



Town of Cherry Valley

Viewshed Analysis of the Route 20 and Route 166 Corridors

A viewshed analysis was prepared to evaluate the potential visibility from Route 20 and 166 in the Town of Cherry Valley. Since the viewshed tools only allow for determining visibility from points, and not a line, a series of evenly spaced points were created along the two routes. A spacing of 200 feet was selected to balance a high density of points along the lines with the practicality of running the analysis. This resulted in 517 points that fed into the viewshed. For a location to be displayed as "visible" it had to be seen from at least three of these points. Reportedly, at 45+ MPH a location would need to be visible for 400' of travel distance, or more, to be seen and appreciated. A viewer elevation of 3.5' at each point was used to simulate the typical eye height within a vehicle, and a "target" elevation of 6' was used to simulate the mid-point of a height of a typical ground-mounted solar panels (where the top of the panel would be at approximately 9').

Two scenarios were evaluated, one accounting for existing vegetation and structures, and one for "bare earth" which only accounts for the ground surface, absent of features above ground level. The bare earth methodology over estimates visibility as there will always be view obstructions from trees and buildings, however it is a good way to show how topography alone influences potential views. The scenario that accounts for vegetation and buildings may under represent visibility as a thin line of trees will "block" visibility in the model, but may be sparse enough to see through in real life. Also visibility will vary based on season - in the winter when there is no foliage views may be greater than in the summer when less trees are needed to obstruct a view.

The landscape for the model was constructed using USGS 2015 LiDAR point cloud data to create a digital surface model (DSM). The bare earth model uses a digital elevation model (DEM) which was mosaiced from 1-meter USGS and NYS elevation data.

- Predicted Visibility
- Visible from Route 20 and/or Route 166 accounting for existing vegetation and buildings
 - Visible in the absence of trees and buildings (bare earth)
- Tax Parcels
- Village of Cherry Valley



0 1,500 3,000 6,000
Feet