
VISUAL IMPACT ANALYSIS

153 YMCA Road Wind

For Proposed Site Work at:

153 YMCA Road
Florida, NY 12010

Prepared by:



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Dated: April 20, 2022

Revised: July 25, 2022

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Introduction

This Visual Impact Analysis has been performed for a proposed Wind Energy Generating project located in the town of Florida, NY on a 135 acre parcel south of YMCA Road. The subject parcel is approximately 1.5 miles from the Florida Town Hall. A single 4.3 MW wind turbine is proposed to be located on this parcel. The proposed wind turbine has been sited on the parcel to balance the constraints of visual impact, natural resource impacts, noise, shadow, and energy production. In coordination with this analysis, Borrego and Hartgen Associates have been coordinating with the New York State Historic Preservation Office (SHPO) to ensure compliance with any State requirements.

Existing Conditions

The existing condition on the parcel is predominantly rural agricultural land. Nearby areas consist of agricultural land and low density rural residential land. No residential structures exist on site. Neighboring residences are closest at the end of YMCA Road to the east and on Bean Hill Road to the north.

Scenic Resources of Statewide Significance

The site is not located within any of the designated Scenic Resources of Statewide Significance as defined by the NYSDEC.

Local Resources

Areas of local significance include the Erie Canalway Trail and the Mohawk Valley Gateway Overlook. The Schoharie Creek runs to the west of the site. The Lost Valley State Forest is within 5 miles.

Proposed Conditions

The proposed project features a single Wind Turbine located approximately 1500 feet south of YMCA Road, at coordinates 42°52'10.57"N, 74°13'48.99"W. The turbine will produce 4.3 MW of electricity, which will be interconnected to the distribution grid along YMCA Road. The turbine tower stands 354 feet tall at the hub, and features 246 foot blades, for a total tip height of 650 feet. Ancillary equipment installed will include a gravel crane pad, ground mounted electrical equipment, and a series of utility poles near YMCA Road. The utility poles installed will be 35 feet to 40 feet in height.

The location of the turbine is approximately 1130 feet above mean sea level. Please see Figure 1 below for a location map of the turbine.

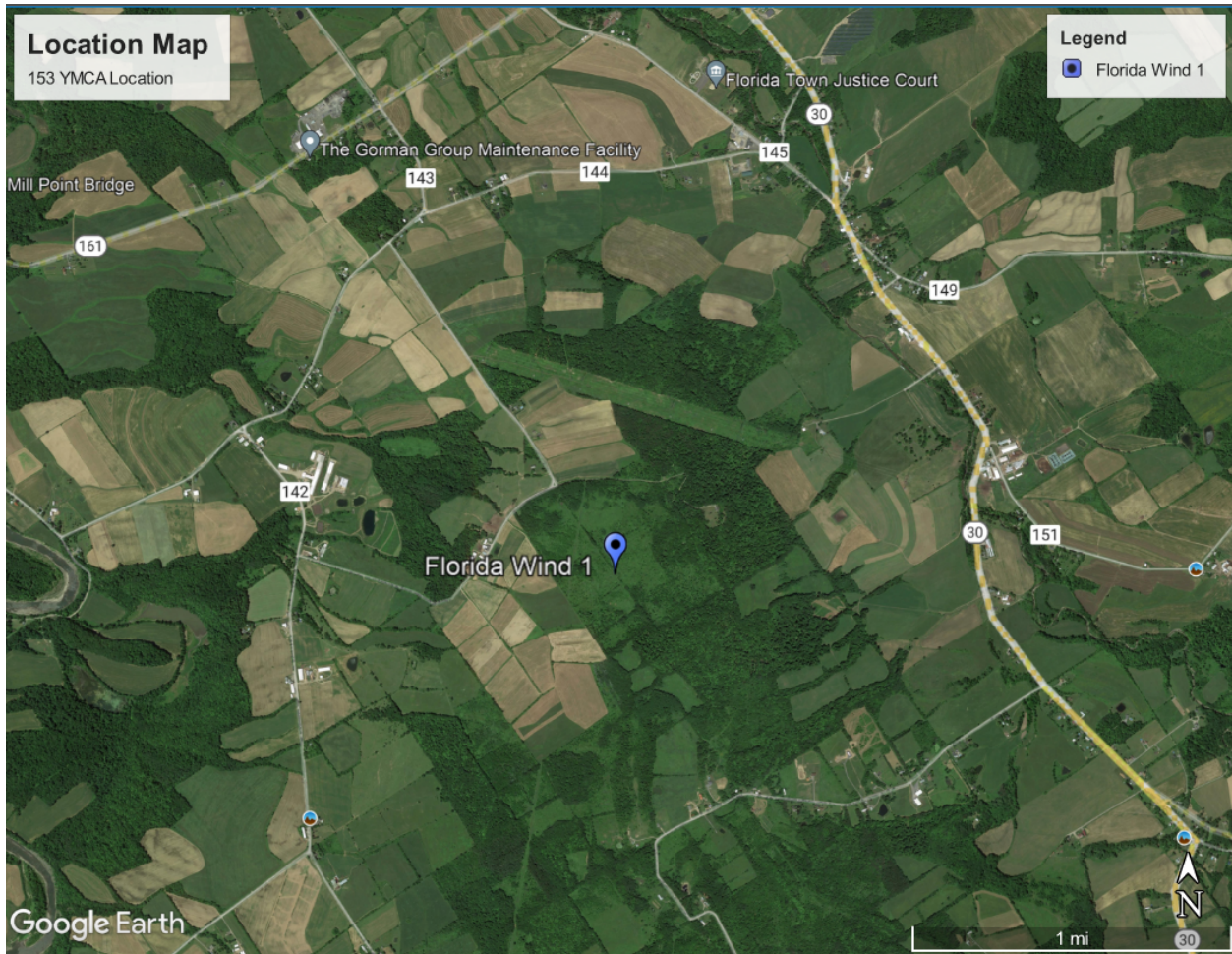


Figure 1 - Location Map

Impacts

Viewshed

The viewshed for the proposed Florida wind turbine is primarily within the Town of Florida. This landscape is rural residential in nature, with significant portions of the area used for agriculture. Figure 2, provided by Hartgen, shows the locations where the tip of the turbine blade will not be visible (area highlighted red) using a 5 mile radius. This area has been generated based on ground data only. It does not include vegetation so it is a conservative estimate of the turbine visibility (“worst case scenario”). The actual visibility of the turbine will be reduced in areas due to tree cover and buildings. Additionally, visibility of the turbine tower hub and lower sections will also be more limited. See Figure 3 for the expected viewshed when a 6-ft elevation canopy is taken into account.

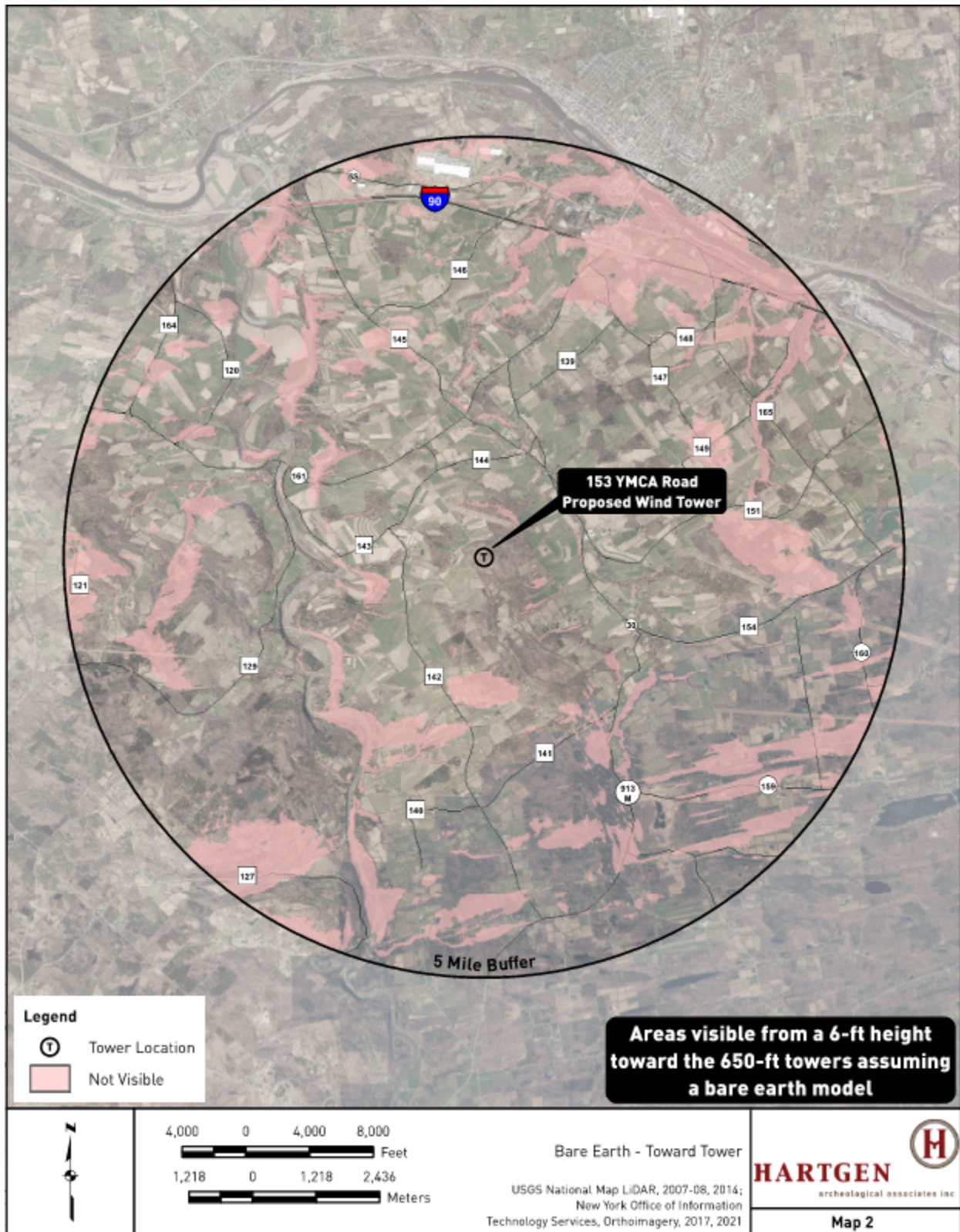


Figure 2 - Viewshed of proposed turbine tip at 650 ft elevation, bare earth

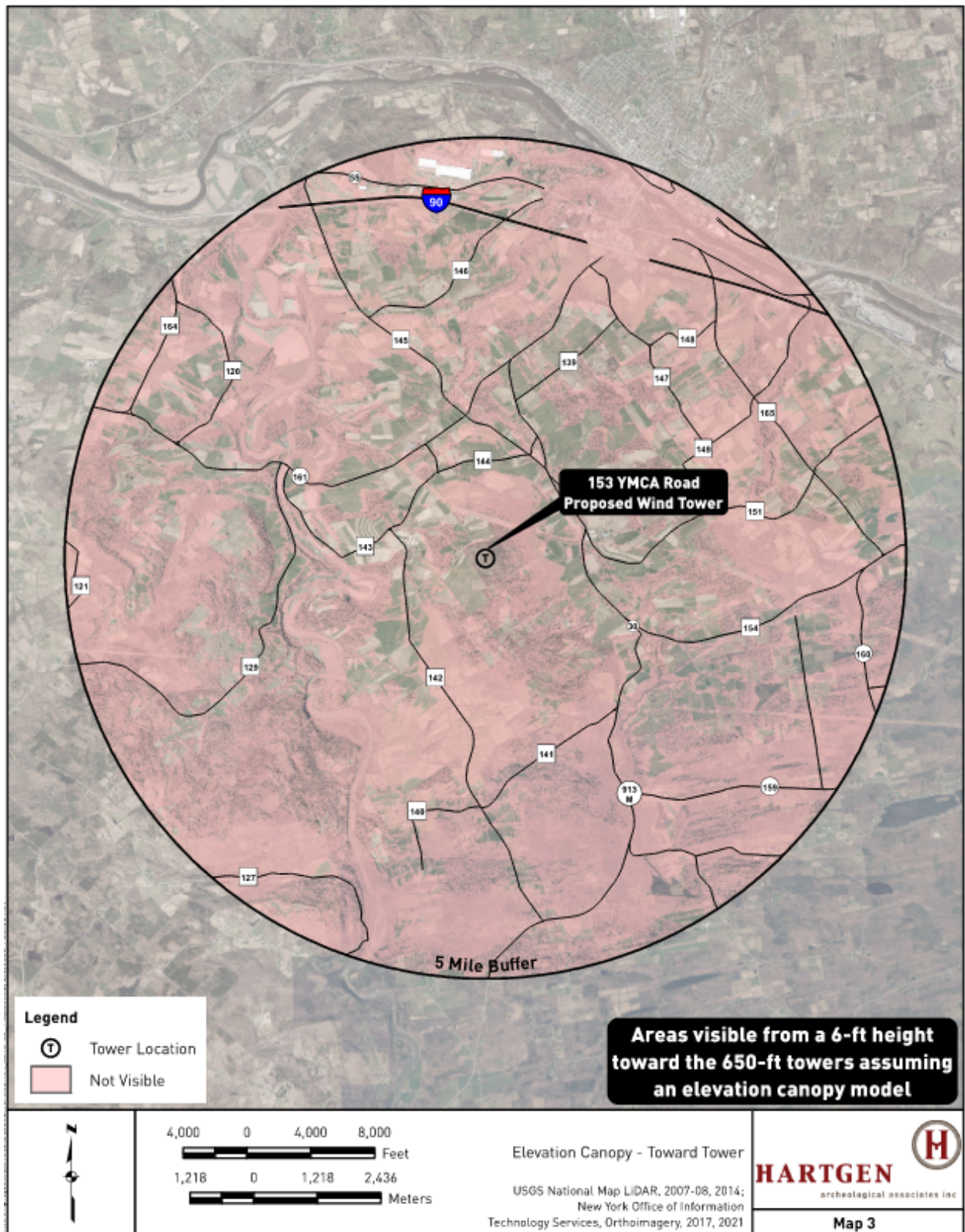


Figure 3 - Viewshed of proposed turbine tip at 650 ft elevation, 6ft canopy

Key Viewpoints

Within the viewshed, there are several areas that have been identified as key viewpoints. These are areas that are significant to the local community or have historical significance. This list was compiled based on getting a representative view of the turbine, input from the Town, and requests from SHPO. Please see Figure 4 for locations where visual simulations were performed. Photos were taken in the Fall 2021, Winter 2022, and Spring 2022.

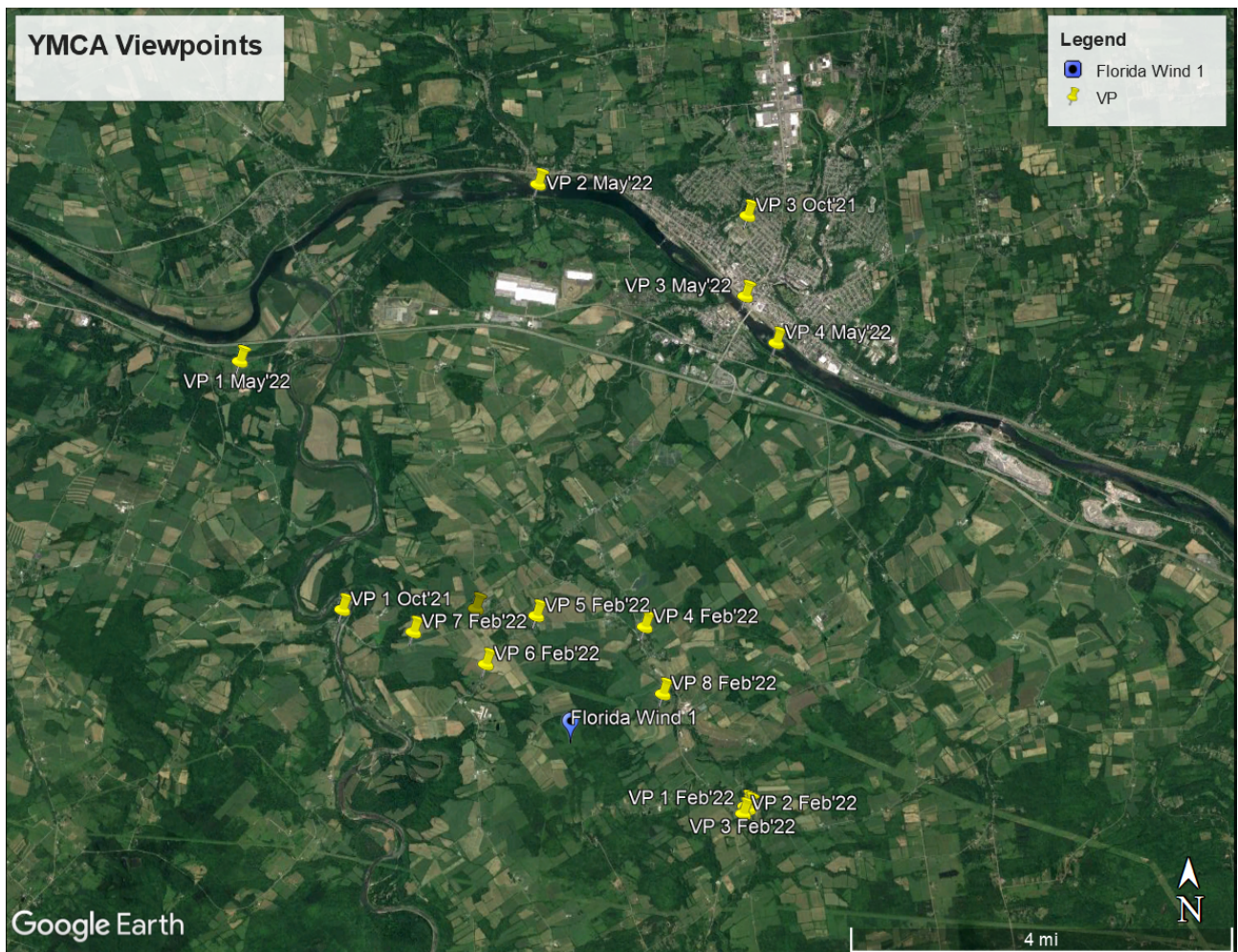


Figure 4 - Summary of Viewpoint Simulations

Borrego has partnered with Saratoga Associates to take high resolution photos from these key locations and then generate simulated perspectives of the proposed turbine. The method of creating these simulations precisely matches the X, Y, and Z coordinates of the image and 3D model of the turbine to generate an accurate

visual representation of the future project. Please see Attachment 1 for the visual simulations from each of the key viewpoints.

Findings

The turbine will be visible off site from certain viewpoints. The visibility will depend on the surrounding elevations, tree cover, and existing building obstructions.

Mitigation

Efforts have been made to minimize the visual influence to the surrounding community. The primary way this is achieved is through the use of careful siting of the turbine. The proposed location of the turbine situates it as far from residences as is feasible. The nearest residence to the proposed location is over 1,500 feet away. Additionally, the turbine will be painted white to reduce visibility as much as possible. Tree clearing will also be minimized. Due to the height of the turbine, vegetation is not typically an effective screening measure, however, minimizing vegetation removal will limit the visibility of accessory structures, as well as provide potential turbine screening depending on the viewpoint and topography.



153 YMCA Rd Wind
Visual Impact Analysis
153 YMCA Road
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ATTACHMENT 1 - VISUAL SIMULATIONS



153 YMCA Rd Wind
Visual Impact Analysis
153 YMCA Road
Florida, NY

October 2021 Simulations



VP 1
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:45 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 15.1559" N
74° 16' 43.7700" W
Distance to Fence: 2.75 miles

Figure-1
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 1
SIMULATED CONDITION - 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:45 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 15.1559" N
74° 16' 43.7700" W
Distance to Fence: 2.75 miles

Figure-2
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 2
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:35 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 15.9659" N
74° 15' 03.1259" W
Distance to Fence: 1.65 miles

Figure-3
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 2
SIMULATED CONDITION - 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:35 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 15.9659" N
74° 15' 03.1259" W
Distance to Fence: 1.65 miles

Figure-4
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 3
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 2:00 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 02.8079" N
74° 12' 58.7640" W
Distance to Fence: 1.25 miles

Figure-5
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 3
SIMULATED CONDITION- 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 2:00 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 02.8079" N
74° 12' 58.7640" W
Distance to Fence: 1.25 miles

Figure-6
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 4
EXISTING CONDITION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:15 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

Photo Location: 42° 56' 52.4280" N
74° 11' 39.0779" W
Distance to Fence: 5.70 miles

Figure-7
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



VP 4
SIMULATED CONDITION- 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 10/28/2021
Time: 1:15 PM
Focal Length: 50 MM
Camera: Canon EOS 6D Mark II

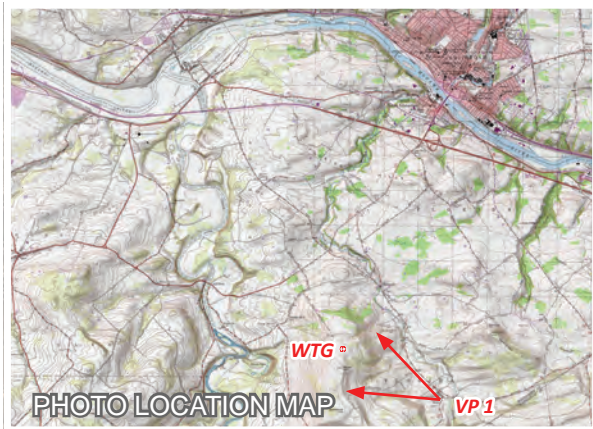
Photo Location: 42° 56' 52.4280" N
74° 11' 39.0779" W
Distance to Fence: 5.70 miles

Figure-8
PHOTO SIMULATIONS
153 YMCA Road
Amsterdam, NY 12010



153 YMCA Rd Wind
Visual Impact Analysis
153 YMCA Road
Florida, NY

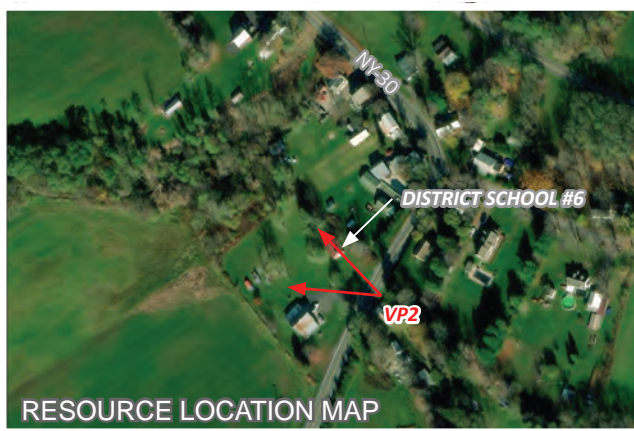
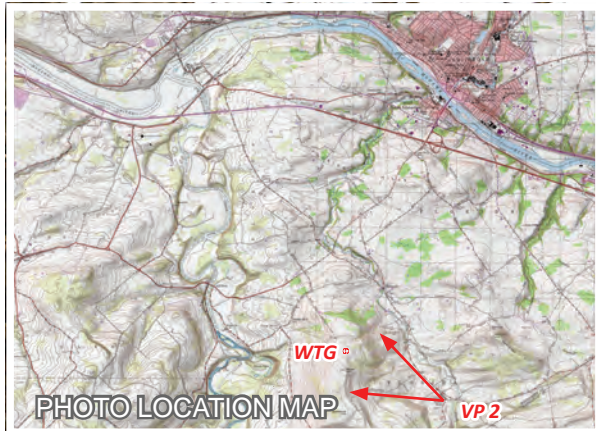
February 2022 Simulations



VP 1 - Burber Road: approximately 450 feet west of 113 Burber Road
EXISTING CONDITION



VP 1 - Burber Road: approximately 450 feet west of 113 Burber Road
SIMULATED CONDITION - 640 FT WTG OPTION



District School #6 →

VP 2 - District School #6
EXISTING CONDITION

Photograph Information
 Date: 02/23/2022
 Time: 10:26 a.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 51' 23.7312" N,
 74° 11' 43.2132" W
 Distance to Turbine: 2 miles

SARATOGA
ASSOCIATES



Figure 4
PHOTO SIMULATIONS
153 YMCA Road Wind Project
 Town of Florida, Montgomery County, NY



VP 2 - District School #6
SIMULATED CONDITION - 640 FT WTG OPTION

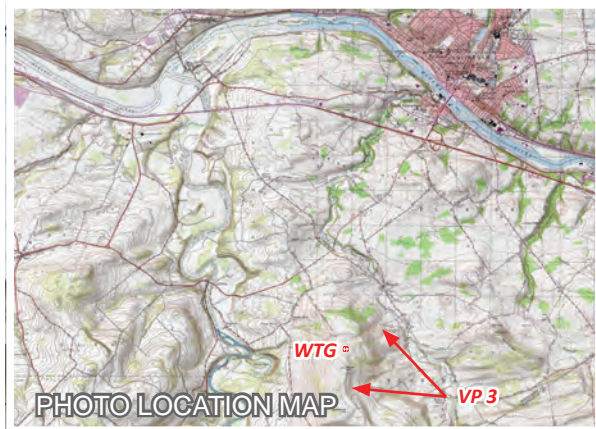
SARATOGA
ASSOCIATES

Photograph Information
Date: 02/23/2022
Time: 10:26 a.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 51' 23.7312" N,
74° 11' 43.2132" W
Distance to Turbine: 2 miles



Figure 5
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 3 - 6714 NY-30
EXISTING CONDITION

Photograph Information
 Date: 02/23/2022
 Time: 10:38 a.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 51' 27.7740" N,
 74° 11' 41.4528" W
 Distance to Turbine: 2 miles



WTG screened by foreground buildings →

VP 3 - 6714 NY-30
SIMULATED CONDITION - 640 FT WTG OPTION

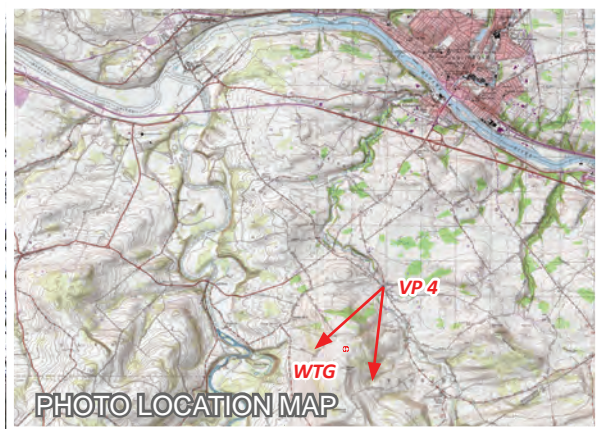
SARATOGA
ASSOCIATES

Photograph Information
Date: 02/23/2022
Time: 10:38 a.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 51' 27.7740" N,
74° 11' 41.4528" W
Distance to Turbine: 2 miles



Figure 7
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 4 - Vicinity of 6266 NY-30, 6256 NY-30 and 6255 NY-30
EXISTING CONDITION



VP 4 - Vicinity of 6266 NY-30, 6256 NY-30 and 6255 NY-30
SIMULATED CONDITION - 640 FT WTG OPTION

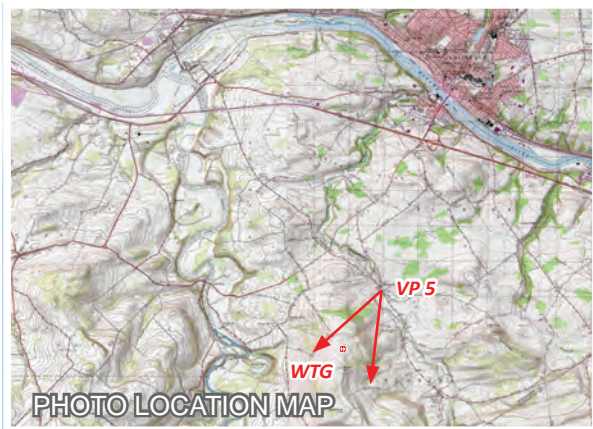
SARATOGA
ASSOCIATES

Photograph Information
Date: 02/23/2022
Time: 11:05 a.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 05.8668" N,
74° 12' 56.5632" W
Distance to Turbine: 1.3 miles



Figure 9
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 5 - 6266 NY-30
EXISTING CONDITION

Photograph Information
 Date: 05/23/2022
 Time: 4:05 p.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 03.4368" N,
 74° 12' 55.2564" W
 Distance to Turbine: 1.2 mi.



VP 5 - 6266 NY-30
SIMULATED CONDITION - 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 05/23/2022
Time: 4:05 p.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 03.4368" N,
74° 12' 55.2564" W
Distance to Turbine: 1.2 mi.



Figure 11
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 6 - 339 Dunlap Road
EXISTING CONDITION

Photograph Information

Date: 05/23/2022
Time: 3:55 p.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 12.0840" N,
74° 14' 17.6928" W
Distance to Turbine: 1.2 miles



VP 6 - 339 Dunlap Road
SIMULATED CONDITION - 640 FT WTG OPTION

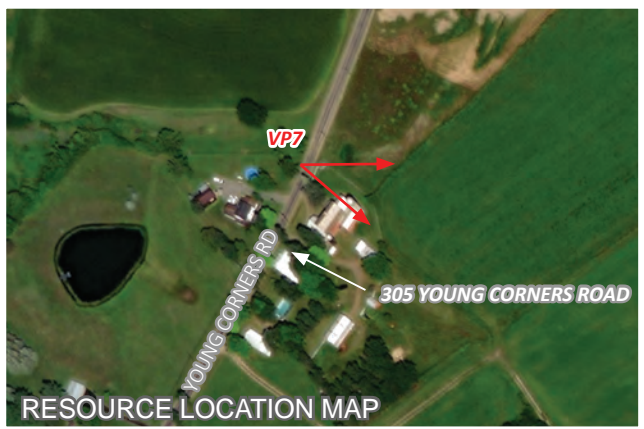
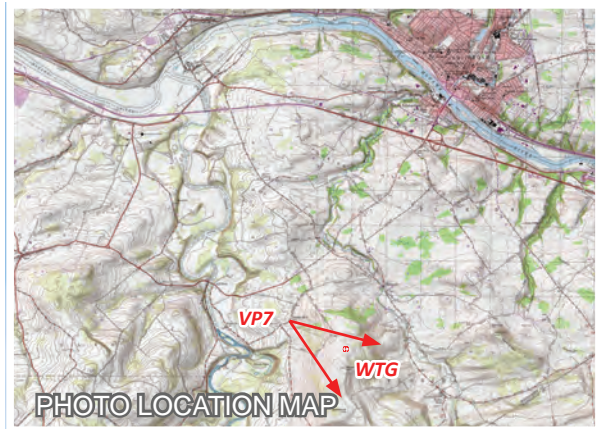
SARATOGA
ASSOCIATES

Photograph Information
Date: 05/23/2022
Time: 3:55 p.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 12.0840" N,
74° 14' 17.6928" W
Distance to Turbine: 1.2 miles



Figure 13
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 7 - 305 Young Corners Road
EXISTING CONDITION

Photograph Information
 Date: 05/23/2022
 Time: 3:45 p.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 52' 45.4692" N,
 74° 14' 55.5432" W
 Distance to Turbine: 1.1 miles



VP 7 - 305 Young Corners Road
SIMULATED CONDITION - 640 FT WTG OPTION

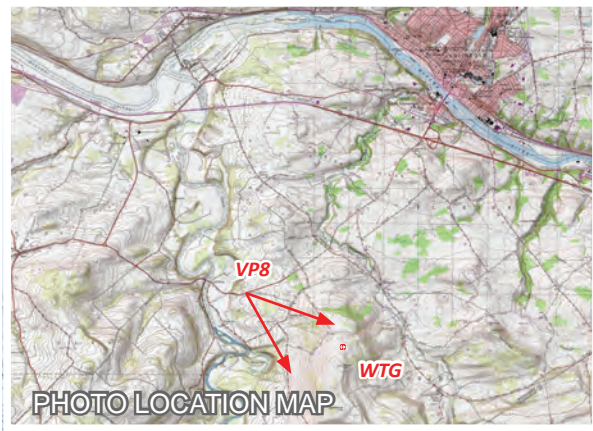
SARATOGA
ASSOCIATES

Photograph Information
Date: 05/23/2022
Time: 3:45 p.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 52' 45.4692" N,
74° 14' 55.5432" W
Distance to Turbine: 1.1 miles



Figure 15
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 8 - 629 Mill Point Road
EXISTING CONDITION

Photograph Information

Date: 02/23/2022
Time: 11:49 a.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 02.9508" N,
74° 15' 50.0724" W
Distance to Turbine: 2 miles



VP 8 - 629 Mill Point Road
SIMULATED CONDITION - 640 FT WTG OPTION

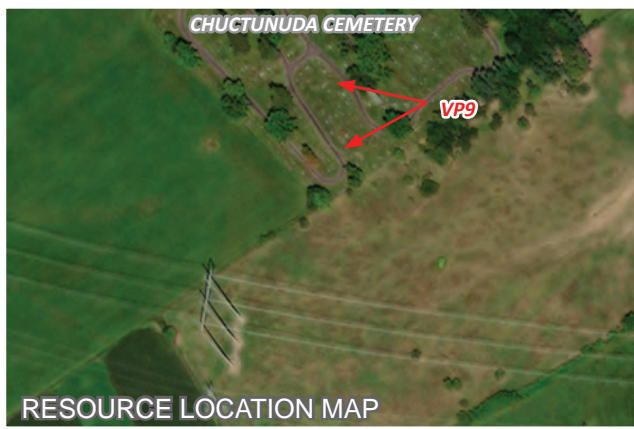
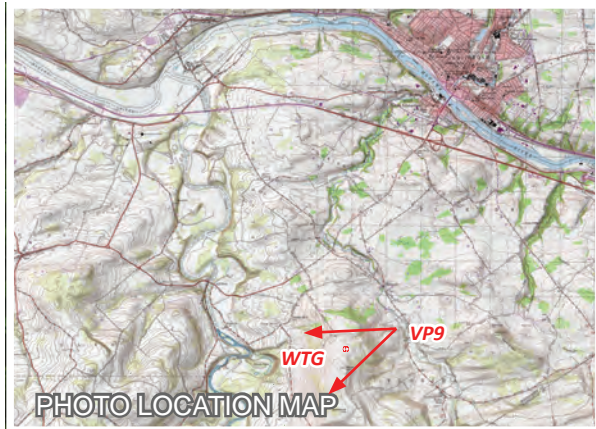
SARATOGA
ASSOCIATES

Photograph Information
Date: 02/23/2022
Time: 11:49 a.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 53' 02.9508" N,
74° 15' 50.0724" W
Distance to Turbine: 2 miles



Figure 17
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



VP 9 - Chuctununda Cemetery
EXISTING CONDITION



VP 9 - Chuctununda Cemetery
SIMULATED CONDITION - 640 FT WTG OPTION

SARATOGA
ASSOCIATES

Photograph Information
Date: 05/23/2022
Time: 4:18 p.m.
Focal Length: 50 mm
Camera: Canon EOS 6D Mark II

Photo Location: 42° 52' 30.7740" N,
74° 12' 39.1824" W
Distance to Turbine: 1 mi.

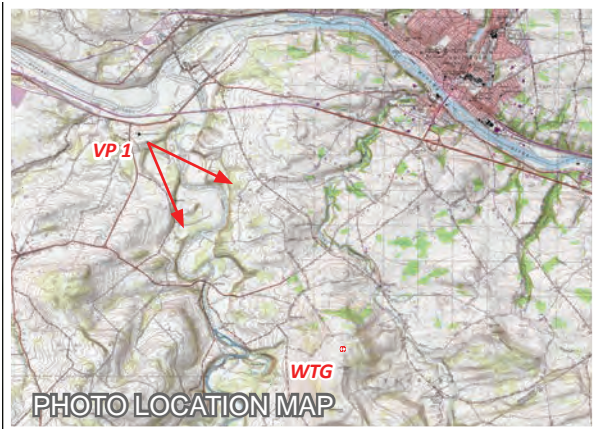


Figure 19
PHOTO SIMULATIONS
153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



153 YMCA Rd Wind
Visual Impact Analysis
153 YMCA Road
Florida, NY

May 2022 Simulations



VP 1 - Auriesville Shrine - René Goupil Memorial Chapel
EXISTING CONDITION

Photograph Information
 Date: 05/23/2022
 Time: 2:25 p.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 55' 22.5336" N,
 74° 18' 05.7060" W
 Distance to Turbine: 5.2 mi.

SARATOGA
ASSOCIATES

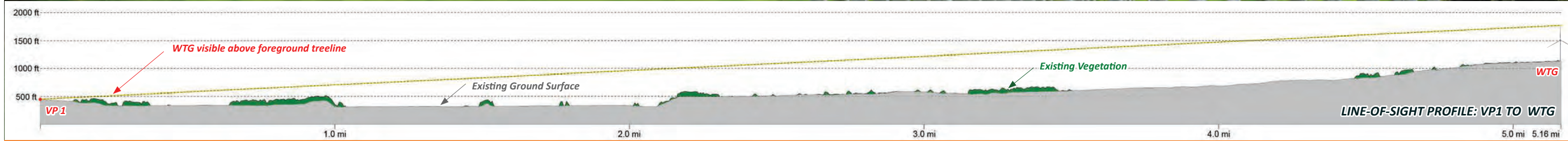


Figure 1
PHOTO SIMULATIONS

153 YMCA Road Wind Project
Town of Florida, Montgomery County, NY



← WTG visible above foreground treeline

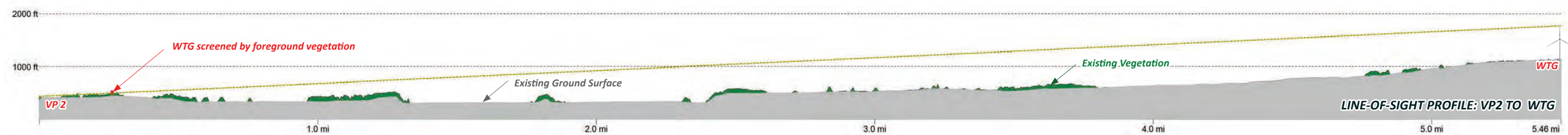


VP 1 - Auriesville Shrine- René Goupil Memorial Chapel
SIMULATED CONDITION - 640 FT WTG OPTION

Figure 2
PHOTO SIMULATIONS

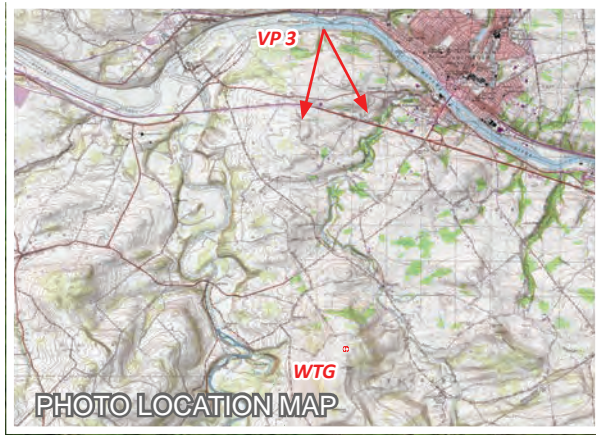


VP 2 - Auriesville Shrine - Martyrs Shrine Visitor Center
EXISTING CONDITION

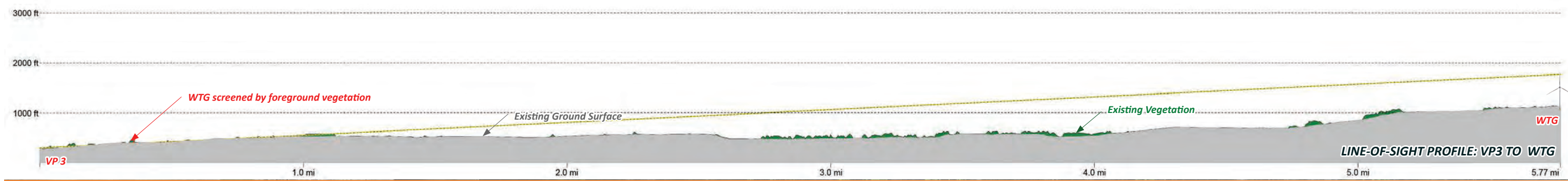


VP 2 - Auriesville Shrine - Martyrs Shrine Visitor Center
SIMULATED CONDITION - 640 FT WTG OPTION

Figure 4
PHOTO SIMULATIONS

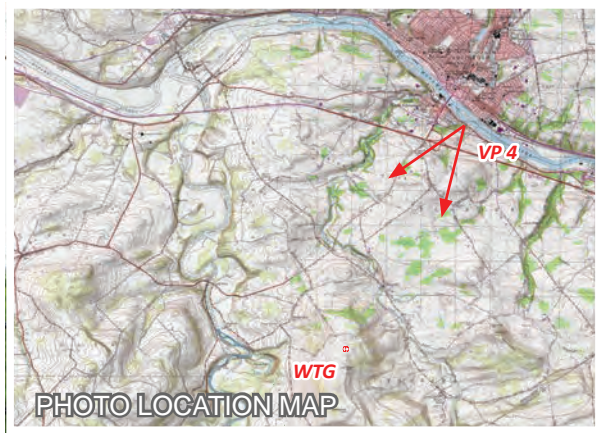


VP 3 - Schoharie Crossing - Yankee Hill Lock
EXISTING CONDITION



VP 3 - Schoharie Crossing - Yankee Hill Lock
 SIMULATED CONDITION - 640 FT WTG OPTION

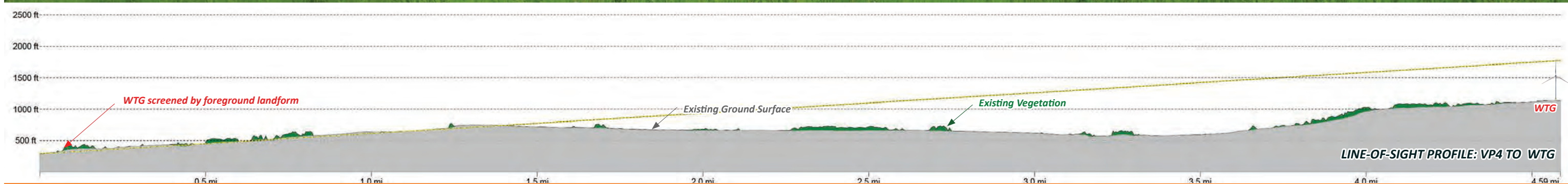
Figure 6
PHOTO SIMULATIONS



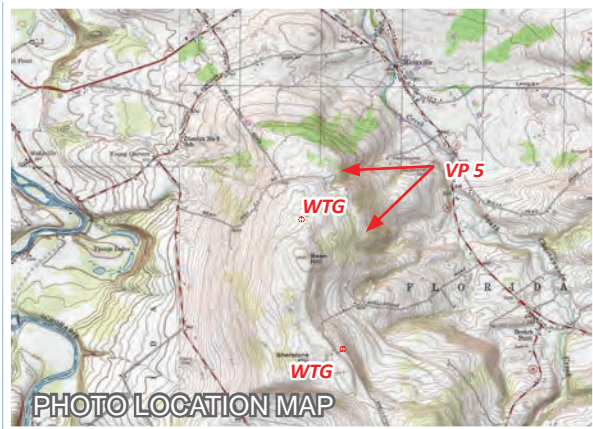
VP 4 - Erie Canalway Trail
EXISTING CONDITION



WTG is screened by foreground landform
 The proposed WTG will not be visible from this location. The dashed outline identifies the approximately position and scale (in accurate perspective) of the WTG (behind foreground landform) within th frame of this photograph.



VP 4 - Erie Canalway Trail
 SIMULATED CONDITION - 640 FT WTG OPTION



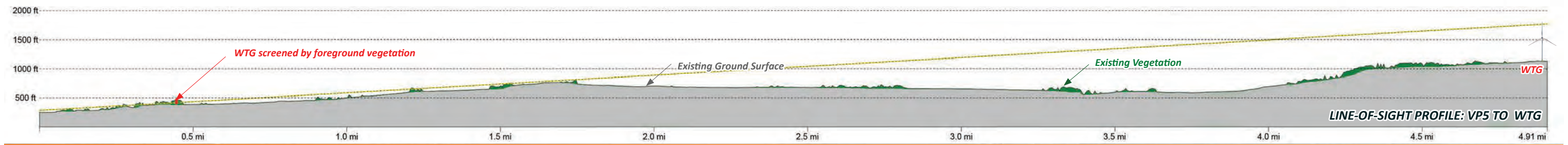
VP 5 - Mohawk Valley Gateway Overlook
EXISTING CONDITION

Photograph Information
 Date: 05/23/2022
 Time: 2:35 p.m.
 Focal Length: 50 mm
 Camera: Canon EOS 6D Mark II

Photo Location: 42° 56' 08.3148" N,
 74° 11' 40.3548" W
 Distance to Turbine: 4.90 mi.



WTG is screened by foreground vegetation.
 The proposed WTG will not be visible from this location. The dashed outline identifies the approximately position and scale (in accurate perspective) of the WTG (behind foreground vegetation) within the frame of this photograph.



VP 5 - Mohawk Valley Gateway Overlook
 SIMULATED CONDITION - 640 FT WTG OPTION