

## **Visual Impact Assessment for the Baroda Cluster Subdivision**

Town of Chester, Orange County, New York

### Introduction

As part of a subdivision application in the Town of Chester, a visual impact assessment is required by §98-26 of the Town of Chester Code. This section of the Code stipulates that:

Any new structure within the Ridge Preservation Overlay District for which a building permit is required shall be located to the maximum practical extent so as not to be visible from any point on Pine Hill Road, Bull Mill Road, Black Meadow Road or on a state, county or interstate highway, and if such structures cannot be completely obscured they shall be made to blend as unobtrusively as possible into the hillside to avoid breaking the natural ridgeline.

The site of the proposed Baroda Cluster Subdivision is located in an area mapped by the Town as a Ridge Preservation Overlay District. The Town has not identified any particular visual concerns or vantage points to be studied relative to this project. Therefore, this assessment has been conducted following the methodology outlined in the NYSDEC policy and guidance memorandum "Assessing and Mitigating Visual Impacts", as relates to possible visual impacts from locations within the Town of Chester on the roads identified in the Code.

This visual impact assessment study entailed the following tasks:

- Determine the potential viewshed of the site within the Town of Chester using available USGS topographic mapping. Evaluate potential visibility relative to specific roadways identified in §98-26 of the Town of Chester Code.
- Visit potential vantage points and take photographs. Prepare a series of photographs showing potential views to the site (if any), each indicating the site location.
- Prepare sight line profiles from key locations using a digital plotting technique with available USGS topographic and GIS mapping to demonstrate the existence of or lack of views.
- Describe the potential impact of project visibility, incorporating the photographs and visual profiles in a report for submission to the Town Planning Board. Include recommendations on building design and landscape buffer planting, if appropriate to minimize visual impacts.

This assessment was conducted in accordance with generally accepted professional methods to determine whether the proposed action is potentially visible from the Town-designated roadways and whether there are potential significant impacts that require measures to eliminate, mitigate or compensate for an adverse visual effect. Much of the terminology in this assessment comes from the New York State Department of Environmental Conservation policy and guidance memorandum (NYSDEC 2000)<sup>1</sup> relating to assessing and mitigating visual impacts of facilities that are located in visual proximity to sensitive land uses.

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<sup>1</sup>NYSDEC, "Assessing and Mitigating Visual Impacts", Program Policy DEP-00-2, NYSDEC Division of Environmental Permits, July 2000.

*Viewshed* is defined as the geographic area from which a facility may be seen. An *aesthetic resource* is a formally designated place visited by the public for the purpose of enjoying its beauty. For purposes of this assessment, the following roadways were considered aesthetic resources for the visual assessment: Pine Hill Road, Bull Mill Road, Black Meadow Road, and State, County and interstate highways generally within the Town of Chester (the "study area"). In addition, the Town owned park "Knapp's View" was considered an aesthetic resource and is evaluated in this report.

The visual assessment incorporated the use of computer technology to create graphic line-of-sight analyses to demonstrate potential visibility of the proposed project from particular viewpoints located within the study area. A *line-of-sight profile* is a to-scale graphic depiction of the topographic relief taken along a straight path between the proposed activity and an identified viewpoint, with a straight line depicting the line of sight between those two locations. This evaluation is based on available topographic mapping, Geographic Information Systems (GIS) data and verified through in-field reconnaissance.

## **Existing Conditions**

### Existing Visual Character of the Site and Environs

The project site consists of 168.2 acres of undeveloped land including open fields, woods and wetland area. The approximate northern one-third of the site contains federal wetlands while the southern portion of the site rises in elevation to a broad local hill known as Pine Hill. Black Meadow Road is located on the western property line and former railroad right-of-way forms the eastern property border. The subject property is bordered to the west and north by residential properties, to the east by a farm and to the north by industrial property along Black Meadow Road.

The proposed site plan is a cluster subdivision of 29 single family homes on 43.8 acres of the entire site. A total of 124.4 acres, or 73.9 percent of the site is proposed to be preserved as an agricultural conservation easement. The proposed cluster subdivision would be developed in the southwest portion of the property near Black Meadow Road on a sloping open field. As further described in this report, the cluster subdivision development area is mostly visible from Black Meadow Road, due to topography and the site's location in the Town of Chester.

The site environs consist of rural and suburban land uses common to Orange County. The project site and the topography in the vicinity of the site is shown on Figure 1 – USGS Location Map.

### Visual Survey

A visual survey was conducted of the project area in August, 2020 to identify locations on the study roads in the vicinity of the site, where the site may be visible (Pine Hill Road, Kings Highway, Black Meadow Road, and State, County and interstate highways generally within the Town of Chester). The extent of the survey was initially determined by inspection of US Geological Survey topographic maps with the aid of 3D viewing computer software (*Terrain Navigator Pro* and *Google Earth Pro*), which reveal the potential visibility of the project site based on topography alone. Thus, the initial survey task established the *potential viewshed* of the proposed project.

Field survey refined this assessment based on limiting factors of the actual visibility of the site, accounting for topography, vegetation, and buildings. Photographs were taken from the most prominent vantage points on the study roads looking toward the project site to depict the character of existing conditions and are identified below. The field survey identified the publicly-accessible

locations in the site viewshed where the site, and potentially the proposed project, would be visible. A total of seven (7) viewshed locations were selected as representative viewpoints and the view locations are shown in Figure 2 – View Location Map.

### **Potential Visual Impacts**

The “Baroda Cluster Subdivision” site plan drawings (the “project plan”) by Pietrzak & Pfau engineers show the proposed project layout, designed as a cluster subdivision, thereby concentrating the development in one portion of the property while preserving the majority of the site in its existing condition. The proposed site plan indicates that 124.4 acres or 73.9 percent of the site will be preserved in an agricultural conservation easement. Wooded areas of the property with the highest elevations near the crest of Pine Hill, and therefore the most visible from surrounding roads, will remain undisturbed. Most of the proposed cluster development area is currently open field devoid of trees.

Construction of new houses will occur largely in an existing open area, an open field adjoining Black Meadow Road. The discussion of the development’s visibility in this report is focused on the cluster subdivision or the future developed portions of the site. While wooded area and fields on the property may be visible from different vantage points, these areas will remain unchanged from existing conditions.

The seven selected viewshed locations are shown in Figure 2 and photos from the seven locations are provided in Figure 3. Figures 4 through 10 show the line-of-sight cross sections as calculated using GPS and Google Earth Pro. The ground line is represented in pink. The sections depict conditions devoid of existing trees and the large warehouse buildings near Route 17, which typically rise 40 to 50 feet above the ground line. The sections are drawn to scale and the vertical scale is exaggerated for clarity. The viewshed locations are numbered one (1) through seven (7) and are described below.

1) County Route 94 (CR 94) is located in the northern area of the town and is generally oriented in a NE/SW direction. Route 94 crosses over NYS Route 17 and provides access to Route 17 through eastbound and westbound ramps. At the Route 17 overpass, westbound Route 94 drivers have a view of a relatively level valley with warehouses. The project site is visible in the distance with Pine Hill on the horizon. The distance from this view point and the site development area is approximately 1.3 miles.

Sight line profile 1 (Figure 4) shows the potential line-of-sight between the view point and the subject site. A photograph from this vantage point (photo 1), indicates the view for a driver on the eastbound ramp to NYS Route 17, with the project site in the distance.

2) Route 17M (Brookside Avenue) is located in the northern portion of the Town and provides an entrance into the Village of Chester for drivers coming from the east. Route 17M generally runs east-west through the Village and trends to a north-south direction past its intersection with Route 94. Drivers views towards the southwest in the direction of the subject site are obscured by commercial development in the Village. The subject site is approximately 1.4 miles from this view point.

Sight line profile 2 (Figure 5) shows the potential line-of-sight between the Location 2 and the subject property. A photograph from Location 2 (photo 2) shows drivers views from both east and westbound drivers looking towards the southwest. The subject site is not visible from this vantage

point due to the commercial development and from the C&S warehouse building which is approximately 45 to 50 feet in height.

3) Glenmere Road is located in the western area of the Town and is generally oriented in a NE/SW direction. Glenmere Road is located approximately 1.0 mile northwest from Black Meadow Road and the project site. A quarry is located on a ridgetop between Glenmere Road and the site, limiting views of the site from this vantage point (see Figure 6).

Cross Section 3 (Figure 6) shows the intervening topography between Glenmere Road and the subject property. Photo 3 (Figure 3) shows the view from this vantage point in the direction of the subject site.

4) Pine Hill Road is located in the southwest area of the Town and is generally oriented in a NW/SE direction. Pine Hill Road is located approximately 1.0 mile southwest from the southern development area of the site. Black Meadow Road, which adjoins the property, intersects with Pine Hill road south of the site. Several intervening topographic high points between this road and the site result in no potential for visibility of the subject site from this road.

Cross Section 3 (Figure 7) shows the intervening topography between Pine Hill Road and the subject property. Photo 3 (Figure 8) shows the view from this vantage point in the direction of the subject site.

5) Knapp's View is 90 acres of open space owned by the Town of Chester located on County Route 13 / Kings Highway in the central portion of the Town. The park has a small parking area, benches and mowed paths through open agricultural fields. The elevation of the park rises towards the east providing views of nearby farms and both Pine Hill and Durand Hill. The eastern proposed developed portion of the is approximately 0.6 miles (3,300 feet) northwest from the viewpoint.

As shown in Sight line profile 5 (Figure 8), topography obscures direct views into the developed central portion of the site. Visitors to the open space may see the rooftops of some residences in the eastern portion of the site in a larger landscape of fields, woods and residential development. A photograph taken from this vantage point (photo 5 in Figure 8) shows the view across Kings Highway and agricultural fields towards the subject site.

6) County Route 13 (CR 13) or Kings Highway is located in the central area of the town and is generally oriented in a N/S direction. Due to intervening topography between CR 13 and the site (both Durland Hill and Pine Hill) the subject site is potentially visible for only a short section of CR 13, approximately one-half mile south of the Chester Town Hall. This vantage point is approximately 0.5 miles (2,500 ft.) from the lower development area of the property. From this vantage point, the lower portion of the site and potentially Lot 29 may be visible.

As shown in Sight line profile 6 (Figure 9), topography obscures direct views into the developed central portion of the site. Southbound drivers on CR-13 would need to look to the right and perpendicular to the road to have any views of the site. A photograph taken from this vantage point (photo 6 in Figure 3) shows the view across agricultural fields towards the subject site.

7) Black Meadow Road is located in the west-central area of the Town and is generally oriented in a NE/SW direction. The northern portion of Black Meadow Road provides access to several warehouse and commercial properties, including the large C & S warehouse complex. Due to development and vegetation, the subject site is not visible from the northern portion of Black Meadow Road.

For southbound drivers, the site becomes visible at the intersection of Black Meadow Road and Shunoski Lane, a private street. Southbound drivers will have a direct view of the proposed development on the open hillside as Black Meadow Road climbs in elevation. The viewshed will also include existing residences on the west side of Black Meadow Road and on .

The County Routes 45, 82, 5 and Bull Mill Road are distant from the subject site and intervening topography completely eliminates potential views from these roads. Potential views from these roads were evaluated with topographic maps and in the field visit, but no cross sections or photographs were taken. These roads are described below.

County Route 45 (CR 45) or Laroe Road is also located in the central area of the town and is generally oriented in a NNE/SSW direction. The intervening topography between this road and the site results in no potential visibility of the subject site from this roadway. The closest distance between CR 45 and the developed portion of the subject property is 1.1 miles (see Figure 3). No further evaluation is warranted with respect to visual impacts (and no photographs were taken).

Bull Mill Road is located in the southeast area of the town at least 4.0 miles from the project site. There is a significant intervening ridgeline between Bull Mill Road and the site (ridge from Sugarloaf Mountain to Goose Pond Mountain) such that no site visibility is possible from any location on this roadway (see Figure 3). No further evaluation is warranted with respect to visual impacts (and no photographs were taken).

County Route 82 (CR 82) or Belvale Road and County Route 5 (CR 5) or Greenwood Lake Road are located in the southern area of the Town are between 1.7 and 4.0 miles or more from the subject site (see Figure 3). The intervening topography between these roads and the site results in no potential for visibility of the subject site. No further evaluation is warranted from these roads (and no photographs were taken).

In general, as applies to any view from a roadway, the potential for experiencing a view of a particular property is limited to locations where the road is oriented generally toward that site, or where openings in roadside vegetation are such that a person in a vehicle traveling on the road might look in that direction. The curvilinear roads that occur in the site area make one-directional views very infrequent. Additionally, the experience of the viewer is significantly affected by numerous factors, including the distance and breadth of the view, other physical elements in that view, distractions for the driver and passenger such as road signs, other vehicles, and activities inside the vehicle, such that the visual sensitivity of any change at the subject site is typically relatively low where the proposed change is similar to other portions of the view. Distance, in particular, has an ameliorating effect on visual sensitivity except in situations where, for example, there is a framed view in the particular direction of the subject site.

The field reconnaissance identified a single location, drivers southbound on Black Meadow Road where the proposed change to the site would result in an appreciable or easily noticed change to the view as compared to existing conditions. This change in visual character is an unavoidable impact for a 2,400-foot section of road near and adjacent to the site. The development of Baroda Cluster subdivision will not result in a stark contrast in visual character compared to the site

environs, either in terms of type of use or the scale and visibility of the buildings. We note that there are approximately eight existing single-family homes on the west side of Black Meadow Road in the vicinity of the site.

### **Mitigation Measures**

In reviewing the visibility and compatibility of the proposed subdivision, §98-26 states the Planning Board shall consider:

- (1) The building design.
- (2) The location of the structures and nonstructural accessories, and any tree clearing required to locate them.
- (3) The building color and visibility/reflectivity of broad expanses of window and/or skylight glass.
- (4) The planting of appropriate native deciduous and/or evergreen vegetation to screen the structure or its accessories.

At this time specific building designs for Baroda Cluster Subdivision have not been developed, however the homes envisioned for this subdivision will be similar to the homes in the adjacent area along Black Meadow Road -- typically, moderately sized two-story residences with attached garages. It is anticipated that the homes will have varied exterior siding materials and colors. Architectural renderings of the proposed building designs for the dwellings determined to be located in the Ridge Preservation Overlay District will need to be presented by the applicant to the Planning Board for its review.

This project has been designed as a cluster subdivision, which allows that significant portions of the project site will remain in the existing condition. By virtue of this planning technique, sizable vegetative buffers will remain on the southern, western and northern sides of the project, while the project development will expand the existing residential development located east and north of the site.

Mitigation measures that are incorporated into the project design as proposed include:

- layout of house lots according to a cluster concept that preserves surrounding land cover. The project plan indicates that existing trees on the eastern side of the property will be retained that will provide a natural buffer to potential views from the east.
- Providing street trees along the internal subdivision roads and cul-de-sacs. These street trees, over time, will soften views of the homes. Landscaping on individual lots, although not proposed by the applicant, will also make the homes less prominent on the hillside.

Proposed street tree planting and anticipated landscaping on individual lots will soften the appearance of residences in the landscape. The proposed homes do not break the natural ridgeline. Overall, this study demonstrates that the proposed action will not significantly impact the identified aesthetic resources.



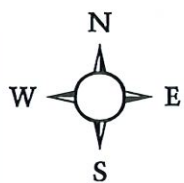
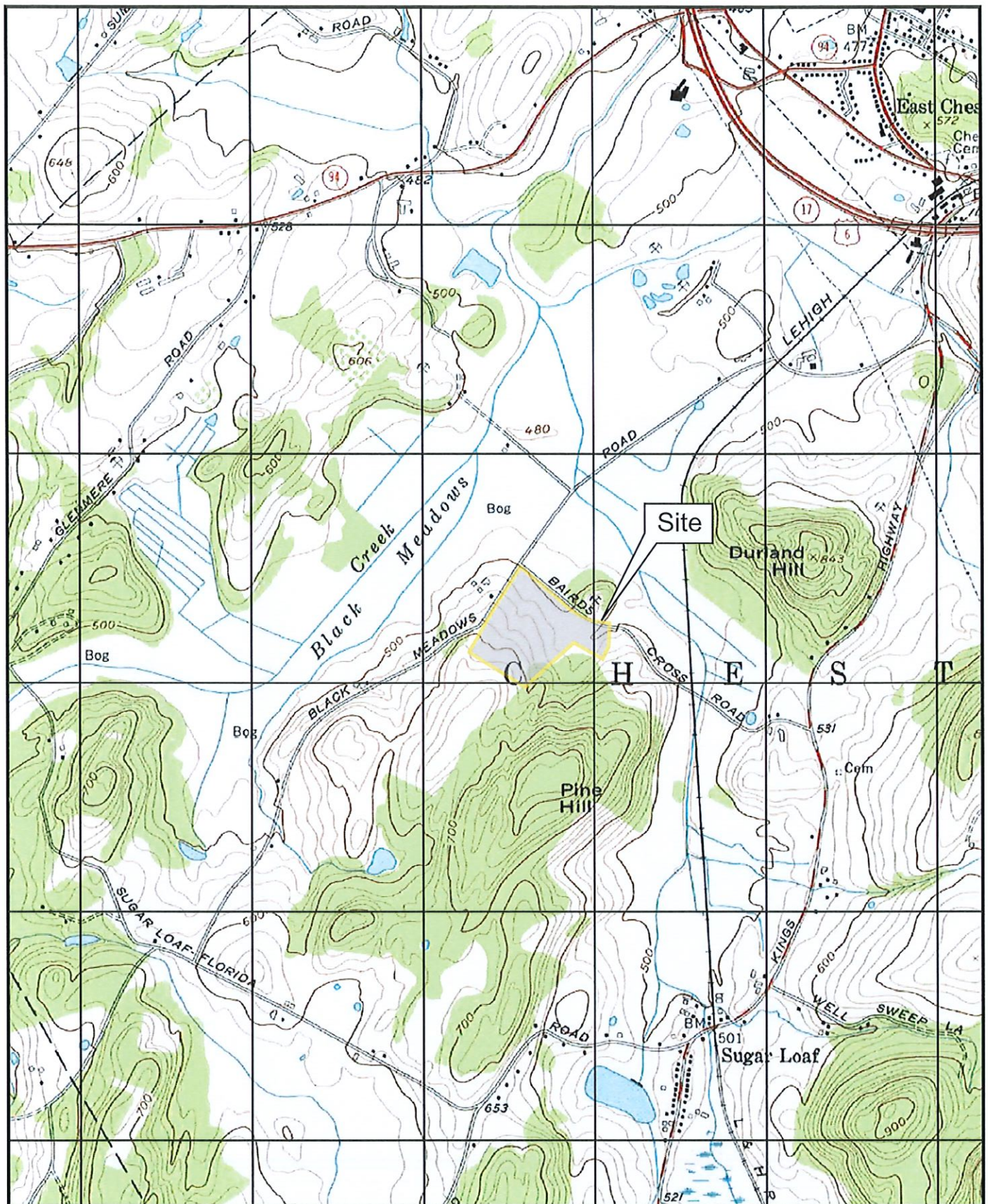


Figure 1: USGS Location Map  
 Baroda Subdivision  
 Town of Chester, Orange County, New York  
 Base Map: Orange County GIS  
 Approx. Scale: 1 inch = 1,685 feet



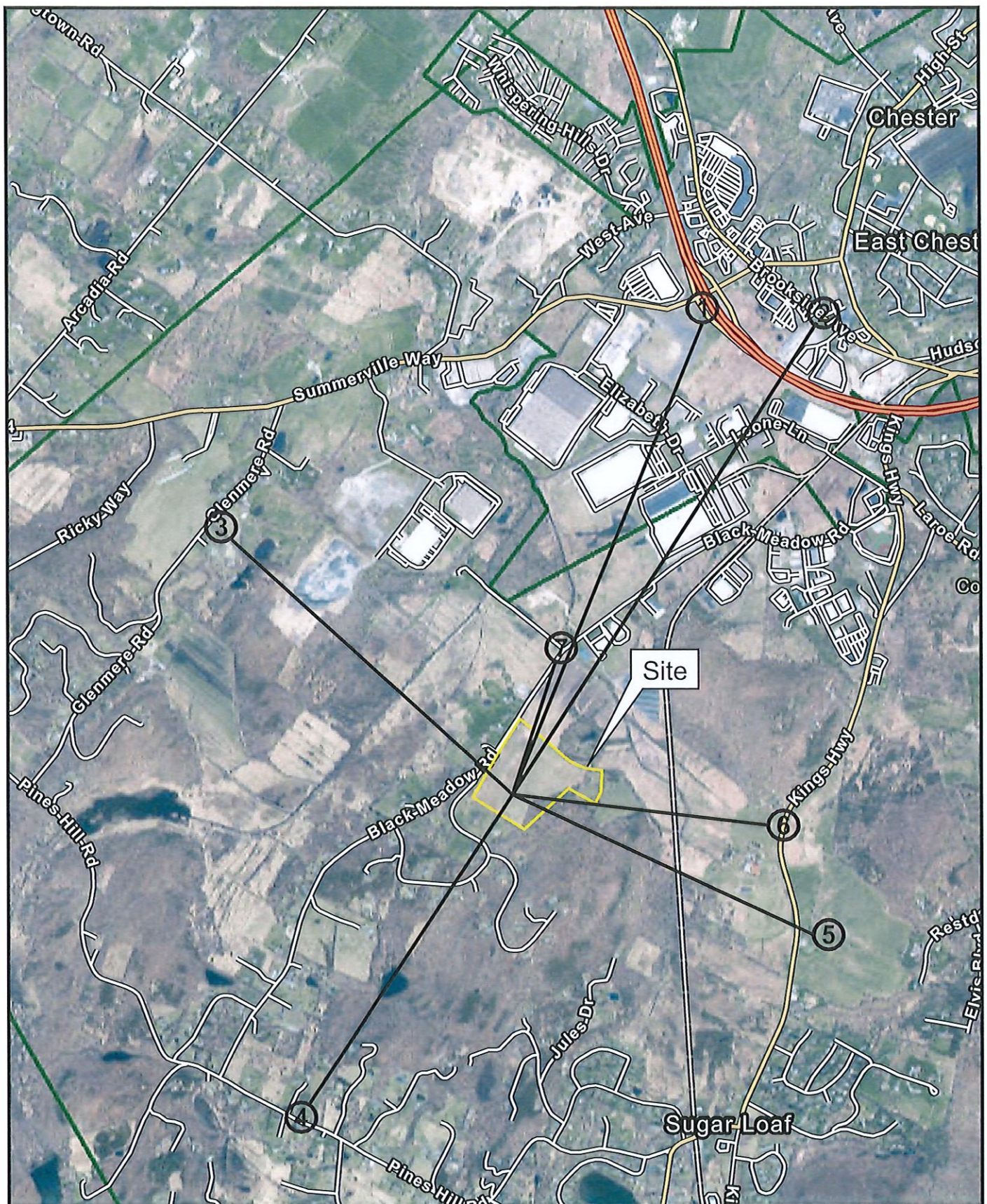


Figure 2: Views Location Map  
 Baroda Subdivision  
 Town of Chester, Orange County, New York  
 Base Map: Orange County GIS  
 Approx. Scale: 1 inch = 1,960 feet



**Figure 3 - Baroda Subdivision  
Existing Conditions Photos**



- 1) View from Route 94 and the ramp for eastbound NYS Route 17 facing southwest. Project site is at center of photo.



- 2) View from Brookside Avenue towards Pine Hill and project site towards the southwest. Proposed development area is behind vehicles and C&S warehouse at center of photo.



**Figure 3 - Baroda Subdivision  
Existing Conditions Photos**



- 3) View from Glenmere Road towards Pine Hill and project site towards the southeast. Site is obscured by trees and quarry on ridge at center of site.



- 4) View from Pine Hill Road towards the northeast and in direction of project site. View of site is obscured by topography.



**Figure 3 - Baroda Subdivision  
Existing Conditions Photos**



5) View from Knapp's View Town park towards northwest and in direction of project site. Project site is in approximate center of photo and is obscured by topography.



6) View from Kings Highway towards west and project site. Site is in approximate center of photo and lower fields are potentially visible in distance.



**Figure 3 - Baroda Subdivision  
Existing Conditions Photos**



7) View of site from Black Meadow Road towards south-southwest with project site at left of road. Proposed residential development is on hillside at left center of photo. Existing residential development is visible on ridgeline and at right of Black Meadow Road.



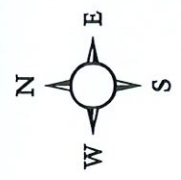
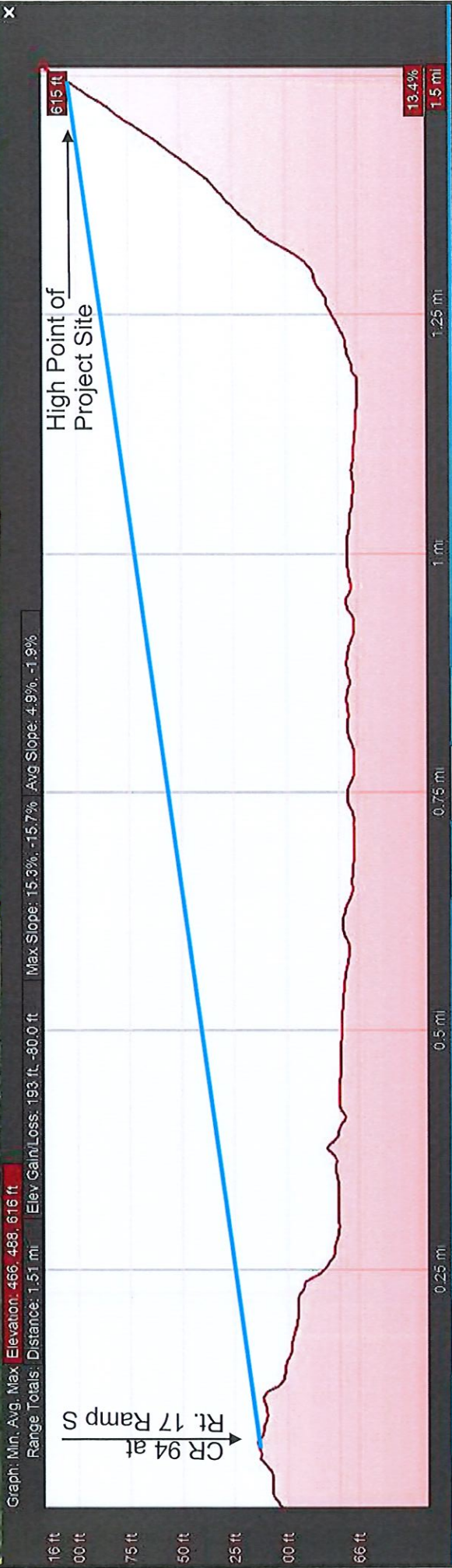
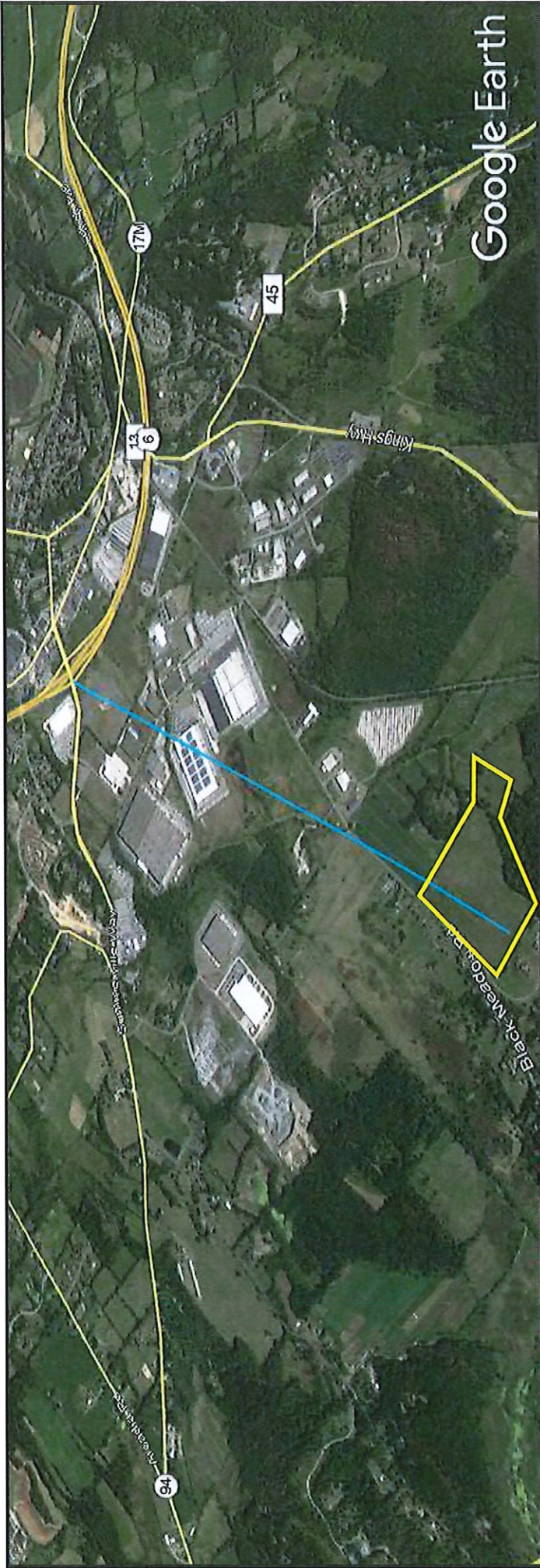
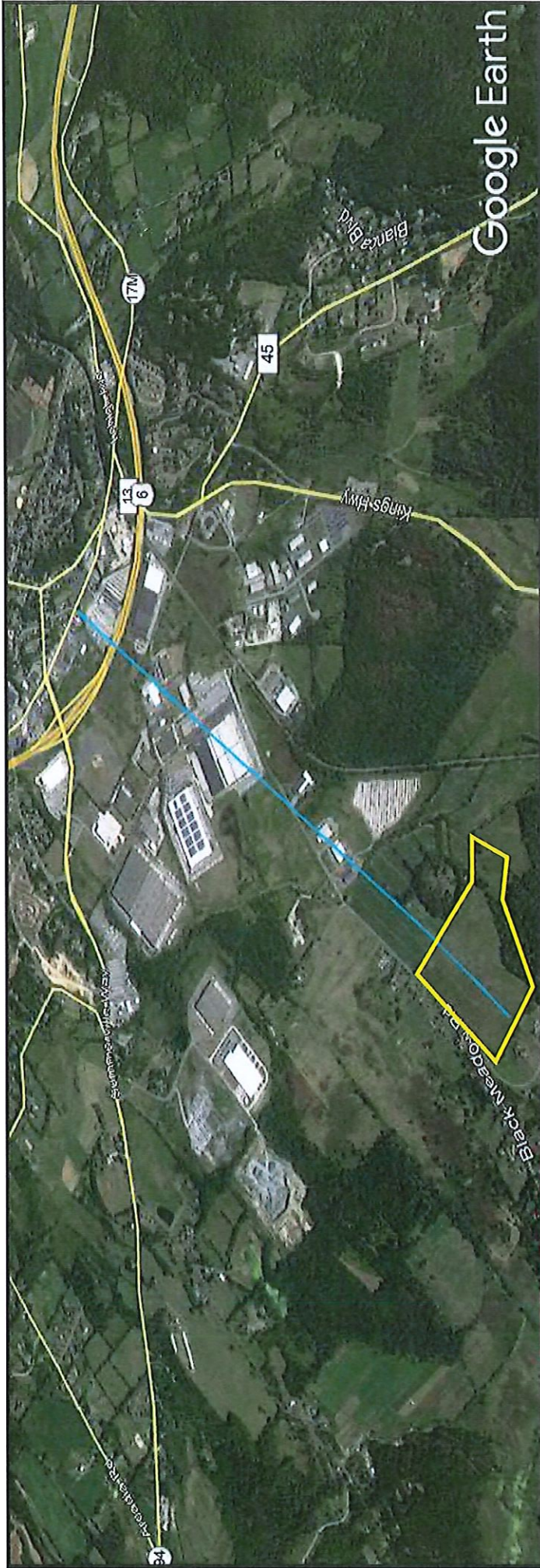


Figure 4: Line of Site Cross-Section View 1  
 Bardoda Subdivision  
 Town of Chester, Orange County, NY  
 Scale: Graphic scale as shown  
 Source: Google Earth Pro

Note: Proposed developed portion of the Site shown.





Google Earth

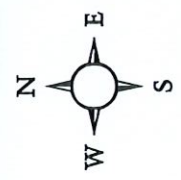
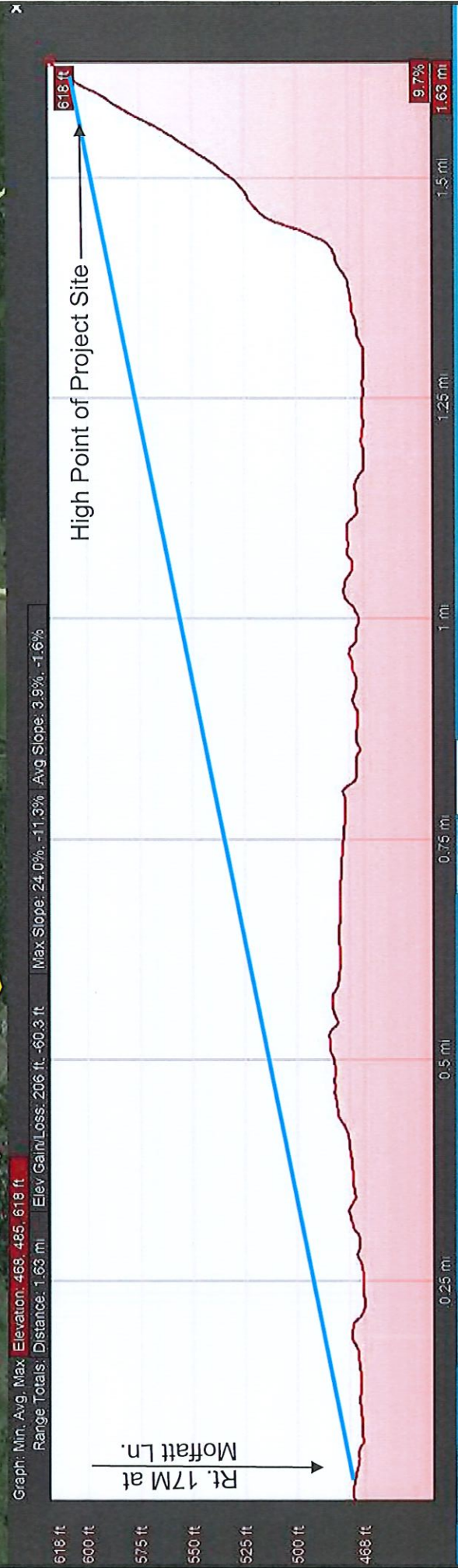


Figure 5: Line of Site Cross-Section View 2  
 Bardoda Subdivision  
 Town of Chester, Orange County, NY  
 Scale: Graphic scale as shown  
 Source: Google Earth Pro

Note: Proposed developed portion of the Site shown.



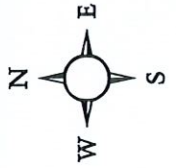
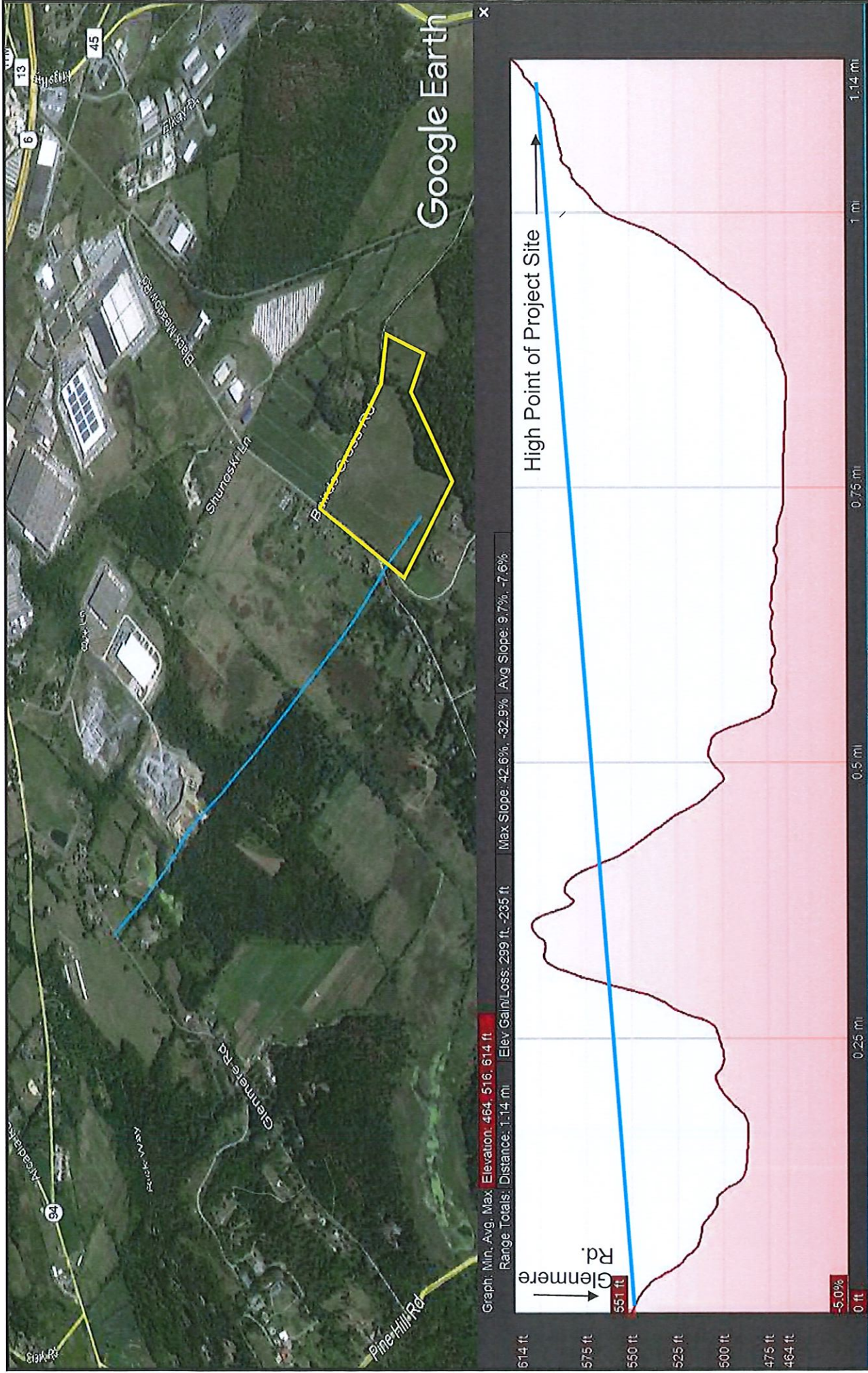
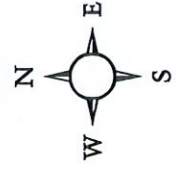
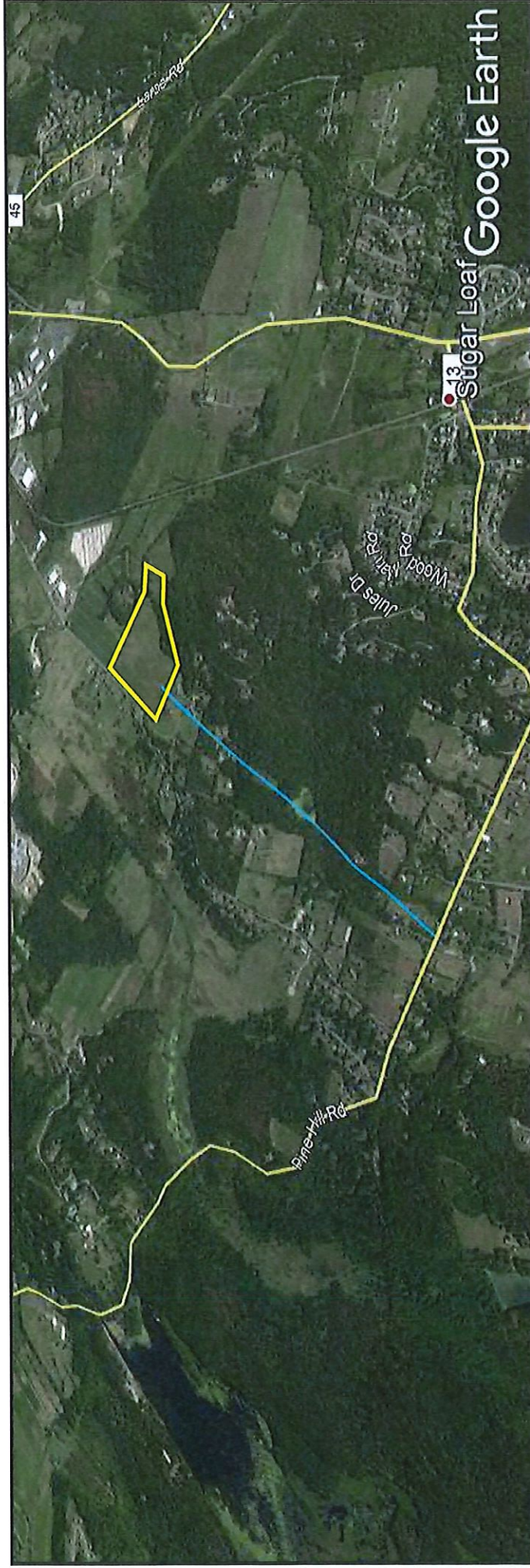


Figure 6: Line of Site Cross-Section View 3  
 Baroda Subdivision  
 Town of Chester, Orange County, NY  
 Scale: Graphic scale as shown  
 Source: Google Earth Pro

Note: Proposed developed portion of the Site shown.

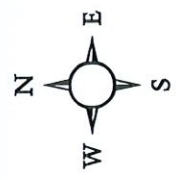
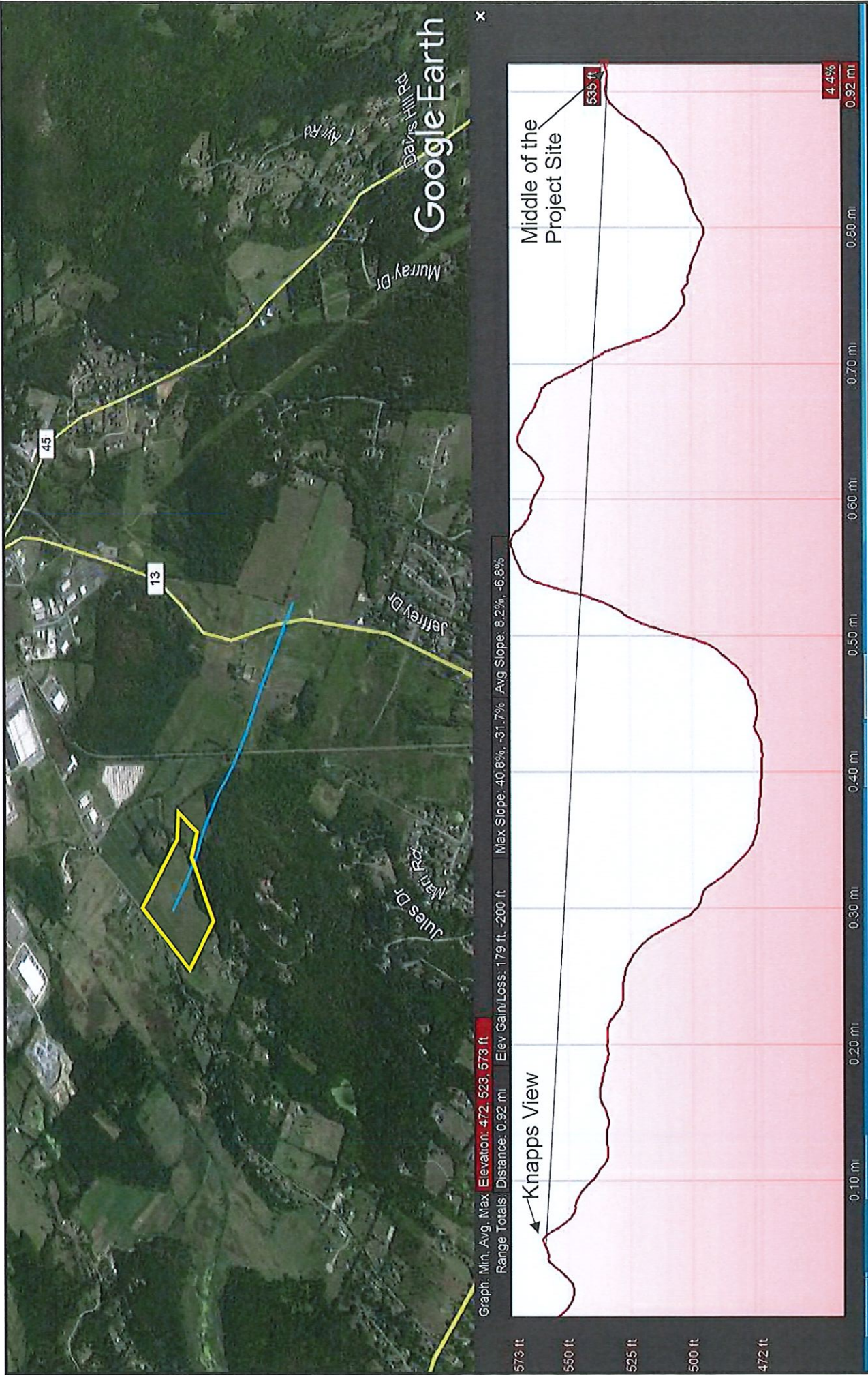




Note: proposed developed portion of the Site shown.

Figure 7: Line of Site Cross-Section View 4  
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 Town of Chester, Orange County, NY  
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 Source: Google Earth Pro

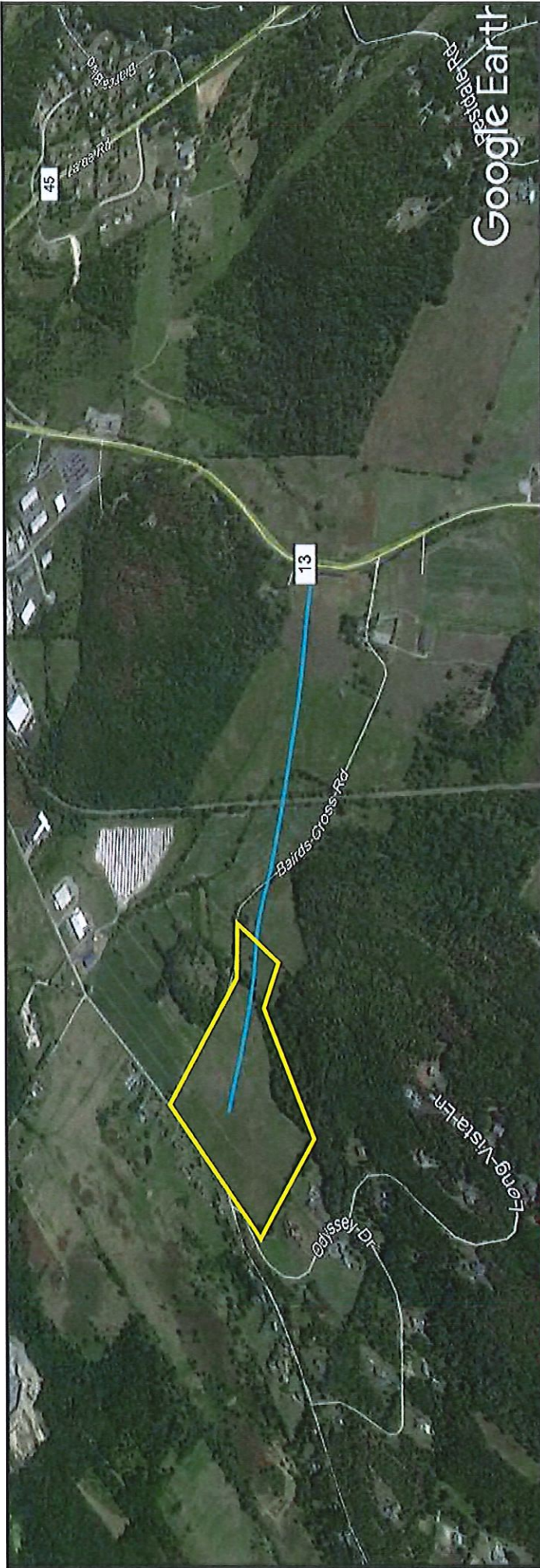




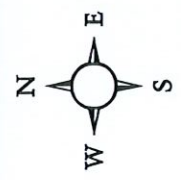
Note: Proposed developed portion of the Site shown.

Figure 8: Line of Site Cross-Section View 5  
 Baroda Subdivision  
 Town of Chester, Orange County, NY  
 Scale: Graphic scale as shown  
 Source: Google Earth Pro





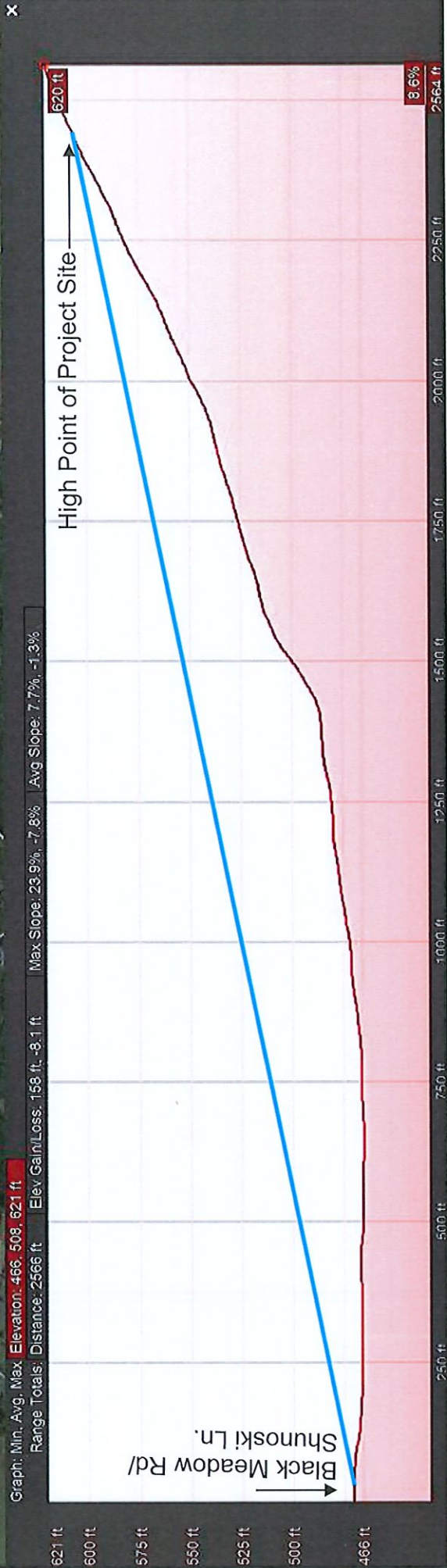
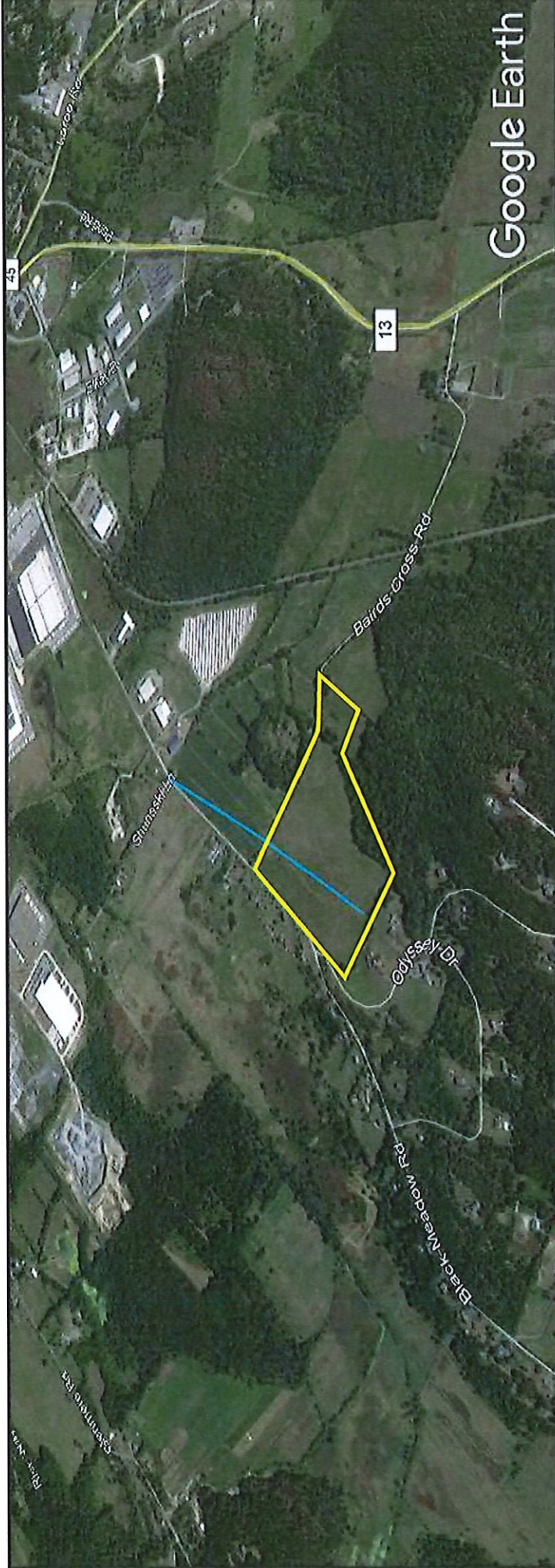
Graph: Min. Avg. Max Elevation: 470, 498, 535 ft  
 Range Totals: Distance: 0.76 mi Elev Gain/Loss: 129 ft -116 ft Max Slope: 32.1% -23.1% Avg Slope: 5.0% -6.8%



**Figure 9: Line of Site Cross-Section View 6**  
 Baroda Subdivision  
 Town of Chester, Orange County, NY  
 Scale: Graphic scale as shown  
 Source: Google Earth Pro

Note: Proposed developed portion of the Site shown.





**Figure 10: Line of Site Cross-Section View 7**

Baroda Subdivision  
Town of Chester, Orange County, NY

Scale: Graphic scale as shown  
Source: Google Earth Pro

Note: Proposed developed portion of the Site shown.

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