VISUAL RESOURCE EVALUATION

PROPOSED 160' TALL
TELECOMMUNICATIONS STRUCTURE
SITE NAME: BOICEVILLE DT

1470 Wittenberg Road
Town of Shandaken
Ulster County
New York, 12457

Submitted by:

verizon

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Tectonic

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VISUAL RESOURCE EVALUATION

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C., was contracted by Verizon Wireless to conduct a "Visual Resource Evaluation" to determine which areas within the Town of Shandaken will contain views of the proposed 160-foot-tall wireless telecommunications structure.

Setting:

The proposed site is located 815-feet southeast of Pine Ln and Wittenberg Road in the Town of Shandaken, Ulster County, New York. The surrounding land use is mostly residential and commercial use properties with large wooded areas. The predominant forest species are mixed deciduous and coniferous, with an estimated height of 60 to 80 feet. The field study for this visual resource evaluation was conducted during the winter season with minimum leaf on conditions.

Methodology:

On Friday December 20, 2024, Tectonic conducted a field investigation for the purpose of evaluating the viewshed associated with the proposed installation of the 160-foot tower. Conditions were mostly cloudy with a temperature of approximately 29°, and with wind speeds of approximately 6-8 mph. The study area consisted of a 2-mile radius from the project site.

The methodology utilized during this field investigation is referred to as a "balloon test." The height of the proposed structure was simulated by floating a 4' diameter, helium-filled weather balloon at 160-feet above ground level (AGL). The balloons provided reference points for height as well as location and also provides a known dimension that later aids in the production of photo simulations.

Prior to the field study, Tectonic assessed the potential visibility in the study area by creating desktop viewshed maps using ESRI ArcGIS Desktop 10.8 in conjunction with a USGS 7.5 Minute Series Topographic Quadrangles Map and aerial base maps and street maps. A viewshed map was created delineating areas where visibility would be blocked by topography and areas where visibility would be blocked by vegetation.

Tectonic drove the study area to confirm the potential visibility of the structure. During the "in field" review the participants reviewed and documented those areas from which views of the structure may be "visible" and those which are blocked by topography and vegetation. The resulting data from this analysis was reviewed and referenced on the "Photo Log" and "Viewshed Map" attached. The colors on the map delineate which areas have a line of sight to the structure. The viewshed analysis resulted in the discovery the proposed structure will be visible from clear areas west on Wittenburg Rd & Pine Ln, south on NY-28 & Nissen Rd, south on NY-28 up to 1.85 miles away.

Photographs were taken from various vantage points within the study area to document the actual view towards the proposed structure, as well as the general character of the viewshed. Each photograph attached includes a brief description of the location and orientation from which it was taken, and the photo number corresponds to the key number on the photo log map.

Process:

Photographs of the weather balloon from the viewpoints noted were taken with a Nikon D5300 Digital 24-megapixel camera using a 55mm focal length lens to mimic the view as observed from the human eye.

In order to analyze the potential visual impacts of the proposed structure, Tectonic took photographs of the balloon from locations within the search area for the purpose of preparing simulations of the proposed structure. Photographs for which there is a corresponding simulated view (#1, #21, #32) of the proposed structure were produced by first photographing an existing similar type structure, then photographing the view towards the proposed site where the marker balloon was set to a height of 160-feet AGL. The digital images of the balloon and similar structure was then merged and scaled with digital image editing software. With this process, the structure is scaled to the correct height and width by scaling the similar type of structure using measurements from the marker balloon. The similar type of structure used has an antenna array that spans eight feet (8'). By measuring the balloon width of 4', one can determine the proper width of the antenna array by multiplying the balloon width by a factor of 2. The composite is printed out to a PDF file, producing the final image.

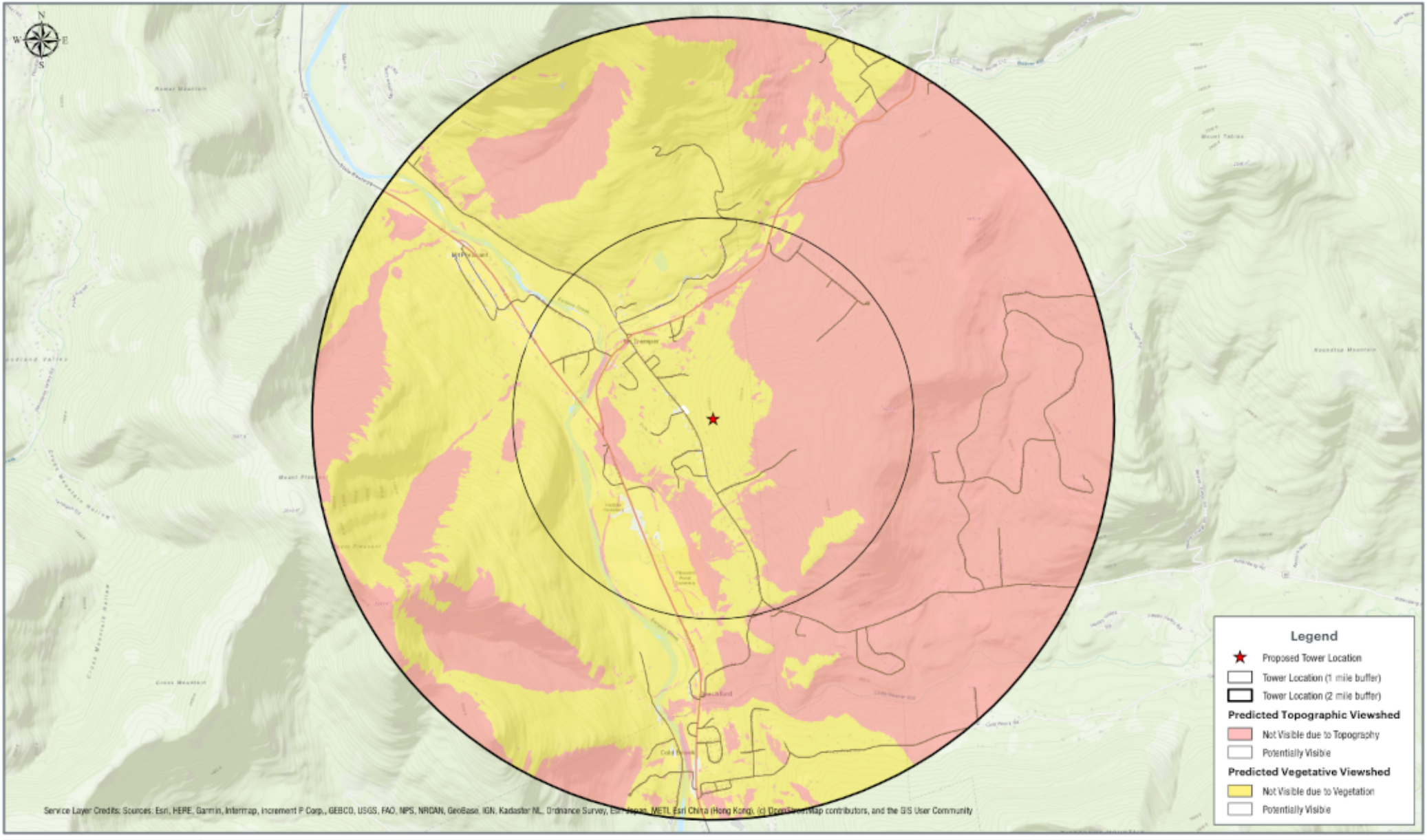
We note that the simulations provided are artistic renderings of views from chosen locations and should not be interpreted to be the actual view of the tower following construction. While we utilize best efforts to simulate the view of the proposed tower from a particular location, some variance between simulations, manufacturer products and final installed towers is to be expected.

Conclusion:

The Viewshed Analysis Map presents a conservative delineation of the viewshed within the study area along public roadways. The photo slides have been prepared per the methodology described above and provide a general depiction of the appearance of the structure from the photographed viewpoints.

Sincerely,
TECTONIC ENGINEERING CONSULTANTS, GEOLOGISTS & LAND SURVEYORS, D.P.C.

Steven M. Matthews, PE
Managing Director - Engineering



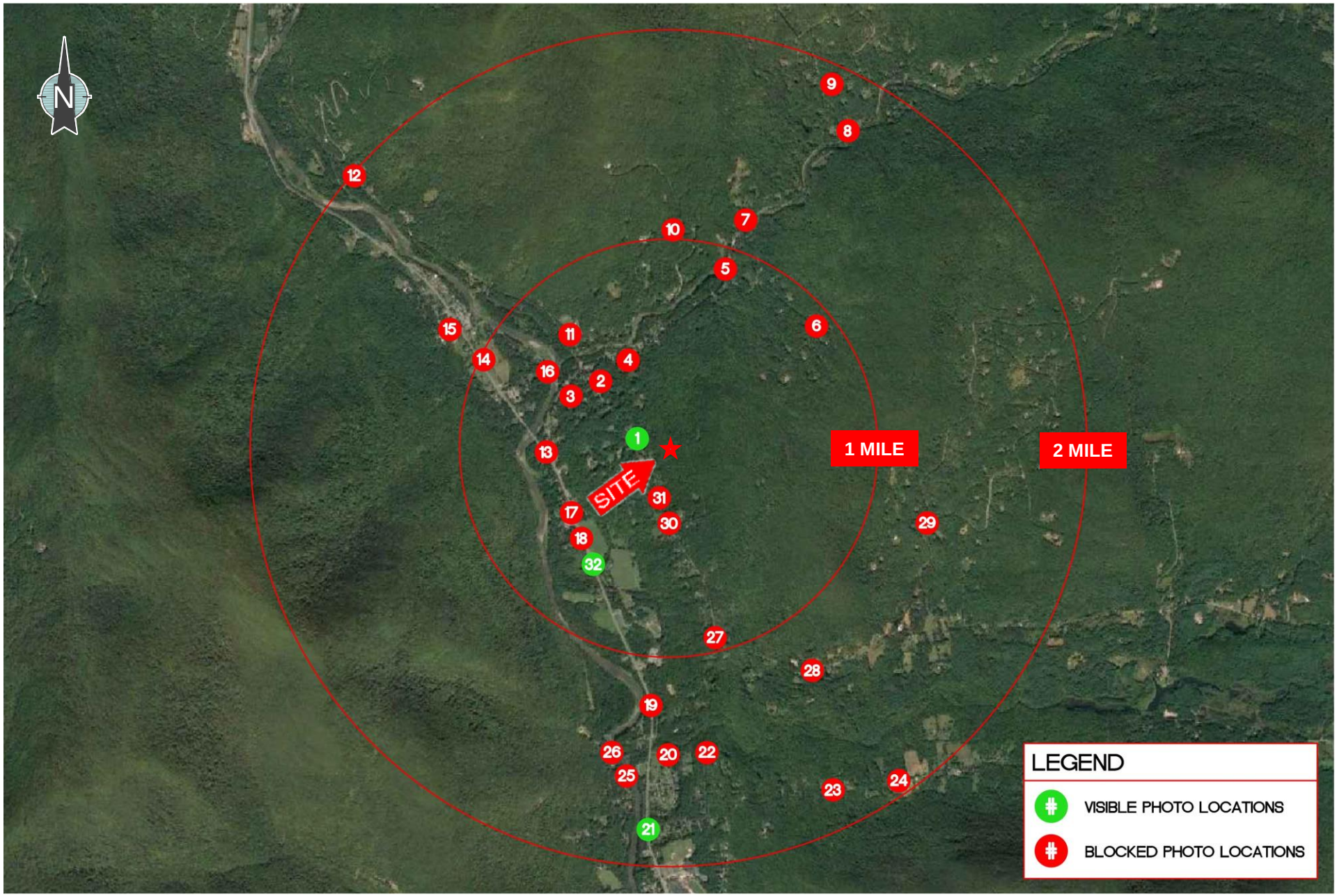
Tectonic

150ft Tower
60ft Mixed Forests
20ft Woody Wetlands

Boiceville DT
1470 Wittenberg Road
Mt Tremper, New York 12457

0 0.25 0.5 1 Miles

Field Verified
Viewshed Map
11860.071



Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

BOICEVILLE DT
1470 WITTENBERG RD
MT TREMPER, NEW YORK

PHOTO LOG
11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking West from Wittenburg Rd & Pine Ln.
The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 0.13 miles±

P-1

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking West from Wittenburg Rd & Pine Ln.
The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 0.13 miles±

S-1

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from Wittenburg Rd & Hoffman Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.42 miles±

P-2

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from 24 Ingersoll Rd (Firehouse).
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.54 miles±

P-3

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from 17 Heintz Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.45 miles±

P-4

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southwest from NY-212 & Vicino Dr.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.91 miles±

P-5

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southwest from Mt Tobias Rd & Mt Tobias Rd Ext.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.92 miles±

P-6

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southwest from 5170 NY 212.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.28 miles±

P-7

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southwest from NY-212 & Grog Kill Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.75 miles±

P-8

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southwest from Grog Kill Rd & Deer Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.92 miles±

P-9

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking South from 120 Beaverkill Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.03 miles±

P-10

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from CAMP WAPANACHKI (ZEN MOUNTAIN MONASTERY) 5312 CR 212 (CRIS).
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.76 miles±

P-11

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from 591 CR 40 Mt Tremper-Phoenicia Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.96 miles±

P-12

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking East from NY-212 & NY-28.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.56 miles±

P-13

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from 5307 NY-28.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.00 miles±

P-14

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from Mt Pleasant Rd & Andrew Ln.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.21 miles±

P-15

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Southeast from Mt Pleasant Rd & Riseley Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.69 miles±

P-16

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northeast from 5187 NY-28.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.55 miles±

P-17

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northeast from 5159 NY-28 (Cemetery).
The proposed structure will be barely visible through branches from this location.

Distance from the photographic location to the proposed site is 0.62 miles±

P-18

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from NY-28 & Lower Winnie Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.26 miles±

P-19

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from 26 Beechford Dr (Al Held Property) (CRIS).
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.58 miles±

P-20

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from NY-28 & Nissen Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.85 miles±

P-21

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from NY-28 & Nissen Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.85 miles±

S-21

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from 35 Mountain Valley Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.46 miles±

P-22

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northwest from 171 Piney Point Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.84 miles±

P-23

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northwest from 540 Cold Brook Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.96 miles±

P-24

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from Cold Brook Rd & Deer Haven Park Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.62 miles±

P-25

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from 1075 Cold Brook Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.47 miles±

P-26

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from Winnie Rd & Co Rd 40 Wittenberg Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.93 miles±

P-27

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northwest from Co Rd 40 Wittenberg Rd & White Birch Ln.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.26 miles±

P-28

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking Northwest from Abbey Rd & Erikas Walk.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.27 miles±

P-29

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from Co Rd 40 Wittenberg Rd & Carle Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.38 miles±

P-30

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from Co Rd 40 Wittenberg Rd & Schuhose Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.29 miles±

P-31

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from NY-28 (South of Migliorelli Farm Store).
The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 0.64 miles±

P-32

11860.071

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Looking North from NY-28 (South of Migliorelli Farm Store).
The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 0.64 miles±

S-32

11860.071