

4

Cultural Resources

4.1 Introduction

This chapter of the DEIS distills relevant data from the Phase IA/IB Archaeological and Architectural Investigation report completed by Historical Perspectives, Inc. (2009; Appendix 16.3). The Phase IA/IB Archaeological and Architectural Investigation of the project site was undertaken in order to: 1) identify any potential archaeological resources that might have been present on the site, 2) examine the construction history of the study site in order to estimate the probability that any such potential resources might have survived and remain on the site undisturbed; 3) to identify potentially significant architectural resources on the project site; and 4) to conduct Phase IB field investigations within those areas designated archaeologically sensitive by the Phase IA study. For this investigation, the archaeological and architectural Area of Potential Effect (APE) is the entire proposed development site.

The New York State Historic Preservation Act of 1980 (Chapter 354 of Parks, Recreation and Historic Preservation Law) was modeled directly after the National Historic Preservation Act of 1966. The act created the New York State Register of Historic Places. Section 14.09 of the act established a review process for state agency activities affecting historic or cultural properties, requiring state agencies to consult with the Commissioner of the Office of Parks, Recreation and Historic Preservation. Therefore, if a project requires any permits or is receiving funding/ grants or any other approvals from state agencies (such as DEC, DOT, State Ed, etc.), review by OPRHP is required. For the Jardim East project, the New York State Department of Environmental Conservation (NYSDEC) has been identified as an involved agency.

The State Environmental Quality Review Act (SEQRA), 6NYCRR Part 617 of the New York State Environmental Conservation Law, establishes a set of uniform regulations by which all state, county and local governmental agencies incorporate consideration of environmental impacts into their planning, review and decision-making processes. Impacts to historic resources, such as buildings listed on the State or National Registers of Historic Places and archeological sites, are taken into account. The



Phase IA/IB Archaeological and Architectural Investigation was prepared to satisfy the requirements of SEQRA and complies with the standards of the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) (New York Archaeological Council 1994; NYSOPRHP 2005). Refer to Appendix 16.3 for the complete Phase IA/IB Archaeological and Architectural Investigation report. The NYSOPRHP reviewed this report and concurred with the conclusions and recommendations presented by HPI (3/31/2009). Copies of the correspondence from the NYSOPRHP to HPI are also included in Appendix 16.3.

4.2 Existing Conditions

4.2.1 Pre-contact Resources

Precontact habitation and processing sites are typically found in sheltered, elevated sites close to wetland features, major waterways, and with nearby sources of fresh water. In its natural state, some of the flatter portions of the project site would have met many of these characteristics, as soils across the property are well drained and there are two natural drainages within the property. However, construction of the estate buildings, the man-made lake, and the other features on the modern landscape has rendered large portions of the project site too disturbed from earthmoving to retain precontact archaeological sensitivity. The remaining areas were examined during the Phase 1B field investigations and the results are presented in Appendix 16.3.

The Phase 1B excavations at the project site recovered a total of six precontact artifacts from six individual STs. In one location a cluster of precontact lithic material was recovered. ST 111 in Area E contained a quartz projectile point. Array STs investigated around ST 111 produced three additional positive STs. The precontact artifacts are detailed in the Phase IA/IB Archaeological and Architectural Investigation report.

4.2.2 Historical Resources

The project site consists of 46.62 acres of land spread over a number of individual tax lots, and containing a variety of conditions. The majority of the project site consists of the former Gracemere estate, which includes a number of standing and former structures, a man-made lake and pond, and paved roads. The remainder of the project site was not part of the Gracemere estate, but was owned by others, and is currently undeveloped. Prior to the onset of the field investigations, the project site was arbitrarily divided into ten test Areas (Areas A-J; see Exhibits 4-1 and 4-2). For ease of understanding, the project site current conditions are presented moving



generally from west to east using both Tax Lot and Field Testing Area designations where applicable.

4.2.2.1 Southwestern Gracemere property (part of Tax Lot P9)

The entrance to the project site from Broadway on the west is from a paved road running through the Emerald Woods property. There are stone columns on either side of the roadway marking the boundary of the property from this entrance. The southwestern corner of the project site contains a very steep hillside (with slopes in excess of 25 percent) with a medium density of forest cover. At the top of this hillside, just within the project site boundaries, is a large in-ground reservoir, which once provided water for the Gracemere estate buildings. The reservoir is roughly square shaped, with a concrete lining over a stone foundation. There appeared to be at least several feet of standing water in the bottom of the reservoir at the time of the field survey, making it difficult to gauge the depth of the feature, but casual observation suggests that it is more than 10 feet deep. A single stone pillar is located in the center of the reservoir, rising from the bottom of the feature to perhaps 5 feet above the rim of the foundation. The pillar has a rectangular shaped notch on its east and west sides. A small stone and concrete pump box is located on the east side of the reservoir, set partially above and partially below grade.

4.2.2.2 Northwestern Gracemere property (Tax Lot P9E/Area F)

To the north of the parcel containing the steep hillside and the reservoir is a lot containing two residences. The larger residence, known as "Gracemere Lodge," is a Colonial Revival style building which dates to the 1910s. It is an L-shaped, fieldstone-faced building, measuring 2 ½ to 3 stories with a basement (Photographs 4-7). The front façade of the building faces east, toward the lake. The building has been extensively renovated, including replacing the original windows, adding dormers along the roofline, replacing the roof, and relining the exterior of the chimneys. By the mid-twentieth century the house had been converted into apartments. The grounds surrounding this building consist of a landscaped front lawn, and an overgrown area on the west. There is an above ground fuel tank at the northwest corner of the building.

The second residence on this lot is a 2-story (with basement) vernacular frame building known as the "Gate House". It faces the second entry to the project site, a road off Sheldon Avenue known as Gracemere, which also has stone pillars marking the property boundary. It appears to date to the nineteenth century, and may in fact be the original ca. 1850s-1860s house built by Robert Graves shortly after he purchased the property in 1856. However, the house has been extensively



renovated, including replacement of windows, and the addition of an enclosure on the east side of the front porch. The building is bounded by a paved driveway on the west, and an undeveloped and overgrown area further west, bordering the project site's western limit.

4.2.2.3 Lake parcel (part of Tax Lot P9)

To the east of the parcel containing the Gracemere Lodge and the Gate House is an area containing a man-made lake or large pond, measuring 1.65 acres, and known as "Gracemere Lake". The lake is lined with concrete, and is currently in fair condition. The grounds surrounding the lake appear to be significantly landscaped and/or graded.

Water feeding the lake enters the parcel on the southeast, through a metal conduit encased in a small stone semicircular basin. The water pipe is then split in two, to form two feeds to the lake. The field survey also revealed several brick, stone, and concrete features on the east of the lake. These include a small stone arched walkway or "bridge" which may overlay one of the pipes leading to the lake, a small, rectangular shaped brick chamber, possibly a dry well northeast of the "bridge," and a concrete lined channel running along the east side of the lake to a large oval-shaped fieldstone and concrete lined feature, which appears to have drained into the lake. The area east of this feature is moderately sloped and may be disturbed from grading or other construction associated with nearby features. The southeast corner of the lake parcel contains a modern residence that is not part of the project APE, which sits on Tax Lot P9K.

4.2.2.4 Gracemere Hall parcel (part of Tax Lot P9/Area E)

Immediately east of the lake parcel is the parcel containing "Gracemere Hall," the original French Second-Empire style mansion house built on the project site. The building is three stories high, faced with fieldstone, and has a prominent mansard roof. The main façade faces northwest, toward the lake. A large square tower was built off the structure's southern corner during the Graef occupancy. Like the other residences on the project site, this house also has been extensively renovated. The changes include the removal of the wraparound porch (which itself may have been a later addition), the removal of the main entryway features, the removal of decorative brackets below the roofline, the replacement and boarding up of windows, and additions were constructed on the west and north, and south facades. Like the Gracemere Lodge, the interior of this building was converted into apartments by the mid-twentieth century.

The area surrounding Gracemere Hall is extensively landscaped, with rolling lawns. The southeast (or rear) yard of the house, which is mostly level, formerly contained



greenhouses; remnants of these buildings can still be seen in the yard area, which now contains children's play equipment. Other parts of the lawn contain circular garden features. The Gracemere Hall parcel is bounded on the east, west, and south by paved roadways and on the north by woods. The southwest corner of the parcel contains a modern residence on Tax Lot P9J that is not part of the project APE.

4.2.2.5 Tax Lot 9B

North of the Gracemere Hall parcel is a property formerly part of the Gracemere holdings that until ca. 2005 contained another mansion house. The rectangular-shaped house was built in the Colonial Revival style, and had a gambrel roof with pedimented dormers (Yasinac 2000). The field inspection revealed that the demolition process in ca. 2005 has rendered the former location of this house, as well as the remainder of this parcel, extensively disturbed. No evidence of any intact portion of the former house foundation was visible or observed. Instead, large fragments of stone and bricks were noted in churned up piles. Only a portion of a former addition or outbuilding was still present. The extensive surface examination of this location found that the ground surface within the entire parcel was completely disturbed by the large-scale demolition of the structures by heavy machinery.

4.2.2.6 Tax Lot P9 (south section/Areas C and D)

South of the Gracemere Hall parcel is a thin strip of land bounded on the north by a paved roadway and on the south by the Tarrytown village line. The stream that feeds the lake has been moved and altered to such a degree that it is only visible in spots, including in a channelized trough along the southern side of the roadway, and wet areas south of the trough. The western side of this parcel is vacant land. It contains stone foundation remains of a greenhouse.

There are two one-story L-shaped stucco residences on the eastern side of this parcel, both in considerable disrepair.

The last structure on this parcel is what appears to be an icehouse, located east of "Gracemere Court," and cut into the side of a hill. The structure is one story with a loft. It is constructed of fieldstone on the main story, and wood on the loft, with a metal roof. The main entry to the icehouse faces south; toward the stream that feeds the lake. There is a very large oil tank inside the structure and a small vent pipe at the northeast corner of the roof.

4.2.2.7 Tax Lot P9F/Areas H, I, and J

East of the strip of land described above is a large undeveloped area also part of Tax Lot P9F, which is bounded on the east and south by the Tarrytown village line.



Along the southern edge of this area, there is another stone and concrete lined reservoir located at the top of a knoll and cut into the hill. This reservoir is roughly semi-circular shaped. There is a square concrete pillar in the approximate center of the basin.

The remainder of this area is essentially undeveloped, with rolling hills covered by medium density woods. There are a number of knoll tops or ridges in this area. Running approximately north-south through this parcel is a perennial tributary that once fed into Sheldon Brook to the north, but today is channeled and dammed in a number of places. The largest pond along this drainage is off the project site to the northeast. Within the project site, there is a small pond, known as Turtle Pond, near the southeast corner of the property that has a concrete dam.

There are a number of additional concrete features along the east side of the drainage. These include a possible pump house (with pipes still visible) near Turtle Pond, a stone channel and a series of spigots along the stream. A small concrete foundation remnant (surrounded by a high chain link fence) is located on the east side of the stream as well.

The third entry to the project site is along a right-of-way running south from Sheldon Avenue on the east side of the project site. At the end of this roadway, there is a remnant of a former private driveway that led to a twentieth-century residence. Only the concrete foundation is visible today.

4.2.2.8 Tax Lot P11

The majority of this parcel is undeveloped woodland, with a spring located near its southern end that creates another fork to the drainage discussed above. The terrain is generally steep, with only a few ridge tops exhibiting slopes less than 12 percent.

Near the Sheldon Avenue end of the parcel are remains of the former Schneider residence. The foundation, of fieldstone, is located along the side of a ridge. Remains of outbuildings were also visible. Artifacts littering the ground surface near these former buildings at the time of the field survey dated from the late nineteenth and early twentieth century.

4.2.2.9 Tax Lot P6

The final area surveyed within the project site is a narrow strip of land lying along the south side of Sheldon Avenue. This parcel is steeply sloped (most areas are mapped as having greater than 12 percent slopes), and the central portion is wet.

Near the northeastern edge of the project site, one unmortared fieldstone foundation from a former house is still visible. It is rectangular-shaped, and measures



approximately 20 feet by 12 feet. A stonewall marks the boundary of this parcel with the adjoining lot to the south (which is not part of the project site). Several large rock outcrops are also visible along this area.

The project site exhibits a number of different topographic conditions, depending on location. Generally, though, the project site contains rolling to steeply sloped hills in undeveloped areas, and flatter areas where there has been development over time. The lowest part of the project site is along Sheldon Avenue, where elevations range from about 170-200 feet above mean sea level. Elevations rise to the south; elevations reach over 300 feet above mean sea level near the southern boundary of the project site. The southwestern corner of the project site has the highest elevation, at about 375 feet above mean sea level. Areas surrounding the historic development on the project site, including the vicinity of the houses, the lake, and the roadways clearly have been altered through grading and filling from the original landform. Other wooded areas may be reasonably untouched by earthmoving.

There are two main drainages that course through the project site, both of which have been altered over time through damming and channelizing. The drainages empty into Sheldon Brook to the north, which in turn feeds into the Hudson River to the west. The first drainage runs in a roughly north-south alignment along the eastern side of the project site, and exits the property under the right of way to feed into the large pond just off the project site. A fork of this drainage is located further north, within the project site boundaries. The second drainage enters the project site along the southern boundary and through a series of channels and pipes empties into the man-made lake on the property. The dam for the lake is at its northwestern end; the drainage continues through another series of pipes in a northwest direction (and off the project site) until reaching Sheldon Brook. As noted above, there is a third wetland area on the project site, along Sheldon Avenue.

4.2.3 Architectural Resources

The preliminary review of the architectural resources within and adjacent to the project site suggested that one of the extant buildings might be potentially eligible for the National Register of Historic Places and a number of the remaining structures as well as some of the archaeological features may be potentially eligible for the National Register of Historic Places as a historic district. Subsequent to the submission of HPI's Phase 1A/1B report, NYSOPRHP has written that they have "no concerns regarding historic buildings/structures/ districts" within the project area (see Appendix 16.3).



4.3 Potential Impacts

4.3.1 Pre-contact Resources

The project site contains land forms and water courses that are the preferred locations for precontact archaeological sites. Phase IB excavations at the project site recovered a total of six precontact artifacts from six individual STs. These artifacts are detailed in the Phase IA/IB Archaeological and Architectural Investigation report. Four of the STs contained a cluster of lithic material in a limited portion (one Area) of the project site. This cluster warrants further investigation in the form of Phase II testing.

4.3.2 Historical Resources

Documentary research supported that the Site has the potential for the recovery of historical cultural resources dating back to the nineteenth and twentieth century occupations of the site.

Several structures and remnants of former structures exist on the site. This includes standing structures such as the "Gate House", "Gracemere Hall", "Gracemere Lodge", two 1940-era one-floor stucco houses, and the ice/power house.

Development on the site will impact these structures, through construction of housing, roads, and public utilities.

4.3.3 Architectural Resources

NYSOPRHP has determined that they have "no concerns regarding historic buildings/structures/ districts" within the project area (see Appendix 16.3).

4.4 Mitigation

4.4.1 Pre-contact Resources

Additional STs should be placed in a grid at a five-meter interval out from positive ST 111 to determine the extent and nature of the recovered materials. In addition, at least two larger Excavation Units (EUs) should be excavated in the immediate vicinity of the four positive STs, including ST 111, to further address the nature of the lithic cluster. NYSOPRHP has reviewed and concurred with this recommendation (see Appendix 16.3).



The extremely low frequency of artifacts found across the rest of the project site demonstrates that the remainder of the APE lacks potentially significant precontact deposits. No additional testing is warranted for any of the other Areas studied, as none of the Areas have deposits that could potentially address pertinent research issues.

If there is a change to the development plans that results in subsurface disturbance to locations outside of the APE that was established when field testing was undertaken (see Exhibit 4-2), then additional field-testing would be warranted for those locations as well.

4.4.2 Historical Resources

Within the APE, three distinct historical archaeological sites were identified during the field examination.

4.4.2.1 Historical House Site (Gracemere)

Although historic maps depict the building as early as 1875, no clear evidence of a nineteenth century living surface was identified during the Phase 1B field examination. It appears that the upper strata was disturbed and modified during the twentieth century, negating the likelihood of recovering associated artifact concentrations or features. Therefore, no additional field-testing is recommended for historical resources in this location.

4.4.2.2 Historical House Site (Sheldon Avenue House Site)

During the initial site reconnaissance, a foundation of a small dwelling was observed. Additionally, remnants of a nearby stonewall were noted during field-testing. Documentary research confirmed that a historical farm/domestic compound once stood where the site was encountered. The presence of the intact foundation with associated artifacts indicates the need for Phase II field-testing prior to any development of this location.

4.4.2.3 Historical House Site (Schneider House)

The longevity of the Schneider occupation and the presence of the remainder of the dwelling foundation also warrant further investigation in the form of Phase II testing prior to any development of this location.

If these two sites will be impacted by project development, additional archaeological consideration, or Phase II fieldwork, is recommended for the two house sites in order to further elucidate the extent and integrity of the existing resources. Phase II testing would be carried out on the site in order to gather enough data to make a determination of eligibility for listing on the National Register of Historic Places. The Phase II investigation includes completing additional background research (e.g., deed and census information; reviewing regional museum collections) and the additional excavation of 50 x 50 centimeter STs (placed at closer intervals) in order to define horizontal boundaries of cultural deposits. Once this is complete, a series of larger 1 x 1 meter excavation units are placed in those areas with the greatest concentration of cultural resources. NYSOPRHP has reviewed and concurred with this recommendation (see Appendix 16.3).

4.4.3 Architectural Resources

No mitigation activities are indicated for this project.

4.5 Visual Resources

4.5.1 Existing Conditions

The Jardim Estates East site is characterized by mature trees and wooded areas with some open grass and meadow areas. Generally, the project site contains rolling to steeply sloped hills in undeveloped areas, and flatter areas where there has been development over time. The lowest part of the project site is along Sheldon Avenue, where elevations range from about 170-200 feet above mean sea level. Elevations rise to the south; elevations reach over 300 feet above mean sea level near the southern boundary of the project site. The southwestern corner of the project site has the highest elevation, at about 375 feet above mean sea level. Areas surrounding the historic development on the project site, including the vicinity of the houses, the lake, and the roadways clearly have been altered through grading and filling from the original landform. Other wooded areas may be reasonably untouched by earthmoving. The dense vegetation and topography provides a wooded backdrop with restricted views of surrounding roadways and development.

The following photographs illustrate the visual character of the Jardim Estates East site within the context of its surrounding area. Photos were taken during the "leaf-off" season so as to illustrate the most significant or worse-case scenario views to, from and through the site. See Exhibit 4-3, Project Site and Photograph Locations.

Vantage points in the vicinity of the project site also include the following:
(the locations of these vantage points are illustrated on Exhibit 4-4, *Vantage Points for Visual Analysis*)

- **The southern end of Woodlawn Street** – The view from the southern end of Woodlawn Street is slightly sloping upwards, with the view of some homes in the foreground. The area is heavily wooded, and even in the leaves-off condition, the view is significantly obstructed in the distance by trees. In the near distance, there are existing homes that are visible.
- **The Walnut Street neighborhood** – The Walnut Street neighborhood sits at the edge of the wooded Project Area. The surrounding land is moderately sloped and heavily obstructed in the near distance by trees.
- **The neighborhood south of Upper Gracemere Lake** – The neighborhood south of Upper Gracemere Lake include a cluster of single family homes. These houses sit at roughly the same elevation as the homes in the Walnut Street neighborhood. These houses are surrounded to the east, west and south by dense wooded land, with obstructed views in leaf-off conditions. There are steep slopes to the southwest of this area.
- **The western perimeter of the property looking east** – The view looking east from the western edge of Upper Gracemere Lake includes the roadway leading into the site and the cluster of houses south of the lake. Gracemere Lodge, which is located at the southwest corner of the site, obscures many views of the site to the east.
- **The Nigerian Embassy** – The Nigerian Embassy borders the site on the southwest corner and has a clear view of the pond and adjacent homes. Past these features, the area is heavily wooded and the topography is moderately sloped.
- **Sheldon Avenue looking south** – Sheldon Avenue is located at the northern boundary of the project site. The northern portion of the project site is heavily wooded and views to the south, looking towards the project site, are significantly obstructed from the roadway.
- **Prominent locations in Taxter Ridge Park** – Taxter Ridge Park Preserve is located to the east/south/southeast of the Project Area in the Town of Greenburgh. A ridgeline runs northeast to southwest to the east of Taxter Ridge Road with a maximum elevation of 540 feet. The ridgeline is densely forested, compromising views, though views of the Hudson River, the Palisades and the hilltop estate houses in Tarrytown are still able to be seen from the ridgeline.
- **The Bagarotti property** – The Bagarotti property is located adjacent to the project site to the east (see Exhibit 2-2, *Adjoining Property Owners*, map reference #4). The Bagarotti property contains a single family residence and garage, a 3.5 acre lake, forested land and landscaped areas. Vegetation and habitat within the Bagarotti property are similar to those found on the project site. The proposed lot 5 house is the nearest proposed structure located approximately 415 feet



south of the Bagarotti house. The proposed lot 5 house would likely be visible from portions of the Bagarotti house and rear yard, which is largely mowed lawn. The proposed lot 5 house would be at an elevation approximately 90 feet higher than the Bagarotti house.

The proposed houses on lots 6 and 7 would be located more than 500 feet from the Bagarotti house. The proposed houses on lots 6 and 7 would be at an elevation of 260-270 feet, while the Bagarotti house is at a much lower elevation (elevation 187 feet). The proposed houses on lots 6 and 7 will be located at an elevation between 73 and 83 feet above the elevation of the Bagarotti house. While the proposed houses on lots 6 and 7 will be visible from the Bagarotti house, it is the applicant's opinion that the significant distance and dense vegetation between the proposed houses and the Bagarotti house will provide some visual buffer.

4.5.2 Potential Impacts of the Proposed Action

The visual resources of the area will be altered somewhat as the new development is added to the landscape. The character of the project site will become more residential and to some extent less natural. However, this impact is not considered adverse.

The proposed project is the subdivision of an approximately 46-acre area into 12 residential lots, including lots for two existing residential structures. The two existing structures known as Gracemere Courts and the existing structure known as the Gate House will be demolished. Access will be provided from the existing private roads, which will be modified as necessary (widened) to accommodate the anticipated traffic and to meet generally accepted road standards. The proposed roads will generally follow to the greatest extent possible the existing on-site private roads.

The Jardim Estates East subdivision will involve new road construction required to extend the existing private road into the site to develop the proposed new single-family lots with houses, driveways and lawns. Two of the existing residences are to remain on individual lots.

The Proposed Action will result in the development of the entire 46.6-acre site for 12 residential lots and the associated roadways. The residential lots will cover virtually the entire 46.6-acre site, including Upper Gracemere Lake and Turtle Pond as well as those sections of the property with steep slopes and wetlands. If overall density at full build-out were calculated, the average density over the entire 46.6 acre site would be one home for every 3.8 acres. The density is lower than that of development to the west and northwest.

This will have an effect on the visual character of the site from the west looking towards the east. However, this impact is not considered adverse. This includes the



views from Woodlawn Avenue, the Walnut Street neighborhood, the neighborhood south of Upper Gracemere Lake, the western perimeter, and the Nigerian Embassy.

The views from Sheldon Avenue looking south will not be significantly affected by the development and will remain partially obstructed by the steep slopes.

The proposed project will be partially visible from the nearby portions of Taxter Ridge Park. However, the existing dense vegetation and low residential density will provide some visual buffer.

The proposed project will not be visible from the most prominent areas of Taxter Ridge Park, including the ridgeline that runs through Taxter Park. Although the ridgeline is at a significantly higher elevation than much of the project site, the existing hilltops in the southern portion of the project site will obstruct views of the proposed houses from the Taxter Park ridgeline.

Views of the project site from most areas in Taxter Park, looking north and east towards the project site are compromised due to the heavy level of forestation along the ridgeline and throughout this area of Greenburgh and Tarrytown, helping to obstruct the views.

4.5.2.1 Sight-Line Analysis

To evaluate the views of the proposed houses from existing vantage points identified in the Scope, Global Mapper, a global positioning system (GPS) software, was utilized. Global Mapper accesses multiple sources of imagery, topographic maps, and gridded terrain data including high resolution color imagery from USGS satellite imagery and topographic maps. This GPS software uses elevation data to evaluate the sight lines from a transmitter to a receiver. For this project, a transmitter of six feet, an estimated height of a person, was used at each vantage point. The receiver height was set to 35 feet, which exceeds the maximum height for any of the proposed houses. The results are shown in Exhibits 4-5 through 4-13.

The green portion of the diagram represents the topography between the vantage point and specific house. The yellow dotted line represents the line of sight from the vantage point (6 feet in height) to the top of the house (a height of 35 feet was used for the analysis, although the maximum height for any of the proposed homes would not exceed 30 feet). The numbers on the vertical axis represent the elevation and the numbers on the horizontal axis represent the approximate distance between the vantage point and the proposed location of the new house. The red line with red dots at each end represents the minimum clearance of the line of sight from the topography. If the line of sight is not obstructed by the existing topography of the site, the minimum clearance of the line of sight is a positive value. This value represents the height of the line of sight above the highest topography in the sight



line. If the minimum clearance value is a negative number, then the line of sight and the topography intersect and the proposed house will not be visible from that vantage point. The negative value then represents the difference between the line of sight and the highest point of topography in that sight line.

Note that this analysis does not account for vegetation or existing structures, only topography, so the analysis is a worst-case scenario.

Sight Lines from Vantage Point 1 – Southern End of Woodlawn Street to New Houses (See Exhibit 4-5)

From the southern end of Woodlawn Street, the sight-line analysis indicates that the houses on proposed lots 9 and 10 would be visible (i.e. not obstructed by the existing topography). However, the houses located on the easterly side of Woodlawn Street and the southerly side of Walnut Street would obstruct views of the proposed houses on lots 9 and 10 from the Woodlawn Street vantage point. The sight-line analysis shows that the existing topography would obstruct views of the proposed houses on lots 3-8 and lot 12 from the Woodlawn Street vantage point.

Sight Lines from Vantage Point 2 – Walnut Street Neighborhood to New Houses (See Exhibit 4-6)

From the Walnut Street neighborhood, the sight-line analysis indicates that the houses on proposed lots 7, 9, 10 and 12 would be visible (i.e. not obstructed by the existing topography). However, similar to vantage point 1, the existing houses located within the Walnut Street neighborhood would greatly obstruct views of the proposed development. Proposed lots 7 and 12, which are on the easterly side of the new road, would be obstructed by the existing and proposed homes on the westerly side of the new road. The most unobstructed views from the Walnut Street neighborhood would be from the rear of the existing homes on Woodlawn Street and the existing homes on Walnut Street, east of Lincoln Avenue. The sight-line analysis shows that the existing topography would obstruct views of the proposed houses on lots 3-5, 6 and 8.

Sight Lines from Vantage Point 3 – Neighborhood South of Upper Gracemere Lake to New Houses (See Exhibit 4-7)

From the neighborhood south of Upper Gracemere Lake, the sight-line analysis indicates that the existing topography would obstruct views of the houses on proposed lots 4, 5 and 6. Based on the topography alone, the houses on proposed lots 3, 7-10 and 12 would be visible from the neighborhood south of Upper Gracemere Lake. However, the actual visual impact to each of the seven homes in the neighborhood south of Upper Gracemere Lake would vary. The three westernmost homes in this neighborhood, which are accessed from the existing cul-de-sac known as Gracemere Lake Drive, will be obstructed from views of the proposed new homes



by the four easternmost homes in this neighborhood and by Gracemere Hall. Views from the two homes owned n/f by Viertel and Aukland are partially obstructed from views of the proposed lots by the two homes owned n/f by Rochlin and Cohen and by Gracemere Hall. Dense tree cover, even during the winter (leaf-off season), partially obstructs views of the proposed lots (see Exhibit 4-14, Visual Analysis – Photos 1 and 2).

Views from the homes owned n/f by Rochlin and Cohen will not be obstructed by other existing or proposed structures from views of the proposed homes on lots 7, 10 and 12.

Sight Lines from Vantage Point 4 – Western Perimeter of the Property Looking East to New Houses (See Exhibit 4-8)

From the western perimeter of the Jardim Estates East property looking east, the sight-line analysis indicates that the houses on proposed lots 8-10 and lots 7 and 12 would be visible (i.e. not obstructed by the existing topography). However, the most prominent view from the western perimeter of the property looking east is and will remain the existing structure known as Gracemere Lodge.

From the western perimeter of the property, the houses on proposed lots 7, 8, and 12 would be totally obstructed from view by both existing and proposed houses.

The sight-line analysis shows that the existing topography would obstruct views of the proposed houses on lots 3-6 from vantage point 4.

Sight Lines from Vantage Point 5 – Nigerian Embassy to New Houses (See Exhibit 4-9)

From the Nigerian Embassy, which is at an elevation of ≥ 400 feet, the sight-line analysis indicates that all of the proposed houses on the Jardim Estates site would be visible (i.e. not obstructed by the existing topography). However, as illustrated by Exhibit 4-14, Visual Analysis – Photo 3, the dense and mature tree cover, even during the winter (leaf-off season), significantly obstructs views of the proposed lots.

Sight Lines from Vantage Point 6 – Sheldon Avenue Looking South to New Houses (See Exhibit 4-10)

From Sheldon Avenue, the sight-line analysis indicates that the houses on proposed lots 3, 4, 5, 6 and 8 would be visible (i.e. not obstructed by the existing topography). The sight-line analysis shows that the existing topography would obstruct views of the proposed houses on lots 7, 9, 10 and 12.



Sight Lines from Vantage Points 7A and 7B – Prominent Locations in Taxter Ridge Park to New Houses (See Exhibits 4-11 and 4-12)

Two separate vantage points within Taxter Ridge Park were analyzed. Both vantage points in Taxter Park are at elevation of approximately 500 feet. From these vantage points, the sight-line analysis indicates that all of the proposed houses on the Jardim Estates site would be obstructed by the existing topography.

Sight Lines from Vantage Point 8 – Bagarotti Property to New Houses (See Exhibit 4-13)

From the Bagarotti property, the sight-line analysis indicates that the houses on proposed lots 3, 5-8, and 12 would be visible (i.e. not obstructed by the existing topography). The sight-line analysis shows that the existing topography would obstruct views of the proposed houses on lots 4, 9 and 10.

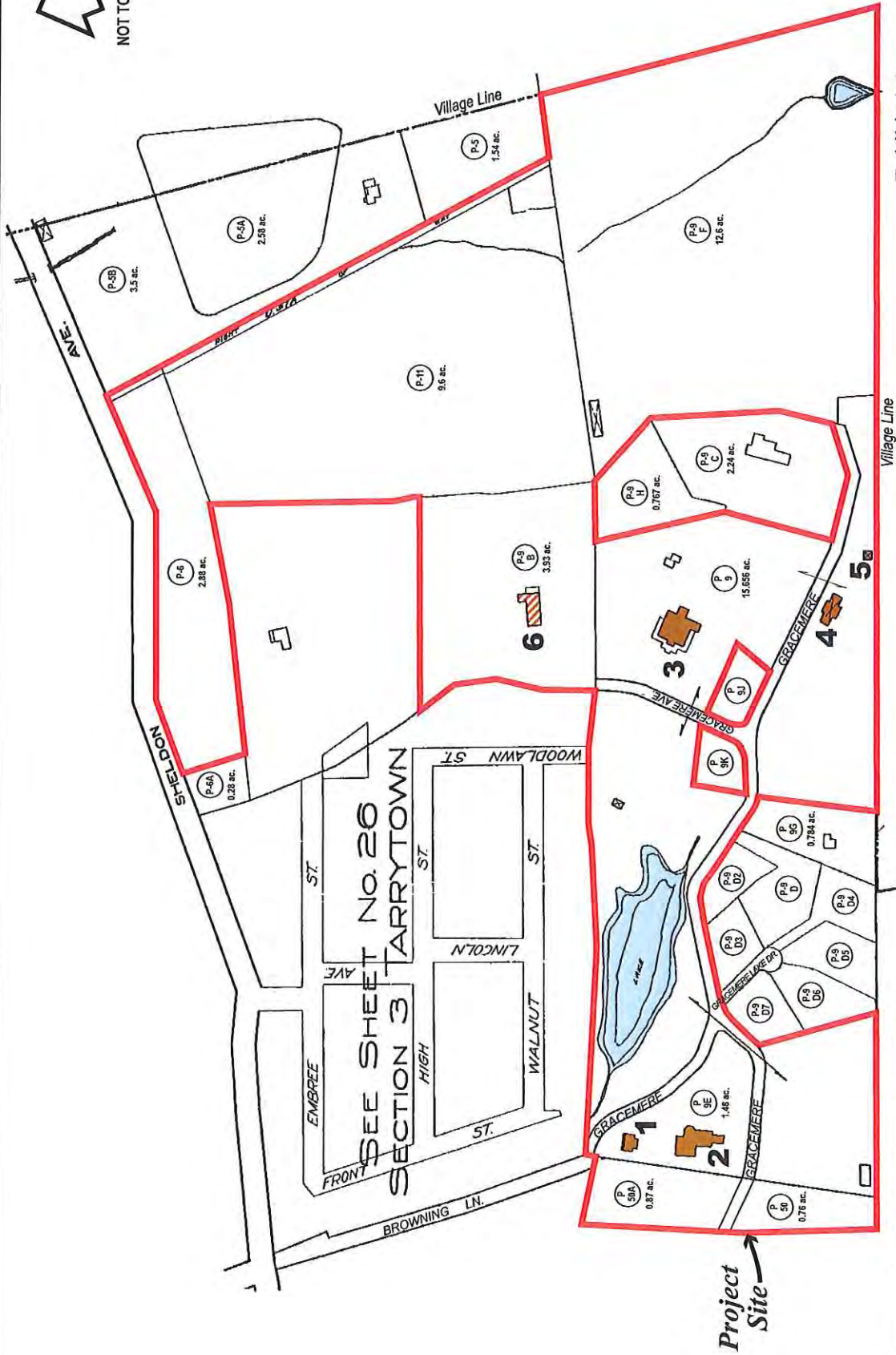


Exhibit 4-1

**PROJECT SITE AND STANDING
STRUCTURES ON TAX MAP**

JARDIM ESTATES EAST
Tarrytown, New York

- 1** Gate House (19 Gracemere Lane)
- 2** Gracemere Lodge
- 3** Gracemere Hall
- 4** Gracemere Court (Two Structures)
- 5** Ice House
- 6** Former Browning Mansion (Now Demolished)

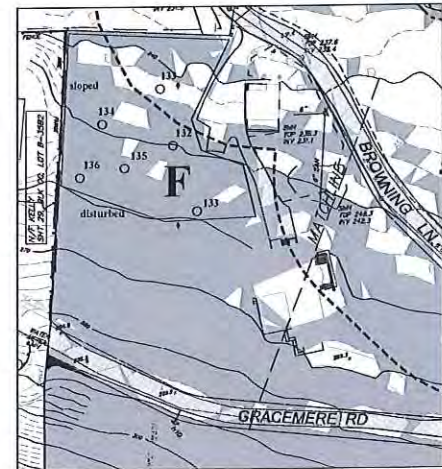
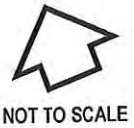
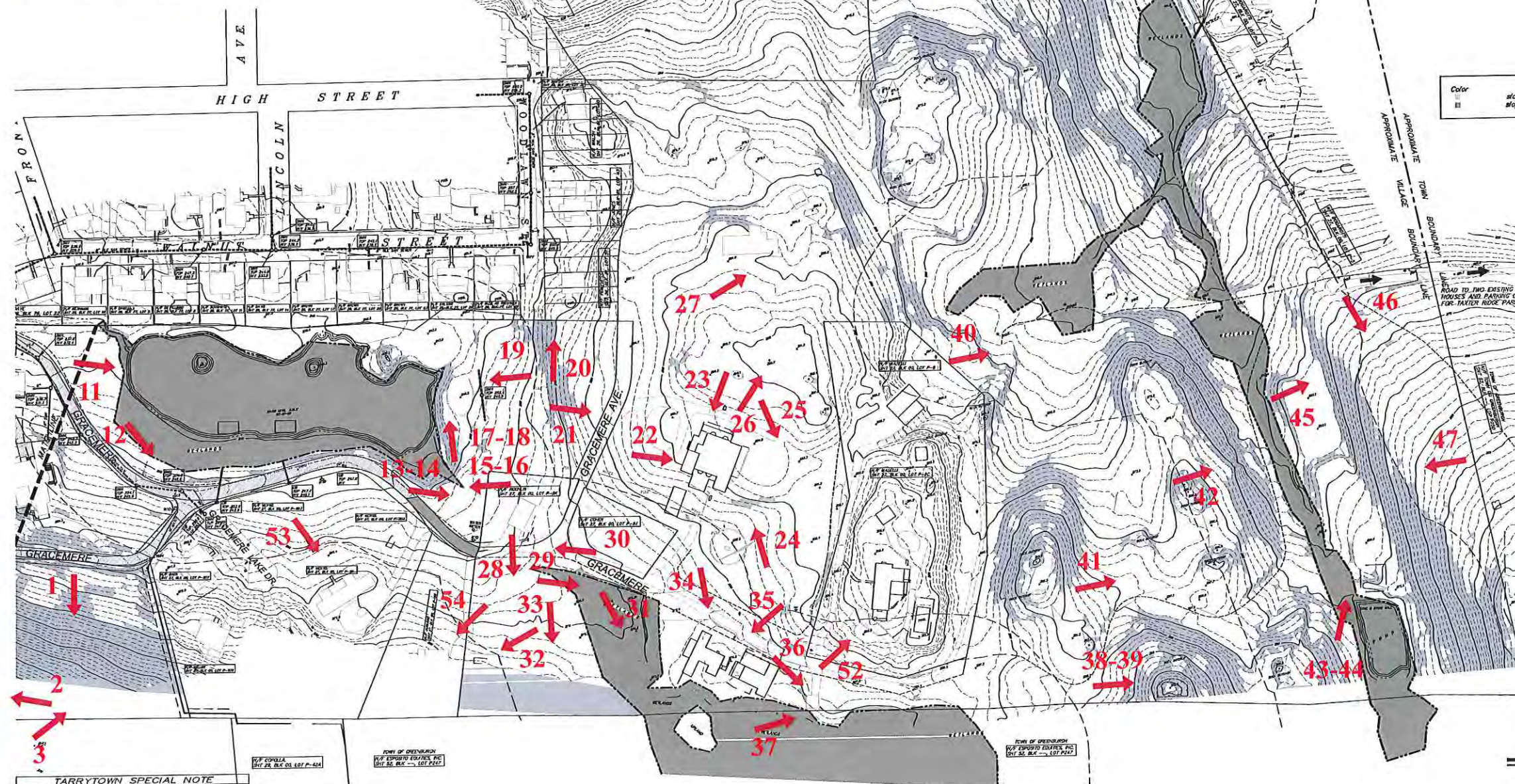
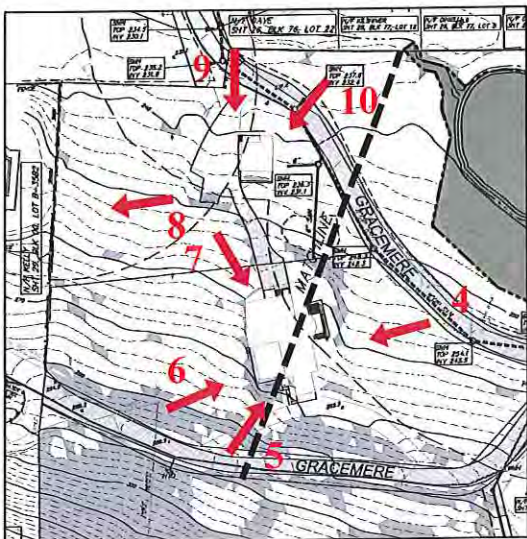


Exhibit 4-2
FIELD TESTING LOCATIONS
JARDIM ESTATES EAST
Tarrytown, New York



NOT TO SCALE

1 → Photograph Numbers and Orientations

LEGEND				
x 402.8	EXISTING SPOT ELEVATION			
—	EXISTING CONTOUR			
—	EXISTING STONE WALL			
—	EXISTING DIRT TRAIL			
—	EXIST. WATER/WATERCOURSE BOUNDARY			
---	EXISTING WETLAND BOUNDARY			
---	150' WETLAND BUFFER LINE			
■	EXISTING SLOPE 25% OR GREATER			

Color	Layer	Range Beg.	Range End	Percent	Area
0.00	slopesSOF-RNG1	0.00	12.00	42.1	859104.43
12.00	slopesSOF-RNG2	12.00	10000000.00	57.9	1183316.07

Exhibit 4-3
PROJECT SITE AND
PHOTOGRAPH LOCATIONS
JARDIM ESTATES EAST
Tarrytown, New York



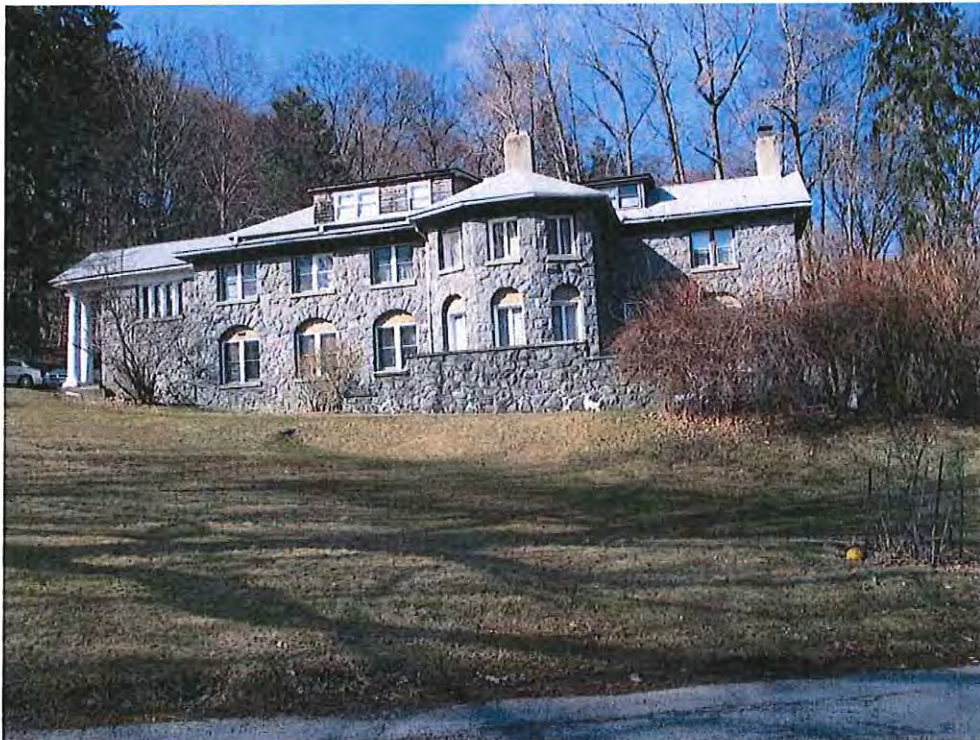
Photograph 1: Southwest corner of project site, showing steep slopes leading to large stone reservoir on hilltop. View looking southwest from roadway.



Photograph 2: Stone reservoir on top of hill at southwest corner of project site. View looking north from edge of reservoir.



Photograph 3: Square pumping chamber on east side of stone reservoir at southwest corner of project site. View looking northeast from edge of reservoir.



Photograph 4: Eastern (front) façade of “Gracemere Lodge” at western end of project site. View looking west from roadway.



Photograph 5: Southern (side) façade of "Gracemere Lodge" at western end of project site. View looking northeast from roadway.



Photograph 6: Western (rear) façade of "Gracemere Lodge" at western end of project site. View looking northeast from rear of house.



Photograph 7: North (side) façade of "Gracemere Lodge" at western end of project site. View looking south from side yard of house.



Photograph 8: Vacant area behind "Gracemere Lodge" shown in photographs 4-7. View looking west from rear yard.



Photograph 9: North (front) façade of “Gate House” just north of “Gracemere Lodge” shown in photographs 4-7. View looking south from roadway.



Photograph 10: North (front) and east (side) façades of “Gate House” just north of “Gracemere Lodge” shown in photographs 4-7. View looking southwest from roadway.



Photograph 11: "Gracemere Lake" and landscaped area surrounding it. Houses in background are off the project site. View looking southeast from Gracemere roadway.



Photograph 12: Landscaped and graded area on south side of "Gracemere Lake," with Gracemere roadway on right. View looking southeast from Gracemere roadway.



Photograph 13: Stone semicircular basin set into ground and channeling water from drainage towards “Gracemere Lake.” View looking southeast from near southeastern edge of lake.



Photograph 14: Southeastern edge of “Gracemere Lake” showing two water channels running down the hill into the lake. House in right background is off the project site. View looking southeast from near southeastern edge of lake.



Photograph 15: Small stone arched walkway or “bridge,” which may overlay one of the pipes leading to “Gracemere Lake.” View looking northwest from near southeastern edge of lake.



Photograph 16: Small, rectangular shaped brick chamber, possibly a dry well, located northeast of stone arch shown in previous photograph. View looking northwest from near southeastern edge of lake.



Photograph 17: Concrete lined channel running along the east side of the lake to a large oval-shaped fieldstone and concrete lined feature, in left background. View looking northeast from near southeastern edge of lake.



Photograph 18: Large oval-shaped fieldstone and concrete lined feature, which appears to have drained into the lake. Concrete channel shown in previous photograph is in the foreground. View looking northeast from near southeastern edge of lake.



Photograph 19: View of large oval-shaped fieldstone and concrete lined feature in previous photograph, showing relationship to lake. View looking northwest from area east of the lake.



Photograph 20: Area east of oval feature shown in previous photographs with ground moderately sloped and likely disturbed from grading or other construction. Houses in background are off project site. View looking northeast.



Photograph 21: Area east of oval feature shown in previous photographs with ground moderately sloped and likely disturbed from grading or other construction. View looking southeast.



Photograph 22: Northwest (front) façade of "Gracemere Hall," the original French Second-Empire style mansion house built on the project site. View looking southeast.



Photograph 23: Northeast (side) façade of "Gracemere Hall." View looking southwest.



Photograph 24: Southeast and southwest (side and rear) façades of "Gracemere Hall," with landscaped grounds in foreground. Note tower on building's southern corner. View looking north.



Photograph 25: Rear yard of "Gracemere Hall" showing extensive landscaping, and remnants of greenhouses surrounding children's play equipment. View looking south.



Photograph 26: Circular garden feature located on northeast side of "Gracemere Hall," with woods in background. View looking northeast.



Photograph 27: Former location of Browning mansion, demolished in 2005. Note extensive disturbance to entire area. View looking northeast.



Photograph 28: Land southwest of Gracemere roadway containing a channelized trough containing the drainage that feeds "Gracemere Lake" bordering the roadway. Note wetland on right. View looking southwest from Gracemere roadway.



Photograph 29: Second view of channelized trough containing the drainage that feeds "Gracemere Lake." "Gracemere Court" is in far background. View looking southeast.



Photograph 30: Culvert carrying channelized trough under Gracemere roadway to the lake. View looking northwest.



Photograph 31: Wet areas southwest of Gracemere roadway. "Gracemere Court" is visible in right background. View looking south.



Photograph 32: Stone foundation remains of a greenhouse, located near southern edge of project site. View looking west.



Photograph 33: Furrows in the ground that probably represent old planting beds, located east of the greenhouse remains shown in the previous photograph. View looking southwest.



Photograph 34: Northwestern façades of the western of the two buildings that comprise "Gracemere Court." View looking south from Gracemere roadway.



Photograph 35: Northeastern façades of the western of the two buildings that comprise "Gracemere Court." View looking southwest from Gracemere roadway.



Photograph 36: North (rear) façade of ice house, located east of "Gracemere Court," and cut into the side of a hill. View looking southeast from Gracemere roadway.



Photograph 37: South (front) façade of ice house. View looking northeast.



Photograph 38: Knoll containing stone and concrete lined reservoir at top. View looking east.



Photograph 39: Interior of stone and concrete lined reservoir shown in previous photograph. View looking east from edge of structure.



Photograph 40: Exposed bedrock and quarried stone in the southeastern section of the project site.



Photograph 41: Example of rolling hills covered by medium density woods on southeastern end of project site. View looking east.



Photograph 42: Perennial tributary of Sheldon Brook running through eastern side of project site. View looking east.



Photograph 43: Concrete dam at northern end of "Turtle Pond." View looking northeast.



Photograph 44: Stone channel leading north from "Turtle Pond" dam. View looking northeast.



Photograph 45: Small concrete foundation remnant (surrounded by a high chain link fence) on the east side of the stream. View looking east.



Photograph 46: Remnant of a former private driveway that led to a twentieth-century residence at the southeastern end of the project site. View looking south.



Photograph 47: Concrete foundation of former twentieth-century house at southeastern end of project site. View looking west.



Photograph 48: Remains of the former Schneider residence, located on knoll near Sheldon Avenue. View looking south.



Photograph 49: Outbuilding of former Schneider residence, located south of the main house. View looking south.



Photograph 50: Steeply sloped area of project site located on south side of Sheldon Avenue. View looking west.



Photograph 51: Unmortared fieldstone foundation from a former house located south of Sheldon Avenue and just west of driveway marking eastern edge of project site. View looking west.



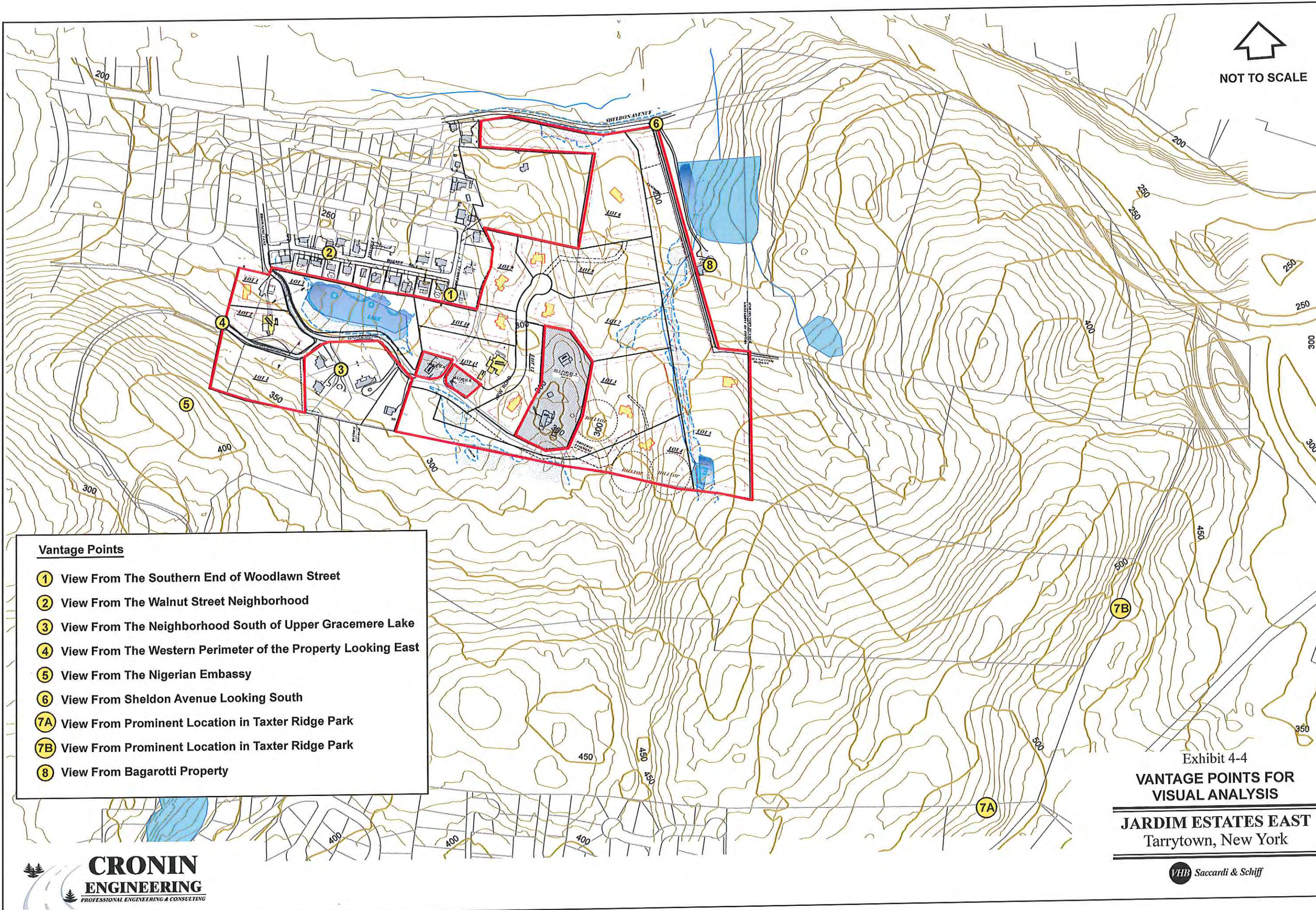
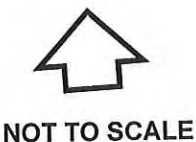
Photograph 52: Mansion house on Tax Lot P9C, formerly part of the Gracemere estate, but which is not part of the project site. View looking northeast from Gracemere roadway.



Photograph 53: Mansion house on Tax Lot P9D, formerly part of the Gracemere estate, but which is not part of the project site. View looking south from Gracemere roadway.



Photograph 54: Second residence located southeast of the mansion shown on previous photograph, which also may have been associated with the Gracemere estate. View looking southwest.



Vantage Points

- ① View From The Southern End of Woodlawn Street
- ② View From The Walnut Street Neighborhood
- ③ View From The Neighborhood South of Upper Gracemere Lake
- ④ View From The Western Perimeter of the Property Looking East
- ⑤ View From The Nigerian Embassy
- ⑥ View From Sheldon Avenue Looking South
- ⑦A View From Prominent Location in Taxter Ridge Park
- ⑦B View From Prominent Location in Taxter Ridge Park
- ⑧ View From Bagarotti Property

Exhibit 4-4
**VANTAGE POINTS FOR
VISUAL ANALYSIS**
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 1
SOUTHERN END OF WOODLAWN STREET TO NEW HOUSES

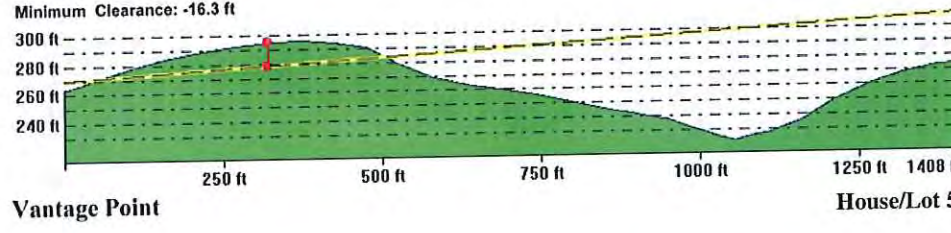
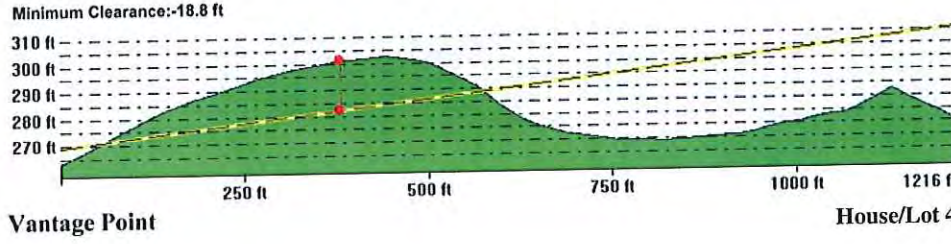
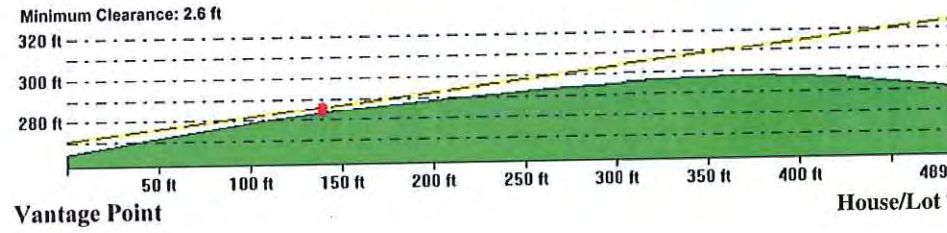
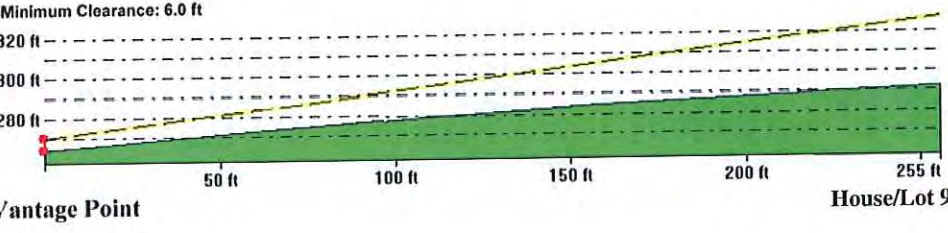
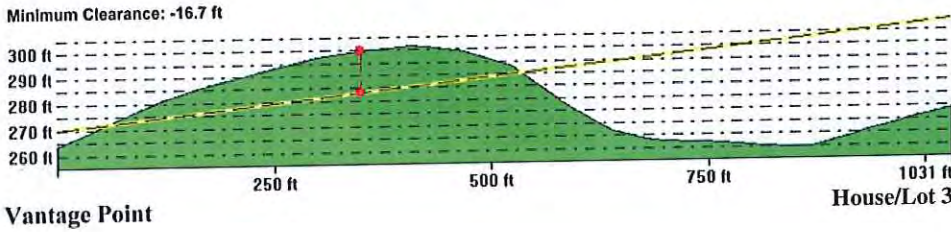
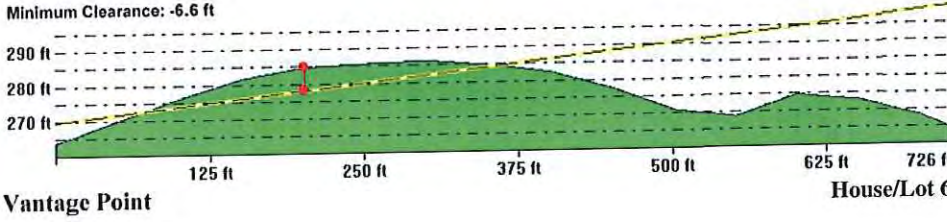
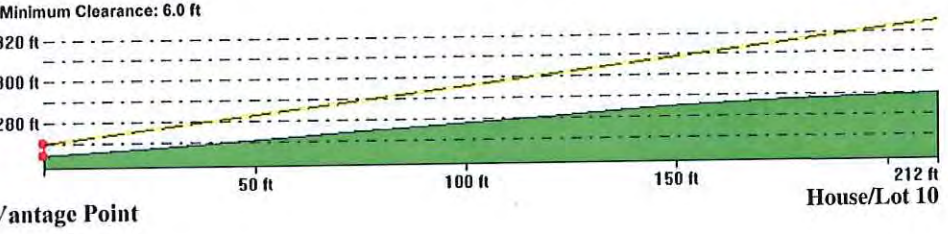
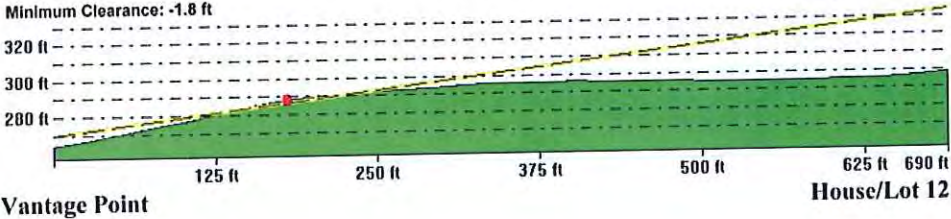
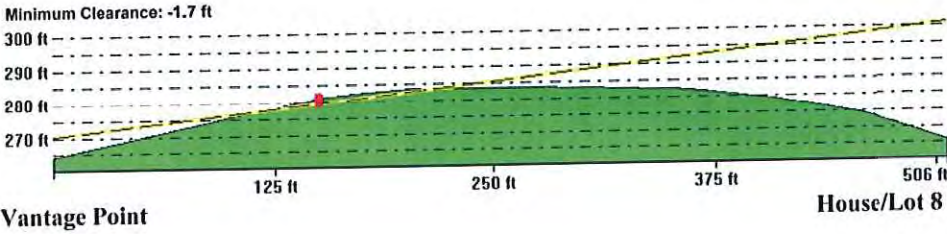


Exhibit 4-5
SIGHT LINES FROM
VANTAGE POINT 1
SOUTHERN END OF
WOODLAWN STREET
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 2
WALNUT STREET NEIGHBORHOOD TO NEW HOUSES

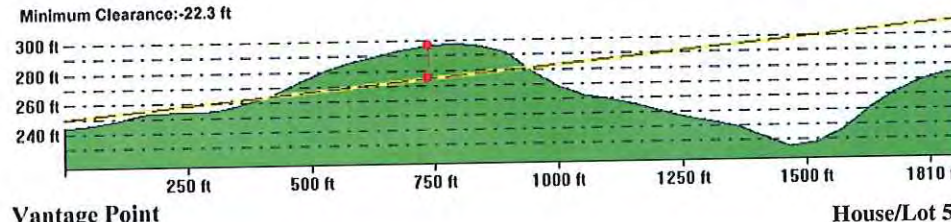
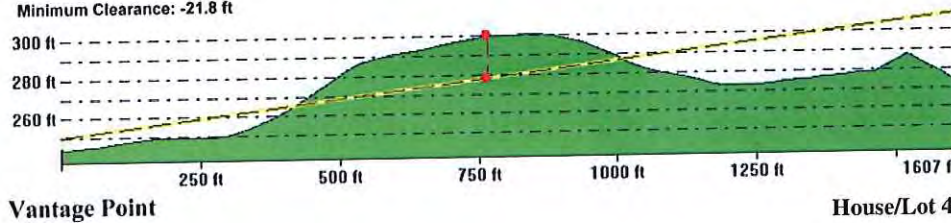
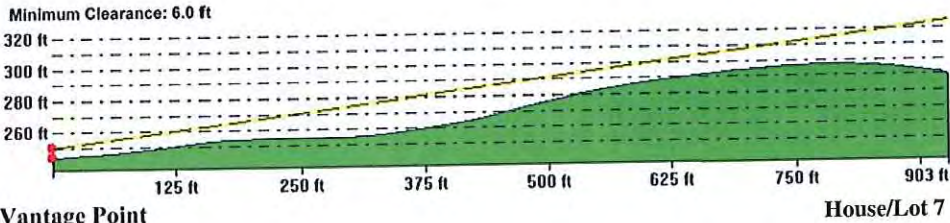
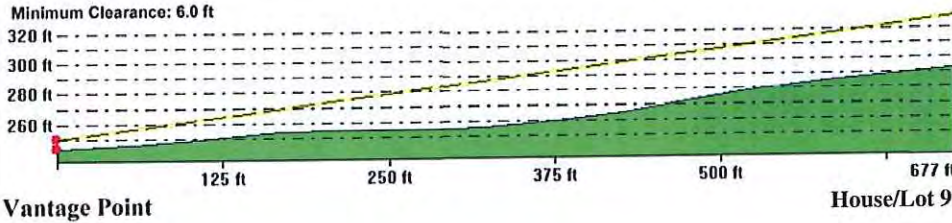
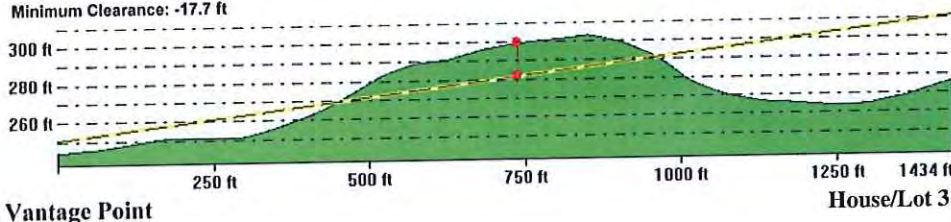
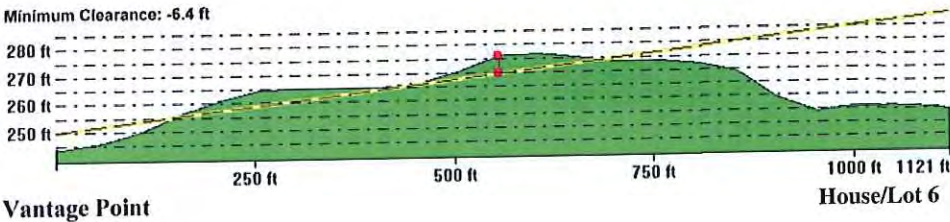
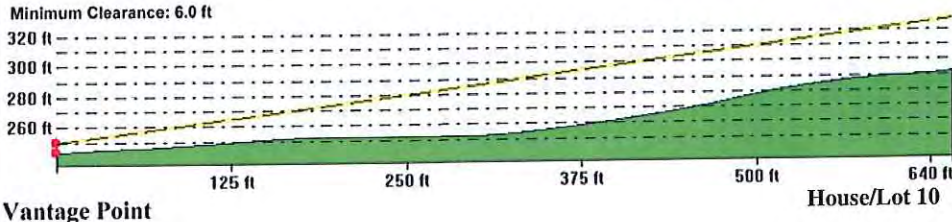
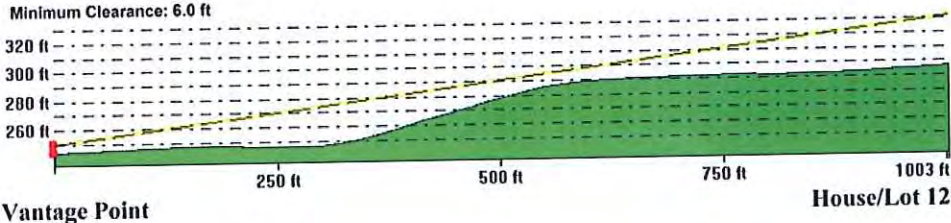
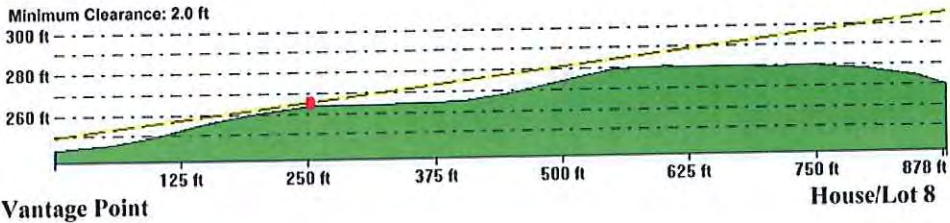


Exhibit 4-6
SIGHT LINES FROM
VANTAGE POINT 2
WALNUT STREET NEIGHBORHOOD
JARDIM ESTATES EAST
Tarrytown, New York

**SIGHT LINES FROM VANTAGE POINT 3
NEIGHBORHOOD SOUTH OF UPPER GRACEMERE LAKE TO NEW HOUSES**

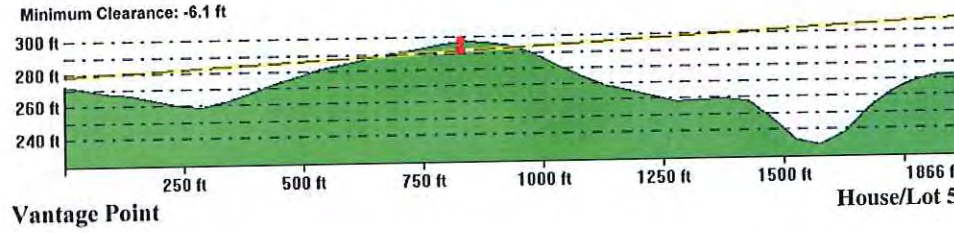
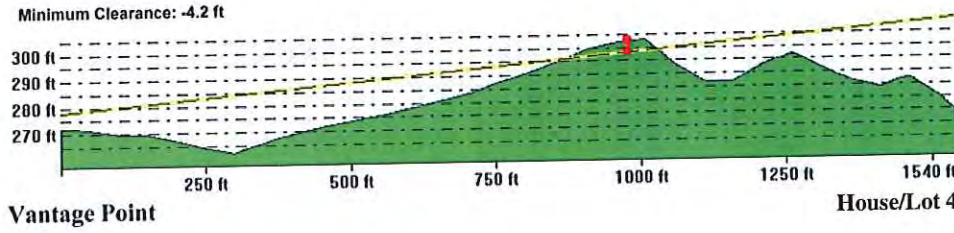
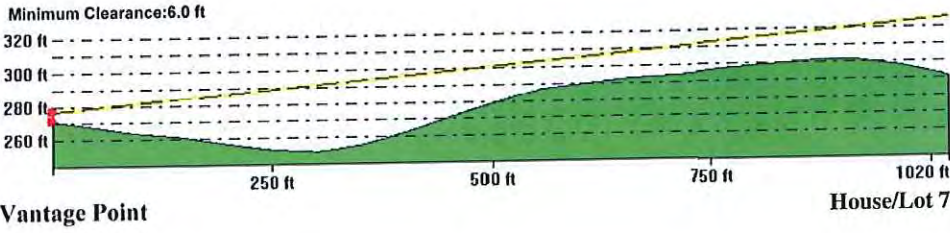
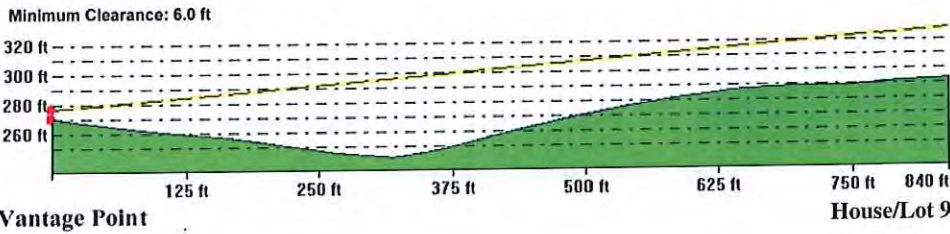
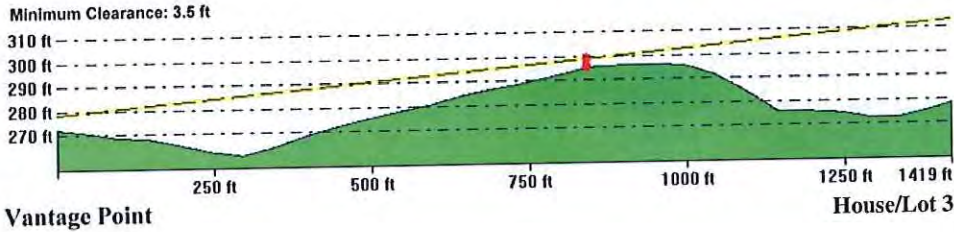
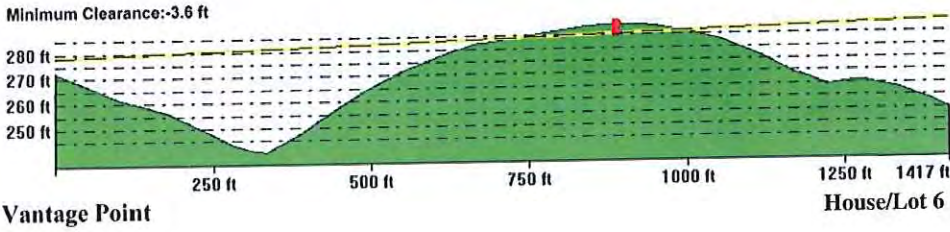
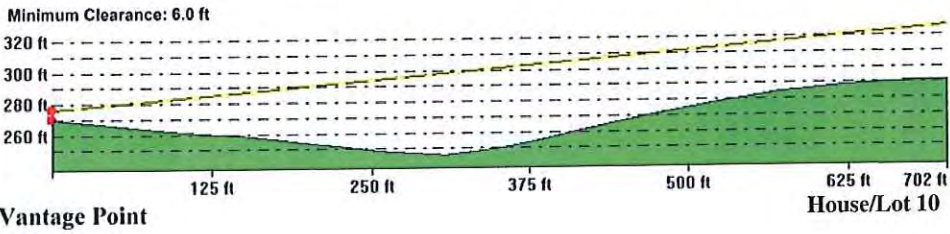
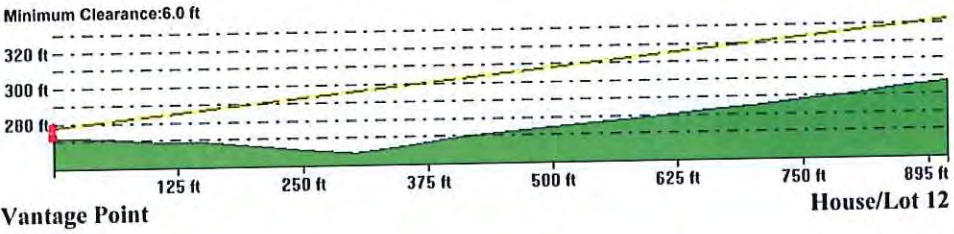
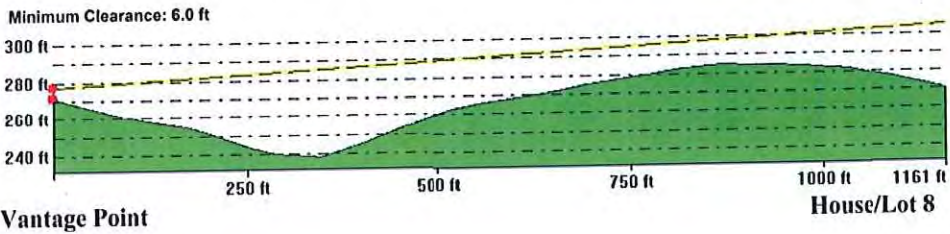


Exhibit 4-7
**SIGHT LINES FROM
VANTAGE POINT 3
NEIGHBORHOOD SOUTH OF
UPPER GRACEMERE LAKE**
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 4
WESTERN PERIMETER OF THE PROPERTY LOOKING EAST TO NEW HOUSES

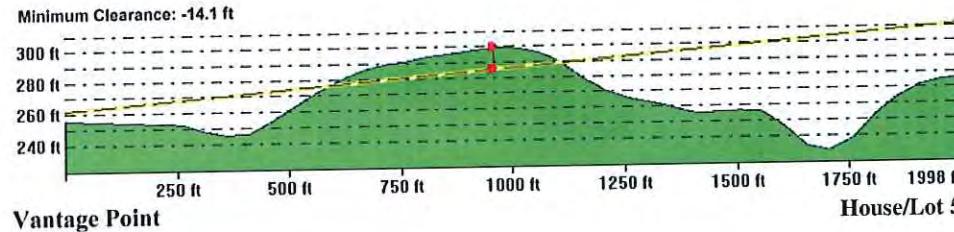
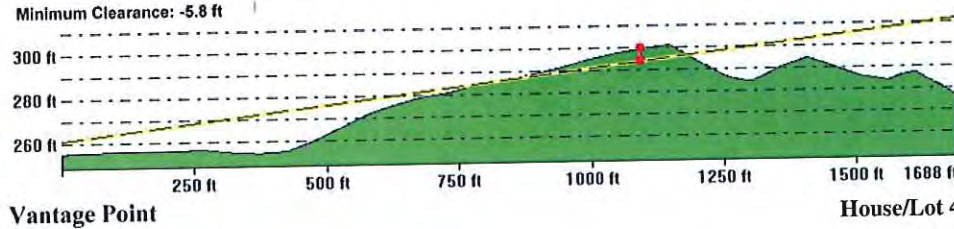
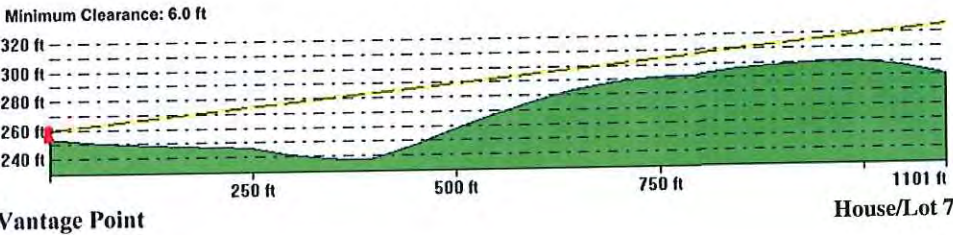
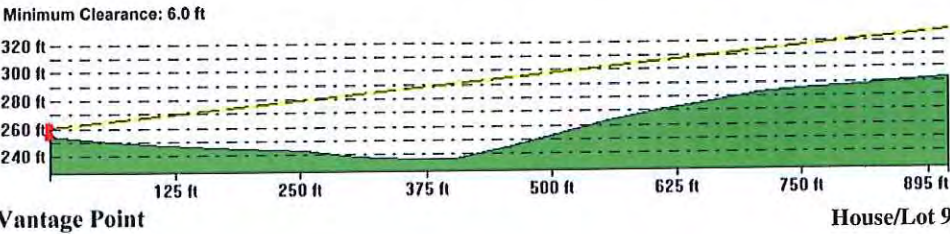
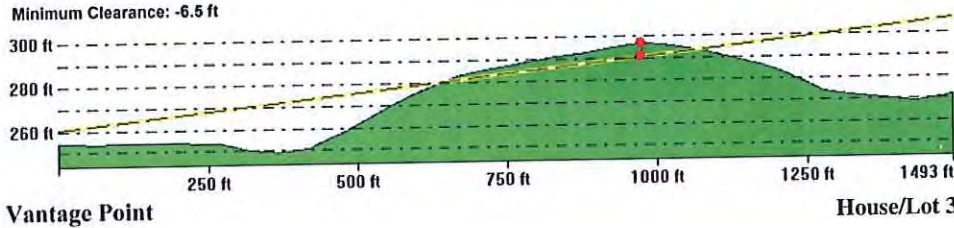
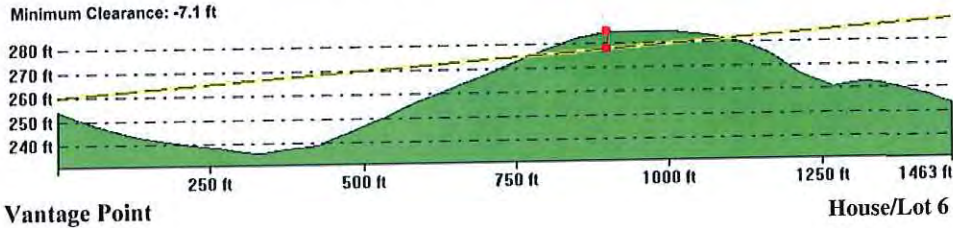
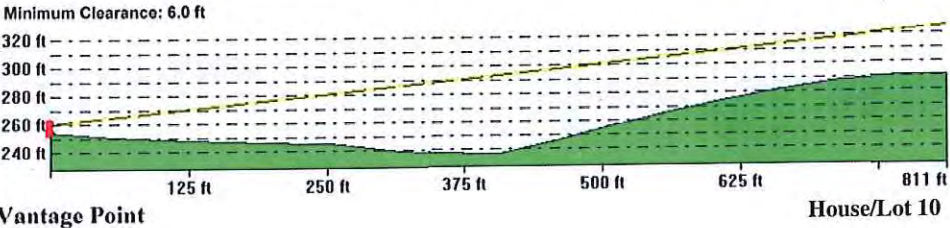
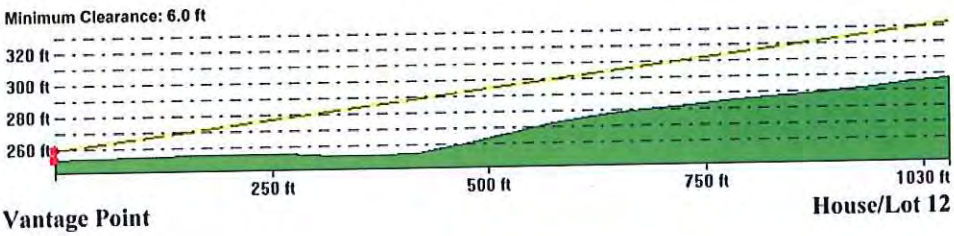
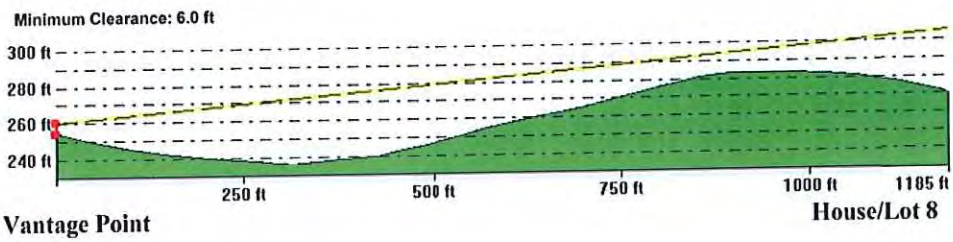


Exhibit 4-8
SIGHT LINES FROM
VANTAGE POINT 4
WESTERN PERIMETER OF
THER PROPERTY LOOKING EAST
JARDIM ESTATES EAST
Tarrytown, New York

**SIGHT LINES FROM VANTAGE POINT 5
NIGERIAN EMBASSY TO NEW HOUSES**

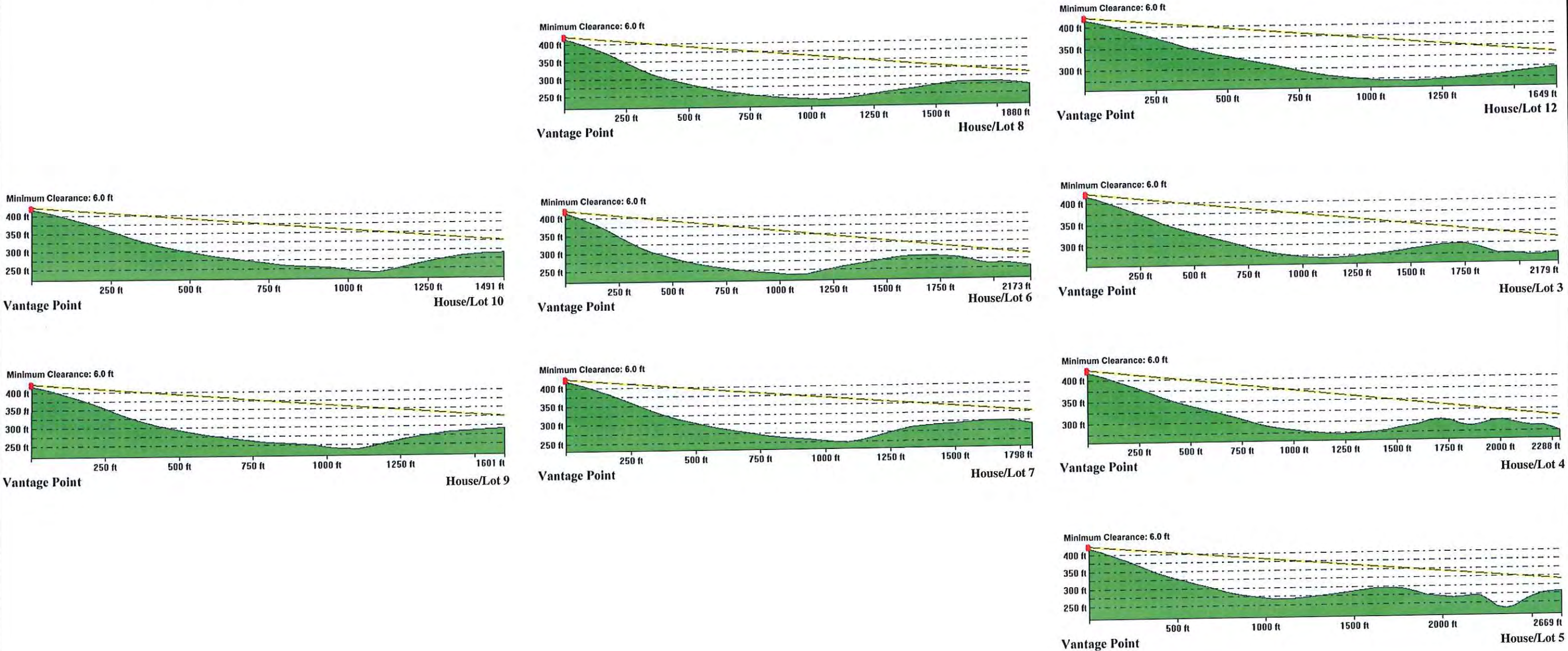


Exhibit 4-9
**SIGHT LINES FROM
VANTAGE POINT 5
NIGERIAN EMBASSY**
JARDIM ESTATES EAST
Tarrytown, New York

**SIGHT LINES FROM VANTAGE POINT 6
SHELDON AVENUE LOOKING SOUTH TO NEW HOUSES**

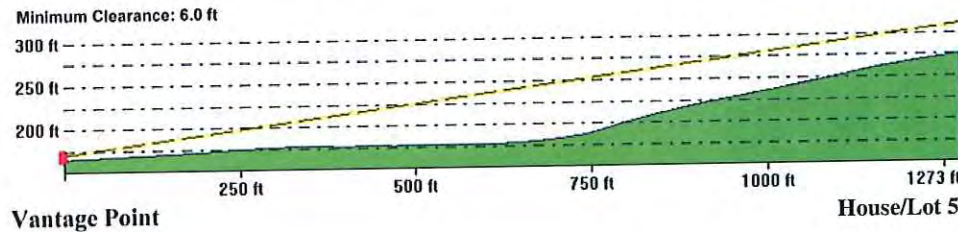
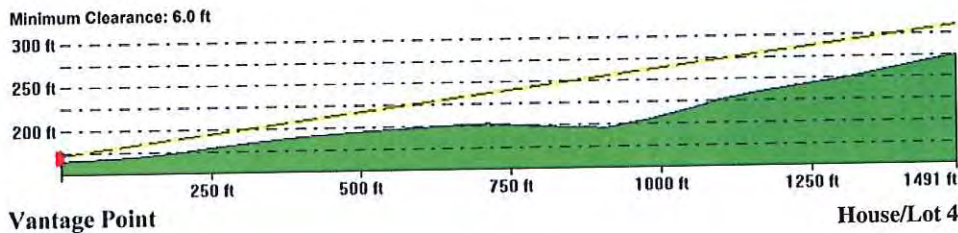
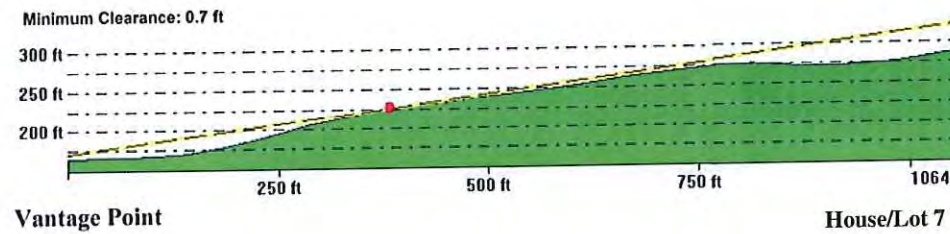
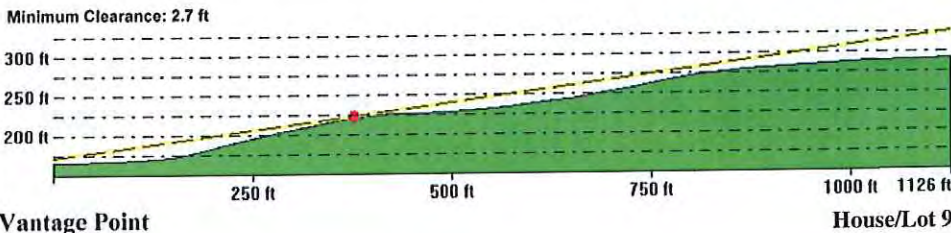
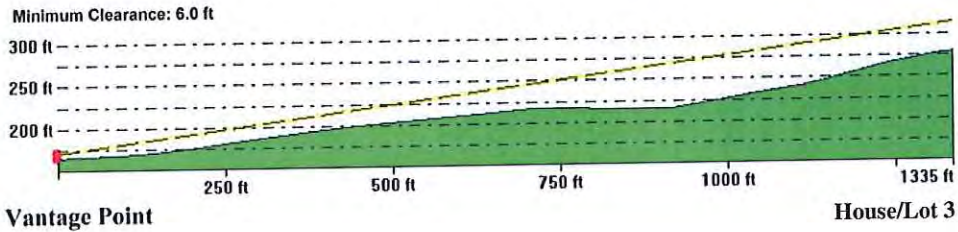
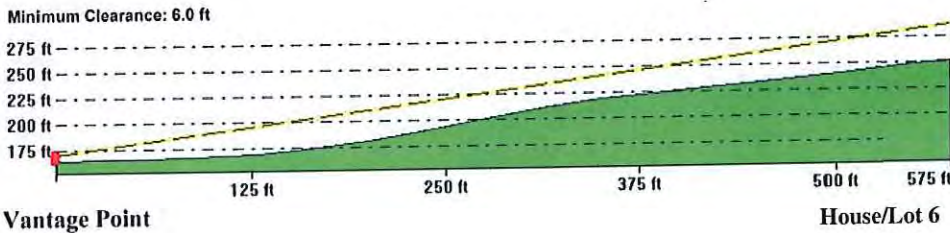
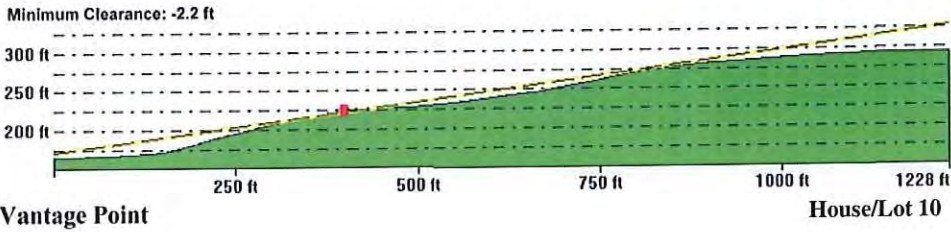
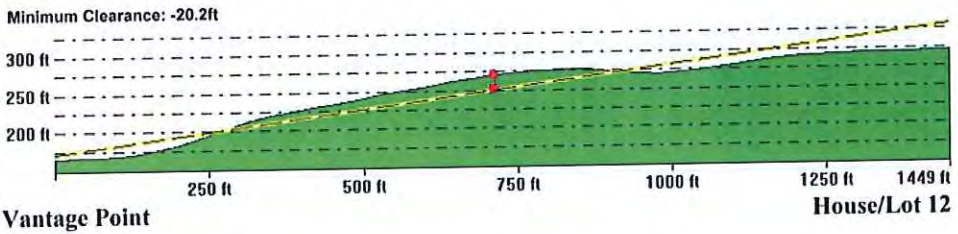
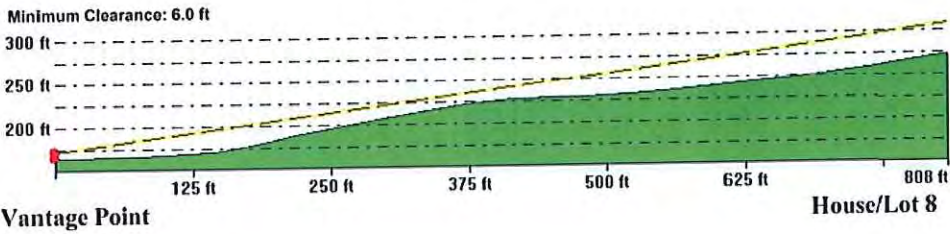


Exhibit 4-10
**SIGHT LINES FROM
VANTAGE POINT 6
SHELDON AVENUE
LOOKING SOUTH**
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 7A
PROMINENT LOCATIONS IN TAXTER RIDGE PARK(LOCATION 1) TO NEW HOUSES

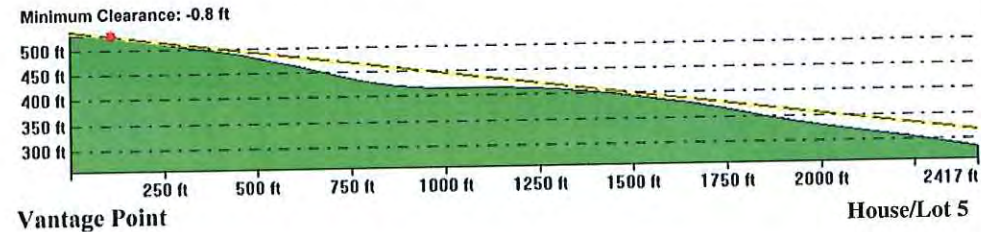
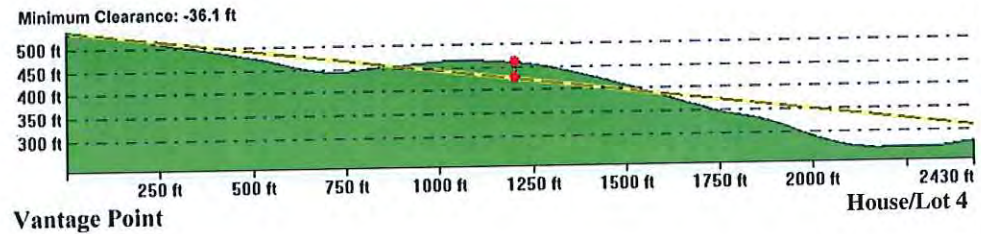
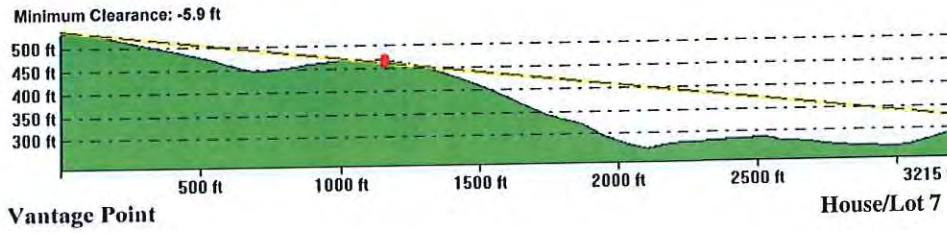
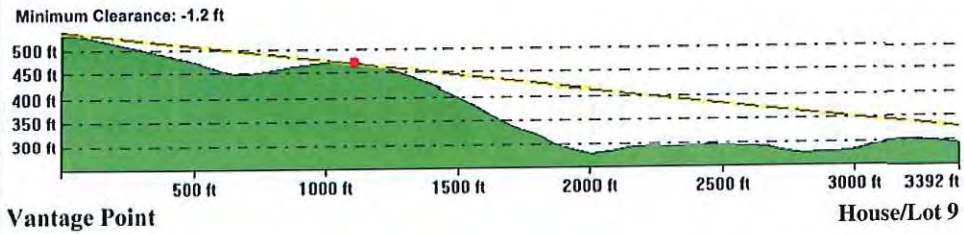
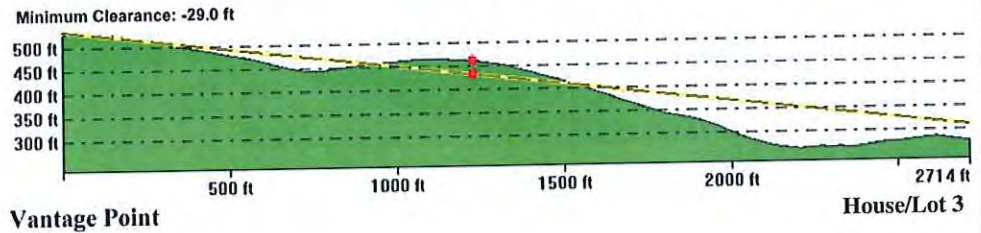
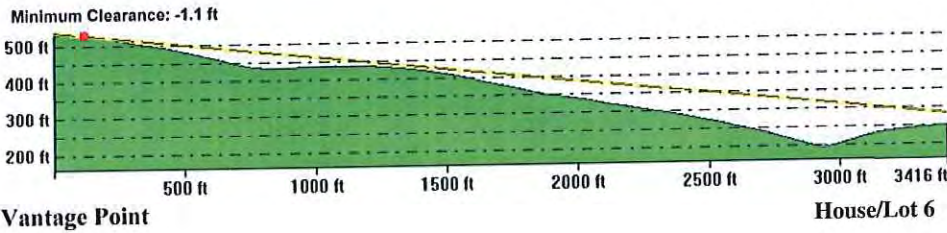
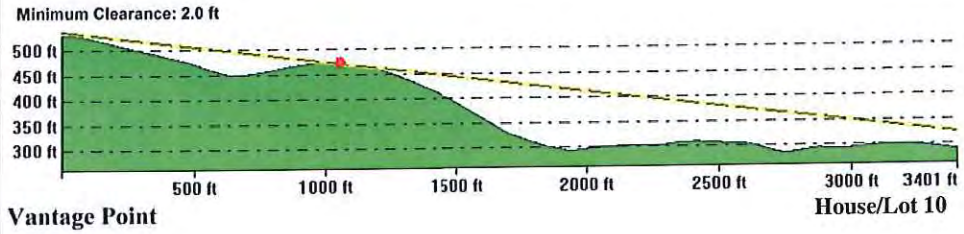
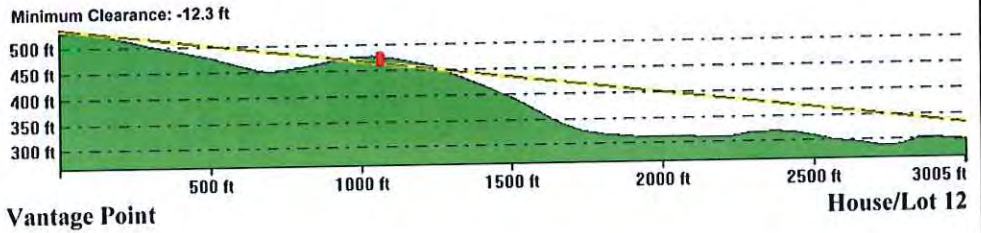
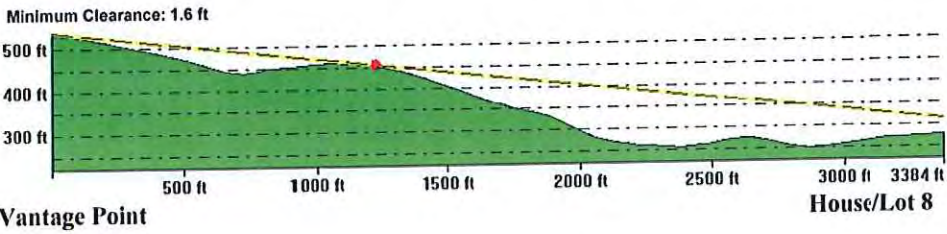


Exhibit 4-11
SIGHT LINES FROM
VANTAGE POINT 7A
PROMINENT LOCATIONS IN
TAXTER RIDGE PARK (LOC.1)
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 7B
PROMINENT LOCATIONS IN TAXTER RIDGE PARK (LOCATION 2) TO NEW HOUSES)

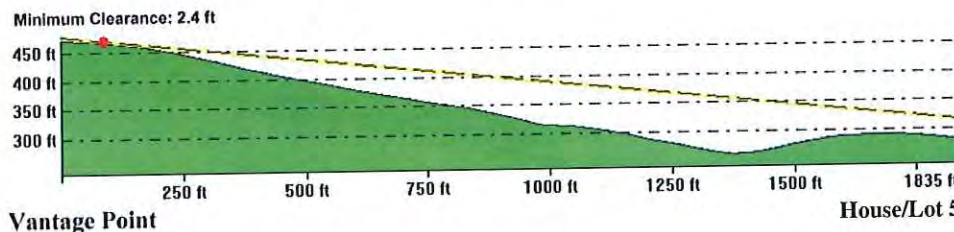
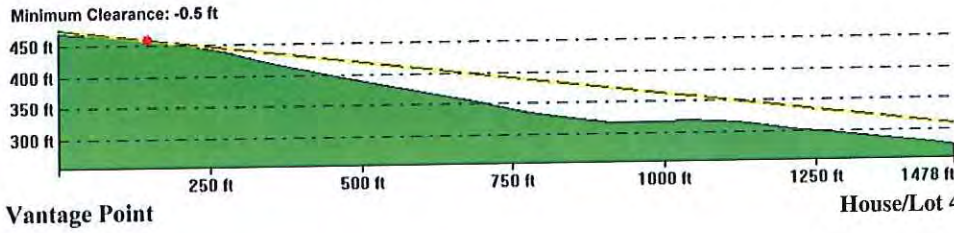
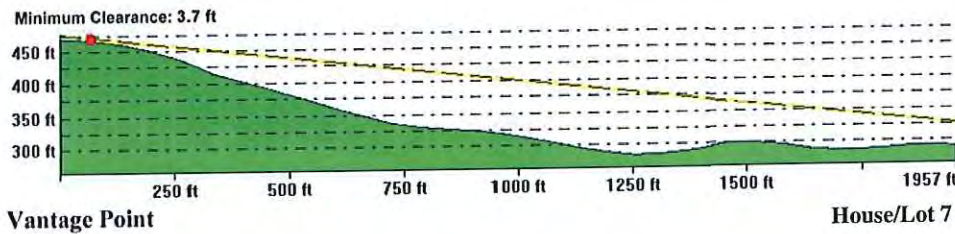
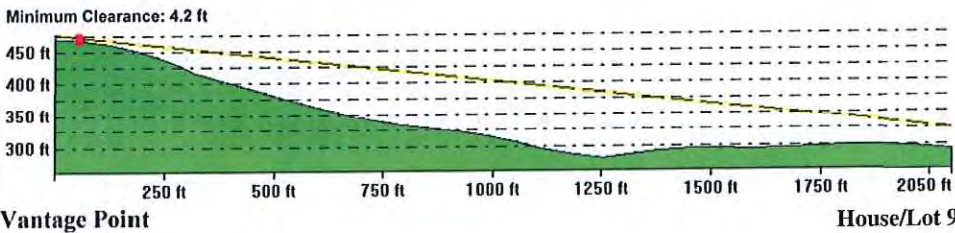
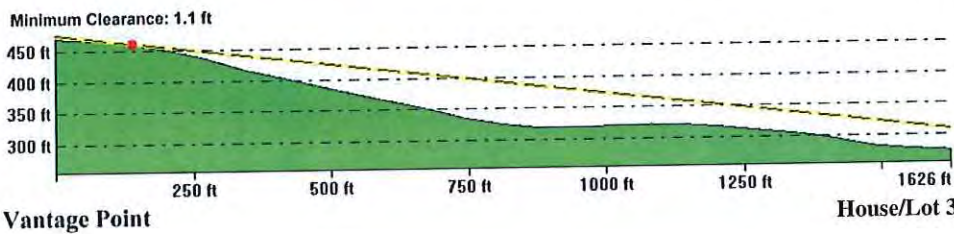
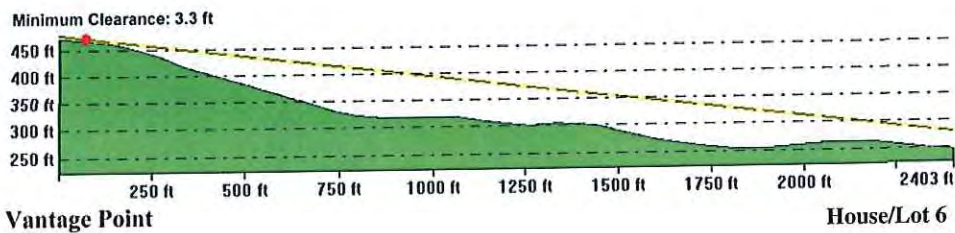
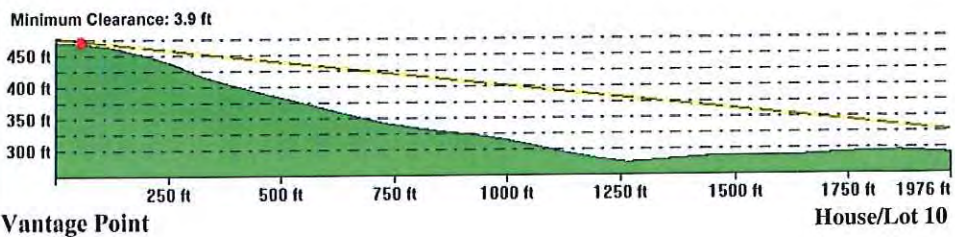
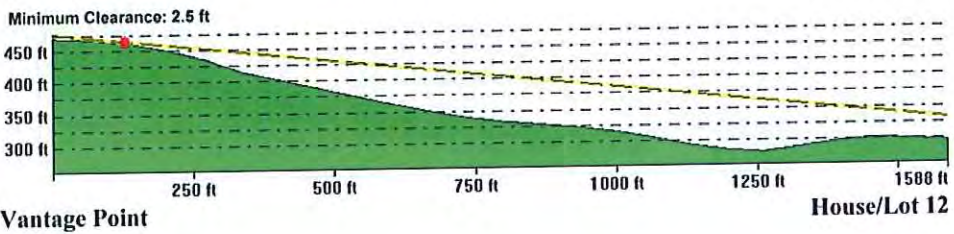
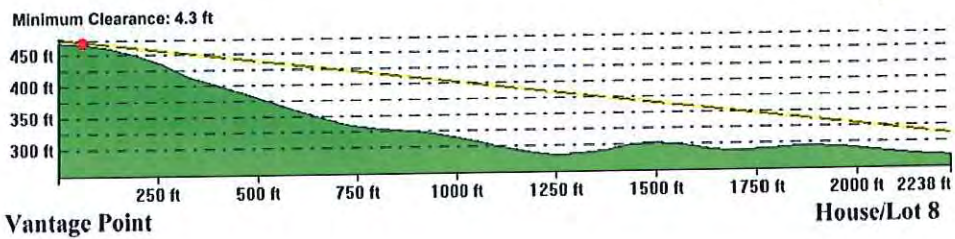


Exhibit 4-12
SIGHT LINES FROM
VANTAGE POINT 7B
PROMINENT LOCATIONS IN
TAXTER RIDGE PARK (LOC.2)
JARDIM ESTATES EAST
Tarrytown, New York

SIGHT LINES FROM VANTAGE POINT 8
BAGAROTTI PROPERTY TO NEW HOUSES

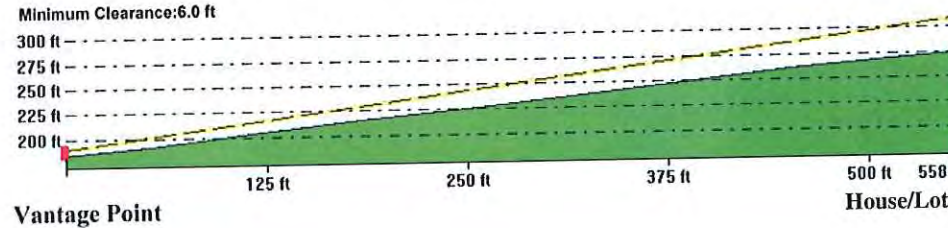
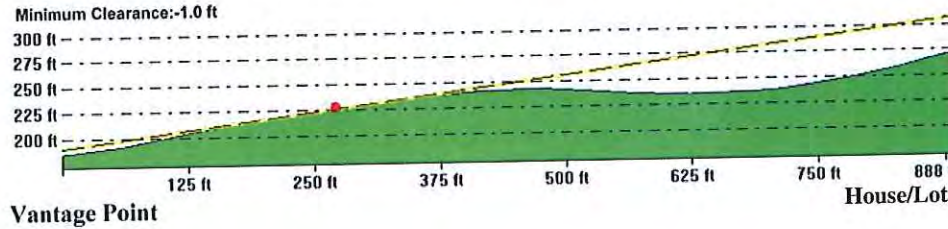
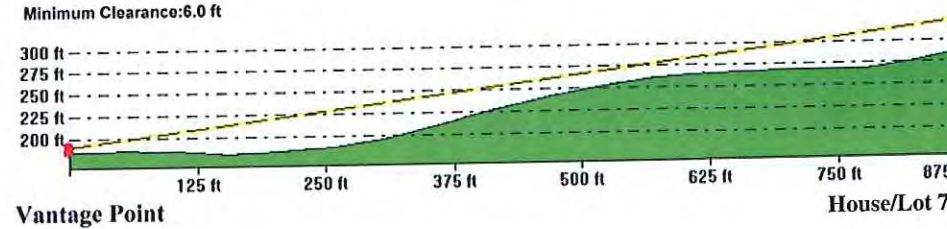
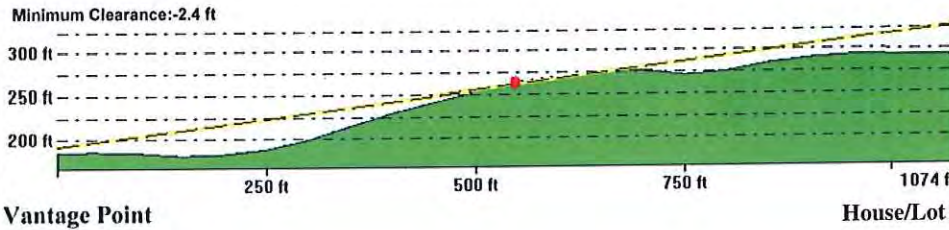
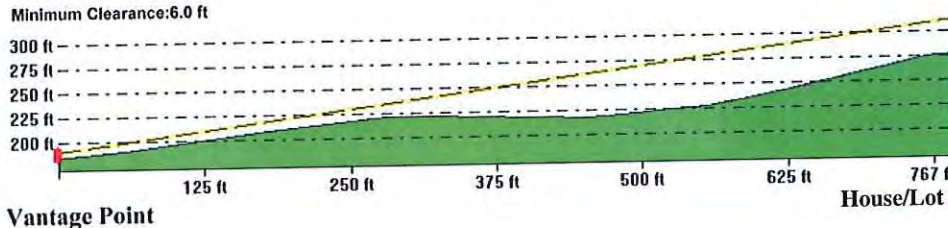
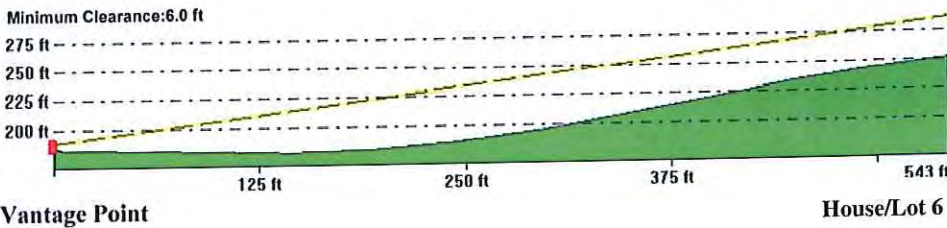
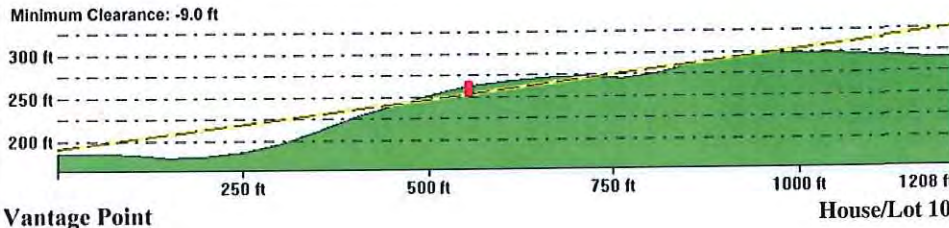
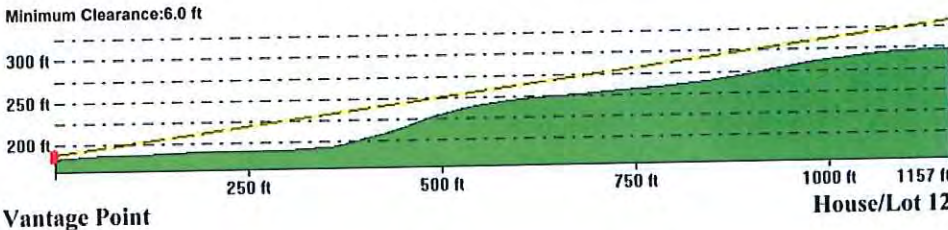
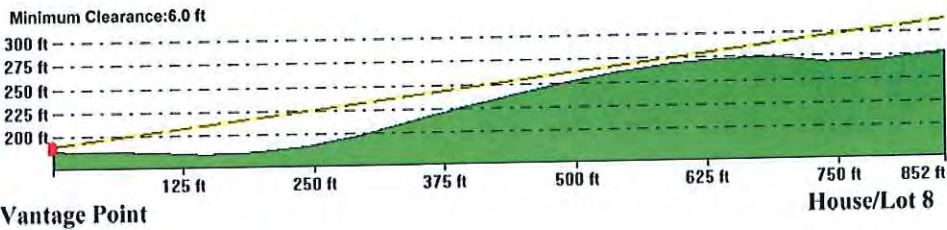
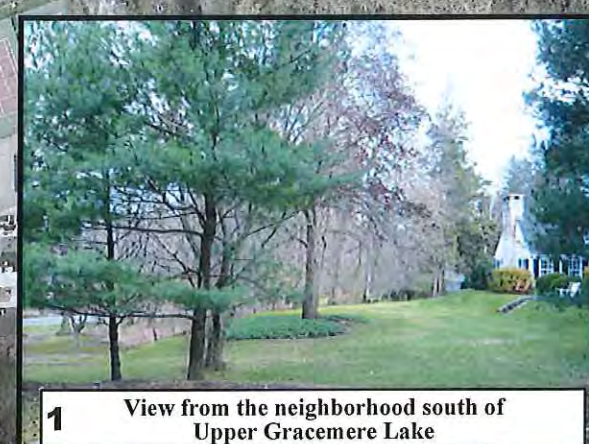
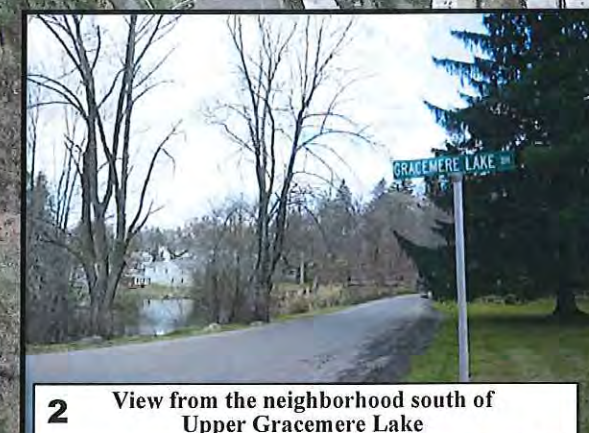


Exhibit 4-13
**SIGHT LINES FROM
VANTAGE POINT 8
BAGAROTTI PROPERTY**
JARDIM ESTATES EAST
Tarrytown, New York



1 View from the neighborhood south of Upper Gracemere Lake



2 View from the neighborhood south of Upper Gracemere Lake



3 View from the area near the Nigerian Embassy

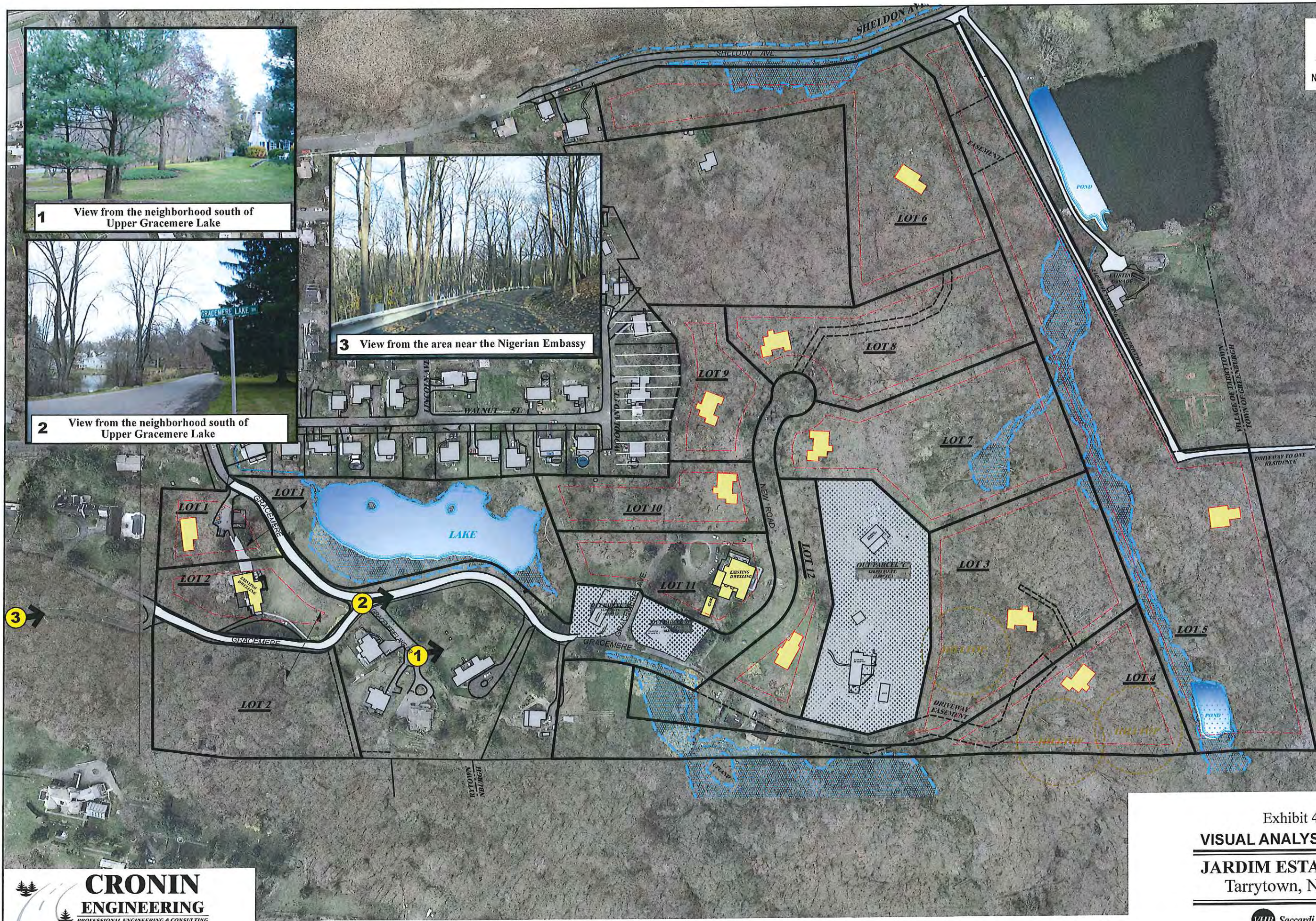


Exhibit 4-14
VISUAL ANALYSIS-PHOTOS
JARDIM ESTATES EAST
Tarrytown, New York

