0					0			0	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	12.6	10.0	6.8	28.5	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	12.0	7.6	0.0	34.4	7.6
70th %ile Term Code	Min	Gap	Skip	Hold	Gap
50th %ile Green (s)	12.0	6.7	0.0	31.4	6.7
50th %ile Term Code	Min	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.0	0.0	28.9	6.0
30th %ile Term Code	Min	Min	Skip	Hold	Min
10th %ile Green (s)	12.0	6.0	0.0	26.2	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.09					0.21			0.18	0.22

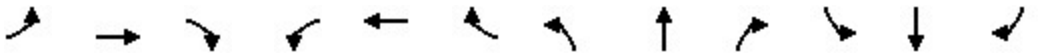
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 62.8			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay (s/veh): 2.3		Intersection LOS: A	
Intersection Capacity Utilization 23.5%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 76.3			
70th %ile Actuated Cycle: 65.6			
50th %ile Actuated Cycle: 60.8			
30th %ile Actuated Cycle: 56.9			
10th %ile Actuated Cycle: 54.2			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp



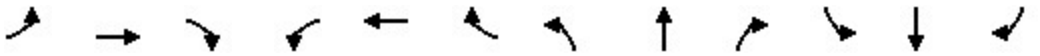
Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	142	0	0	0	0	308	374	0	540	272
Future Volume (vph)	0	0	142	0	0	0	0	308	374	0	540	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.918				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1417	0	0	0	0	3025	0	0	3471	1583
Flt Permitted												
Satd. Flow (perm)	0	0	1417	0	0	0	0	3025	0	0	3471	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			282					219				309
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	16%	0%	0%	0%	0%	9%	10%	0%	4%	2%
Adj. Flow (vph)	0	0	161	0	0	0	0	350	425	0	614	309
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	161	0	0	0	0	775	0	0	614	309
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



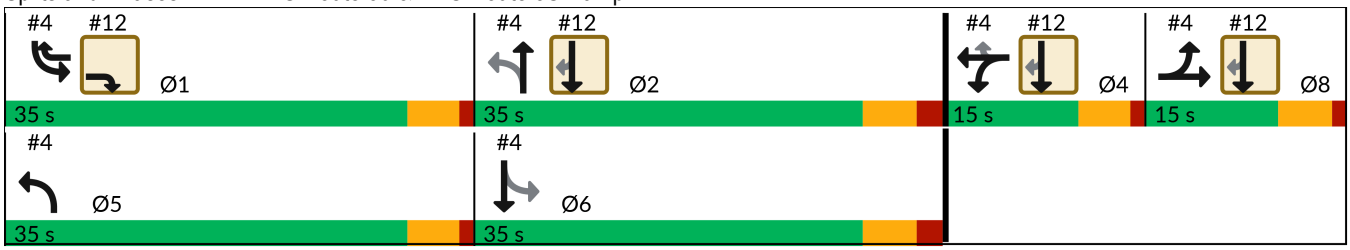
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			26.3					79.7			42.2	42.2
Actuated g/C Ratio			0.33					1.00			0.53	0.53
v/c Ratio			0.25					0.26			0.33	0.31
Control Delay (s/veh)			0.9					0.3			11.7	2.2
Queue Delay			0.2					0.0			0.0	0.0
Total Delay (s/veh)			1.1					0.3			11.7	2.2
LOS			A					A			B	A
Approach Delay (s/veh)		1.1						0.3			8.5	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			30.0									
70th %ile Term Code			Max									
50th %ile Green (s)			30.0									
50th %ile Term Code			Max									
30th %ile Green (s)			24.6									
30th %ile Term Code			Gap									
10th %ile Green (s)			17.9									
10th %ile Term Code			Gap									
Stops (vph)			0					6			283	18
Fuel Used(gal)			1					2			9	2
CO Emissions (g/hr)			38					110			652	130
NOx Emissions (g/hr)			7					21			127	25
VOC Emissions (g/hr)			9					25			151	30
Dilemma Vehicles (#)			0					0			30	0
Queue Length 50th (ft)			0					0			95	0
Queue Length 95th (ft)			0					0			125	32
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			717					3025			1822	978
Starvation Cap Reductn			0					0			0	0
Spillback Cap Reductn			162					0			151	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	20.8	10.0	7.3	43.5	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	17.7	8.9	0.0	52.7	10.0
70th %ile Term Code	Gap	Gap	Skip	Hold	Max
50th %ile Green (s)	15.3	7.7	0.0	50.3	10.0
50th %ile Term Code	Gap	Gap	Skip	Hold	Max
30th %ile Green (s)	12.0	6.5	0.0	41.6	7.9
30th %ile Term Code	Min	Gap	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	34.9	6.3
10th %ile Term Code	Min	Min	Skip	Hold	Gap
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.29					0.26			0.37	0.32

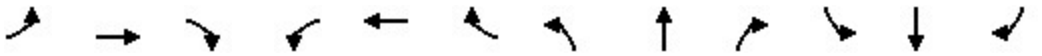
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 79.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 4.4		Intersection LOS: A	
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 91.8			
70th %ile Actuated Cycle: 87.6			
50th %ile Actuated Cycle: 84			
30th %ile Actuated Cycle: 72			
10th %ile Actuated Cycle: 63.2			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp



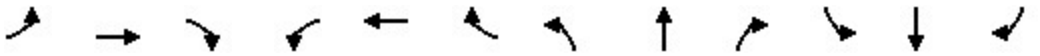
Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	346	0	0	0	0	461	355	0	318	285
Future Volume (vph)	0	0	346	0	0	0	0	461	355	0	318	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		1	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.865					0.935				0.850
Flt Protected												
Satd. Flow (prot)	0	0	1536	0	0	0	0	3183	0	0	3471	1553
Flt Permitted												
Satd. Flow (perm)	0	0	1536	0	0	0	0	3183	0	0	3471	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			473					139				343
Link Speed (mph)		30			30			55			55	
Link Distance (ft)		227			195			330			816	
Travel Time (s)		5.2			4.4			4.1			10.1	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	7%	0%	0%	0%	0%	3%	10%	0%	4%	4%
Adj. Flow (vph)	0	0	417	0	0	0	0	555	428	0	383	343
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	417	0	0	0	0	983	0	0	383	343
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors			1					2			2	1
Detector Template			Right					Thru			Thru	Right
Leading Detector (ft)			20					100			100	20
Trailing Detector (ft)			0					0			0	0
Detector 1 Position(ft)			0					0			0	0
Detector 1 Size(ft)			20					6			6	20
Detector 1 Type			Cl+Ex					Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)			0.0					0.0			0.0	0.0
Detector 1 Queue (s)			0.0					0.0			0.0	0.0
Detector 1 Delay (s)			0.0					0.0			0.0	0.0
Detector 2 Position(ft)								94			94	
Detector 2 Size(ft)								6			6	
Detector 2 Type								Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)								0.0			0.0	
Turn Type			Prot					NA			NA	Perm
Protected Phases			1					Free			2 4 8	

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Heavy Vehicles (%)					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Enter Blocked Intersection					
Lane Alignment					
Median Width(ft)					
Link Offset(ft)					
Crosswalk Width(ft)					
Two way Left Turn Lane					
Headway Factor					
Turning Speed (mph)					
Number of Detectors					
Detector Template					
Leading Detector (ft)					
Trailing Detector (ft)					
Detector 1 Position(ft)					
Detector 1 Size(ft)					
Detector 1 Type					
Detector 1 Channel					
Detector 1 Extend (s)					
Detector 1 Queue (s)					
Detector 1 Delay (s)					
Detector 2 Position(ft)					
Detector 2 Size(ft)					
Detector 2 Type					
Detector 2 Channel					
Detector 2 Extend (s)					
Turn Type					
Protected Phases	2	4	5	6	8



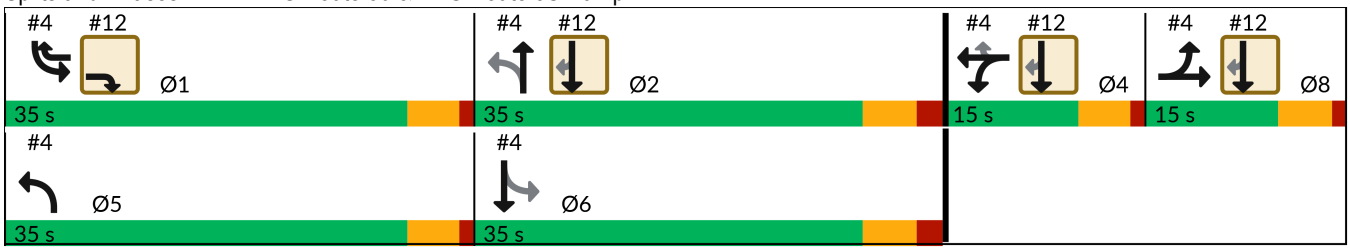
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												2 4 8
Detector Phase			1								2 4 8	2 4 8
Switch Phase												
Minimum Initial (s)			2.0									
Minimum Split (s)			7.0									
Total Split (s)			35.0									
Total Split (%)			35.0%									
Maximum Green (s)			30.0									
Yellow Time (s)			4.0									
All-Red Time (s)			1.0									
Lost Time Adjust (s)			0.0									
Total Lost Time (s)			5.0									
Lead/Lag			Lead									
Lead-Lag Optimize?												
Vehicle Extension (s)			4.0									
Recall Mode			None									
Act Effct Green (s)			26.4					75.6			38.1	38.1
Actuated g/C Ratio			0.35					1.00			0.50	0.50
v/c Ratio			0.49					0.31			0.22	0.36
Control Delay (s/veh)			3.3					0.4			11.4	2.5
Queue Delay			0.1					0.0			0.0	0.0
Total Delay (s/veh)			3.4					0.4			11.4	2.5
LOS			A					A			B	A
Approach Delay (s/veh)		3.4						0.4			7.2	
Approach LOS		A						A			A	
90th %ile Green (s)			30.0									
90th %ile Term Code			Max									
70th %ile Green (s)			30.0									
70th %ile Term Code			Max									
50th %ile Green (s)			30.0									
50th %ile Term Code			Max									
30th %ile Green (s)			25.1									
30th %ile Term Code			Gap									
10th %ile Green (s)			17.9									
10th %ile Term Code			Gap									
Stops (vph)			17					22			163	20
Fuel Used(gal)			2					2			5	2
CO Emissions (g/hr)			112					152			378	139
NOx Emissions (g/hr)			22					30			74	27
VOC Emissions (g/hr)			26					35			88	32
Dilemma Vehicles (#)			0					0			15	0
Queue Length 50th (ft)			0					0			55	0
Queue Length 95th (ft)			19					0			73	27
Internal Link Dist (ft)		147			115			250			736	
Turn Bay Length (ft)												100
Base Capacity (vph)			899					3183			1824	978
Starvation Cap Reductn			20					0			0	0
Spillback Cap Reductn			52					0			0	0
Storage Cap Reductn			0					0			0	0

Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Permitted Phases					
Detector Phase					
Switch Phase					
Minimum Initial (s)	12.0	6.0	2.0	12.0	6.0
Minimum Split (s)	18.0	11.0	7.0	18.0	11.0
Total Split (s)	35.0	15.0	35.0	35.0	15.0
Total Split (%)	35%	15%	35%	35%	15%
Maximum Green (s)	29.0	10.0	30.0	29.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lag		Lead	Lag	
Lead-Lag Optimize?					
Vehicle Extension (s)	2.0	2.0	4.0	2.0	2.0
Recall Mode	Min	None	None	Min	None
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay (s/veh)					
Queue Delay					
Total Delay (s/veh)					
LOS					
Approach Delay (s/veh)					
Approach LOS					
90th %ile Green (s)	15.2	10.0	6.8	38.4	10.0
90th %ile Term Code	Gap	Max	Gap	Hold	Max
70th %ile Green (s)	12.5	9.1	0.0	47.5	9.1
70th %ile Term Code	Gap	Gap	Skip	Hold	Gap
50th %ile Green (s)	12.0	7.1	0.0	47.0	7.0
50th %ile Term Code	Min	Gap	Skip	Hold	Gap
30th %ile Green (s)	12.0	6.0	0.0	42.1	6.1
30th %ile Term Code	Min	Min	Skip	Hold	Gap
10th %ile Green (s)	12.0	6.0	0.0	34.9	6.0
10th %ile Term Code	Min	Min	Skip	Hold	Min
Stops (vph)					
Fuel Used(gal)					
CO Emissions (g/hr)					
NOx Emissions (g/hr)					
VOC Emissions (g/hr)					
Dilemma Vehicles (#)					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.49					0.31			0.21	0.35

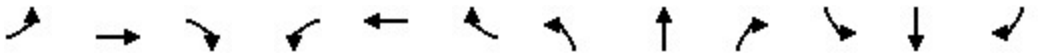
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 75.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 3.3		Intersection LOS: A	
Intersection Capacity Utilization 40.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 86.2			
70th %ile Actuated Cycle: 81.7			
50th %ile Actuated Cycle: 77.1			
30th %ile Actuated Cycle: 70.2			
10th %ile Actuated Cycle: 62.9			

Splits and Phases: 12: NYS Route 30 & NYS Route 5S Ramp



Lane Group	Ø2	Ø4	Ø5	Ø6	Ø8
Reduced v/c Ratio					

Intersection Summary



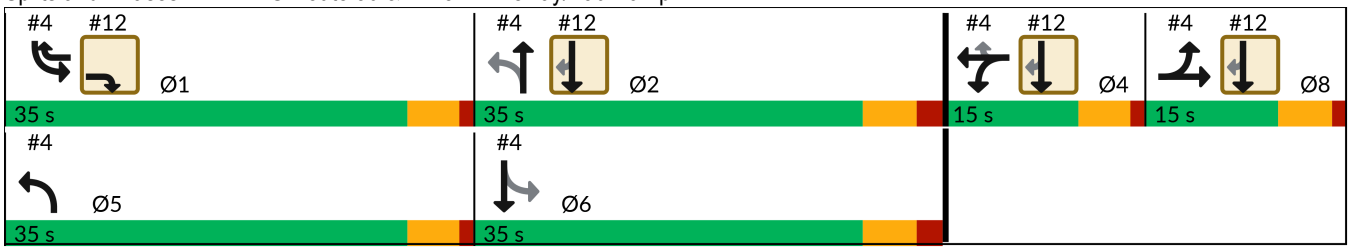
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	24	8	13	2	206	13	164	53	513	83	46
Future Volume (vph)	28	24	8	13	2	206	13	164	53	513	83	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.982				0.850		0.963			0.947	
Flt Protected		0.977			0.958		0.950			0.950		
Satd. Flow (prot)	0	1789	0	0	1700	2274	1805	3304	0	1703	1743	0
Flt Permitted		0.977			0.958		0.664			0.474		
Satd. Flow (perm)	0	1789	0	0	1700	2274	1262	3304	0	850	1743	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		6				234					28	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	0%	0%	8%	0%	25%	0%	4%	9%	6%	5%	0%
Adj. Flow (vph)	32	27	9	15	2	234	15	186	60	583	94	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	17	234	15	246	0	583	146	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

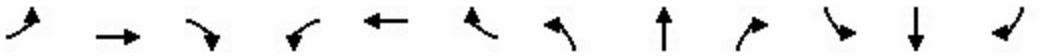
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		8.3			7.4	31.2	22.6	14.7		44.7	41.6	
Actuated g/C Ratio		0.11			0.10	0.41	0.30	0.19		0.59	0.55	
v/c Ratio		0.34			0.10	0.22	0.04	0.38		0.76	0.15	
Control Delay (s/veh)		36.9			36.9	1.6	11.2	30.0		34.0	7.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		3.3	0.0	
Total Delay (s/veh)		36.9			36.9	1.6	11.2	30.0		37.2	7.7	
LOS		D			D	A	B	C		D	A	
Approach Delay (s/veh)		36.9			4.0			28.9			31.3	
Approach LOS		D			A			C			C	
90th %ile Green (s)	10.0	10.0		9.9	9.9	30.0	7.3	19.8		30.0	42.5	
90th %ile Term Code	Max	Max		Gap	Gap	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	10.0	10.0		7.9	7.9	30.0	0.0	16.7		30.0	51.7	
70th %ile Term Code	Max	Max		Gap	Gap	Max	Skip	Gap		Max	Hold	
50th %ile Green (s)	9.0	9.0		6.7	6.7	25.7	0.0	13.3		25.7	44.0	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Gap		Gap	Hold	
30th %ile Green (s)	6.8	6.8		6.5	6.5	20.5	0.0	12.0		20.5	37.5	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	14.7	0.0	12.0		14.7	31.7	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		49			16	16	10	176		618	38	
Fuel Used(gal)		1			0	2	0	6		16	1	
CO Emissions (g/hr)		56			24	142	21	425		1126	82	
NOx Emissions (g/hr)		11			5	28	4	83		219	16	
VOC Emissions (g/hr)		13			6	33	5	99		261	19	
Dilemma Vehicles (#)		0			1	0	0	12		0	7	
Queue Length 50th (ft)		27			8	0	3	54		233	21	
Queue Length 95th (ft)		72			28	11	10	95		350	50	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		247			229	1261	933	1296		847	969	
Starvation Cap Reductn		0			0	0	0	0		171	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.28			0.07	0.19	0.02	0.19		0.86	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 75.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 25.9		Intersection LOS: C	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90.7			
70th %ile Actuated Cycle: 85.6			
50th %ile Actuated Cycle: 75.7			
30th %ile Actuated Cycle: 66.8			
10th %ile Actuated Cycle: 59.7			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp





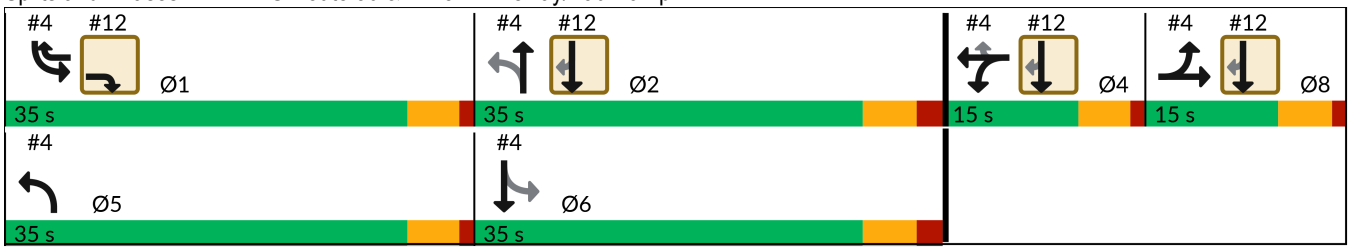
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	14	11	23	6	432	3	134	6	222	149	17
Future Volume (vph)	16	14	11	23	6	432	3	134	6	222	149	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.964				0.850		0.994			0.985	
Flt Protected		0.981			0.962		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1606	2632	1805	3456	0	1612	1855	0
Flt Permitted		0.981			0.962		0.632			0.496		
Satd. Flow (perm)	0	1754	0	0	1606	2632	1201	3456	0	841	1855	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		13				520					6	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	0%	13%	17%	8%	0%	4%	0%	12%	1%	0%
Adj. Flow (vph)	19	17	13	28	7	520	4	161	7	267	180	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	35	520	4	168	0	267	200	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

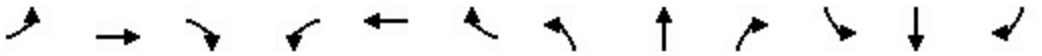
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		7.2			7.2	22.0	20.0	12.3		33.2	30.2	
Actuated g/C Ratio		0.11			0.11	0.35	0.32	0.20		0.53	0.48	
v/c Ratio		0.23			0.19	0.41	0.01	0.25		0.43	0.22	
Control Delay (s/veh)		24.8			30.1	1.8	10.0	24.6		16.7	10.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		24.8			30.1	1.8	10.0	24.6		16.8	10.7	
LOS		C			C	A	A	C		B	B	
Approach Delay (s/veh)		24.8			3.6			24.3			14.2	
Approach LOS		C			A			C			B	
90th %ile Green (s)	10.0	10.0		10.0	10.0	22.7	6.8	12.6		22.7	28.5	
90th %ile Term Code	Max	Max		Max	Max	Gap	Gap	Gap		Gap	Hold	
70th %ile Green (s)	7.6	7.6		7.6	7.6	17.4	0.0	12.0		17.4	34.4	
70th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
50th %ile Green (s)	6.7	6.7		6.7	6.7	14.4	0.0	12.0		14.4	31.4	
50th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
30th %ile Green (s)	6.0	6.0		6.0	6.0	11.9	0.0	12.0		11.9	28.9	
30th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	9.2	0.0	12.0		9.2	26.2	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		29			27	27	3	111		164	73	
Fuel Used(gal)		0			1	4	0	4		4	2	
CO Emissions (g/hr)		29			43	295	6	260		298	144	
NOx Emissions (g/hr)		6			8	57	1	51		58	28	
VOC Emissions (g/hr)		7			10	68	1	60		69	33	
Dilemma Vehicles (#)		0			2	0	0	9		0	11	
Queue Length 50th (ft)		12			12	0	1	27		53	35	
Queue Length 95th (ft)		41			38	9	4	59		131	74	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		294			259	1786	940	1620		827	917	
Starvation Cap Reductn		0			0	0	0	0		44	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.17			0.14	0.29	0.00	0.10		0.34	0.22	

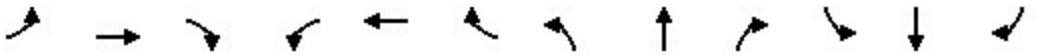
Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 62.8			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay (s/veh): 11.3		Intersection LOS: B	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 76.3			
70th %ile Actuated Cycle: 65.6			
50th %ile Actuated Cycle: 60.8			
30th %ile Actuated Cycle: 56.9			
10th %ile Actuated Cycle: 54.2			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	24	8	13	2	439	13	214	53	545	89	46
Future Volume (vph)	28	24	8	13	2	439	13	214	53	545	89	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.982				0.850		0.970			0.949	
Flt Protected		0.977			0.958		0.950			0.950		
Satd. Flow (prot)	0	1789	0	0	1700	2515	1805	3361	0	1687	1757	0
Flt Permitted		0.977			0.958		0.660			0.447		
Satd. Flow (perm)	0	1789	0	0	1700	2515	1254	3361	0	794	1757	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		6				499					26	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	4%	0%	0%	8%	0%	13%	0%	3%	9%	7%	4%	0%
Adj. Flow (vph)	32	27	9	15	2	499	15	243	60	619	101	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	17	499	15	303	0	619	153	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

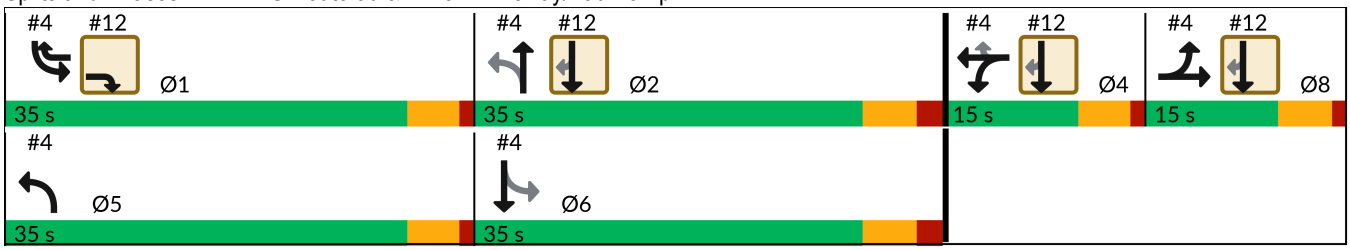


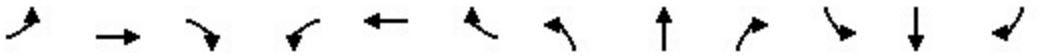
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		8.8			7.8	34.1	23.3	15.4		47.9	44.7	
Actuated g/C Ratio		0.11			0.10	0.43	0.29	0.19		0.60	0.56	
v/c Ratio		0.34			0.10	0.37	0.04	0.47		0.80	0.15	
Control Delay (s/veh)		38.1			37.7	1.6	11.3	32.1		37.6	8.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		9.6	0.0	
Total Delay (s/veh)		38.1			37.7	1.6	11.3	32.1		47.2	8.0	
LOS		D			D	A	B	C		D	A	
Approach Delay (s/veh)		38.1			2.8			31.1			39.4	
Approach LOS		D			A			C			D	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	7.3	20.8		30.0	43.5	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	10.0	10.0		8.9	8.9	30.0	0.0	17.7		30.0	52.7	
70th %ile Term Code	Max	Max		Gap	Gap	Max	Skip	Gap		Max	Hold	
50th %ile Green (s)	10.0	10.0		7.7	7.7	30.0	0.0	15.3		30.0	50.3	
50th %ile Term Code	Max	Max		Gap	Gap	Max	Skip	Gap		Max	Hold	
30th %ile Green (s)	7.9	7.9		6.5	6.5	24.6	0.0	12.0		24.6	41.6	
30th %ile Term Code	Gap	Gap		Gap	Gap	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.3	6.3		6.0	6.0	17.9	0.0	12.0		17.9	34.9	
10th %ile Term Code	Gap	Gap		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		49			15	25	10	222		668	42	
Fuel Used(gal)		1			0	4	0	8		18	1	
CO Emissions (g/hr)		57			24	298	21	539		1239	90	
NOx Emissions (g/hr)		11			5	58	4	105		241	17	
VOC Emissions (g/hr)		13			6	69	5	125		287	21	
Dilemma Vehicles (#)		0			1	0	0	14		0	7	
Queue Length 50th (ft)		30			8	0	3	76		275	26	
Queue Length 95th (ft)		73			28	15	10	115		380	54	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		234			217	1468	921	1246		819	996	
Starvation Cap Reductn		0			0	0	0	0		172	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.29			0.08	0.34	0.02	0.24		0.96	0.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 79.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 26.5		Intersection LOS: C	
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 91.8			
70th %ile Actuated Cycle: 87.6			
50th %ile Actuated Cycle: 84			
30th %ile Actuated Cycle: 72			
10th %ile Actuated Cycle: 63.2			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp





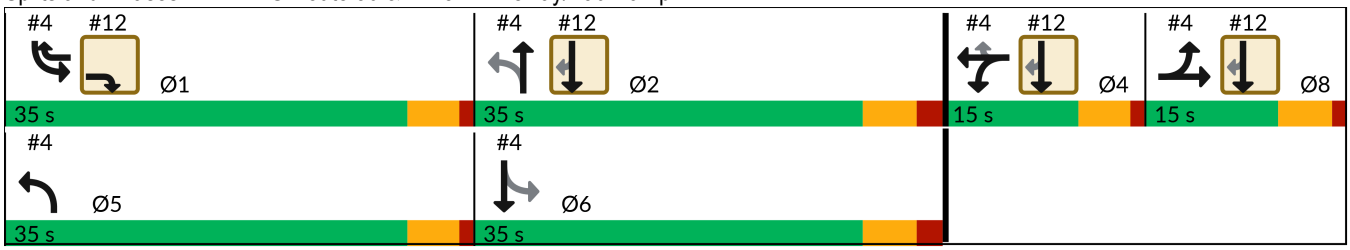
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	14	11	23	6	625	3	175	6	450	197	17
Future Volume (vph)	16	14	11	23	6	625	3	175	6	450	197	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		150	0		0
Storage Lanes	0		0	0		2	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.964				0.850		0.995			0.988	
Flt Protected		0.981			0.962		0.950			0.950		
Satd. Flow (prot)	0	1754	0	0	1606	2656	1805	3491	0	1671	1860	0
Flt Permitted		0.981			0.962		0.600			0.476		
Satd. Flow (perm)	0	1754	0	0	1606	2656	1140	3491	0	837	1860	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		13				753					4	
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		170			406			380			330	
Travel Time (s)		3.9			7.9			4.7			4.1	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	7%	0%	13%	17%	7%	0%	3%	0%	8%	1%	0%
Adj. Flow (vph)	19	17	13	28	7	753	4	211	7	542	237	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	35	753	4	218	0	542	257	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			19			19	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			50			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4	1	5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						4	2			6		
Detector Phase	8	8		4	4	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	2.0	2.0	12.0		2.0	12.0	
Minimum Split (s)	11.0	11.0		11.0	11.0	7.0	7.0	18.0		7.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0	35.0	35.0	35.0		35.0	35.0	
Total Split (%)	15.0%	15.0%		15.0%	15.0%	35.0%	35.0%	35.0%		35.0%	35.0%	
Maximum Green (s)	10.0	10.0		10.0	10.0	30.0	30.0	29.0		30.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	6.0		5.0	6.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	4.0	4.0	2.0		4.0	2.0	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		7.6			7.6	34.0	20.5	12.8		45.3	42.2	
Actuated g/C Ratio		0.10			0.10	0.45	0.27	0.17		0.60	0.56	
v/c Ratio		0.26			0.22	0.47	0.01	0.37		0.68	0.25	
Control Delay (s/veh)		30.4			37.0	1.6	11.7	31.5		22.6	9.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.9	0.5	
Total Delay (s/veh)		30.4			37.0	1.6	11.7	31.5		23.5	10.2	
LOS		C			D	A	B	C		C	B	
Approach Delay (s/veh)		30.4			3.1			31.1			19.2	
Approach LOS		C			A			C			B	
90th %ile Green (s)	10.0	10.0		10.0	10.0	30.0	6.8	15.2		30.0	38.4	
90th %ile Term Code	Max	Max		Max	Max	Max	Gap	Gap		Max	Hold	
70th %ile Green (s)	9.1	9.1		9.1	9.1	30.0	0.0	12.5		30.0	47.5	
70th %ile Term Code	Gap	Gap		Gap	Gap	Max	Skip	Gap		Max	Hold	
50th %ile Green (s)	7.0	7.0		7.1	7.1	30.0	0.0	12.0		30.0	47.0	
50th %ile Term Code	Gap	Gap		Gap	Gap	Max	Skip	Min		Max	Hold	
30th %ile Green (s)	6.1	6.1		6.0	6.0	25.1	0.0	12.0		25.1	42.1	
30th %ile Term Code	Gap	Gap		Min	Min	Gap	Skip	Min		Gap	Hold	
10th %ile Green (s)	6.0	6.0		6.0	6.0	17.9	0.0	12.0		17.9	34.9	
10th %ile Term Code	Min	Min		Min	Min	Gap	Skip	Min		Gap	Hold	
Stops (vph)		30			27	28	5	152		394	91	
Fuel Used(gal)		0			1	6	0	5		10	3	
CO Emissions (g/hr)		33			45	420	8	366		722	179	
NOx Emissions (g/hr)		6			9	82	2	71		141	35	
VOC Emissions (g/hr)		8			11	97	2	85		167	41	
Dilemma Vehicles (#)		0			2	0	0	10		0	11	
Queue Length 50th (ft)		16			16	0	1	50		181	49	
Queue Length 95th (ft)		46			42	9	4	81		273	107	
Internal Link Dist (ft)		90			326			300			250	
Turn Bay Length (ft)							150					
Base Capacity (vph)		246			215	1707	907	1355		836	1040	
Starvation Cap Reductn		0			0	0	0	0		106	432	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.20			0.16	0.44	0.00	0.16		0.74	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 75.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 14.1		Intersection LOS: B	
Intersection Capacity Utilization 57.2%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 86.2			
70th %ile Actuated Cycle: 81.7			
50th %ile Actuated Cycle: 77.1			
30th %ile Actuated Cycle: 70.2			
10th %ile Actuated Cycle: 62.9			

Splits and Phases: 4: NYS Route 30 & Exxon Driveway/I-90 Ramp



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	138	110	30	15	5
Future Vol, veh/h	10	138	110	30	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	10	11	17	30	53	40
Mvmt Flow	12	164	131	36	18	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	167	0	-	0	319	131
Stage 1	-	-	-	-	131	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	4.2	-	-	-	6.93	6.6
Critical Hdwy Stg 1	-	-	-	-	5.93	-
Critical Hdwy Stg 2	-	-	-	-	5.93	-
Follow-up Hdwy	2.29	-	-	-	3.977	3.66
Pot Cap-1 Maneuver	1364	-	-	-	581	826
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1364	-	-	-	576	826
Mov Cap-2 Maneuver	-	-	-	-	576	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.52	0	10.93
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1364	-	-	-	576	826
HCM Lane V/C Ratio	0.009	-	-	-	0.031	0.007
HCM Ctrl Dly (s/v)	7.7	-	-	-	11.4	9.4
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	104	150	19	28	10
Future Vol, veh/h	3	104	150	19	28	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	275	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	75	8	5	79	46	40
Mvmt Flow	4	144	208	26	39	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	235	0	-	0	361	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.85	-	-	-	6.86	6.6
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.875	-	-	-	3.914	3.66
Pot Cap-1 Maneuver	1001	-	-	-	559	745
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1001	-	-	-	557	745
Mov Cap-2 Maneuver	-	-	-	-	557	-
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	778	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.24	0	11.42
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1001	-	-	-	557	745
HCM Lane V/C Ratio	0.004	-	-	-	0.07	0.019
HCM Ctrl Dly (s/v)	8.6	-	-	-	12	9.9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	172	99	424	117	30	14	0	10	15	0	5
Future Vol, veh/h	10	172	99	424	117	30	14	0	10	15	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	275	-	-	400	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	10	12	0	0	22	30	0	0	0	53	0	40
Mvmt Flow	12	205	118	505	139	36	17	0	12	18	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	175	0	0	323	0	0	1436	1472	264	1377	1495	139
Stage 1	-	-	-	-	-	-	288	288	-	1149	1149	-
Stage 2	-	-	-	-	-	-	1149	1185	-	229	346	-
Critical Hdwy	4.2	-	-	4.1	-	-	7.1	6.5	6.2	7.63	6.5	6.6
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.63	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.63	5.5	-
Follow-up Hdwy	2.29	-	-	2.2	-	-	3.5	4	3.3	3.977	4	3.66
Pot Cap-1 Maneuver	1354	-	-	1249	-	-	112	128	780	95	124	817
Stage 1	-	-	-	-	-	-	724	678	-	193	275	-
Stage 2	-	-	-	-	-	-	244	265	-	672	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1354	-	-	1249	-	-	66	76	780	55	73	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	76	-	55	73	-
Stage 1	-	-	-	-	-	-	718	672	-	115	164	-
Stage 2	-	-	-	-	-	-	144	158	-	656	633	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.27	7.3	49.12	76.23
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	66	780	1354	-	-	1249	-	-	55	817
HCM Lane V/C Ratio	0.253	0.015	0.009	-	-	0.404	-	-	0.323	0.007
HCM Ctrl Dly (s/v)	77.3	9.7	7.7	-	-	9.8	-	-	98.5	9.4
HCM Lane LOS	F	A	A	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	0.9	0	0	-	-	2	-	-	1.1	0

Intersection	
Int Delay, s/veh	109.9

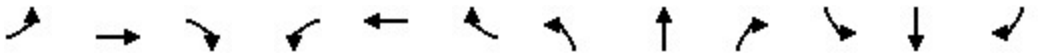
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	137	81	347	158	19	122	0	80	28	0	10
Future Vol, veh/h	3	137	81	347	158	19	122	0	80	28	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	275	-	-	400	-	0	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	75	13	0	0	9	79	0	0	0	46	0	40
Mvmt Flow	4	190	113	482	219	26	169	0	111	39	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	303	0	0	1438	1465	247	1382	1494	219
Stage 1	-	-	-	-	-	-	255	255	-	1183	1183	-
Stage 2	-	-	-	-	-	-	1183	1210	-	199	311	-
Critical Hdwy	4.85	-	-	4.1	-	-	7.1	6.5	6.2	7.56	6.5	6.6
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.56	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.56	5.5	-
Follow-up Hdwy	2.875	-	-	2.2	-	-	3.5	4	3.3	3.914	4	3.66
Pot Cap-1 Maneuver	990	-	-	1270	-	-	~ 112	129	797	98	124	734
Stage 1	-	-	-	-	-	-	754	700	-	189	265	-
Stage 2	-	-	-	-	-	-	233	258	-	712	662	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	990	-	-	1270	-	-	~ 68	80	797	52	77	734
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 68	80	-	52	77	-
Stage 1	-	-	-	-	-	-	751	697	-	117	165	-
Stage 2	-	-	-	-	-	-	~ 142	160	-	610	659	-

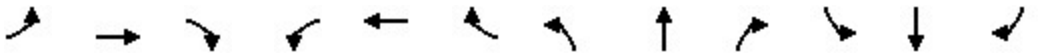
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.12	6.33	$ 493.58	135.99
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	68	797	990	-	-	1270	-	-	52	734
HCM Lane V/C Ratio	2.496	0.139	0.004	-	-	0.38	-	-	0.749	0.019
HCM Ctrl Dly (s/v)	$ 810.5	10.2	8.7	-	-	9.6	-	-	181	10
HCM Lane LOS	F	B	A	-	-	A	-	-	F	A
HCM 95th %tile Q(veh)	16.5	0.5	0	-	-	1.8	-	-	3.1	0.1

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	172	99	424	117	30	14	0	10	15	0	5
Future Volume (vph)	10	172	99	424	117	30	14	0	10	15	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	400		0	0		200	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945				0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1641	1668	0	1805	1557	1242	1805	1615	0	1180	1154	0
Flt Permitted	0.668			0.433								
Satd. Flow (perm)	1154	1668	0	823	1557	1242	1900	1615	0	1242	1154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				119		790			838	
Link Speed (mph)		45			45			25			30	
Link Distance (ft)		326			665			187			358	
Travel Time (s)		4.9			10.1			5.1			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	10%	12%	0%	0%	22%	30%	0%	0%	0%	53%	0%	40%
Adj. Flow (vph)	12	205	118	505	139	36	17	0	12	18	0	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	323	0	505	139	36	17	12	0	18	6	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	

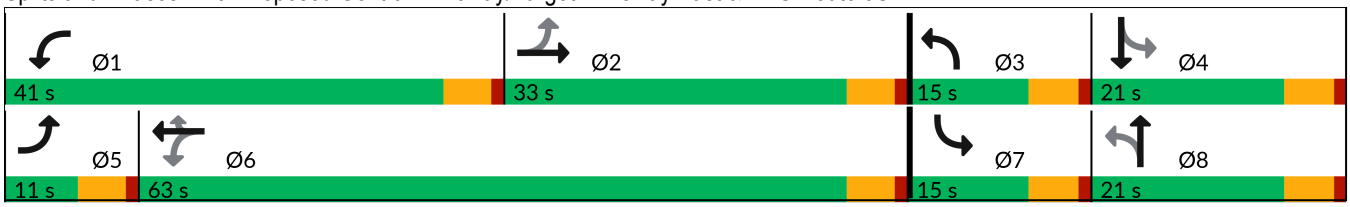


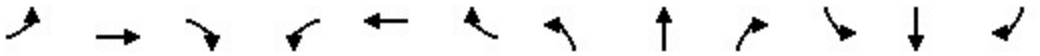
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	15.0		6.0	15.0	15.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	20.0		11.0	20.0	20.0	11.0	11.0		11.0	11.0	
Total Split (s)	11.0	33.0		41.0	63.0	63.0	15.0	21.0		15.0	21.0	
Total Split (%)	10.0%	30.0%		37.3%	57.3%	57.3%	13.6%	19.1%		13.6%	19.1%	
Maximum Green (s)	6.0	28.0		36.0	58.0	58.0	10.0	16.0		10.0	16.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min		None	Min	Min	None	None		None	None	
Act Effct Green (s)	27.3	20.2		37.5	41.9	41.9	8.0	7.2		8.6	7.3	
Actuated g/C Ratio	0.59	0.44		0.82	0.91	0.91	0.17	0.16		0.19	0.16	
v/c Ratio	0.02	0.43		0.55	0.10	0.03	0.05	0.01		0.08	0.01	
Control Delay (s/veh)	5.8	14.7		5.0	4.0	0.1	22.1	0.0		22.3	0.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	5.8	14.7		5.0	4.0	0.1	22.1	0.0		22.3	0.0	
LOS	A	B		A	A	A	C	A		C	A	
Approach Delay (s/veh)		14.4			4.5			12.9			16.8	
Approach LOS		B			A			B			B	
90th %ile Green (s)	6.0	28.0		28.7	50.7	50.7	7.4	6.0		8.9	7.5	
90th %ile Term Code	Max	Max		Gap	Hold	Hold	Gap	Min		Gap	Hold	
70th %ile Green (s)	0.0	19.8		15.8	40.6	40.6	0.0	0.0		0.0	0.0	
70th %ile Term Code	Skip	Gap		Gap	Hold	Hold	Skip	Skip		Skip	Skip	
50th %ile Green (s)	0.0	15.0		6.0	26.0	26.0	0.0	0.0		0.0	0.0	
50th %ile Term Code	Skip	Min		Min	Hold	Hold	Skip	Skip		Skip	Skip	
30th %ile Green (s)	0.0	15.0		6.0	26.0	26.0	0.0	0.0		0.0	0.0	
30th %ile Term Code	Skip	Min		Min	Hold	Hold	Skip	Skip		Skip	Skip	
10th %ile Green (s)	0.0	15.0		6.0	26.0	26.0	0.0	0.0		0.0	0.0	
10th %ile Term Code	Skip	Min		Min	Hold	Hold	Skip	Skip		Skip	Skip	
Stops (vph)	6	159		83	19	0	13	0		14	0	
Fuel Used(gal)	0	4		8	2	0	0	0		0	0	
CO Emissions (g/hr)	10	294		525	140	30	12	3		16	2	
NOx Emissions (g/hr)	2	57		102	27	6	2	1		3	0	
VOC Emissions (g/hr)	2	68		122	32	7	3	1		4	0	
Dilemma Vehicles (#)	0	26		0	2	0	0	0		0	0	
Queue Length 50th (ft)	0	25		0	0	0	2	0		2	0	
Queue Length 95th (ft)	7	215		157	62	0	23	0		25	0	
Internal Link Dist (ft)		246			585			107			278	
Turn Bay Length (ft)	275			400								
Base Capacity (vph)	761	1217		1573	1443	1160	492	1132		326	969	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.02	0.27		0.32	0.10	0.03	0.03	0.01		0.06	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 46			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay (s/veh): 8.1		Intersection LOS: A	
Intersection Capacity Utilization 58.6%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 91.6			
70th %ile Actuated Cycle: 45.6			
50th %ile Actuated Cycle: 31			
30th %ile Actuated Cycle: 31			
10th %ile Actuated Cycle: 31			

Splits and Phases: 8: Proposed Central Driveway/Target Driveway East & NYS Route 5S





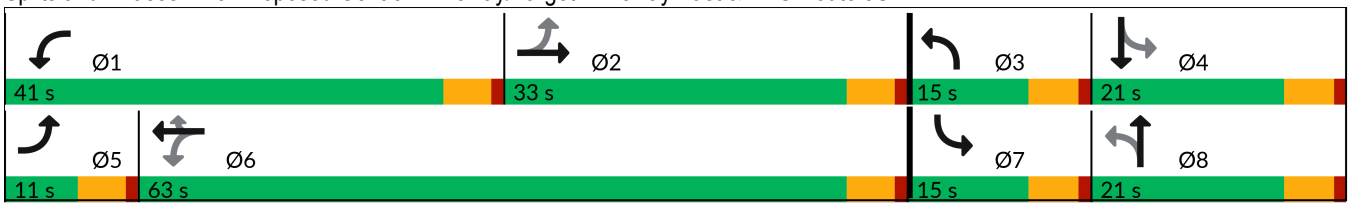
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	137	81	347	158	19	122	0	80	28	0	10
Future Volume (vph)	3	137	81	347	158	19	122	0	80	28	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	275		0	400		0	0		200	0		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	75			75			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944				0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1031	1658	0	1805	1743	902	1805	1615	0	1236	1154	0
Flt Permitted	0.621			0.375			0.678					
Satd. Flow (perm)	674	1658	0	712	1743	902	1288	1615	0	1301	1154	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				119		788			639	
Link Speed (mph)		45			45			25			30	
Link Distance (ft)		326			665			187			358	
Travel Time (s)		4.9			10.1			5.1			8.1	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	75%	13%	0%	0%	9%	79%	0%	0%	0%	46%	0%	40%
Adj. Flow (vph)	4	190	113	482	219	26	169	0	111	39	0	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	303	0	482	219	26	169	111	0	39	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2			6		6	8			4		
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	15.0		6.0	15.0	15.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	20.0		11.0	20.0	20.0	11.0	11.0		11.0	11.0	
Total Split (s)	11.0	33.0		41.0	63.0	63.0	15.0	21.0		15.0	21.0	
Total Split (%)	10.0%	30.0%		37.3%	57.3%	57.3%	13.6%	19.1%		13.6%	19.1%	
Maximum Green (s)	6.0	28.0		36.0	58.0	58.0	10.0	16.0		10.0	16.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	25.6	19.2		40.2	38.6	38.6	13.9	7.4		8.9	6.4	
Actuated g/C Ratio	0.39	0.29		0.61	0.59	0.59	0.21	0.11		0.14	0.10	
v/c Ratio	0.01	0.60		0.69	0.21	0.04	0.45	0.13		0.23	0.02	
Control Delay (s/veh)	8.7	26.0		12.9	8.6	0.2	28.2	0.3		31.3	0.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	8.7	26.0		12.9	8.6	0.2	28.2	0.3		31.3	0.1	
LOS	A	C		B	A	A	C	A		C	A	
Approach Delay (s/veh)		25.8			11.2			17.1			23.1	
Approach LOS		C			B			B			C	
90th %ile Green (s)	6.0	28.0		25.7	47.7	47.7	10.0	6.0		10.0	6.0	
90th %ile Term Code	Max	Max		Gap	Hold	Hold	Max	Min		Max	Min	
70th %ile Green (s)	0.0	20.8		18.5	44.3	44.3	20.3	6.0		9.3	0.0	
70th %ile Term Code	Skip	Gap		Gap	Hold	Hold	Hold	Min		Gap	Skip	
50th %ile Green (s)	0.0	16.9		15.8	37.7	37.7	18.8	6.0		7.8	0.0	
50th %ile Term Code	Skip	Gap		Gap	Hold	Hold	Hold	Min		Gap	Skip	
30th %ile Green (s)	0.0	15.0		11.3	31.3	31.3	8.7	8.7		0.0	0.0	
30th %ile Term Code	Skip	Min		Gap	Hold	Hold	Gap	Hold		Skip	Skip	
10th %ile Green (s)	0.0	15.0		9.2	29.2	29.2	7.1	7.1		0.0	0.0	
10th %ile Term Code	Skip	Min		Gap	Hold	Hold	Gap	Hold		Skip	Skip	
Stops (vph)	2	159		162	68	0	97	0		25	0	
Fuel Used(gal)	0	4		8	3	0	2	0		0	0	
CO Emissions (g/hr)	3	298		551	236	19	112	25		33	4	
NOx Emissions (g/hr)	1	58		107	46	4	22	5		6	1	
VOC Emissions (g/hr)	1	69		128	55	4	26	6		8	1	
Dilemma Vehicles (#)	0	14		0	9	0	0	0		0	0	
Queue Length 50th (ft)	1	101		104	40	0	54	0		15	0	
Queue Length 95th (ft)	3	156		124	80	0	109	0		35	0	
Internal Link Dist (ft)		246			585			107			278	
Turn Bay Length (ft)	275			400								
Base Capacity (vph)	298	767		1110	1498	791	408	1002		217	772	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.01	0.40		0.43	0.15	0.03	0.41	0.11		0.18	0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 65.4			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay (s/veh): 16.1		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 89.7			
70th %ile Actuated Cycle: 74.6			
50th %ile Actuated Cycle: 66.5			
30th %ile Actuated Cycle: 50			
10th %ile Actuated Cycle: 46.3			

Splits and Phases: 8: Proposed Central Driveway/Target Driveway East & NYS Route 5S



Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	2	7	124	1	6
Future Vol, veh/h	275	2	7	124	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	100	100	15	100	100
Mvmt Flow	299	2	8	135	1	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	301	0	450	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	150	-
Critical Hdwy	-	-	5.1	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	3.1	-	4.4	4.2
Pot Cap-1 Maneuver	-	-	861	-	422	558
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	686	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	861	-	418	558
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.49	11.86
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	532	-	-	861	-
HCM Lane V/C Ratio	0.014	-	-	0.009	-
HCM Ctrl Dly (s/v)	11.9	-	-	9.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	211	2	8	272	3	10
Future Vol, veh/h	211	2	8	272	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	100	100	3	100	100
Mvmt Flow	229	2	9	296	3	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	543	230
Stage 1	-	-	-	-	230	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	-	-	5.1	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	-	-	3.1	-	4.4	4.2
Pot Cap-1 Maneuver	-	-	923	-	366	617
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	564	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	923	-	363	617
Mov Cap-2 Maneuver	-	-	-	-	363	-
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.26	11.97
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	923	-
HCM Lane V/C Ratio	0.027	-	-	0.009	-
HCM Ctrl Dly (s/v)	12	-	-	8.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	167	28	0	568	0	39
Future Vol, veh/h	167	28	0	568	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	18	0	0	6	0	0
Mvmt Flow	182	30	0	617	0	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	182
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	866
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	866
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.37
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	866	-	-
HCM Lane V/C Ratio	0.049	-	-
HCM Ctrl Dly (s/v)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	223	23	0	539	0	329
Future Vol, veh/h	223	23	0	539	0	329
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	13	0	0	6	0	0
Mvmt Flow	242	25	0	586	0	358

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	242
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	801
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	801
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	13.06
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	801	-	-
HCM Lane V/C Ratio	0.446	-	-
HCM Ctrl Dly (s/v)	13.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	2.3	-	-

APPENDIX G
TRAFFIC SIGNAL WARRANT REPORT

Warrants Analysis

File Name:	2 - Peak Hour Volume Warrant - NYSRt5S & TargetDr.xsw
Analyst:	PS
Agency:	Langan
Date Performed:	4/7/2025
Time Analyzed:	Weekday
Jurisdiction:	NYS Route 5S & Target Driveway East / Central Driveway
Analysis Year:	2027
Project Description:	Build Condition
Units:	U.S. Customary
MUTCD Method:	MUTCD 11 (2023)

General

Major Street Direction: East-West	Starting Time Interval: 6:00
Major Street Speed (mi/h): 55	Nearest Signal (ft): 9500
Coordinated Signal System: No	Population <10,000: Yes

School Crossing and Roadway Network

Number of Students in Highest Hour: 0	Two or More Major Routes: No
Number of Adequate Gaps in Period: 0	Weekend Count: No
Number of Minutes in Period: 0	5-year Growth Factor (%): 0

Railroad Crossing

Grade Crossing Approach: None	Rail Traffic (trains/day): 4
Highest Volume Hour with Trains: Unknown	High Occupancy Buses (%): 0
Distance to Stop Line (ft): -	Tractor-Trailer Trucks (%): 10

Crash Experience

Adequate Trials of Crash Experience Alternatives: No

One-Year Period	Three-Year Period
Angle Crashes (All Severities): 0	Angle Crashes (All Severities): 0
Angle Crashes (Fatal-and-Injury): 0	Angle Crashes (Fatal-and-Injury): 0
Pedestrian Crashes (All Severities): 0	Pedestrian Crashes (All Severities): 0
Pedestrian Crashes (Fatal-and-Injury): 0	Pedestrian Crashes (Fatal-and-Injury): 0

Geometry and Traffic

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Lane Usage	L	TR		L	T	R	L	TR		L	TR	

Traffic Volumes (veh/h)

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Hour												
6:30-7:30	10	172	99	424	117	30	14	0	10	15	0	5
7:30-8:30	20	183	19	83	139	45	7	0	4	17	0	6
8:30-9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:30-10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:30-11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:30-12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:30-1:30	0	0	0	0	0	0	0	0	0	0	0	0
1:30-2:30	0	0	0	0	0	0	0	0	0	0	0	0
2:30-3:30	0	0	0	0	0	0	0	0	0	0	0	0
3:30-4:30	4	372	7	31	366	17	17	0	11	44	0	16
4:30-5:30	0	0	0	0	0	0	0	0	0	0	0	0
5:30-6:30	3	137	81	347	158	19	122	0	80	28	0	10

Pedestrian Volumes and Gaps (Per Hour)

15th Percentile Pedestrian Speed < 3.5 ft/s: No

	Eastbound		Westbound		Northbound		Southbound	
Med Refuge	No		No		No		No	
	Gaps	Volume	Gaps	Volume	Gaps	Volume	Gaps	Volume
Hour								
6:30-7:30	0	0	0	0	0	0	0	0
7:30-8:30	0	0	0	0	0	0	0	0

8:30-9:30	0	0	0	0	0	0	0	0
9:30-10:30	0	0	0	0	0	0	0	0
10:30-11:30	0	0	0	0	0	0	0	0
11:30-12:30	0	0	0	0	0	0	0	0
12:30-1:30	0	0	0	0	0	0	0	0
1:30-2:30	0	0	0	0	0	0	0	0
2:30-3:30	0	0	0	0	0	0	0	0
3:30-4:30	0	0	0	0	0	0	0	0
4:30-5:30	0	0	0	0	0	0	0	0
5:30-6:30	0	0	0	0	0	0	0	0

Delay

	Eastbound		Westbound		Northbound		Southbound	
Hour	secs/veh	veh-hrs	secs/veh	veh-hrs	secs/veh	veh-hrs	secs/veh	veh-hrs
6:30-7:30	7.7	0.6	9.8	1.6	77.3	0.5	98.5	0.5
7:30-8:30	8.0	0.5	7.8	0.6	14.7	0.0	17.8	0.1
8:30-9:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:30-10:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:30-11:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:30-12:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:30-1:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:30-2:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:30-3:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:30-4:30	9.6	1.0	8.4	1.0	24.4	0.2	31.4	0.5
4:30-5:30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:30-6:30	8.7	0.5	9.6	1.4	810.5	45.5	181.0	1.9

Summary

Hour	Major Volume	Minor Volume	Total Volume	1A 70%	1A 56%	1B 70%	1B 56%	2 70%	3A 70%	3B 56%	4A 70%	4B 70%
6:30-7:30	852	24	896	No	No	No	No	No	No	No	No	No
7:30-8:30	489	23	523	No	No	No	No	No	No	No	No	No
8:30-9:30	0	0	0	No	No	No	No	No	No	No	No	No
9:30-10:30	0	0	0	No	No	No	No	No	No	No	No	No
10:30-11:30	0	0	0	No	No	No	No	No	No	No	No	No
11:30-12:30	0	0	0	No	No	No	No	No	No	No	No	No
12:30-1:30	0	0	0	No	No	No	No	No	No	No	No	No
1:30-2:30	0	0	0	No	No	No	No	No	No	No	No	No
2:30-3:30	0	0	0	No	No	No	No	No	No	No	No	No
3:30-4:30	797	60	885	No	No	No	Yes	No	No	No	No	No
4:30-5:30	0	0	0	No	No	No	No	No	No	No	No	No
5:30-6:30	745	202	985	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Total	2883	309	3289	1	1	1	2	1	1	0	0	0

Results

Warrant 1: Eight-Hour Vehicular Volume [ ]
- A. Minimum Vehicular Volumes [ ]
- B. Interruption of Continuous Traffic [ ]
- 56% Vehicular --and-- Interruption Volumes [ ]

Warrant 2: Four-Hour Vehicular Volume [ ]
- Four-Hour Vehicular Volumes [ ]

Warrant 3: Peak Hour [X]
- A. Peak-Hour Conditions [X]
- B. Peak-Hour Vehicular Volume Hours Met [ ]

Warrant 4: Pedestrian Volume [ ]
- A. Four Hour Volumes [ ]
- B. One-Hour Volumes [ ]

Warrant 5: School Crossing [ ]
- Gaps Same Period [ ]
- Student Volumes [ ]
- Nearest Traffic Control Signal [X]

Warrant 6: Coordinated Signal System [ ]
- Degree of Platooning [ ]

Warrant 7: Crash Experience [ ]
   A. Adequate Trials of Alternatives [ ]
   B. Reported Crashes [ ]
     B1. Angle Crashes and Pedestrian Crashes within a 1-year Period (All Severities) [ ]
     B2. Angle Crashes and Pedestrian Crashes within a 1-year Period (Fatal-and-Injury) [ ]
     B3. Angle Crashes and Pedestrian Crashes within a 3-year Period (All Severities) [ ]
     B4. Angle Crashes and Pedestrian Crashes within a 3-year Period (Fatal-and-Injury) [ ]
   C. 56% Volumes for Warrants 1A, 1B --or-- 4 [ ]

Warrant 8: Roadway Network [ ]
   A. Weekday Volume [ ]
   B. Weekend Volume [ ]

Warrant 9: Grade Crossing [ ]
   A. Grade Crossing within 140 ft --and-- [ ]
   B. Peak-Hour Vehicular Volumes [ ]

This text report was created in HCS™ Warrants Version 2025 on 4/7/2025 3:08:55 PM

APPENDIX H
CRASH DATA

	Crash Level Details Case Number		Max Injury in Crash	Crash Severity	Reported Access Control	Case Year	Collision Type	Crash Date	Crash Time	Crash Type	Light Conditions	Road Characteristics	Road Surface Conditions	Traffic Control	Traffic Way	Weather Conditions	Commercial Vehicle Crash Indicator	DMV Insert Date
	NYS Route 55 & Ramps & Ps Street																	
1	1	4038 5888	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	REAR END	2024-07-03 T00:00:00	1:18 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND GRADE	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-07-14T19:05:24
2	2	4039 5662	B - INJURY	INJURY	Unknown	2024	HEAD ON	2024-07-11 T00:00:00	1:34 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-08-08T19:08:17
3	3	4037 2254	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	RIGHT ANGLE	2024-06-25 T00:00:00	3:22 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLEAR		0 2024-07-02T19:12:45
4	4	4032 4510	A - SERIOUS INJURY	INJURY	Unknown	2024	REAR END	2024-05-16 T00:00:00	12:00 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLOUDY		0 2024-05-25T19:02:41
5	5	4033 5503	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	RIGHT TURN (WITH OTHER CAR)	2024-05-03 T00:00:00	1:21 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND GRADE	DRY	TRAFFIC SIGNAL	TWO-WAY,DIVIDED,UNPROTECTED MEDIA	CLEAR		1 2024-06-06T19:10:14
6	6	4034 1551	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	LEFT TURN (WITH OTHER CAR)	2024-05-24 T00:00:00	11:53 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLOUDY		0 2024-11-04T19:02:57
7	7	4020 9381	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	REAR END	2024-02-13 T00:00:00	4:44 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-02-23T19:10:04
8	8	4011 3596	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-12-05 T00:00:00	4:26 PM	COLLISION WITH MOTOR VEHICLE	DUSK	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	TWO-WAY,NOT DIVIDED	CLEAR		0 2024-01-19T19:06:24
9	9	3993 3033	B - INJURY	INJURY	Unknown	2023	LEFT TURN (WITH OTHER CAR)	2023-08-01 T00:00:00	6:57 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-08-08T19:09:28
10	10	3980 4136	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	LEFT TURN (AGAINST OTHER CAR)	2023-04-19 T00:00:00	2:02 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT/ GRADE	UNKNOWN	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-05-07T19:00:38
11	11	3965 0955	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	REAR END	2022-11-10 T00:00:00	8:30 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-03-06T19:03:53
12	12	3972 0395		PROPERTY DAMAGE	Unknown	2022	REAR END	2022-01-27 T00:00:00	8:47 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND GRADE	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
13	13	3961 8787	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	LEFT TURN (AGAINST OTHER CAR)	2022-11-09 T00:00:00	2:45 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-03-01T19:04:00
14	14	3918 9420		PROPERTY DAMAGE	Unknown	2021	LEFT TURN (AGAINST OTHER CAR)	2021-12-23 T00:00:00	6:46 PM	COLLISION WITH MOTOR VEHICLE	DUSK	STRAIGHT AND LEVEL	DRY	NOT APPLICABLE	NOT ENTERED	CLOUDY		0 1970-01-01T00:00:00
15	15	3907 7191	C - POSSIBLE INJURY	INJURY	Unknown	2021	REAR END	2021-09-16 T00:00:00	3:10 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
16	16	3907 5895	C - POSSIBLE INJURY	INJURY	Unknown	2021	OTHER	2021-09-18 T00:00:00	7:57 PM	OTHER NON-COLLISION	DARK-ROAD LIGHTED	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
	NYS Route 30 & Ramps																	
17	1	4044 6765	B - INJURY	INJURY	Unknown	2024	RIGHT ANGLE	2024-08-24 T00:00:00	3:30 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-08-27T19:09:42
18	2	4019 7190	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	REAR END	2024-02-08 T00:00:00	5:41 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-02-12T19:10:22
19	3	4019 9609	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-02-09 T00:00:00	9:39 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-07-12T19:03:23
20	4	4009 5936	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-11-27 T00:00:00	9:29 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLEAR		0 2024-04-08T19:04:46
21	5	4000 6642	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-09-21 T00:00:00	6:23 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND HILLCREST	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-10-01T19:03:14
22	6	3998 6989	B - INJURY	INJURY	Unknown	2023	REAR END	2023-09-08 T00:00:00	12:09 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-09-17T19:05:30
23	7	3996 1534	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	HEAD ON	2023-08-23 T00:00:00	1:42 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	TWO-WAY,DIVIDED,UNPROTECTED MEDIA	CLEAR		0 2023-08-27T19:03:12
24	8	3994 1360	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OVERTAKING	2023-08-04 T00:00:00	11:40 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	WET	NONE	NOT ENTERED	CLOUDY		0 2023-08-23T19:09:45
25	9	3981 2762	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-05-01 T00:00:00	7:31 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND LEVEL	DRY	TRAFFIC SIGNAL	TWO-WAY,NOT DIVIDED	CLEAR		0 2023-06-07T19:06:37
26	10	3981 3531	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-04-27 T00:00:00	3:20 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-06-07T19:06:38
27	11	3968 7002	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	RIGHT TURN (WITH OTHER CAR)	2023-01-27 T00:00:00	6:32 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLOUDY		0 2023-01-25T19:09:14
28	12	3960 0592	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	OTHER	2022-11-20 T00:00:00	6:24 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	CURVE AND HILLCREST	DRY	YIELD SIGN	NOT ENTERED	CLEAR		0 2023-03-08T19:00:47
29	13	3947 0792	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	REAR END	2022-07-27 T00:00:00	4:45 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLOUDY		0 2022-10-21T19:03:17
30	14	3928 9808		PROPERTY DAMAGE	Unknown	2022	OTHER	2022-01-09 T00:00:00	7:07 AM	COLLISION WITH GUIDE RAIL	DAYLIGHT	STRAIGHT AND LEVEL	SNOW/ ICE	TRAFFIC SIGNAL	NOT ENTERED	SLEET/ HAIL/ FREEZING RAIN		0 1970-01-01T00:00:00
32	15	3918 1025		PROPERTY DAMAGE	Unknown	2022	LEFT TURN (WITH OTHER CAR)	2022-01-04 T00:00:00	2:26 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT/ GRADE	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
31	16	3917 8042		PROPERTY DAMAGE	Unknown	2021	OTHER	2021-12-24 T00:00:00	3:32 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLOUDY		0 1970-01-01T00:00:00
	NYS Route 30																	
33	1	4044 4792	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OVERTAKING	2024-08-20 T00:00:00	2:20 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-09-09T19:08:47
34	2	4013 7510	B - INJURY	INJURY	Unknown	2023	OTHER	2023-12-24 T00:00:00	2:24 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT/ GRADE	WET	TRAFFIC SIGNAL	NOT ENTERED	RAIN		0 2024-07-24T19:01:02
35	3	3988 0519	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	RIGHT TURN (AGAINST OTHER CAR)	2023-06-15 T00:00:00	9:16 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLOUDY		0 2023-08-06T19:01:23
	NYS Route 55 and Broadway Extended / Mead Road																	
36	1	3915 3136		PROPERTY DAMAGE	Unknown	2021	OTHER	2021-12-10 T00:00:00	10:00 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	CURVE AND HILLCREST	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
37	2	4009 3758	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-23 T00:00:00	2:18 AM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2023-12-03T19:01:21
38	3	3974 6608	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-03-04 T00:00:00	5:47 AM	COLLISION WITH SNOW EMBANKMENT	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	SNOW/ ICE	NONE	NOT ENTERED	SNOW		0 2023-05-26T19:03:14
39	4	3963 8055	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	OTHER	2022-12-16 T00:00:00	6:40 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	SNOW/ ICE	NONE	NOT ENTERED	SNOW		0 2022-12-20T19:14:26
40	5	3957 8118	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	OTHER	2022-11-02 T00:00:00	5:30 AM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AT HILLCREST	DRY	NONE	NOT ENTERED	CLEAR		0 2023-08-14T19:00:37
41	6	3950 9177	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	OTHER	2022-11-15 T00:00:00	4:40 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	DRY	DUSK	NOT ENTERED	CLOUDY		0 2022-11-18T19:10:23
42	7	4025 0403	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-03-21 T00:00:00	8:45 PM	COLL. W/EARTH ELE./ROCK CUT/DITCH	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	SNOW/ ICE	NONE	NOT ENTERED	SNOW		0 2024-03-29T19:08:27
	NYS Route 55 & Destefano Ave / Verbraska Ave & Venner Road																	
43	1	3907 7187		PROPERTY DAMAGE	Unknown	2021	LEFT TURN (WITH OTHER CAR)	2021-09-16 T00:00:00	8:55 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	WET	STOP SIGN	NOT ENTERED	CLOUDY		0 1970-01-01T00:00:00
48	2	3929 8092		PROPERTY DAMAGE	Unknown	2022	OTHER	2022-03-14 T00:00:00	5:50 AM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
44	3	4029 9122	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	LEFT TURN (AGAINST OTHER CAR)	2024-04-23 T00:00:00	3:41 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2024-09-21T19:00:22
46	4	4025 8634	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	REAR END	2024-03-21 T00:00:00	4:22 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2024-04-02T19:09:21
47	5	3998 1630	K - FATAL	FATAL	Unknown	2023	RIGHT ANGLE	2023-09-08 T00:00:00	9:16 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	WET	NONE	TWO-WAY,NOT DIVIDED	RAIN		0 2024-09-09T19:00:38
45	6	4004 7229	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-10-25 T00:00:00	4:12 AM	COLLISION WITH ANIMAL	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 2023-10-30T19:10:55
49	7	4009 9969	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-27 T00:00:00	10:50 AM	COLL. W/EARTH ELE./ROCK CUT/DITCH	DAYLIGHT	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLOUDY		0 2023-12-05T19:08:31
50	8	4009 5856	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-27 T00:00:00	5:04 PM	COLLISION WITH OTHER FIXED OBJECT	DARK-ROAD LIGHTED	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLOUDY		0 2023-12-03T19:02:33
51	9	4002 5413	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	RIGHT ANGLE	2023-10-05 T00:00:00	7:03 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLEAR		0 2023-10-15T19:02:41
52	10	3987 7656	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-06-14 T00:00:00	3:00 PM	COLLISION WITH OTHER	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2023-06-28T19:07:19
53	11	3981 8871	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-05-02 T00:00:00	3:13 AM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	WET	NONE	NOT ENTERED	RAIN		0 2023-05-12T19:05:59
	NYS Route 55 & Daniel Street																	
54	1	4043 7942	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-08-17 T00:00:00	10:06 PM	COLLISION WITH GUIDE RAIL	DARK-ROAD LIGHTED	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 2024-09-09T19:08:24
55	2	3913 9587		PROPERTY DAMAGE	Unknown	2021	OTHER	2021-10-01 T00:00:00	6:58 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
56	3	4034 8508	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-05-29 T00:00:00	3:33 PM	COLLISION WITH OTHER	DAYLIGHT	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 2024-11-05T19:05:25
57	4	4025 7901	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-03-23 T00:00:00	3:00 PM	COLL. W/EARTH ELE./ROCK CUT/DITCH	DAYLIGHT	STRAIGHT/ GRADE	SNOW/ ICE	NO PASSING ZONE	NOT ENTERED	SNOW		0 2024-08-08T19:02:41
58	5	4011 2454	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-12-05 T00:00:00	9:51 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLOUDY		0 2024-01-19T19:06:19
59	6	3986 3429	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-05-25 T00:00:00	6:45 AM	COLLISION WITH MOTOR VEHICLE	DAWN	CURVE AND GRADE	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2023-08-10T19:04:08
60	7	3969 4555	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OVERTAKING	2023-01-25 T00:00:00	4:14 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	WET	NONE	NOT ENTERED	SNOW		0 2023-04-28T19:02:54
61	8	3929 8473	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	OTHER	2022-03-08 T00:00:00	8:53 AM	COLLISION WITH BRIDGE STRUCTURE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	UNKNOWN	NOT ENTERED	CLEAR		0 2024-11-14T19:00:23
62	9	3930 8784		PROPERTY DAMAGE	Unknown	2022	OTHER	2022-03-30 T00:00:00	6:11 AM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT/ GRADE	DRY	UNKNOWN	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
	Unnamed Street & NYS Route 55																	
63	1	4034 5498	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	RIGHT ANGLE	2024-05-31 T00:00:00	9:33 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLEAR		0 2024-06-12T19:08:22
64	2	4009 5939	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-19 T00:00:00	5:42 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	WET	NONE	NOT ENTERED	RAIN		0 2024-01-13T19:04:40
65	3	4007 2339	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-09 T00:00:00	4:38 PM	COLLISION WITH DEER	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2023-12-28T19:08:37
66	4	3981 5710	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OVERTAKING	2023-05-03 T00:00:00	9:10 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLOUDY		0 2023-05-08T19:07:57
67	5	3969 2400	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	RIGHT ANGLE	2023-01-25 T00:00:00	3:49 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	SNOW/ ICE	STOP SIGN	NOT ENTERED	SNOW		0 2023-02-02T19:09:40
68	6	3915 3141		PROPERTY DAMAGE	Unknown	2021	REAR END	2021-12-06 T00:00:00	5:59 PM	COLLISION WITH MOTOR VEHICLE	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	WET	NONE	NOT ENTERED	RAIN		0 1970-01-01T00:00:00
69	7	3922 4944		PROPERTY DAMAGE	Unknown	2022	RIGHT ANGLE	2022-02-05 T00:00:00	3:02 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 1970-01-01T00:00:00
70	8	3922 6595		PROPERTY DAMAGE	Unknown	2022	OTHER	2022-02-04 T00:00:00	5:08 PM	COLLISION WITH SNOW EMBANKMENT	DUSK	STRAIGHT AND LEVEL	SLUSH	NONE	NOT ENTERED	SNOW		0 1970-01-01T00:00:00
	Minisville Street																	
71	1	4022 6314	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	REAR END	2024-03-03 T00:00:00	8:43 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	STOP SIGN	NOT ENTERED	CLEAR		0 2024-07-23T19:03:00
72	2	3965 0440	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2022	LEFT TURN (AGAINST OTHER CAR)	2022-10-04 T00:00:00	4:34 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	WET	TRAFFIC SIGNAL	NOT ENTERED	RAIN		0 2023-03-06T19:03:32
	I-90 & Ramps (NYS Route 307)																	
73	1	3997 6058	A - SERIOUS INJURY	INJURY	Unknown	2023	OTHER	2023-09-02 T00:00:00	7:23 PM	COLL. W/EARTH ELE./ROCK CUT/DITCH	DUSK	CURVE AND GRADE	DRY	NONE	TWO-WAY,DIVIDED,UNPROTECTED MEDIA	CLOUDY		0 2024-01-12T19:01:32
74	2	4005 5469	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-10-31 T00:00:00	3:26 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	TWO-WAY,DIVIDED,POSITIVE MEDIA BARR	CLOUDY		0 2023-11-08T19:09:48
75	3	4009 0820	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-11-21 T00:00:00	7:16 PM	COLLISION WITH GUIDE RAIL	DARK-ROAD UNLIGHTED	STRAIGHT AND LEVEL	SNOW/ ICE	NONE	NOT ENTERED	SLEET/ HAIL/ FREEZING RAIN		0 2023-11-30T19:07:29
76	4	4010 9123	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-12-07 T00:00:00	8:02 AM	COLLISION WITH GUIDE RAIL	DAYLIGHT	CURVE AND GRADE	DRY	NONE	NOT ENTERED	CLOUDY		0 2023-12-10T19:04:04
77	5	4011 8894	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-12-10 T00:00:00	3:00 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	STRAIGHT AND LEVEL	WET	TRAFFIC SIGNAL	NOT ENTERED	RAIN		0 2024-04-28T19:01:44
78	6	4011 9336	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OVERTAKING	2023-12-14 T00:00:00	11:21 AM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 2023-12-18T12:13:36
79	7	4015 3753	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-12-20 T00:00:00	1:10 PM	COLLISION WITH SIGN POST	DAYLIGHT	STRAIGHT/ GRADE	DRY	NONE	NOT ENTERED	CLEAR		0 2024-01-14T19:04:53
90	8	3990 6199	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	REAR END	2023-06-26 T00:00:00	5:15 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND LEVEL	WET	TRAFFIC SIGNAL	NOT ENTERED	RAIN		0 2023-09-17T19:01:00
91	9	3993 9387	B - INJURY	INJURY	Unknown	2023	OTHER	2023-08-07 T00:00:00	8:48 AM	COLLISION WITH GUIDE RAIL	DAYLIGHT	CURVE AND GRADE	WET	NONE	TWO-WAY,DIVIDED,POSITIVE MEDIA BARR	RAIN		1 2023-08-13T19:00:42
99	10	3975 6763	B - INJURY	INJURY	Unknown	2023	OTHER	2023-03-14 T00:00:00	3:23 PM	COLLISION WITH GUIDERAIL - END	DAYLIGHT	CURVE AND GRADE	WET	NONE	TWO-WAY,DIVIDED,UNPROTECTED MEDIA	SNOW		1 2023-03-22T19:09:48
100	11	3983 1935	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2023	OTHER	2023-05-13 T00:00:00	1:12 PM	COLLISION WITH SIGN POST	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2023-05-20T19:01:07
80	12	4017 6031	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-01-14 T00:00:00	12:00 AM	COLLISION WITH GUIDE RAIL	DARK-ROAD UNLIGHTED	CURVE AND GRADE	SNOW/ ICE	NONE	NOT ENTERED	SNOW		0 2024-05-30T19:05:47
81	13	4021 3188	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-02-22 T00:00:00	6:22 AM	COLL. W/EARTH ELE./ROCK CUT/DITCH	DUSK	CURVE AND LEVEL	DRY	NONE	NOT ENTERED	CLEAR		0 2024-02-29T19:12:59
82	14	4021 3214	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-02-17 T00:00:00	7:45 AM	COLLISION WITH GUIDE RAIL	DAYLIGHT	STRAIGHT/ GRADE	WET	NONE	TWO-WAY,DIVIDED,POSITIVE MEDIA BARR	SNOW		1 2024-03-01T19:10:25
83	15	4027 0069	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-03-30 T00:00:00	5:38 PM	COLLISION WITH GUIDERAIL - END	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	NOT ENTERED	CLOUDY		0 2024-04-13T19:00:54
84	16	4027 4460	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-03-23 T00:00:00	3:59 PM	COLLISION WITH GUIDE RAIL	DAYLIGHT	CURVE AND GRADE	SLUSH	NONE	NOT ENTERED	SNOW		0 2024-08-19T19:05:47
85	17	4035 8541	B - INJURY	INJURY	Unknown	2024	REAR END	2024-06-04 T00:00:00	3:39 PM	COLLISION WITH MOTOR VEHICLE	DAYLIGHT	CURVE AND LEVEL	DRY	TRAFFIC SIGNAL	NOT ENTERED	CLEAR		0 2024-11-12T19:05:11
86	18	4036 1918	U - UNKNOWN	PROPERTY DAMAGE	Unknown	2024	OTHER	2024-06-17 T00:00:00	7:11 AM	COLLISION WITH GUIDERAIL - END	DAYLIGHT	STRAIGHT AND LEVEL	DRY	NONE	TWO-WAY,DIVIDED,POSITIVE MEDI

# of Fatalities	# of Injuries	# of Other Injuries	# of Serious Injuries	# of Vehicles	Police Department	Non Reportable	Reporting Agency	Non-Public Way	X Coordinate	Y Coordinate	Intersection Indicator	Closest Cross Street	County	Direction From	Distance From (Meters)	Intersection ID	Municipality	On Street	Reference Marker	Access Control	Divided	Functional Class	Maintenance Jurisdiction	Owning Jurisdiction	Road Name	Posted Speed
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565441.1679	4753157.67	INTERSECTION-RELATED	RAMP	Montgomery	WEST	48.8836994	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	1	1	0	2	2801	0	AMSTERDAM PD	0	565515.09	4753132	AT-INTERSECTION	RAMP	Montgomery	EAST	0	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565455.4446	4753153.33	AT-INTERSECTION	STATE ROUTE 5S	Montgomery	NORTH	0	10008221	Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	NYS 0 NB TO NY5 S	
0	1	0	1	2	2801	0	AMSTERDAM PD	0	565394.9547	4753173.87	INTERSECTION-RELATED	RAMP	Montgomery	EAST	124.8402974	10008219	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565441.1679	4753157.67	INTERSECTION-RELATED	RAMP	Montgomery	WEST	48.8836994	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565324.55	4753197.93	AT-INTERSECTION	STATE ROUTE 5S	Montgomery	EAST	0	10008218	Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	NYS 0 SB TO NYS5 EB	
0	0	0	0	2	2801	1	AMSTERDAM PD	0	565382.9895	4753177.97	INTERSECTION-RELATED	RAMP	Montgomery	EAST	83.34208461	10008218	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565322.1212	4753198.74	AT-INTERSECTION	RAMP	Montgomery	WEST	8.39902445	10008218	Amsterdam	STATE ROUTE 5S	5S25.032009	Unknown	F	Unknown	Unknown	Unknown		55
0	1	1	0	2	2801	0	AMSTERDAM PD	0	565441.1679	4753157.67	INTERSECTION-RELATED	RAMP	Montgomery	WEST	48.8836994	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565452.0233	4753154.07	AT-INTERSECTION	RAMP	Montgomery	WEST	11.3608119	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565451.5855	4753154.22	AT-INTERSECTION	RAMP	Montgomery	WEST	12.87407969	10008221	Amsterdam	STATE ROUTE 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565399.47	4753172.32	AT-INTERSECTION	Ramp	Montgomery	WEST	43	10008219	Amsterdam	[Route] 5S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565325.8656	4753197.48	AT-INTERSECTION	STATE ROUTE 5S	Montgomery	EAST	0	10008218	Amsterdam	RAMP	5S25.032009	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565302.8818	4753205.21	INTERSECTION-RELATED	PS ST	Montgomery	NORTH-WEST	23	10008218	Amsterdam	[Route] 5S	5S25.032009	Unknown	F	Unknown	Unknown	Unknown		55
0	2	2	0	2	2801	0	AMSTERDAM PD	0	565506.9661	4753134.85	INTERSECTION-RELATED	Ramp	Montgomery	NORTH-WEST	9	10008221	Amsterdam	STATE HWY 5 S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	1	1	0	1	2801	0	AMSTERDAM PD	0	565441.1679	4753157.67	INTERSECTION-RELATED	Ramp	Montgomery	NORTH-WEST	15	10008221	Amsterdam	STATE HIGHWAY 5 S	5S25.032010	Unknown	F	Unknown	Unknown	Unknown		55
0	1	1	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	3	2801	0	AMSTERDAM PD	0	565365.4731	4753090.35	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	74.69841897	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	1	1	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5512	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22268058	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565350.77	4753081.31	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	33.9011311	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565386.6401	4753148.54	AT-INTERSECTION	RAMP	Montgomery	SOUTH	0	10008219	Amsterdam	STATE ROUTE 30		Unknown	F	Unknown	Unknown	Unknown	NYS 0 SB TO NY5S EB	
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565386.6401	4753148.54	AT-INTERSECTION	RAMP	Montgomery	SOUTH	0	10008219	Amsterdam	STATE ROUTE 30		Unknown	F	Unknown	Unknown	Unknown	NYS 0 SB TO NY5S EB	
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5513	4753090.49	INTERSECTION-RELATED	RAMP	Montgomery	NORTH	75.22288659	10008219	Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	3	2801	0	AMSTERDAM PD	0	565422.5157	4753194.48	Not an intersection crash	RAMP	Montgomery	NORTH	464.2253838		Amsterdam	STATE ROUTE 30	30 25042005	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565362.3925	4753103.09	Not an intersection crash	RAMP	Montgomery	NORTH	114.9051125		Amsterdam	STATE ROUTE 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	1	2801	0	AMSTERDAM PD	0	565362.3925	4753103.09	Not an intersection crash	Ramp	Montgomery	NORTH	30		Amsterdam	STATE HIGHWAY 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	2	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565314.8475	4752999.08	INTERSECTION-RELATED	Ramp	Montgomery	SOUTH-EAST	1	10008217	Amsterdam	STATE HIGHWAY 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565365.5513	4753090.49	INTERSECTION-RELATED	Ramp	Montgomery	NORTH	23	10008219	Amsterdam	STATE HIGHWAY 30	30 25042004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565305.4056	4753001.31	AT-INTERSECTION	STATE ROUTE 30	Montgomery	SOUTH	268.0300089	10008217	Amsterdam	STATE ROUTE 30	30 25042003	Unknown	F	Unknown	Unknown	Unknown		
0	2	2	0	3		0	AMSTERDAM PD	0	565311.5086	4753012.72	AT-INTERSECTION	STATE ROUTE 30	Montgomery	SOUTH	225.5491081	10008217	Amsterdam	STATE ROUTE 30	30 25042003	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	2	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565301.8402	4752994.26	AT-INTERSECTION	STATE ROUTE 30	Montgomery	SOUTH	293.9347305	10008217	Amsterdam	STATE ROUTE 30	30 25042003	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	563386.4561	4754022.31	Not an intersection crash	BROADWAY EXT	Montgomery	NORTH-WEST	46		Florida	STATE HIGHWAY 5 S	5S25.031310	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	563328.0468	4754032.41	Not an intersection crash	BROADWAY EXT	Montgomery	WEST	344.6360703		Florida	STATE ROUTE 5S	5S25.031309	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	563507.4914	4753985.4	Not an intersection crash	BROADWAY EXT	Montgomery	EAST	265.4574985		Florida	STATE ROUTE 5S	5S2 5031310	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	12801	0	FONDA SP	0	563472.6968	4753997.1	Not an intersection crash	BROADWAY EXT	Montgomery	EAST	145.0267533		Florida	STATE ROUTE 5S	5S25.031310	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	563541.9411	4753973.82	Not an intersection crash	MEAD ROAD	Montgomery	WEST	380.7629224		Amsterdam	STATE ROUTE 5S	5S25.031311	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	12801	0	FONDA SP	0	563564.124	4753966.37	Not an intersection crash	MEAD ROAD	Montgomery	WEST	303.9835295		Florida	STATE ROUTE 5S	5S25.031311	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	563651.9501	4753936.85	Not an intersection crash	STATE ROUTE 5S	Montgomery	SOUTH	0		Florida	MEAD ROAD	5S25.031311	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	564789.84	4753396.21	AT-INTERSECTION	DESTEFANO AVE	Montgomery	NORTH-WEST	0	10008249	Amsterdam	[Route] 5S	5S25.032006	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564822.2053	4753381.2	Not an intersection crash	Unnamed Street	Montgomery	NORTH-WEST	30		Amsterdam	STATE HIGHWAY 5 S	5S2 5032006	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	564544.2245	4753535.38	Not an intersection crash	VERBRASKA AVENUE	Montgomery	WEST	926.5351794		Amsterdam	STATE ROUTE 5S	5S25.032004	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	564664.1765	4753464.31	Not an intersection crash	DESTEFANO AVENUE	Montgomery	WEST	469.0946132		Amsterdam	STATE ROUTE 5S	5S2 5032005	Unknown	F	Unknown	Unknown	Unknown		55
1	0	0	0	2		0	AMSTERDAM PD	0	564789.84	4753396.21	AT-INTERSECTION	STATE ROUTE 5 S	Montgomery	SOUTH	0	10008249	Amsterdam	VERBRASKA AVENUE	5S25.032006	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564676.3579	4753457.29	Not an intersection crash	DESTEFANO AVENUE	Montgomery	WEST	422.9723926		Amsterdam	STATE ROUTE 5S	5S2 5032005	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	565129.908	4753264.81	Not an intersection crash	VENNER ROAD	Montgomery	EAST	634.4427759		Amsterdam	STATE ROUTE 5S	5S25.032008	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	565129.908	4753264.81	Not an intersection crash	VENNER ROAD	Montgomery	EAST	634.4427759		Amsterdam	STATE ROUTE 5S	5S25.032008	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	564974.28	4753318.43	INTERSECTION-RELATED	VENNER ROAD	Montgomery	EAST	94.39673083	10008248	Amsterdam	STATE ROUTE 5S	5S25.032007	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	1	AMSTERDAM PD	0	564961.5673	4753323.07	INTERSECTION-RELATED	VENNER ROAD	Montgomery	EAST	49.99999999	10008248	Amsterdam	STATE ROUTE 5S	5S25.032007	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564974.28	4753318.43	INTERSECTION-RELATED	VENNER ROAD	Montgomery	EAST	94.39673083	10008248	Amsterdam	STATE ROUTE 5S	5S25.032007	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564162.0859	4753745.3	Not an intersection crash	DANIEL STREET	Montgomery	EAST	100		Amsterdam	STATE ROUTE 5S	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564404.0309	4753618.26	Not an intersection crash	DANIEL ST	Montgomery	WEST	305		Amsterdam	[Route] 5S	5S25.032003	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564105.5193	4753768	INTERSECTION-RELATED	DANIEL STREET	Montgomery	WEST	100.0014168	10008238	Amsterdam	STATE ROUTE 5S	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564272.3786	4753693.43	Not an intersection crash	DANIEL STREET	Montgomery	EAST	500		Amsterdam	STATE ROUTE 5S	5S25.032002	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	564133.991	4753757.12	AT-INTERSECTION	STATE ROUTE 5 S	Montgomery	NORTH	0	10008238	Amsterdam	DANIEL STREET	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2800	0	MONTGOMERY CO SHERIFF DEPT	0	564391.5757	4753625.62	Not an intersection crash	DANIEL STREET	Montgomery	EAST	950		Florida	STATE ROUTE 5S	5S25.032003	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	1	AMSTERDAM PD	0	564133.991	4753757.12	AT-INTERSECTION	STATE ROUTE 5 S	Montgomery	NORTH	0	10008238	Amsterdam	DANIEL STREET	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564112.8652	4753765.19	INTERSECTION-RELATED	DANIEL STREET	Montgomery	WEST	74.2007053	10008238	Amsterdam	STATE ROUTE 5S	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2801	0	AMSTERDAM PD	0	564133.28	4753757.42	AT-INTERSECTION	DANIEL ST	Montgomery	NORTH-WEST	0	10008238	Amsterdam	STATE HIGHWAY 5 S	5S25.032001	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2800	0	MONTGOMERY CO SHERIFF DEPT	0	562027.0032	4753821.37	Not an intersection crash	UNNAMED STREET	Montgomery	WEST	1865.95137		Florida	STATE ROUTE 5S	5S25.031301	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	562028.1252	4753821.25	Not an intersection crash	UNNAMED STREET	Montgomery	WEST	1862.250722		Florida	STATE ROUTE 5S	5S25.031301	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	562088.262	4753816.04	Not an intersection crash	UNNAMED STREET	Montgomery	WEST	1664.185973		Florida	STATE ROUTE 5S	5S25.031301	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	12801	1	FONDA SP	0	561692.0158	4753867.11	Not an intersection crash	UNNAMED STREET	Montgomery	WEST	2975.269458		Florida	STATE ROUTE 5S	5S25.031299	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	12801	1	FONDA SP	0	562580.6985	4753897.07	AT-INTERSECTION		Montgomery	EAST	0	10008208	Florida	UNNAMED STREET	5S25.031304	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2800	0	MONTGOMERY CO SHERIFF DEPT	0	562595.4597	4753902.18	INTERSECTION-RELATED	Unnamed Street	Montgomery	WEST	15	10008208	Florida	STATE HWY 5 S	5S25.031305	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2800	0	MONTGOMERY CO SHERIFF DEPT	0	562595.4597	4753902.18	INTERSECTION-RELATED	Unnamed Street	Montgomery	WEST	15	10008208	Florida	[Route] 5S	5S25.031305	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	1	2800	0	MONTGOMERY CO SHERIFF DEPT	0	561856.7019	4753843.59	Not an intersection crash	Unnamed Street	Montgomery	NORTH-WEST	741		Florida	[Route] 5S	5S2 5031300	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565324.55	4753197.93	AT-INTERSECTION	MINAVILLE STREET	Montgomery	EAST	0	10008218	Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	NYS 0 SB TO NY5S EB	
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565338.9676	4753192.99	INTERSECTION-RELATED	MINAVILLE STREET	Montgomery	EAST	50.00010631	10008218	Amsterdam	STATE ROUTE 5S	5S25.032009	Unknown	F	Unknown	Unknown	Unknown		55
0	1	0	1	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565416.6025	4752386.45	Not an intersection crash		Montgomery	WEST	884.7589219		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	0	0	0	2	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565177.1897	4752672.68	Not an intersection crash	RAMP	Montgomery	EAST	1059.329135		Amsterdam	INTERSTATE 90	30 25042001	Unknown	T	Unknown	Unknown	Unknown	NYS THRUWAY	65
0	0	0	0	1	10105	0	NYSP Thruway Albany Zone Headquart	0	565451.2118	4752595.77	Not an intersection crash	RAMP	Montgomery	WEST	435.4982364		Amsterdam	INTERSTATE 90		Unknown	T	Unknown	Unknown	Unknown	NYS THRUWAY	65
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565563.011	4752843.64	Not an intersection crash		Montgomery	EAST	161.7157999		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	RAMP D TO I90 EB	
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565333.436	4753013.44	Not an intersection crash		Montgomery	SOUTH	87.19604024		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	0	0	0	2	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565606.0397	4752796.24	Not an intersection crash		Montgomery	EAST	374.5623705		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	RAMP D TO I90 EB	
0	0	0	0	1	12802	1	SP THRUWAY FULTONVILLE (TALB)	0	565291.3788	4752560.21	Not an intersection crash	INTERSTATE 90	Montgomery	EAST	1588.018304		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	0	0	0	2	14601	0	DUANESBURG SP BCI	0	565328.48	4753024.83	AT-INTERSECTION		Montgomery	SOUTH	55.83318976	10008217	Amsterdam	RAMP	30 25042004	Unknown	T	Unknown	Unknown	Unknown		55
0	4	4	0	1	10105	0	NYSP Thruway Albany Zone Headquart	0	565618.98	4752799.15	Not an intersection crash		Montgomery	NORTH	141.7660613		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	1	1	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565567.153	4752857.37	Not an intersection crash		Montgomery	NORTH	403.233554		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB to Rt 30 NB	
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565222.05	4752660.18	Not an intersection crash	RAMP	Montgomery	EAST	1212.120052		Amsterdam	INTERSTATE 90	30 25042001	Unknown	T	Unknown	Unknown	Unknown	NYS THRUWAY	65
0	0	0	0	1		0		0	565344.2134	4752986.26	AT-INTERSECTION		Montgomery	NORTH	7.13961146	10008217	Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	0	0	0	1	10105	0	NYSP Thruway Albany Zone Headquart	0	565452.0389	4752574.84	Not an intersection crash		Montgomery	WEST	1727.256651		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	RAMP D TO I90 EB	
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565419.0938	4752626.33	Not an intersection crash	RAMP	Montgomery	WEST	563.8182244		Amsterdam	INTERSTATE 90		Unknown	T	Unknown	Unknown	Unknown	NYS THRUWAY	65
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565434.851	4752922.58	Not an intersection crash		Montgomery	WEST	332.983868		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	RT 30 NB TO I90 WB	
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565563.1759	4752859.7	Not an intersection crash		Montgomery	NORTH	418.3681333		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	1	1	0	2	2801	0	AMSTERDAM PD	0	565344.8827	4752984.63	AT-INTERSECTION		Montgomery	WEST	1.56184122	10008217	Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB TO RT 30 NB	
0	0	0	0	2	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565269.3979	4752668.41	Not an intersection crash	RAMP	Montgomery	WEST	1073.981154		Amsterdam	INTERSTATE 90	30 25042001	Unknown	T	Unknown	Unknown	Unknown	NYS THRUWAY	65
0	0	0	0	1		0	SP THRUWAY FULTONVILLE (TALB)	0	565321.455	4752996.87	Not an intersection crash		Montgomery	WEST	0		Amsterdam	RAMP	30 25042003	Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	2	2801	0	AMSTERDAM PD	0	565315.4453	4753000.01	AT-INTERSECTION		Montgomery	EAST	0.00156131	10008217	Amsterdam	RAMP	30 25042003	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	11701	0	MAYFIELD STATE POLICE	0	565546.9476	4752562.71	Not an intersection crash		Montgomery	WEST	2041.692625		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	RAMP D TO I90 EB	
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565417.3851	4752932.71	Not an intersection crash		Montgomery	WEST	88		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown		
0	1	1	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565602.1452	4752829.14	Not an intersection crash		Montgomery	NORTH	78		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB to Rt 30 NB	
0	0	0	0	1	12802	0	SP THRUWAY FULTONVILLE (TALB)	0	565602.1452	4752829.14	Not an intersection crash		Montgomery	NORTH	78		Amsterdam	RAMP		Unknown	F	Unknown	Unknown	Unknown	I90 EB to Rt 30 NB	
0	0	0	0	2	10105	0	NYSP THRUWAY ALBANY ZONE HEADQ	0	565588	4752556	INTERSECTION-RELATED		Montgomery		0	10008215	Amsterdam			Unknown	F	Unknown	Unknown	Unknown		
0	0	0	0	1	10105	0	NYSP THRUWAY ALBANY ZONE HEADQ	0	565550.3779	4752589.34	Not an intersection crash		Montgomery		0		Amsterdam	I 90		Unknown	T	Unknown	Unknown	Unknown	NYS Thruway	65
0	1	1	0	2	12801	0	FONDA SP	0	562359	4753820	Not an intersection crash		Montgomery		0		Florida			Unknown		Unknown	Unknown	Unknown		
0	0	0	0	1	2801	0	AMSTERDAM PD	0	563991.4216	4753810.97	Not an intersection crash		Montgomery	EAST	216.6636671		Amsterdam	STATE ROUTE 5S	5S25.032000	Unknown		Unknown	Unknown	Unknown		
0	0	0	0	1	12801	0	FONDA SP	0	563991.0411	4753811.11	Not an intersection crash		Montgomery	EAST	215.3306583		Amsterdam	STATE ROUTE 5S	5S25.032000	Unknown	F	Unknown	Unknown	Unknown		55
0	0	0	0	2	2800	0	MONTGOMERY CO SHERIFF DEPT	0	564024.3393	4753798.62	Not an intersection crash

	Vehicle Level Details						
Apparent Contributing Factor	Vehicle Sequence Number	Direction of Travel	Hazmat Cargo Indicator	Pre-crash Condition	Second Event	Vehicle Body Type	Vehicle Type
V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(OTHER (VEHICLE),NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(OBSTRUCTION/DEBRIS,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TRAFFIC CONTROL DEVICES DISREGARDED,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,DRIVER INEXPERIENCE) / V2:(UNKNOWN,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(BACKING UNSAFELY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(FOLLOWING TOO CLOSELY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(UNKNOWN,NOT APPLICABLE) / V2:(UNKNOWN,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(FOLLOWING TOO CLOSELY,DRIVER INATTENTION) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(OBSTRUCTION/DEBRIS,NOT ENTERED)							
V1:(UNSAFE LANE CHANGE,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(REACTION TO OTHER UNINVOLVED VEHICL.,PASSING OR LANE USAGE IMPROPERLY) / V2:(NOT APPLICABLE,NOT APPLICABLE) / V3:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(ILLNESS,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V3:(NOT APPLICABLE,UNKNOWN)							
V1:(FOLLOWING TOO CLOSELY,DRIVER INATTENTION) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(PAVEMENT SLIPPERY,UNKNOWN)							
V1:(DRIVER INEXPERIENCE,TRAFFIC CONTROL DEVICES DISREGARDED) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(PASSING OR LANE USAGE IMPROPERLY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE) / V3:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(PAVEMENT SLIPPERY,UNKNOWN)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(PRESCRIPTION MEDICATION,DRUGS (ILLEGAL))							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(BACKING UNSAFELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNSAFE SPEED,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(REACTION TO OTHER UNINVOLVED VEHICL.,NOT APPLICABLE)							
V1:(ILLNESS,NOT APPLICABLE)							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(PASSING OR LANE USAGE IMPROPERLY,PASSING OR LANE USAGE IMPROPERLY)							
V1:(UNKNOWN,NOT ENTERED)							
V1:(OBSTRUCTION/DEBRIS,NOT APPLICABLE)							
V1:(PAVEMENT SLIPPERY,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNKNOWN,UNKNOWN) / V2:(OTHER (VEHICLE),NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNKNOWN,NOT ENTERED)							
V1:(ANIMALS ACTION,NOT ENTERED)							
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,PAVEMENT SLIPPERY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(BACKING UNSAFELY,FAILURE TO YIELD RIGHT OF WAY) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(PAVEMENT SLIPPERY,UNSAFE SPEED)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)							
V1:(UNSAFE LANE CHANGE,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,UNSAFE SPEED) / V2:(FOLLOWING TOO CLOSELY,UNSAFE SPEED)							
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY)							
V1:(STEERING FAILURE,NOT APPLICABLE)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNSAFE SPEED,UNSAFE LANE CHANGE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(BACKING UNSAFELY,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNSAFE SPEED,PASSING OR LANE USAGE IMPROPERLY)							
V1:(UNSAFE SPEED,UNKNOWN)							
V1:(BACKING UNSAFELY,UNKNOWN)							
V1:(NOT ENTERED,NOT ENTERED)							
V1:(UNSAFE SPEED,NOT APPLICABLE)							
V1:(UNSAFE SPEED,UNSAFE LANE CHANGE)							
V1:(CELL PHONE (HAND HELD),DRIVER INATTENTION)							
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(PASSING OR LANE USAGE IMPROPERLY,UNSAFE LANE CHANGE) / V2:(OTHER (VEHICLE),NOT APPLICABLE)							
V1:(UNSAFE SPEED,TRAFFIC CONTROL DEVICES DISREGARDED)							
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(UNSAFE LANE CHANGE,REACTION TO OTHER UNINVOLVED VEHICL) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(DRIVER INATTENTION,UNSAFE LANE CHANGE)							
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY)							
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY)							
V1:(FAILURE TO YIELD RIGHT OF WAY,UNSAFE LANE CHANGE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(OBSTRUCTION/DEBRIS,NOT APPLICABLE)							
V1:(FAILURE TO KEEP RIGHT,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(ANIMALS ACTION,NOT ENTERED)							
V1:(ANIMALS ACTION,NOT APPLICABLE)							
V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(UNSAFE LANE CHANGE,NOT APPLICABLE)							
V1:(TURNING IMPROPER,TRAFFIC CONTROL DEVICES DISREGARDED) / V2:(NOT APPLICABLE,NOT APPLICABLE)							
V1:(BACKING UNSAFELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)							

APPENDIX 18

OSTERGAARD ACOUSTICAL ASSOCIATES

EVALUATION OF SITE SOUND EMISSIONS

Proposed Distribution Facility
Town of Florida, New York

Prepared for: **Bluewater Property Group**

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TABLE OF CONTENTS

INTRODUCTION 1

SITE AND VICINITY 2

REGULATIONS/GOALS 4

Sound Level Survey 6

Project Noise Goals 8

EXPECTED SOUND EMISSIONS 10

Rooftop HVAC Equipment 10

Truck Activity 11

Off-site Evaluation 15

ADDITIONAL CONSIDERATIONS 17

CONCLUSION 18

APPENDIX 19

INTRODUCTION

Ostergaard Acoustical Associates (OAA) was requested to conduct an evaluation of potential sound emissions from a proposed distribution facility in the Town of Florida, Montgomery County, New York. The site is currently a vacant parcel located between New York State Route 5S and the New York State Throughway, bordering Mead Road to the East. Plans call for construction of a warehouse which will store and distribute goods to the shipping network.

The site is anticipated to operate at all hours of the day and night. This report addresses the on-site noise radiated from this project to off-site potentially noise-sensitive receptors. Sound produced by the site will comprise steady sound from rooftop HVAC equipment as well as intermittent sound from truck and car[1] activity.

The purpose of this sound study is to analyze future site sound emissions for comparison with applicable code limits, to protect potentially noise sensitive receptors, and to evaluate the potential for noise complaints. Evaluations included conducting an ambient sound survey as well as developing an acoustical model of site sound emissions. Research indicates that there is no New York State noise code; however, the New York State Department of Environmental Conservation (DEC) does have guidelines for assessing and mitigating noise impacts. There are also no Montgomery County codes relating to noise. The Town of Florida mentions noise briefly in its zoning ordinance but does not provide any specific quantitative limits. Therefore, to meet the intent of Town noise provisions, expected site sound emissions from the facility were evaluated against a project goal based on the DEC guidelines and our professional experience.

Work by OAA was overseen by Benjamin C. Mueller, P.E., with assistance from OAA Staff. The representative at Bluewater Property Group coordinating this project is Sean Baggett.

All field measurements and acoustical modelling for this professional acoustical evaluation relied on analyses in octave frequency bands. However, in the interest of providing a concise report of findings, results in this report are provided using the most common metric of environmental sound, the A-weighted sound level. Full acoustical data in octave bands for all measurements and modelling are available upon request; these octave band data are consistent with the findings presented within this report.

[1] Note that throughout this report, the term "car" collectively refers to personal passenger vehicles including automobiles, vans, pick-ups, or SUVs. The term "truck" refers to heavy trucks such as over-the-road or line-haul trucks.

SITE AND VICINITY

The site is located in the northern part of the Town of Florida along New York State Route 5S. Figure 1 is an aerial image obtained from Google Earth showing the site outlined in red. Figure 1 also shows ambient survey locations, which are discussed in a subsequent section of this report. The site is in the Commercial (C-2) Zone and predominantly surrounded by non-noise sensitive receptors.

Our understanding of zoning/land uses in the various directions is as follows:

- North and Northwest of the site are two large existing warehouse facilities operated by Beech-Nut Nutrition Company and Target, respectively, in the Industrial Business Park (IBP) Zone.

- To the northeast is a collection of houses fronting along Joann Way and Broadway Extended in the Residential R-1 Zone. To the east are a few sparsely placed houses fronting on Mead Road and Snooks Corners Road. Dwellings on the west side of Mead Road are located within the C-2 zone while those on the east side are in the R-1 zone.

- The New York State Thruway, Interstate 90, abuts the southern property line of the site and is a major travel corridor in this area. Beyond the Thruway are distant and sporadic residential receptors located in the Agricultural (A) zone.

- West of the site are other commercial/industrial uses including an Amazon delivery station as well as an RV dealership located in the Commercial (C-2) zone. Further west along NY-5S is another large distribution facility.

OAA is aware that properties east of Mead Road, located on the outskirts of the City of Amsterdam, meet the disadvantaged community (DAC) criteria as defined by the Climate Justice Working Group of the New York State Energy Research and Development Authority (NYSERDA). These communities are identified to ensure that future development in the area will not disproportionately pollution burden these communities.

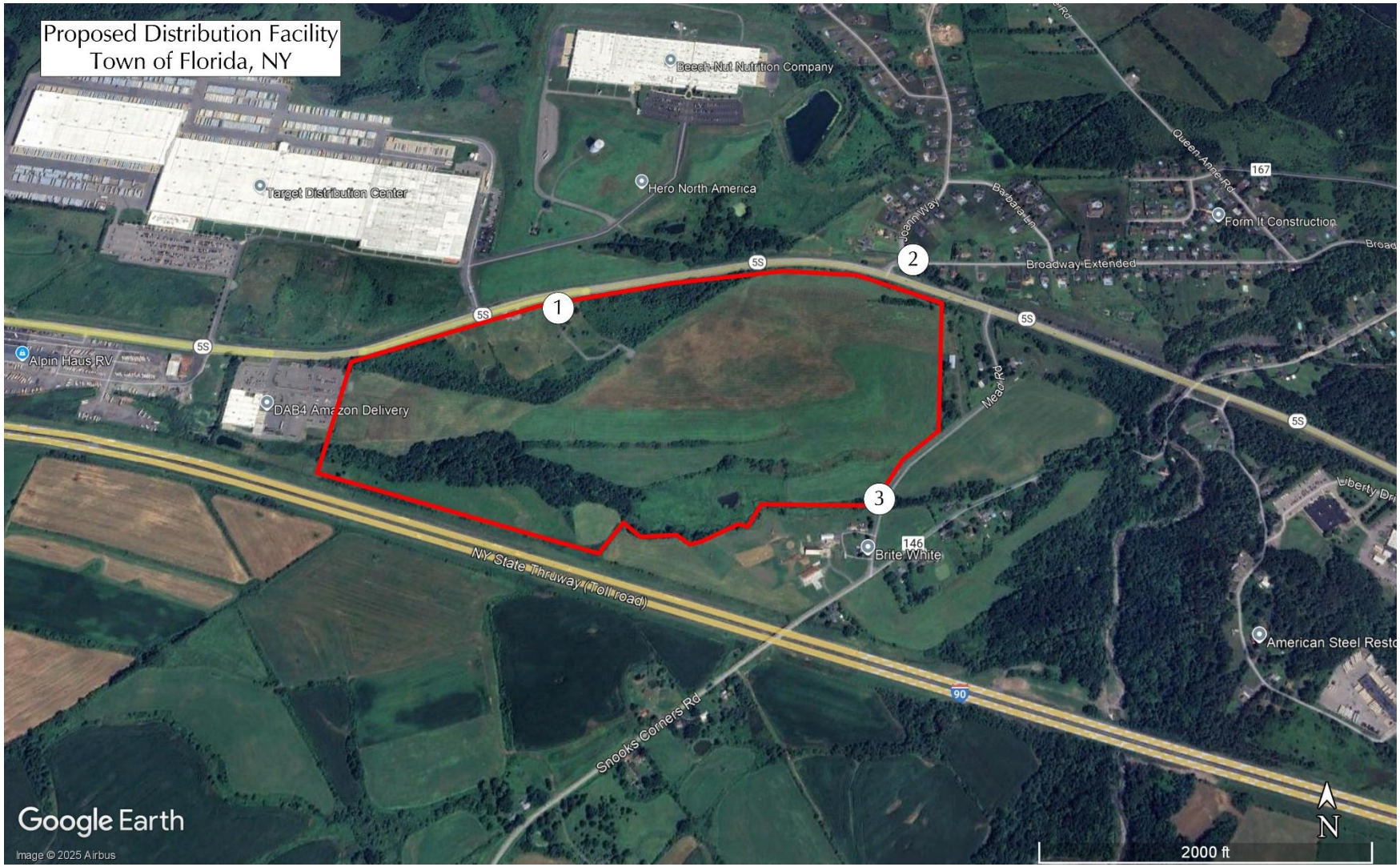


Figure 1 — Google Earth image showing the proposed distribution facility site and vicinity in the Town of Florida, NY. The site property line is approximately outlined in red. Ambient sound survey Locations 1 through 3 also shown.

Plans call for the construction of a distribution facility located in the northern portion of the property. The building footprint will be approximately 652,000 square feet. All site access will be provided via 4 driveways connecting with NY-5S to the north. Personnel vehicles will use the two dedicated driveways in the center, which will provide direct access to employee parking along the north side of the building. The easternmost driveway also provides access to these parking lots. Trucks will primarily enter and exit the site from the westernmost driveway. From there they will travel to the loading docks located on the western and southern façade of the building. During peak season, trucks will use the eastern driveway for egress only. Trailer parking areas are provided outboard of the loading docks and in the western part of the site.

Specific traffic counts depend on the end user tenant's needs. Much like the traffic study, the sound study must also rely upon professional sources of information to understand how cars and trucks will operate at this site. Professional experience and information from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition indicate that typical logistics facilities operate 24/7, like the proposed, with much of the activity occurring during the daytime hours; nighttime operations are generally used to prepare for the next day. The ITE Trip Generation Manual also contains hourly truck distribution data, based on existing sites, for a variety of ITE Land Use Codes; these distribution data confirm and support that these uses generally see majority of truck activity during the daytime period. Regardless, the sound study includes an assessment of intermittent maximum sound levels that might occur during the nighttime hours as this is generally when residential receptors are most sensitive and ambient sound levels are lower.

REGULATIONS/GOALS

When developing a site of this type, it is appropriate to consider how sound from the facility will likely be received, especially by noise-sensitive receptors. Sound produced by a typical facility such as this is primarily characterized by steady HVAC equipment sound, which is present 24/7, and on intermittent sound produced by on-site heavy truck activity. Site sound emissions from these major noise sources should be evaluated and compared to applicable noise code limits as well as acoustical goals based on professional experience. Since facility operations can potentially be 24/7, the primary concern with sound emissions is minimizing the acoustical impact/meeting goals at night at residences. As a general practice, when motor vehicles are on site, they are considered part of a site's sound emissions; when vehicles are on public roads, they are not.

State, local, and county codes were reviewed for applicable noise regulations. There are no State of New York noise code limits. However, the New York State Department of Environmental Conservation (DEC) has a policy "Assessing and Mitigating Noise Impacts" that provides guidance for analyzing and minimizing the acoustical impact applicable to the State Environmental Quality Review Act (SEQR). Guidelines require comparison of the equivalent (average) ambient sound level to proposed site sound emissions to determine the extent of potential acoustical impact, if any. The DEC states that an increase in ambient sound level by 0-to-3 dB should have no appreciable effect on receptors and an increase of 3-to-6 dB is tolerable but may have potential for an adverse noise impact only in cases where the most noise-sensitive of receptors are present. The term "the most noise-sensitive of receptors" is not defined but assumed to reference the small percent of the population who are exceptionally sensitive to noise. Increases of more than 6 dB require closer scrutiny, while increases of 10 dB deserve consideration of avoidance and mitigation measures in most cases. There is also the New York State Vehicle and Traffic (VAT) Law that states that all motor vehicles must have a muffler and must be below specific sound limits at a distance of 50 feet. Specifically, vehicles over 10,000 pounds must not exceed 86 dB(A) at speeds of 35 mph or less nor exceed 90 dB(A) at speeds above 35 mph. There are also limits for lighter weight vehicles and motorcycles. Overall, these State limits are generally easy to meet with modern, well-maintained vehicles.

A review of the Town of Florida Zoning Ordinance qualitatively discusses noise and does not provide any numerical limits pertaining to site sound emissions. Section 45.4 Wind Turbine Facilities Law calls for wind energy conversion systems to not exceed 50 dB(A) at the receptor's boundary. While not applicable to this project, this provision gives some incite to the Town's goal for stationary, steady noise sources. Overall, the intent of zoning ordinance is to not have any offensive noise that impacts adjoining properties. There are no Montgomery County noise codes that could be found.

In summary, outside of the Town code inferring that a sound pressure level of 50 dB(A) is acceptable for certain wind energy equipment, there are no applicable noise code limits that apply to site sound emissions. VAT Law noise limits are relative to the motor vehicle and not the receptor and hence are not useful in evaluating the possible impacts. The State DEC guidelines provide the best direction to minimize any potential acoustical impacts. To comply with these guidelines, the project must show that site sound does not substantially deviate from existing ambient sound levels near residential receptors. Specifically, future sound in the area with the proposed site included, should not increase existing equivalent ambient sound conditions by

more than 6 dB to avoid any negative acoustical impact to the area. DEC guidelines are also suitable criteria to use for evaluation of areas designated as DAC.

Sound Level Survey

To determine appropriate criteria for comparison to DEC guidelines, an ambient sound survey was carried out to document existing ambient noise levels in the area. A total of three long-term sound level monitor locations were selected to typify existing ambient sound levels around the site. These survey locations are shown in Figure 1. Monitors were placed either on site or within public rights-of-way and were kept distant from active roadways to the extent feasible.

Location 1 is on-site, approximately where the western personnel driveway is planned to be located. Location 2 is northeast of the site at the intersection of Joann Way and Broadway Extended on a public right of way. Location 3 is along Mead Road, near the culvert crossing. OAA staff deployed the monitors on the morning of 7 March 2025 and retrieved the units on the evening of 17 March 2025.

For each Location, a Piccolo II sound level monitor was placed within a weather enclosure and mounted to either a tree or public utility pole. A windscreen was used on the microphone. Monitors were instructed to record detailed octave band time history data at one-minute intervals for the duration of the survey. Statistical data were also obtained. Monitors recorded data from deployment until the battery was depleted or the memory ran out, whichever came first.

The survey data generally spanned from about 1600 hours on Friday 7 March to 0500 hours on Friday 14 March. Data at Location 2 stopped at 1300 hours on 10 March 2025 due to a spent battery. All sound level monitors were calibrated before deployment using a HBK Model 4231 sound level calibrator, which is calibrated by an outside calibration service annually. It was observed upon deployment and retrieval of the long-term monitors that the acoustical environment was dominated by steady traffic flow resulting from the well-traveled roadway of NY-5S.

Weather conditions were generally appropriate for the survey based on a review of historical data obtained from the nearest weather station at Albany International Airport. Temperatures ranged from 27-to-70 degrees Fahrenheit throughout the survey, with no significant precipitation. There were occasions of high wind gusts above 25 mph on 7 and 11 March; wind

speeds outside of these two days averaged between 7 and 11mph. It is worth mentioning that while the weather station may record high wind speeds at times, these are generally not realized at the height of the microphones; no contamination of survey data was observed from wind or wind gusts.

Acquisition of ambient sound data over the course of multiple days results in an enormous amount of data. As a result, it is helpful to review data as hourly statistics to assist with observing ambient sound level trends. Important statistics include the average, or equivalent, sound level (L_{eq}), which is the metric that the DEC guidelines use, and the background sound level (L_{90}), or level that occurs over 90 percent of the time. The background sound level is best used to evaluate continuous noise sources such as project HVAC sound. The L_{10}, or level that occurs over 10 percent of the time, indicates the extent of intrusive noise sources in the area, such as dog barks, surges in traffic noise, or aircraft passbys; the L_{10} is best used to evaluate intermittent motor vehicle noise from the proposed project. The purpose of this survey was to understand the existing acoustical conditions for comparison to project emissions. These data are important for use in establishing specific project noise goals to ensure no negative acoustical impact.

A summary of the hourly A-weighted statistical sound levels recorded and linearly averaged over the entire period of the survey is provided in the following table:

Location	L_{Max}	L_{10}	L_{eq}	L_{90}	L_{Min}
1	64	61	59	55	52
2	73	67	63	54	50
3	60	56	54	51	48

Time history data obtained during the survey are provided graphically at 1-minute average sound levels in the Appendix.

A review of the survey results revealed that sound levels were somewhat higher during the first few days of the survey period half of the week compared to the later part of the survey. This was particularly noted at Location 1. This trend would have been mimicked at Location 2, given its proximity to NY-5S, however the survey period ended early. This trend is not seen at Location

3. As ambient surveys will regularly exhibit nuances, it is best to review them from a high level and with a conservative slant.

A high-level analysis of the data reveals that sound levels along the NY-5S corridor were higher than those at Location 3 along Mead Road. Background sound levels for all locations hover around 50 dB(A), which is the limit used by the Town for wind electrical systems. Survey results support using this as a goal for steady sound levels in the area. Average sound levels in the area hover around the mid-50s on an A-weighted scale. Results also show that sound levels during the nighttime hours are dynamic and vary between short period lulls of 40 dB(A) and around 55 dB(A) across most nighttime hours. Daytime ranges increase by about 15 dB to 55 to 70 dB(A). This is typical for areas proximate to well-travelled roadways.

Project Noise Goals

Local and state codes generally will dictate quantitative limits for receptors for the purpose of protecting the health, safety, and wellbeing of the public. While there are some references provided by the Town of Florida, the New York DEC guidelines take the logical approach of establishing a project goal relative to the existing ambient sound level of the area. The intent of the DEC guidelines is to make sure that site sound does not cause any excessive deviations from the existing ambient sound of the area. This is defined by an increase in 6 dB(A) from the equivalent ambient sound level. Taking a conservative approach of using the lowest L_{eq}, which is 54 dB(A) at Location 3, this results in a project noise goal to not exceed a cumulative sound level of 60 dB(A) with the project in operation. While based on existing conditions, continuous sound levels of this magnitude are generally permissive.

Based on experience, OAA recommends slightly more conservative noise goals to ensure there is no negative impact. Background sound produced by the project's steady HVAC equipment should be controlled to not exceed 45 dB(A) at residential receptors. Similarly, maximum sound levels produced by intermittent on-site truck operations should not exceed 55 dB(A) at off-site residential receptors. These limits align with maximum and minimum sound level trends seen at Location 3 during the nighttime hours. Meeting these goals will ensure that receptors are not disturbed by any excessive noise, meet the intent of local ordinances, and ensure full compliance with DEC guidelines.

EXPECTED SOUND EMISSIONS

Acoustical modelling software, specifically CadnaA, was used to model expected site sound emissions for the site. The model takes into account relevant parameters between the noise source and receptor positions of interest to predict how sound will propagate. In addition to distance attenuation, the model accounts for the effects of terrain, various types of ground cover, shielding by structures, and reflections from buildings. In the model, buildings are white and the site property line is outlined in red. On-site topography was provided by the project team; offsite elevation information was obtained from ArcGIS software. Elevation contours are shown in teal in the model. North is pointing up in all figures. The scale in each figure is in feet.

The acoustical model shows the results graphically as A-weighted sound level contours, in 1 dB increments, and tabulates the summed A-weighted sound levels at four discrete locations at nearby residential receptors of interest. Sound level contours are at ear height, 5 feet above grade. Receptors A through D are at the façade of nearby residences and are located at a height of 15 feet above grade, typifying an upper story receptor for a two-story house.

Rooftop HVAC Equipment

Rooftop HVAC equipment produces noise that is steady in nature, and hence will not vary over time. Using a mechanical design template for the proposed building, noise sources were placed on the rooftop of the building. While all HVAC equipment is modelled, the focus of this study is on the large HVAC units, those with a heating/cooling capacity of 25-tons or greater. Smaller HVAC equipment produces lower sound levels and is of less concern. In all, this project is expected to have 60 HVAC units that are 25-tons or larger. Most units are in the 25-to-36-ton range and were each modelled to be 93 dB(A) re 1 picowatt based on typical manufacturer's sound data; a handful of units were modeled as 125-ton units with a sound power level of 101 dB(A).

The noise from the rooftop units was included in the HVAC sound model. HVAC noise sources are shown as blue "+"s. Noise sources were placed 4 feet above the rooftop, and sound was projected off site. The model includes a 4.5-foot parapet, shown in light blue. Figure 2 shows the results graphically and tabulates the summed A-weighted sound levels at the nearby receptors of interest. The results show that, with all rooftop units operating, HVAC sound levels at off-site receptors range from 33-to-41 dB(A) at nearby receptors, meeting the project noise goal of 45 dB(A) but a sufficient margin.

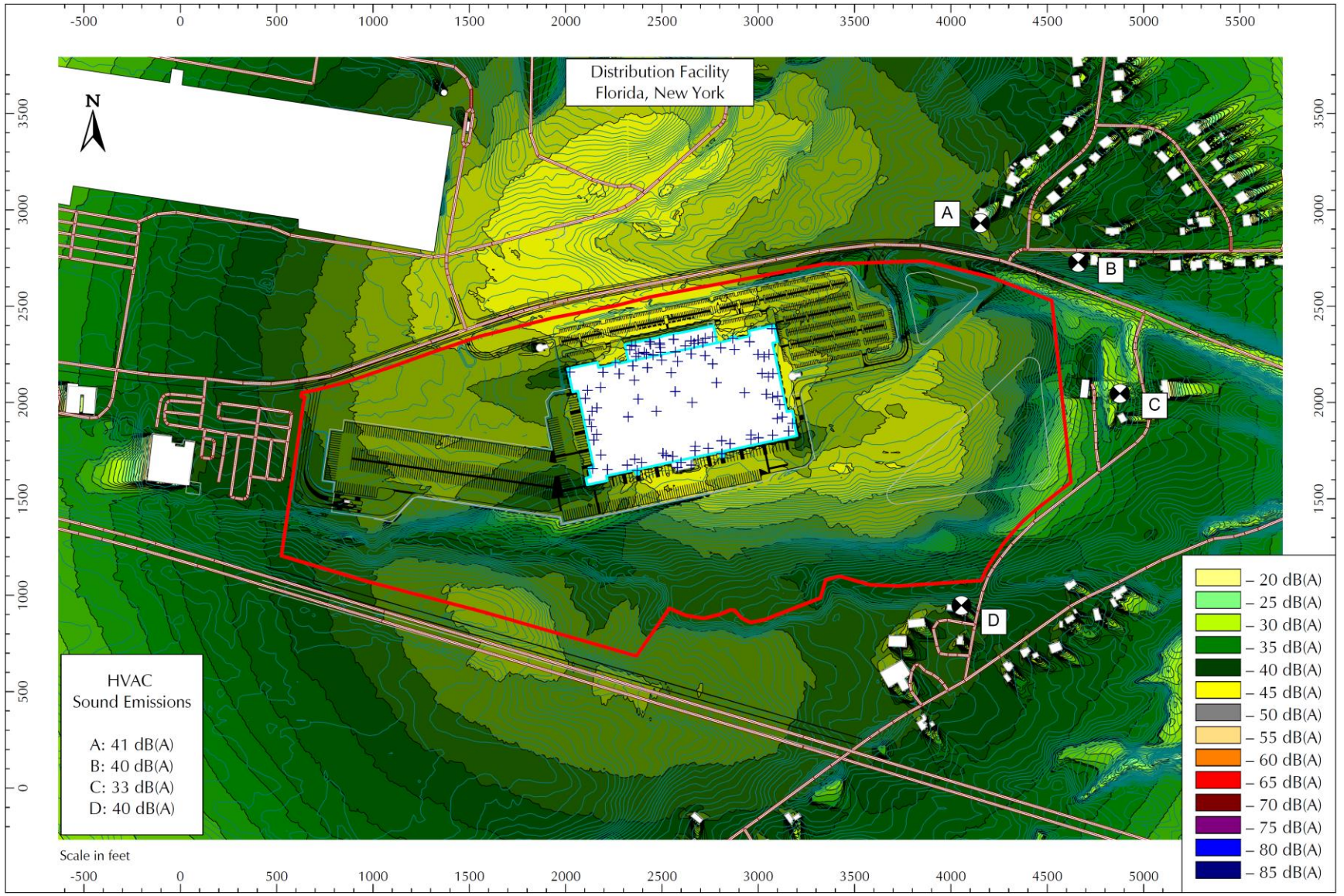


Figure 2 —A-weighted sound emission contours, 5 feet above grade, for sound from rooftop HVAC equipment. Rooftop units shown with a blue "+" sign. Buildings shown in white, site property line outlined in red, and contour lines shown in teal. Parapets shown in light blue. Receptor heights are 15 feet above grade.

This analysis shows that there is little concern about HVAC sound. HVAC sound is sufficiently controlled via distance and roof shielding effects so that noise meets the nighttime project noise goal of 45 dB(A), 5 dB lower in level than Town limits for wind energy systems. "Roof shielding effects" refers to the fact that the roof and parapet act as an acoustical barrier for rooftop equipment for vantage points closer to the ground when the rooftop equipment is screened from view. Roof shielding effects are less prominent for upper story receptor vantage points that may be higher than the HVAC equipment. Note that for these model results to be realized, acoustical performance of HVAC equipment must be aligned with what was modelled.

Truck Activity

OAA has had the opportunity to visit various logistics facilities and industrial parks over the years to survey and document the sounds of truck activity. The logistics facility will have over-the-road line-haul trucks and potentially have terminal tractors (yard tractors) active on site. Line-haul trucks deliver trailers from off-site whereas terminal tractors do not leave the site and move trailers between the docks and parking areas. Terminal tractors are responsible for most back-up movements on-site. From an acoustical aspect, terminal tractors and line-haul trucks are acoustically equivalent.

Truck noise in a typical truck court can produce maximum sound levels of 79 dB(A) when measured at a distance of 50 feet from the source. This sound level was determined by looking at a wide variety of intermittent truck activity, such as truck movement, air brakes, back-up alarms, and coupling/decoupling, and distilling it to a single conservative maximum level and spectrum for use in acoustical studies such as this. A driving truck exhibits slightly lower maximum sound levels of 74 dB(A) when measured 50 feet from the source. A driving box truck produces maximum sound levels of 70 dB(A) at 50 feet. It is also important to recognize that these truck activities are dynamic in nature. Maximum sound levels from these events only occur for a short duration and are not representative of the constant sound level produced by the site.

The above discussion applies to the short duration, intermittent operations which are mobile and highly dynamic. Stationary noise sources within the truck court on site include loading and unloading of trucks as well as trucks idling. These activities produce a repetitive, albeit temporary, sound, and are present for a longer period than the intermittent truck noise sources. Loading/unloaded activity at a dock is estimated to produce maximum sound levels of 70 dB(A)

at a distance of 50 feet. This is due to internal forklift operations, for example. Trucks idling exhibit maximum sound levels of 62 dB(A) at a distance of 50 feet.

The height of a truck source for all truck activity is modelled at a conservative height of 8 feet above grade. OAA has found that using these maximum sound levels at this height ensures a conservative approach to evaluating truck sound within the truck court. When specific individual activities are modelled at their actual height and sound level, results are typically lower in level than predicted below. For example, many of the high sound level activities, such as back-up alarms and air brakes, occur at a height of 4 feet above grade, not 8 feet. This is a critical detail when evaluating the effectiveness of a sound barrier or berm and when considering intervening topography.

While there will be multiple trucks onsite at any given time, it is generally appropriate to evaluate maximum sound from an individual truck. Several factors support this. Because maximum levels are dynamic and short in duration, it is unlikely that multiple truck sound level maximums will occur at exactly the same time and location. In addition, safe practices restrict more than one truck from operating in proximity to each other in the same vicinity. Hence, off-site maximum sound levels will be driven by individual truck sources. In the unlikely event that two truck sources would contribute the same level in the same location at the exact same time, maximum emissions would only be 3 dB higher due to the logarithmic nature of sound pressure level addition.

Despite this, OAA has modeled eight driving trucks and five truck loading events on the site at the same time, at various on-site locations that are nearest to receptors, to be conservative. This is considered extremely conservative given trip counts expect on average about eight trucks per hour. Truck sources were placed across the entire site at positions where sound emissions produce the highest levels. Driving trucks, shown as pink "+", are modeled with a sound pressure level of 74 dB(A) at 50 feet. Sound contributions from truck dock activity are shown as white "+"s, and each are modeled with a sound pressure level of 79 dB(A) at 50 feet. HVAC noise sources were also included in the model to represent worst-case conditions, and are shown as blue "+"s.

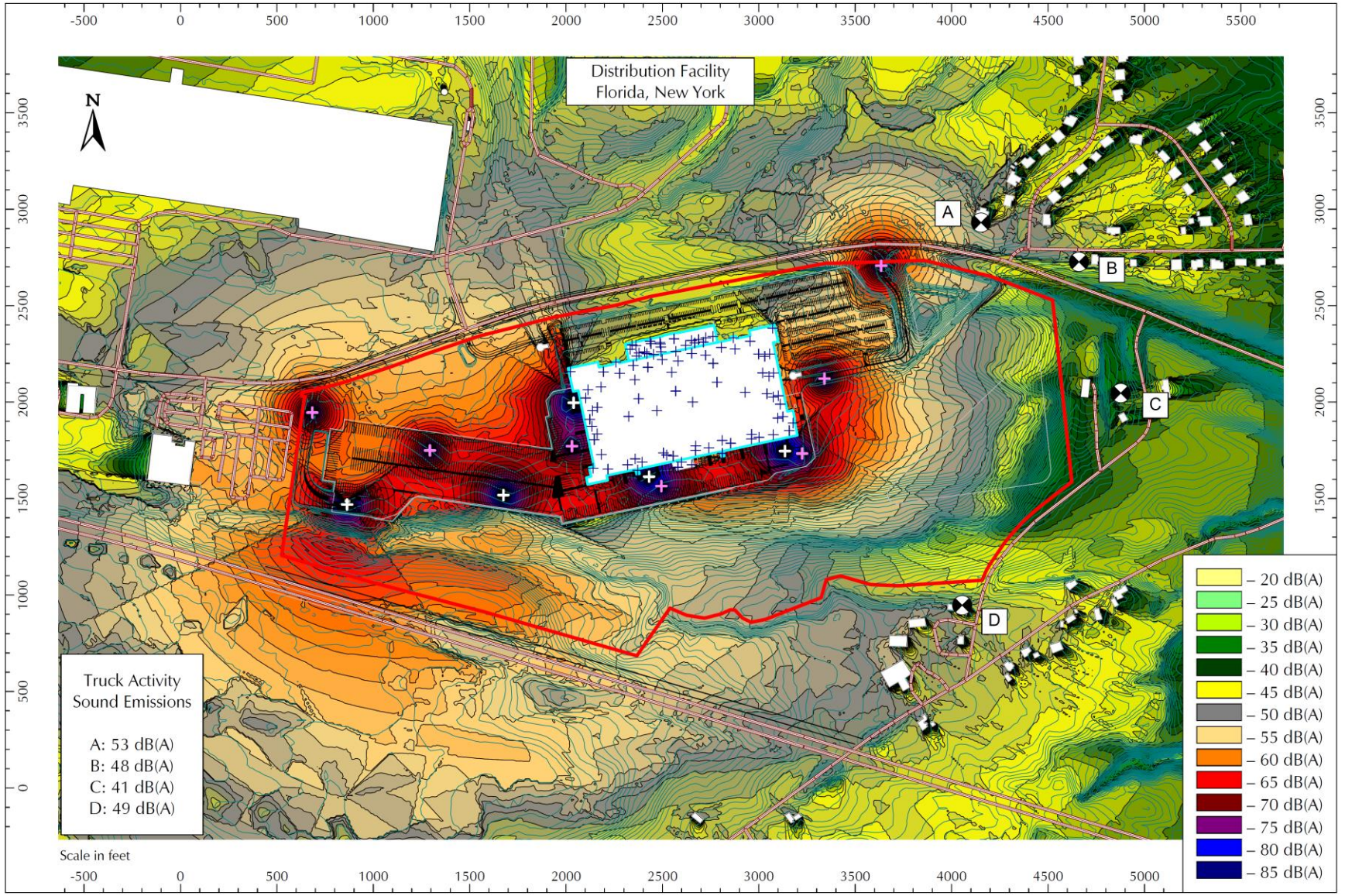


Figure 3 —A-weighted sound emission contours, 5 feet above grade, for sound from truck activity added to the HVAC results of Figure 2. Eight driving trucks (pink +) and five truck events (white +) are shown. Buildings shown in white, site property line outlined in red, and contour lines shown in teal. Receptor heights are 15 feet above grade.

Figure 3 provides the results of eight driving trucks and five truck events on site at the same time. Maximum off-site sound levels range from 41-to-53 dB(A), meeting the 55 dB(A) project noise goal for intermittent on-site activity. Levels of this magnitude are similar to ambient sound level trends observed during the sound survey, which will allow site operations to blend in with existing conditions.

The results of Figure 3 can be further scrutinized for comparison to DEC guidelines. DEC guidelines look at equivalent sound levels produced by the site over a period of time whereas model results above are a depiction of maximum sound levels, which represent a short moment in time. Equivalent site sound levels will be significantly lower than what is presented here. Hence, use of model results for comparison to DEC criteria are extremely conservative. Future sound levels in the area are estimated by combining model results from Figure 3, which includes both HVAC and truck activity, to the lowest existing equivalent ambient sound levels of 54 dB(A), which was documented across the measurement period at Location 3. The existing equivalent ambient sound level was then combined with the maximum sound level shown above to estimate the future equivalent sound levels. The calculated future equivalent sound level results can then be used to compare to DEC project goals. The results of these calculations are summarized as follows:

Location	Existing Equivalent Ambient Sound Level, dB(A)	Maximum Site Sound Emissions, dB(A)	Future Equivalent Sound Levels, dB(A)	Change from Existing to Future
A	54	53	57	3
B	54	48	55	1
C	54	41	54	0
D	54	49	55	1

Results in the above table show that the worst-case potential change in sound levels from existing conditions to future conditions is 0 to 3 dB. DEC guidelines state that changes below 6 dB have no negative effect on receptors in the area. Additionally, because of the conservative nature of this analysis, any actual changes will be much lower than is what is presented here. Table results are based on the assumption that maximum sound levels produced by trucks are present 24/7, which is an overestimation of this intermittent source. The results in the conservative analyses above support that this project will have no negative acoustical impact on the surrounding area, according to DEC guidelines.

Off-site Evaluation

While off-site truck routes are not regulated by noise codes, they were reviewed to evaluate their potential for acoustical impact. Trucks must fully comply with all VAT motor vehicle noise limits; however, they are relative to the vehicle and not the receptor and hence such limits are not helpful for evaluating potential noise impacts. All trucks are expected to be coming from and going to the site via Interstate 90, using the interchange east of the site to access NY-5S. This truck route is already heavily traveled by other trucks coming and going from similar existing logistics facilities along the same stretch of road. All trucks will utilize approved truck routes and will blend in with existing traffic flow sound in the area.

An accurate acoustical evaluation of off-site impacts is challenging given the volume of motor vehicles is constantly fluctuating and comprised of a variety of personal and commercial motor vehicles. Despite this, it can be evaluated from a high level. This evaluation is particularly prudent given that a portion of NY-5S travels through a DAC area just east of the site.

Ambient sound survey results obtained at Locations 1 and 2 along the NY-5S corridor show that average sound levels along this route are 59 dB(A). This sound is due to the make-up of existing motor vehicles traveling along this road. The traffic impact study (TIS), prepared by Langan and dated 9 April 2025, was reviewed to compare existing and future trip counts along NY-5S. Specifically, counts were scrutinized along NY-5S at the intersection of NY-5S and P.S. Street, which is within the DAC area. Existing and site vehicle trips were obtained from Figures 2 and 8, respectively, from the TIS report. During the peak PM generation hours between 5:30 PM and 6:30 PM, a total of 540 vehicles traveled along NY-5S, on the road segment west of P.S. Street.

According to other sections of the TIS, approximately 5 to 10% of this existing traffic is tractor trailers. Site contributions during that same peak PM period, the project would add 756 cars and 18 trucks for a total of 774 vehicles.

In simplified terms, the existing average sound level will increase based on the increase in volume of vehicles. The following formula and analysis apply:

$$Future\ Leq(1h) = Measured\ Leq + 10\log\left(\frac{total\ future\ vehicles}{existing\ vehicles}\right)$$

$$Future\ Leq(1h) = 59\ dBA + 10\log\left(\frac{1314}{540}\right)$$

$$Future\ Leq(1h) = 63\ dBA$$

Results from this simplified yet conservative analysis show that during the PM peak generation hours average sound levels could increase by 4 dB. This increase is below the NYSDEC guideline value for creating a negative impact. It should also be noted that this analysis is very conservative considering that the peak PM roadway volume of traffic is currently at 1063 trips in an hour, which is only 251 trips less than the project's peak PM generation hour. In other words, while sound levels will increase during certain hours due to the way this site will operate, the magnitude of traffic flow sound in the area will be about the same as it currently is in other hours of the day. The increase shown above is not out of the ordinary and will not negatively impact residences or the DAC area.

ADDITIONAL CONSIDERATIONS

Although construction noise is not specifically discussed in the Town code, and construction conditions are temporary in nature, it is worth discussing considerations to minimize the acoustical impact of this activity. The proposed building is over 1,00 feet from the nearest dwelling. While the building is somewhat remote, earth moving equipment used during the civil construction phase of the project could be much closer to off-site receptors temporarily. Construction equipment such as bulldozers, front end loaders, and dump trucks can typically produce maximum sound levels of 80 dB(A) at 50 feet. At assumed distances of at least 200 feet from nearby receptors, maximum construction activity sound levels would be in the upper-60s. Levels of this magnitude are not uncommon in a populated, developed area and therefore are not expected to elicit noise complaints or impact the health, safety, and welfare of the public. Sound levels far in excess of this were observed in the ambient sound survey at Location 2, along the NY-5S corridor. To minimize receptor exposure to construction noise during this phase, consider the following construction mitigation measures:

- ❑ Limit all heavy equipment operation to non-noise-sensitive daytime hours and follow allowable Town construction hours if applicable.

- ❑ If possible, limit the amount of equipment operating near one receptor at a given time. Avoid exposing any one receptor to high sound levels for an extended period.

- ❑ Place stationary equipment such as generators, compressors, and office trailers away from receptors.

- ❑ Avoid having construction parking or laydown areas nearby receptors.

- ❑ Coordinate any high sound level construction activities with Town representatives and provide advance notice to residences as feasible.

Specific noise issues can be individually evaluated for tailored noise mitigation recommendations should traditional methods above not be sufficient.

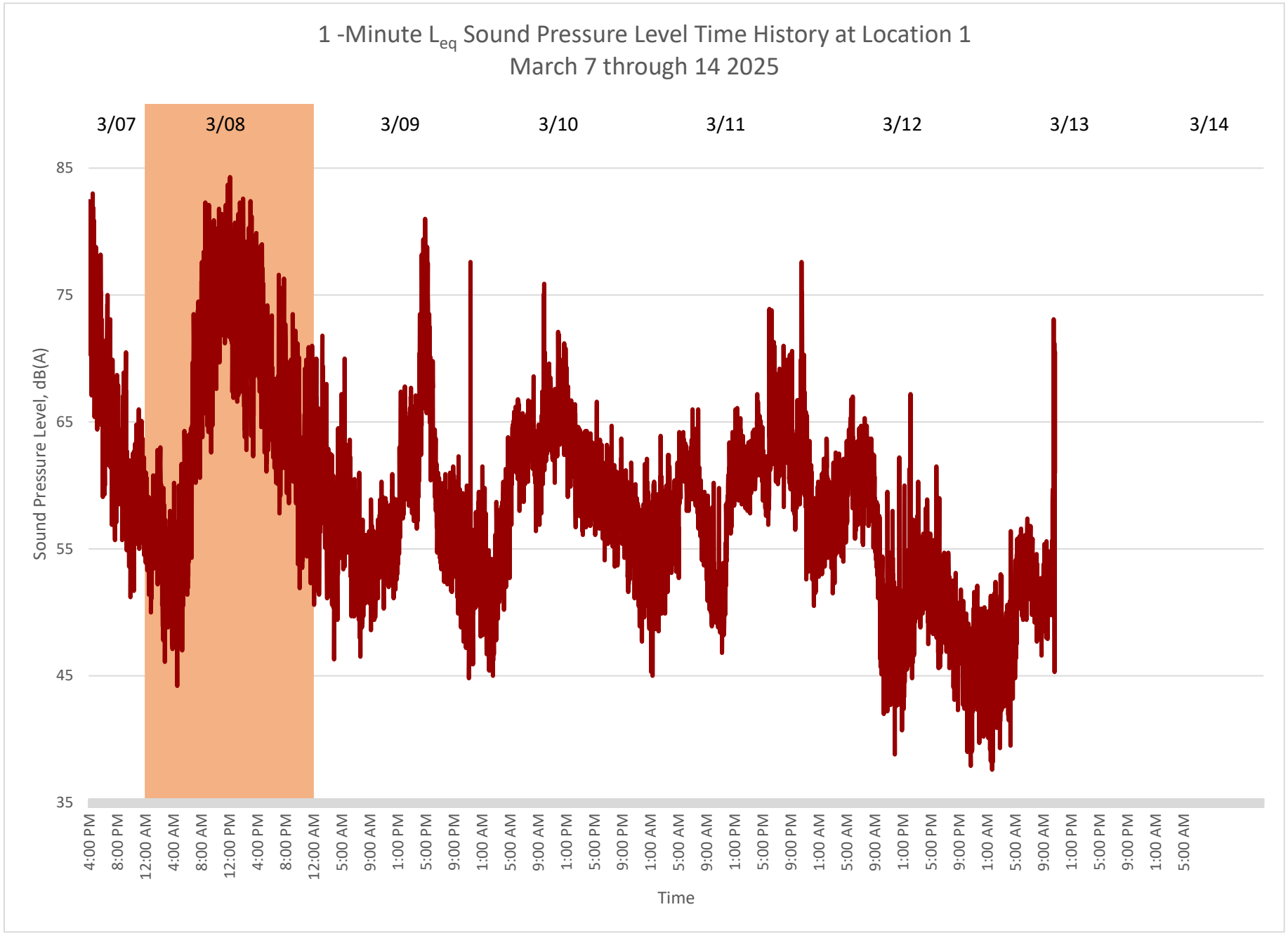
CONCLUSION

Plans call for the construction of a distribution facility located adjacent to other logistics facilities in Town, along the well-travelled NY-5S corridor. Residences are near the site to the northeast and east while commercial and industrial properties are in other directions. An acoustical evaluation was carried out to ensure that site sound emissions meet the intent of any applicable State and local noise codes, and that site sound will not deviate from existing sounds in the area. In the absence of quantitative noise code limits, a project noise goal was established for the purpose of meeting this intent, based on ambient sound survey results. Meeting project goals will ensure that the health and safety of residences are protected and that there is no negative acoustical impact at potentially noise-sensitive receptors.

Overall, the site is well laid out and adjacent to existing logistics facilities nearby the site. While residences are in the area, there is sufficient distance to allow this use to be compatible with this use. Analyses show that distance and site geometry will sufficiently attenuate on-site HVAC and motor vehicle noise to meet all project noise goals. Site sound will not have a negative impact on the immediate area bordering the site, nor at any off-site DAC areas per DEC guidelines. There are no acoustical concerns with off-site truck routes as the site will use approved truck routes along already well-travelled roads. Based on the foregoing, the findings in this report support and conclude that the project will not create any significant adverse sound impacts on any residential or disadvantaged community receptor and is appropriate for this site.

APPENDIX

1-Minute Average Time History Graphs from Sound Survey


1 -Minute Leq Sound Pressure Level Time History at Location 1
March 7 through 14 2025
3/07
3/08
3/09
3/10
3/11
3/12
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3/14
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75
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55
45
35
Sound Pressure Level, dB(A)
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4:00 PM
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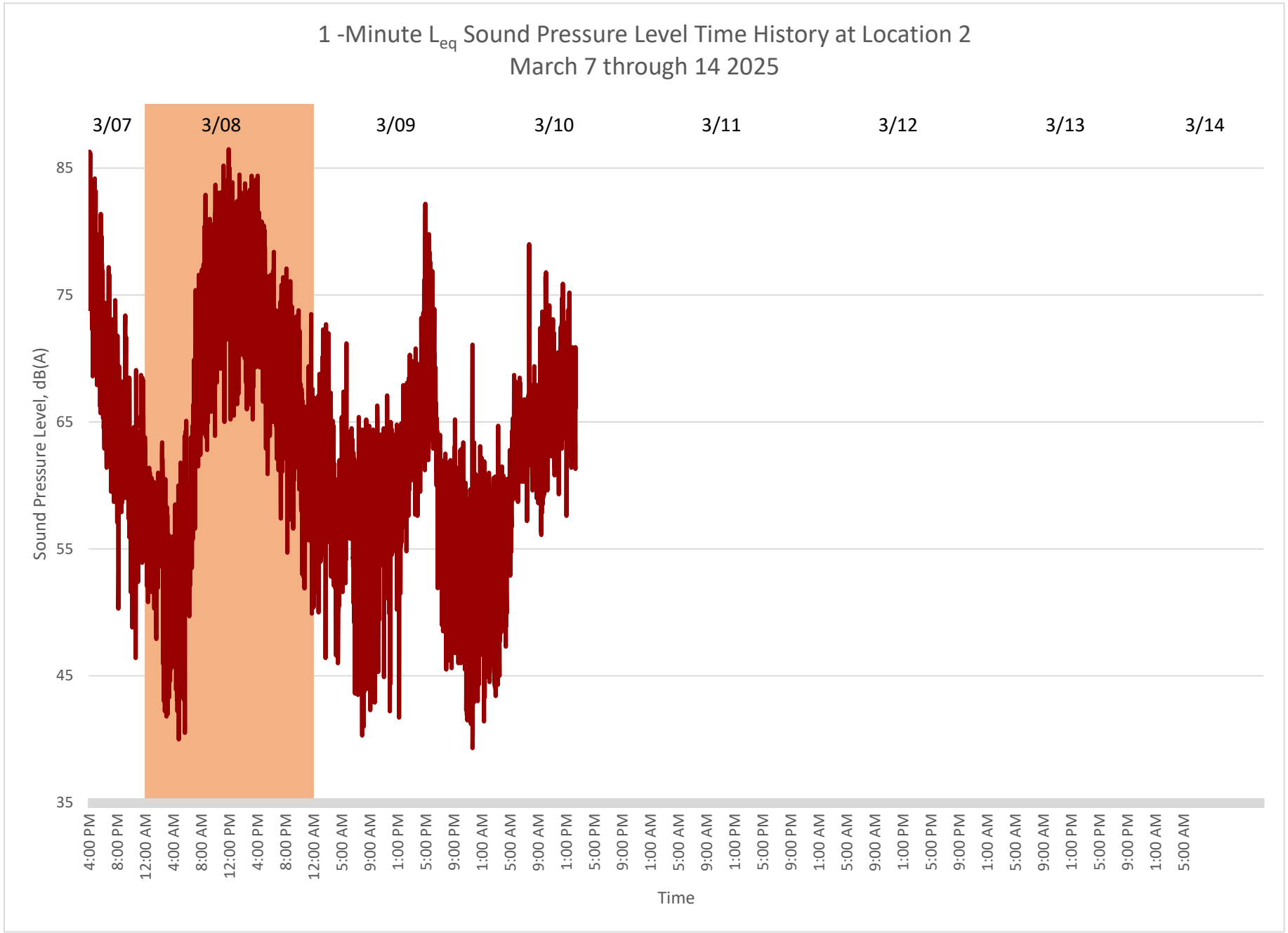
1 -Minute Leq Sound Pressure Level Time History at Location 2
March 7 through 14 2025
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Sound Pressure Level, dB(A)
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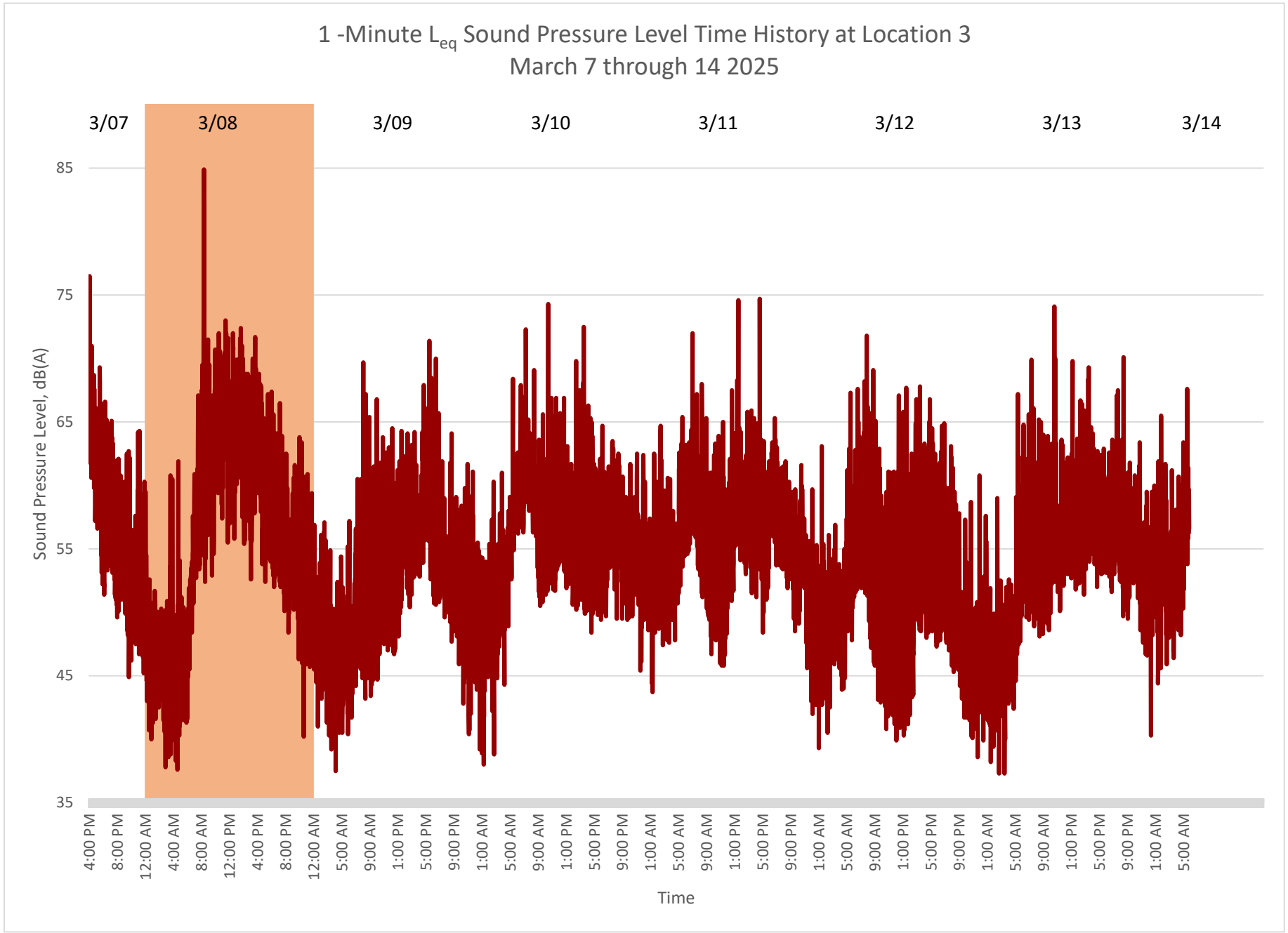
1 -Minute Leq Sound Pressure Level Time History at Location 3
March 7 through 14 2025
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Sound Pressure Level, dB(A)
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APPENDIX 19

MSV1 AMAZON DISTRIBUTION FACILITY

SITE PLAN AND SPECIAL PERMIT NARRATIVE

April 24, 2025

PROJECT DESCRIPTION

BMG Albany, LLC ("BMG") is proposing to develop property between N.Y.S. Route 5S ("Route 5S") and the New York State Thruway ("I-90") with an e-commerce logistics, storage and distribution facility on lands comprising approximately 137.24± acres in the Town of Florida (the "Town"), Montgomery County, New York (the "Project" or "MSV1"). The Project will be served by a new electric substation (the "Substation") to be separately owned by the user and operated by National Grid pursuant to an easement. The Project will be entirely built in the Town's Commercial ("C-2") zoning district on SBL # 54-1-36 (the "Project Site"), where warehouse/distribution centers are an allowed use subject to Special Permit and Site Plan approvals by the Town of Florida Planning Board (the "Planning Board") pursuant to the Town's Zoning Ordinance. Accordingly, to meet the needs of a new, specific user, BMG applied to the Planning Board for approval of MSV1 in January 2025, which together with a supplemental submission on February 20, 2025 and this SEQRA Expanded EAF submission comprise the Application for MSV1.

MSV1 will have a footprint of approximately 652,000 SF with five stories and a total floor area of approximately 3.2 million SF. Accessory features proposed for MSV1 include guard shacks; car parking spaces (including motorcycle parking spaces); trailer stalls and loading docks; water storage tanks; stormwater management practices and improvements; site driveways; lighting, landscaping; signage; and other related improvements. Once constructed, operational activities will take place within the proposed building in a secured environment that is not open to the public.

Access to and from Project Site will occur from three driveways along Route 5S. Primary access by passenger vehicles only would be provided from the center driveway, across from the eastern driveway from the existing Target distribution facility. BMG proposes to install a new traffic signal at this driveway intersection, with the addition of a new left-hand turn lane onto the Site, which will improve traffic conditions on Route 5S once the Project is operational. To the west of the primary driveway, a second driveway for trucks will provide a stop-controlled, full-movement intersection with Route 5S. The third driveway, to the east of the primary driveway, will be stop-controlled and provide right-in/right-out access only. This driveway will primarily be used by passenger vehicles, however, it will also be used for trucks leaving the Project Site during limited seasonal peak periods. Overall, it is anticipated that this design will reduce potential impacts from the Project on the Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

To connect MSV1 to public water and sewer, new service laterals will be connected to the existing Town of Florida water and sewer mains along Route 5S. The Project Site is located within existing water/sewer districts. Water will be provided to the Project for both potable and fire service purposes.

MSV1 will be built on vacant lands between Route 5S and I-90. As described above, traffic from the Project would enter onto Route 5S, an established east/west state highway with a connection to I-90 via N.Y.S. Route 30 ("Route 30") approximately 1.5 miles away to the east of the Site through a mostly commercial corridor. MSV1's layout is oriented towards I-90, with the building and parking areas located as far away from adjoining properties as possible. As discussed below, through the Project's design, including site layout, set-backs, architecture and landscaping, impacts to surrounding lots and the environment will be minimized while supporting the Town's long-term planning objectives to locate commercial/industrial development in the C-2 zoning district along the Route 5S corridor next to I-90.

Overall, MSV1's location and proposed use are entirely consistent with official planning goals where the Project Site is located. The Site is in the C-2 zoning district, where MSV1 is an allowed use that is encouraged by the Town of Florida's adopted Comprehensive Plan.

PROJECT CONFORMANCE WITH SITE PLAN REVIEW STANDARDS

The Project has been designed to conform with the Town of Florida standards for Site Plan Review as set forth in Zoning Ordinance § 22 as follows:

A. Legal Conformance with the provisions of the Local Laws and Ordinances of the Town, the Town Law of New York State, and all applicable rules and regulations of State and Federal agencies.

The Project is designed in accordance with the Town of Florida Zoning Ordinance and other agency requirements. The applicant is seeking approvals from the Town as well as all other agencies with discretionary approvals.

B. Traffic Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.

The Project's site design is intended to facilitate vehicular circulation and safe pedestrian movement on the site, along with adequate and safe access to and from Route 5S. A traffic study was prepared to evaluate potential traffic impacts from the Project. The study concluded that surrounding intersections would operate adequately after construction of the Project and recommended improvements without any significant traffic impacts. The following improvements were recommended: (a) a new signalized intersection between the Project's center driveway, Route 5S and the existing eastern driveway for the Target distribution center; and (b) a dedicated westbound left-turn lane of 400 feet into the Project's center driveway. These improvements will improve traffic conditions at the Project's new center driveway, which will be used for passenger vehicles entering and leaving the Project Site.

C. Parking Provision for off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate parking, adequate lighting, and internal traffic.

Ample parking is provided for trucks and employee vehicles on the Site consistent with the requirements set by the Town of Florida Zoning Board of Appeals pursuant to the Zoning

Ordinance. Lighting for safety designed to have minimal environmental impact is also part of the design. The Project's photometric plan shows little to no light spillage off the Site from the Project.

D. Public Services Reasonable demands placed on public services and infrastructure.

Public water and sewer will be provided for the Project with minimal impact. Truck traffic from the Project will use Routes 5S/30, state-maintained highways, for travel, resulting in no impact from heavy trucks on local roads maintained by the Town. No other costs for municipal services provided by the Town are expected. Nor is the Project expected to result in the addition of significant numbers of students to local schools, as employees are primarily expected to be drawn from the Town and nearby communities within commuting distance of the Project Site. Finally, a state-of-the-art fire suppression system for the Project's building will limit potential burdens on the Florida Volunteer Fire Department.

E. Pollution Control Adequacy of methods of sewage and refuse disposal and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.

Public sewer service will be provided to the Site and solid waste from the Project will be collected on a regular basis for off-site disposal by a private disposal company. The Project will be designed, constructed and operated in compliance with a Stormwater Pollution Prevention Plan (SWPPP) which meets the regulations and standards of the NYS Department of Environmental Conservation ("NYSDEC"). The SWPPP will ensure that surface waters are protected from contamination including erosion of sediments during construction.

F. Nuisances Protection of abutting properties and town amenities from any undue disturbances caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, storm water runoff, etc.

MSV1 will not result in any nuisance conditions or undue disturbances nearby properties or town amenities. As with the 2019 Project, no significant adverse noise, odor or light impacts are expected from MSV1. During construction, any noise and odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any noise and lighting impacts will be substantially mitigated so that no significant adverse impacts will occur.

Noise

During construction, blasting would occur during the initial phases of MSV1's construction in order to establish necessary elevation grades for the building and other improvements. This blasting will be very limited in duration during the first several months of construction. All blasting during construction would be performed pursuant to a program developed by a qualified geotechnical engineer to minimize impacts, including noise. Proposed measures to reduce potential noise from blasting include only conducting blasting activities during weekday working hours and not blasting when weather conditions, including wind direction, are unfavorable for avoiding noise impacts. No sensitive receptors, including residences, are located within 500 feet

of where blasting will occur on the Project Site. Notwithstanding, prior notice of planned blasting activities will be provided to all landowners within 500 feet of the overall Project Site's boundaries.

To evaluate potential onsite noise impacts based upon MSV1's proposed operations, BMG conducted a sound study (the "Sound Study") that demonstrates that the Project will comply with NYSDEC's noise guidelines and have no adverse impact on nearby residential uses. The Project Site is uniquely situated adjacent to I-90 and the Project's layout is purposefully oriented to be as far away as possible from residential uses to the north and east of the Project Site. This distance is a critical factor for reducing potential noise impacts from the Project. Also, the Sound Study found that existing ambient sound levels are heavily affected by the constant noise of passing traffic on Route 5S and I-90.

The Study also evaluated the potential for off-site noise impacts from MSV1 due to increased traffic based upon the TIS. This offsite sound study demonstrates that the projected noise impacts from increased traffic will not have any significant adverse impact on the residential or other sensitive receptors along the Routes 5S/30 commercial/industrial corridor between the Project Site and I-90. Specifically, based upon NYSDEC's noise guidance, the supplemental study found that all receptors would not experience any significant adverse impact from sound levels as compared to existing ambient conditions.

Odors

With respect to Odors, MSV1 is not anticipated to result in more than minimal impacts during construction and operation. During construction, any odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any odor impacts from mobile sources will be consistent with existing traffic along the Routes 5S/30 commercial/industrial corridor.

Light

Similarly, MSV1's lighting will not result in any significant adverse impacts. New, dark-sky compliant, modern and energy-efficient lighting will be used throughout the Project Site. See Appendix 4, Site Plans. Exterior site lighting will comply with the Zoning Ordinance and be the minimum necessary while ensuring a safe and secure facility. All proposed lighting will be downward facing and will minimize sky glow and light pollution from the Project Site. Where appropriate, lighting fixtures will be of a full cutoff type or provided with shields to reduce glare and light pollution. All fixture locations have been sited to avoid any light trespass onto adjacent properties. These measures have been incorporated to minimize otherwise potential adverse impacts from site lighting of the new building and parking facilities. Though MSV1 involves a taller building, mitigation measures including interior blinds will be employed to ensure that any higher windows do not contribute to new lighting impacts.

Stormwater

There are no existing stormwater controls on the Project Site. By contrast, the Project will greatly improve this condition by collecting and treating stormwater as required by NYSDEC's stormwater regulations and standards. The peak rate of stormwater run-off from the Site, after

construction of the new stormwater controls, will be the same or less as the current rate of run-off from the Site. The Project will provide an environmental benefit by improving stormwater treatment on the Site over existing conditions.

G. Existing Vegetation Minimize the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.

The Project has been designed to minimize the removal of existing vegetation to the maximum extent possible and to maximize the planting of landscaping. Post-construction, large areas of the Project Site will remain vegetated or will be planted with new vegetation, including trees. Approximately 12 acres of forest, 15 acres of wetlands and 11 acres of meadows are expected to remain, with a total of approximately 56 acres of the Site expected to be vegetated after construction of the Project.

H. Amenities The applicant's efforts to integrate the proposed development into existing landscape through design features, such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.

The Project includes a proposed landscaping plan to soften the visual appearance of the Project along with the retention of existing forest, wetlands and meadows as described above. The Project will add new landscaping around the perimeter of the Site as well as new landscaped islands in the parking lots to help improve the Site's appearance. Existing open space and wetland areas between I-90 and the Project will be maintained and remain undisturbed.

I. Town Character The building setbacks, area and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding landscape and the natural landscape.

The Project's design complies with all area requirements provided by the Town's Zoning Ordinance and no variances are required. Signage will comply with the Town of Florida Zoning Ordinance. Parking areas on the Site will be reused in generally the same location and upgraded and improved. As discussed above, new landscaping will be added to the Site. The building design addresses aesthetic and architectural considerations through building improvements intended to be consistent with neighboring commercial and industrial buildings.

MSV1 conforms to the existing and planned character of the area where the Project Site is located. The Project will be located on lands in the C-2 district between Route 5S and I-90 and across Route 5S from the IBP district. There is existing commercial and industrial development in the C-2 district to the east and west of the Project Site and two warehouse/distribution centers in the IBP district to the north of the Site across Route 5S, with I-90 bounding the Project Site to the south. Further, in the C-2 district where the Site is located, new residential uses are not allowed, so no further development of homes may occur there. In this context, MSV1 is entirely consistent with, and will improve, the immediately surrounding C-2 zoning district's primarily nonresidential community character.

PROJECT CONFORMANCE WITH SPECIAL PERMIT STANDARDS

The Project conforms with the Town of Florida standards for Special Permit review set forth in Zoning Ordinance § 26 as follows:

1. That all proposed structures, equipment, or material shall be readily accessible for fire and police protection.

Based on the Project's site plans, all elements of the Project will be readily accessible for fire and police protection.

2. That the proposed use is of such location, size, and character that, in general, it will be in harmony with the appropriate and orderly development of the district in which it is proposed to be situated and will not be detrimental to the orderly development of adjacent properties in accordance with the zoning classification of such properties.

The Project will be consistent with the character of the C-2 district where the Project Site is located. The Site in is entirely within the C-2 district between Route 5S and I-90 and across Route 5S from the IBP district. There is existing commercial and industrial development in the C-2 district to the east and west of the Project Site and two warehouse/distribution centers in the IBP district to the north of the Site across Route 5S, with I-90 bounding the Project Site to the south. Further, in the C-2 district where the Site is located, new residential uses are not allowed, so no further development of homes may occur there. In this context, MSV1 is entirely consistent with the existing C-2 zoning district's primarily nonresidential community character. Finally, in 2019, the Planning Board conditionally approved a 1,000,000 SF warehouse/distribution center on the Project Site. The development of the Site by the Project is thus in harmony with the west to east progression of development of the C-2 Commercial District, together with the north to south development of the area comprised of the C-2 and IBP districts, targeted by the Town's Comprehensive Plan for industrial and commercial development.

3. That, in addition to the above, in the case of any use located in, or directly adjacent to a residential district: (a) The location size of such use, the nature and intensity of operations involved in or conducted in connection therewith, its site layout and its relation to access street shall be such that both pedestrian and vehicular traffic to and from the use and the assembly of persons in connection therewith will not be hazardous or incongruous with, the said residential district or conflict with the normal traffic or the neighborhood and use of adjacent land and buildings or diminish the value thereof. (b) The location and height of buildings and structures, the location, nature, and height of walls and fences, and the nature and extent of screening and landscaping on the site shall be such that the use will not hinder or discourage the appropriate development.

The Project Site is not located in or directly adjacent to a residential district. It is bounded by C-2 Commercial District lands to the east and west, IBP District lands to the north, and I-90 and Agricultural District lands to the south.

APPENDIX 20

MSV1 AMAZON DISTRIBUTION FACILITY ("MSV1")

Disadvantaged Communities Report

April 24, 2025

Executive Summary

The purpose of this report is to assess, for purposes of the Planning Board's SEQRA review as the designated lead agency, whether MSV1 will have a significant adverse impact on pollution in the designated disadvantaged community (the "DAC") that is within ½ mile of the Project Site and includes the primarily commercial and industrial travel corridor along N.Y.S. Routes 5S ("Route 5S") and 30 ("Route 30") between the Site and the U.S. Interstate 90 ("I-90") interchange that automobiles and trucks from MSV1 will predominantly use. Based on the analysis below, MSV1 will not result in any significant adverse pollution impacts on the DAC.

Project Description

BMG Albany, LLC ("BMG") is proposing to develop property between N.Y.S. Route 5S ("Route 5S") and the New York State Thruway ("I-90") with an e-commerce logistics, storage and distribution facility on lands comprising approximately 137.24± acres in the Town of Florida (the "Town"), Montgomery County, New York (the "Project" or "MSV1"). The Project will be served by a new electric substation (the "Substation") to be separately owned by the user and operated by National Grid pursuant to an easement. The Project will be entirely built in the Town's Commercial ("C-2") zoning district on SBL # 54-1-36 (the "Project Site"), where warehouse/distribution centers are an allowed use subject to Special Permit and Site Plan approvals by the Town of Florida Planning Board (the "Planning Board") pursuant to the Town's Zoning Ordinance. Accordingly, to meet the needs of a new, specific user, BMG applied to the Planning Board for approval of MSV1 in January 2025, which together with a supplemental submission on February 20, 2025 and this SEQRA Expanded EAF submission comprise the Application for MSV1.

MSV1 will have a footprint of approximately 652,000 square feet ("SF") with five stories and a total floor area of approximately 3.2 million SF. Accessory features proposed for MSV1 include guard shacks; car parking spaces (including motorcycle parking spaces); trailer stalls and loading docks; water storage tanks; stormwater management practices and improvements; site driveways; lighting, landscaping; signage; and other related improvements. Once constructed, operational activities will take place within the proposed building in a secured environment that is not open to the public.

Access to and from Project Site will occur from three driveways along Route 5S. Primary access by passenger vehicles only would be provided from the center driveway, across from the eastern driveway from the existing Target distribution facility. BMG proposes to install a new traffic signal at this driveway intersection, with the addition of a new left-hand turn lane onto the Site, which will improve traffic conditions on Route 5S once the Project is operational. To the west of the primary driveway, a second driveway for trucks will provide a stop-controlled, full-

movement intersection with Route 5S. The third driveway, to the east of the primary driveway, will be stop-controlled and provide right-in/right-out access only. This driveway will primarily be used by passenger vehicles, however, it will also be used for trucks leaving the Project Site during limited seasonal peak periods. Overall, it is anticipated that this design will reduce potential impacts from the Project on the Route 5S corridor and adjacent properties by providing efficient access and appropriate on-site circulation.

To connect MSV1 to public water and sewer, new service laterals will be connected to the existing Town of Florida water and sewer mains along Route 5S. The Project Site is located within existing water/sewer districts. Water will be provided to the Project for both potable and fire service purposes.

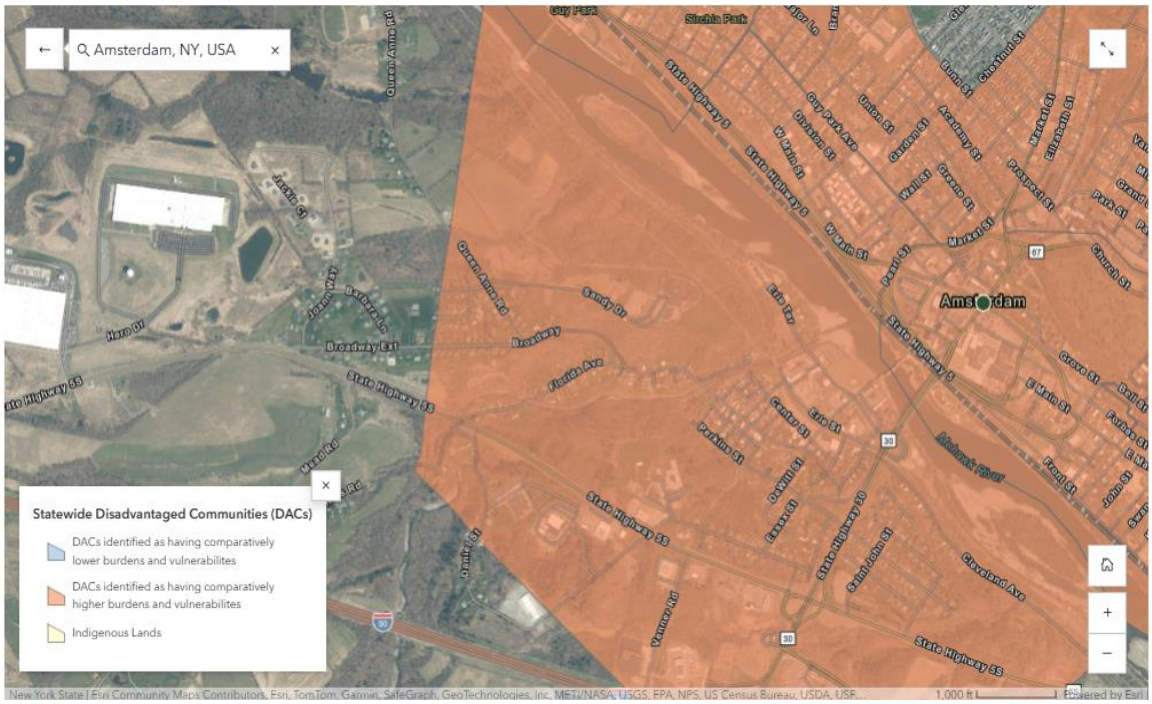
MSV1 will be built on vacant lands between Route 5S and I-90. As described above, traffic from the Project would enter onto Route 5S, an established east/west state highway with a connection to I-90 via Route 30 approximately 1.5 miles away to the east of the Site through a commercial corridor. MSV1's layout is oriented towards I-90, with the building and parking areas located as far away from adjoining properties as possible. As discussed below, through the Project's design, including site layout, set-backs, architecture and landscaping, impacts to surrounding lots and the environment will be minimized while supporting the Town's long-term planning objectives to locate commercial/industrial development in the C-2 zoning district along the Route 5S corridor next to I-90.

Overall, MSV1's location and proposed use are entirely consistent with official planning goals where the Project Site is located. The Site is in the C-2 zoning district, where MSV1 is an allowed use that is encouraged by the Town of Florida's adopted Comprehensive Plan.

Designated Disadvantaged Community

New York's Climate Leadership & Community Protection Act ((“CLCPA”), New York Environmental Conservation Law Article 75, established the Climate Justice Working Group (‘CJWG”) comprised of representatives from environmental justice communities, the New York State Departments of Environmental Conservation, Health and Labor, and the New York State Energy and Research Development Authority. The CJWG was charged with developing criteria for identifying disadvantaged communities and developing a list of such communities in New York State.

Portions of the Town of Florida near the Project Site and including MSV1's primary traffic route along Routes 5S/30 to I-90, have been designated by the CJWG as a disadvantaged community. The DAC includes a portion the C-2 zoning district established by the Town for commercial and industrial uses where the Project Site is located and where no new residential uses are allowed. The C-2 district comprises the vast majority of the land along the Route 5S corridor. The DAC also includes a small portion of the R-1 residential zoning district along Route 30. The DAC for this area is shown on the following map obtained from the online Disadvantaged Community Assessment Tool provided by NYSDEC:



DAC and SEQRA Review

For the Planning Board's review of the Project pursuant to the New York State Environmental Quality Review Act, ECL Article 8, and its implementing regulations in 6 NYCRR Part 617 (collectively, "SEQRA"), this report evaluates the potential impacts of the Project on the DAC where the Project Site is located, which also includes the primary travel corridor along Route 6 and Route 17M through which Project traffic will travel.

Effective in December 2024, legislative changes to the SEQRA law addressed the need for consideration of DACs through the addition of the following **bolded** language in ECL § 8-0109(4):

> "As early as possible in the formulation of a proposal for an action, the responsible agency shall make an initial determination as to whether an environmental impact statement need be prepared for the action. **In making such determination for any proposed action the responsible agency shall consider whether such action may cause or increase a disproportionate pollution burden on a disadvantaged community that is directly or significantly indirectly affected by such action.** When an action is to be carried out or approved by two or more agencies, such determination shall be made as early as possible after the designation of the lead agency."

"Pollution," as the term is used in the new language added to ECL § 8-0109(4), has the same definition as provided in ECL §1-0303(19):

> "'Pollution' shall mean the presence in the environment of conditions and or contaminants in quantities of characteristics which are or may be injurious to human, plant or animal life

or to property or which unreasonably interfere with the comfortable enjoyment of life and property throughout such areas of the state as shall be affected thereby."

NYSDEC has recently introduced proposed amendments to its SEQRA regulations in 6 NYCRR Part 617 to implement this new statutory provision. The proposed amendments to the SEQRA regulations would require agencies, in making a determination pursuant to 6 NYCRR § 617.7(7)(c) as to whether a project may result in a significant adverse impact to the environment, to consider whether the project:

"may cause or increase a disproportionate pollution burden on a disadvantaged community that is directly or significantly indirectly affected by such action."

NYSDEC has also proposed a draft addition to Parts 1 and 2 of the existing Full Environmental Assessment Form ("FEAF") for DACs. NYSDEC's proposed addition to the FEAF Part 1, which is used by applicants to describe a proposed SEQRA action, has been completed below for MSV1:

E.4. Disadvantaged Communities Designated Pursuant to ECL Article 75

a. Is the project located within, or within ½ mile of, a disadvantaged community? ☒Yes ☐No

If No, could impacts from the project affect a disadvantaged community? ☐Yes ☐No

If Yes to either question in E.4.a, answer the remaining questions in this section.

b. Will there be direct or indirect impacts that may affect a disadvantaged community, such as those listed below? ☒Yes ☐No

i. new noise sources or expansions/modification of existing noise sources;
   - noise from operational sources
   - noise from construction activities
ii. emissions of air pollutants including mobile emissions;
iii. wastewater discharges;
iv. generation of odors;
v. light pollution;
vi. new or modified radiation sources;
vii. new or modified sources of solid waste generation, management, or disposal.

If Yes, describe the impacts: Noise, Air Emissions, Wastewater, Odors, Light

c. Do any of the State agency approvals identified in question B.g include any of the following DEC permits?

State Pollutant Discharge Elimination System (SPDES)	☒Yes	☐No
Solid Waste Management Facility	☐Yes	☐No
Hazardous Waste Management Facility	☐Yes	☐No
Air Pollution Control (Title V or Air State Facility)	☐Yes	☐No
Water Withdrawal over 20 MGD for Cooling Water	☐Yes	☐No
Waste Transporter	☐Yes	☐No

NYSDEC has also proposed an amended FEAF Part 2, which the Planning Board may use to identify potential impacts from MSV1 on the DAC. The draft changes to the FEAF Part 2 would require agencies to identify as a threshold matter whether a project may impact a designated disadvantaged community. If the answer is "yes," agencies must answer several questions regarding whether the project, including its proposed measures to avoid or minimize potential impacts, may have "no to minimal impact" or a "moderate to large impact" on the disadvantaged community. For every potential "moderate to large impact" identified for a proposed action and its measures to avoid or minimize impacts, the agency must then determine and explain whether any remaining impact would potentially be a "significant adverse impact" that requires the

preparation of an environmental impact statement for further evaluation of those impacts. Accordingly, the proposed, amended FEAF Part 2 would add a new Section 19 for agencies to use in their SEQRA review pursuant to 6 NYCRR § 617.7(7)(c) of the potential impacts of a proposed action and its avoidance/minimization measures on disadvantaged communities as follows:

19. Impact on Disadvantaged Communities

The proposed project may impact a disadvantaged community. (See Part 1. E.4) ☐ NO ☐ YES

If "Yes", answer questions a - g . If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Is the potentially affected disadvantaged community identified as having comparatively higher burdens or vulnerabilities by the Disadvantaged Community Assessment Tool (https://on.ny.gov/DACAT)?	E.4.c	☐	☐
b. The proposed action may create new air emissions or increase existing air emissions within a disadvantaged community.	D.2.f-i, E.4	☐	☐
c. The proposed action may create new wastewater treatment or discharges, or expand existing wastewater treatment or discharges, within a disadvantaged community.	D.2.d	☐	☐
d. The proposed action creates or expands a solid or hazardous waste management facility, or involves the generation of solid or hazardous waste, within or near a disadvantaged community.	D.2.r, D.2.s, D.2.t, E.1.f, E.1.g	☐	☐
e. The proposed action may increase traffic within a disadvantaged community.	D.2.j	☐	☐
f. The proposed action affects or involves one or more of the following facility types: i. landfill; ii. other industrial, manufacturing, or mining land uses; iii. major oil or chemical bulk storage facility; iv. municipal waste combustor; v. power generation facility; vi. risk management plan site; vii. remediation site; or viii. scrap metal processor.	C.3.c, D.1.a, D.1.g, D.2.a, D.2.d, D.2.f, E.1.a, E.1.b. E.1.h, E.1.v, E.4	☐	☐
g. Other impacts: _____		☐	☐

For the Planning Board's SEQRA review of the potential impacts of MSV1 on the DAC, this report follows NYSDEC's proposed new regulations in 6 NYCRR Part 617 and the proposed amendments to FEAF Parts 1 and 2, including guidance on how to implement the proposed amendments for disadvantaged communities that NYSDEC has provided in the proposed SEQRA rulemaking package (https://dec.ny.gov/sites/default/files/2025-01/part617risguidanceappc.pdf.). For the reasons discussed below, BMG respectfully submits that MSV1 will not have a significant adverse impact on the DAC.

FEAF Part 1 – Potential Direct or Indirect Impacts from MSV1 on the DAC

As noted above, the Project Site is located within ½ mile of the DAC. The Project has the potential for the following moderate to large "pollution" impacts on the DAC referenced in the proposed FEAF Part 1 completed by BMG above for MSV1:

1. Noise from construction and operational activities, including noise on the Project Site and from truck traffic traveling to and from the Site along Routes 5S/30 to I-90; and
2. Air emissions during construction and operation, including onsite air emissions and from mobile sources (automobiles and trucks) traveling to and from the Site along Routes 5S/30 to I-90.

The Project is not a manufacturing facility, hazardous waste generation or treatment facility or a solid waste management facility. It will not require any DEC air emission permits or air registrations. Pursuant to NYSDEC regulations, any truck idling onsite is not permitted longer than five minutes. Based on the Project's lighting plan, no light spillage will occur off the site and all lights will be downward-directed and dark sky compliant. As noted in the FEAF Part 1, the Project will also generate a limited amount of solid waste, which will be transported offsite and managed and disposed of in accordance with NYSDEC regulatory requirements. As a result, the Project is not anticipated to result in any significant adverse impacts on the DAC from odors or solid waste. The Project will not generate any radiation and its minimal wastewater (from a limited number of restrooms) will be collected, managed and treated by a publicly-owned wastewater treatment plant that is not located on the Project Site or in this DAC and the treated discharge from which is subject to a NYSDEC SPDES permit. Accordingly, no more than minimal direct or indirect impacts on the DAC from the Project are expected from these sources of "pollution."

Stormwater from the Project during construction and operation will be regulated pursuant to NYSDEC's General Permit GP-0-25-001 for stormwater discharges and a stormwater pollution prevention plan (SWPPP). Accordingly, only minimal impacts from these potential sources of "pollution" are reasonably anticipated.

FEAF Part 2 – Evaluation of Potential Impacts from MSV1 on the DAC

The FEAF Part 2 will be completed by the Planning Board for MSV1 and the Board may decide to use NYSDEC's proposed addition to the FEAF Part 2 for disadvantaged communities to facilitate its evaluation of the potential impacts of MSV1 on the DAC. To assist the Planning Board in its SEQRA review of MSV1's potential impacts on the DAC, BMG provides the following recommended responses to the Questions posed in NYSDEC's proposed addition to the FEAF Part 2 for disadvantaged communities:

Question 19(a) – Is the potentially affected disadvantaged community identified as having comparatively higher burdens or vulnerabilities by the Disadvantaged Community Assessment Tool (https://on.ny.gov/DACAT)?

The DAC where the Project is located is identified as having comparatively higher burdens of vulnerabilities by the Disadvantaged Community Assessment Tool.

Question 19(b) – The proposed action may create new air emissions or increase existing air emissions within a disadvantaged community.

To evaluate the potential air quality impacts of MSV1, both at the Project Site and between the Site and the I-90 interchange along Routes 5S/30, BMG prepared an air quality report (the "Study") attached to the SEQRA Expanded EAF Narrative as Appendix 12. The Study estimated

the projected future cumulative emissions from mobile sources (i.e., passenger vehicles and long-haul trucks) using Environmental Protection Agency ("EPA") approved modeling software and the traffic volume projections provided in the Traffic Impact Study ("TIS") for MSV1 discussed below. The TIS considered MSV1's mobile sources and other existing and projected based upon a 2027 expected operational timeframe for the Project. The air quality dispersion modeling results were compared to EPA's National Ambient Air Quality Standards ("NAAQS") to determine if there are potential air quality impacts to nearby sensitive receptors (i.e., local residential areas and schools).

The potential impacts of mobile source emissions on sensitive receptors focused on areas that would also be affected by Project 's mobile sources. Specifically, these areas include the Routes 5S/30 corridor between the MSV1 site and I-90, areas of public access and residential areas along Routes 5S/30. Modelling receptors were conservatively placed along this corridor. The surrounding area was reviewed for sensitive locations, such as schools, hospitals, and nursing homes.

With respect to potential impacts on air quality from MSV1 and existing and projected mobile air emission sources along the Routes 5S/30 corridor to I-90, the Study found that projected emissions associated with mobile sources in 2027, added to background concentrations, would not result in an exceedance of the applicable air quality standards at any receptor locations, including at sensitive receptor locations. This includes from mobile sources operating on MSV1's site as well as between the Site and I-90 along the Routes 5S/30 corridor.

In addition to the analysis discussed above, the potential for cumulative air quality impacts from mobile sources on ozone was considered. Ozone is a colorless gas composed of three oxygen atoms, known chemically as O3. It occurs both in the Earth's upper atmosphere and at ground level. Ground-level ozone is a major component of smog and poses health risks to humans, animals, and vegetation. The formation of ground-level ozone is a photochemical process involving precursor pollutants such as NOX and volatile organic compounds ("VOCs").

The Study found that projected emissions of NOx associated with projected mobile sources in 2027, added to background concentrations, would not result in an exceedance of applicable air quality standards and therefore, projected contributions of NOx to the formation of ozone are expected to be minor. Additionally, the Study included consideration of four pollutants which are VOCs. These VOCs are projected to be below the respective regulatory thresholds; therefore, projected contributions of VOCs to the formation of ozone are also expected to be minor.

Accordingly, based on this conservative analysis that considered the potential for cumulative impacts beyond those of MSV1 alone, MSV1 will not result in any significant adverse impacts to air quality in the DAC where the Project is located and through which Project traffic will travel along Routes 5S/30 to I-90.

Question 19(c) – The proposed action may create new wastewater treatment or discharges, or expand existing wastewater treatment or discharges, within a disadvantaged community.

MSV1 will expand existing wastewater treatment or discharges, within a disadvantaged community. Wastewater from the Project will be pumped from the Site through an underground force main through the Town's sanitary infrastructure to the City of Amsterdam wastewater treatment plant, where it will be treated prior to discharge in accordance with a NYSDEC SPDES permit. The Amsterdam plant is located in an adjoining DAC census tract and wastewater discharges are not identified as a significant pollution burden in that DAC. The discharge from Project will not require any pretreatment because it will consist only of sanitary wastewater from a limited number of restrooms. Accordingly, MSV1 will have a minimal impact on the DAC as a result of its expansion of the wastewater discharge at the Amsterdam wastewater treatment plant.

Question 19(d) – The proposed action creates or expands a solid or hazardous waste management facility, or involves the generation of solid or hazardous waste, within or near a disadvantaged community.

As reflected in the FEAF Part 1 provided as Appendix 8 to the SEQRA Expanded EAF Narrative submitted by BMG, MSV1 will not result in the generation of any hazardous waste and will not be a solid waste management facility. Per the FEAF 1, MSV1 will generate an estimated 1-2 tons per month of solid waste during operations that will be hauled offsite and disposed of by a private carting business at a licensed and permitted solid waste management facility subject to NYSDEC permit requirements. No solid or hazardous waste will be disposed of on the Project Site**.**

Question 19(e) – The proposed action may increase traffic within a disadvantaged community.

MSV1 will result in an increase in traffic within the DAC but will not result in any significant adverse impact to the DAC based upon the cumulative Traffic Impact Study ("TIS") included as Appendix 17 to the SEQRA Expanded EAF Narrative for MSV1 and its discussion in Section 13 of the Narrative. Based on the TIS, MSV1's potential for traffic impacts will not have a significant adverse impact on the DAC.

Site access is proposed via three driveway locations along the Project Site's approximately 4,000 feet of frontage on Route 5S. The primary access is the central driveway, proposed to intersect Route 5S opposite Target Drive East, and will be used by passenger vehicles only. This driveway will be full-movement and signalized to improve operational delays. The western driveway will be a stop-controlled full-movement intersection for trucks only. The eastern driveway will be used by passenger vehicles only except during limited seasonal peak periods when outbound site trucks may use it as well. The eastern driveway will be a stop-controlled right-in/right-out only access.

Offsite, the TIS evaluated the potential traffic impact of the Project on the Routes 5S/30 corridor and nearby roadways. Thee TIS analyzed roadway volumes under two conditions, including the "Roadway Peak Hour Condition" and "Generator Peak Hour Condition". Since a

user has been identified for MSV1, actual trip rates based upon staggered employee shift times and operations at other, similar facilities were able to be used for the TIS. This provides more accurate data for purposes of the MSV1 TIS and the Planning Board's review. Since the user's required timing of shift changes and corresponding loading/unloading operations do not correspond to the peak hours for traffic on surrounding roadways, MSV1's traffic impact during the Roadway Peak Hour Condition is reduced. For the Roadway Peak Hour Condition, the weekday morning peak hour of the adjacent roadway system occurs from 7:30 AM to 8:30 AM and the weekday evening peak of the adjacent roadway system occurs from 3:30 PM to 4:30 PM. MSV1 will have two general shifts for employees with peak traffic occurring from 6:30 AM to 7:30 AM and from 5:30 PM to 6:30 PM, representing the Generator Peak Hour Condition.

The TIS conducted a capacity analysis at the following intersections:

- 5S and NYS Route 30 Southbound Ramps / P.S. Street;
- 5S and NYS Route 30 Northbound Ramps;
- NYS Route 30 and Route 5S Ramps;
- NYS Route 30 and I-90 Exit 27 Ramps;
- Route 5S and Target Driveway East / Proposed Central Driveway;
- Route 5S and Proposed West Driveway; and
- Route 5S and Proposed East Driveway.

MSV1 is expected to be operational in 2027, so the TIS analyzes the capacity of local roadways and intersections to handle the addition of MSV1 traffic in 2027 during the Roadway Peak Hour Condition and Generator Peak Hour Condition based on projected future traffic levels. For this analysis, the TIS used current traffic counts and estimated a 1.8% per year increase in future traffic to develop projected "2027 No-Build" traffic volumes that do not include MSV1's anticipated traffic. MSV1's site-generated trips were then added to the 2027 No-Build traffic volumes to provide the 2027 Build traffic volumes. Based on a review of the analysis, with the addition of the improvements recommended in the TIS, the TIS concludes that the adjacent roadway network and proposed driveway system have the capacity to accommodate the anticipated traffic from MSV1 without resulting in any significant adverse impacts. Specifically, with the anticipated addition of MSV1 traffic in 2027, all of the studied intersections (except for the proposed intersection between MSV1's central driveway and Target's eastern driveway on Route 5S) will continue to provide acceptable levels of service without any additional mitigation measures.

Proposed mitigation measures to minimize traffic impacts from MSV1 are only recommended for the proposed intersection of the Project's central driveway and Target's eastern driveway on Route 5S. To improve traffic conditions at this new intersection, a traffic signal will be provided. In addition, the TIS recommends the widening of Route 5S at this intersection to provide a dedicated, 400-foot westbound left turn lane into the Project's central driveway. The TIS has been submitted to NYSDOT for its review and these improvements will be undertaken subject to NYSDOT review and approval.

For the foregoing reasons, MSV1's traffic will not result in any significant adverse impacts on the DAC.

Question 19(f) – The proposed action affects or involves one or more of the following facility types: landfill; other industrial, manufacturing, or mining land uses; major oil or chemical bulk storage facility; municipal waste combustor; power generation facility; risk management plan site; remediation site; or scrap metal processor.

MSV1 will develop vacant lands between Route 5S and I-90 in the C-2 zoning district with an e-commerce logistics, storage and distribution facility, on a Project Site where a warehouse/distribution center use such as the Project is allowed by the Town's Zoning Ordinance and is consistent with the Town's Comprehensive Plan. MSV1's location and proposed use are fully consistent with the community's plans for the C-2 zoning district. MSV1 will be next to I-90 along an existing commercial/industrial corridor on a state highway and in a zoning district purposefully designated by the Town for uses like Project.

All of the lands in the C-2 district are located immediately adjacent to I-90 along Route 5S and to the west of the nearby I-90 interchange, while almost all of the Town lands further away from the interchange are zoned for agricultural and/or residential uses. This land use planning goal is reflected in the Town's Comprehensive Plan. The Project will be located on lands in the C-2 district between Route 5S and I-90 and across Route 5S from the IBP district. There is existing commercial and industrial development in the C-2 district to the east and west of the Project Site and two warehouse/distribution centers in the IBP district to the north of the Site across Route 5S, with I-90 bounding the Project Site to the south.

MSV1 will have minimal impact upon community infrastructure and the benefits that the Project will provide will far exceed the cost of any additional services required as a result of the Project. As proposed, MSV1 will significantly contribute to the achievement of the community's goals through:

- Substantial building permit fees for the Project will be paid to the Town for the Project;
- Creation of a minimum of 300 construction jobs through the construction of the Project;
- Creation of a minimum of 750 permanent jobs with full comprehensive benefits and educational opportunities, plus hundreds of part-time and seasonal jobs;
- Productive use of a vacant site in the C-2 zoning long-targeted for industrial development;
- Significant increase in the taxable value of the Project Site, with a total capital investment in excess of several hundred million dollars;
- Indirect employment resulting from the build-out of Project;
- Local procurement opportunities for small businesses;
- Ancillary economic output due to employment and construction; and
- Positive impact creating substantial new opportunities with fiscal benefits supporting local public schools and community infrastructure.

As discussed above, while the Project's building is taller than the building approved by the Planning Board for the 2019 Project, the potential visual impacts of the Project on nearby residential uses will be lessened by intervening vegetation, along with an attractive architectural design for the Project. Further, due to the location of the Project Site in the C-2 district, some visibility of the Project from surrounding uses is to be reasonably expected.

Based on its design and layout, MSV1 will be consistent with the character of this area of the C-2 district along I-90 and the Town's existing and planned Route 5S commercial/ industrial corridor. The Project Site will be repurposed with a use appropriate to its location in this district, substantially benefitting the Town.

Accordingly, the Project will be consistent with the Town's expectations for the community character of the C-2 district and will not have any significant adverse impact on the DAC.

Question 19(g) – Other "pollution" impacts

For the following reasons and based upon the SEQRA Expanded EAF Narrative and its appendices, MSV1 will not have any significant adverse impacts on the DAC from the following other forms of pollution as follows:

Noise

MSV1's potential for impacts on Noise will not have a significant adverse impact on the DAC.

As with the 2019 Project, no significant adverse noise, odor or light impacts are expected from MSV1. During construction, any noise and odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any noise and lighting impacts will be substantially mitigated so that no significant adverse impacts will occur.

During construction, like the 2019 Project, blasting would occur during the initial phases of MSV1's construction in order to establish necessary elevation grades for the building and other improvements. This blasting will be very limited in duration during the first several months of construction. All blasting during construction would be performed pursuant to a program developed by a qualified geotechnical engineer to minimize impacts, including noise. Proposed measures to reduce potential noise from blasting include only conducting blasting activities during weekday working hours and not blasting when weather conditions, including wind direction, are unfavorable for avoiding noise impacts. No sensitive receptors, including residences, are located within 500 feet of where blasting will occur on the Project Site. Notwithstanding, prior notice of planned blasting activities will be provided to all landowners within 500 feet of the overall Project Site's boundaries.

To evaluate potential onsite noise impacts based upon MSV1's proposed operations, BMG conducted a sound study (the "Sound Study") that demonstrates that the Project will comply with NYSDEC's noise guidelines and have no adverse impact on nearby residential uses. See Appendix

18. The Project Site is uniquely situated adjacent to I-90 and the Project's layout is purposefully oriented to be as far away as possible from residential uses to the north and east of the Project Site. This distance is a critical factor for reducing potential noise impacts from the Project. Further, MSV1's loading docks will face away from nearby residences, so the intervening building will block noise associated with truck activities at those loading docks. Also, the Sound Study found that existing ambient sound levels are heavily affected by the constant noise of passing traffic on Route 5S and I-90.

The Study also evaluated the potential for off-site noise impacts from MSV1 due to increased traffic based upon the TIS. See Appendix 17. This offsite sound study demonstrates that the projected noise impacts from increased traffic will not have any significant adverse impact on the residential or other sensitive receptors along the Routes 5S/30 commercial/industrial corridor between the Project Site and I-90. Specifically, based upon NYSDEC's noise guidance, the supplemental study found that all receptors would not experience any significant adverse impact from sound levels as compared to existing ambient conditions.

For the foregoing reasons, the potential impacts of MSV1 on Noise will not result in any significant adverse impact on the DAC.

Odors

With respect to Odors, MSV1 is not anticipated to result in more than minimal impacts to the DAC associated with construction and operation. During construction, any odor impacts from construction equipment will be temporary, of short duration and non-significant. MSV1, when operational, is not anticipated to generate any odor impacts and any odor impacts from mobile sources on the DAC will be consistent with existing traffic along the Routes 5S/30 commercial/industrial corridor.

Light

Similarly, MSV1's lighting will not result in any significant adverse impacts on the DAC. New, dark-sky compliant, modern and energy-efficient lighting will be used throughout the Project Site. See Appendix 4, Site Plans. Exterior site lighting will comply with the Zoning Ordinance and be the minimum necessary while ensuring a safe and secure facility. All proposed lighting will be downward facing and will minimize sky glow and light pollution from the Project Site. Where appropriate, lighting fixtures will be of a full cutoff type or provided with shields to reduce glare and light pollution. As shown on the Site Plans, the fixture locations have been sited to avoid any light trespass onto adjacent properties. These measures have been incorporated to minimize otherwise potential adverse impacts from site lighting of the new building and parking facilities. Though MSV1 involves a taller building, mitigation measures including interior blinds will be employed to ensure that any higher windows do not contribute to new lighting impacts. Also, since the building involves a substantially smaller footprint than the 2019 Project, it is likely that fewer windows overall will be provided.