DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

CROTON OVERLOOK CORPORATION

Town of Yorktown
County of Westchester
State of New York

Submittal Date
May 23rd, 2011

Comments Requested by:
June 2nd, 2011

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I. EXECUTIVE SUMMARY

Introduction

This Draft Environmental Impact Statement (DEIS) has been prepared for the rezoning and development of land located adjacent to Saw Mill River Road and Dell Avenue in Yorktown, NY. It is proposed that the site be developed for a 55 and over Active Adult Community consisting of 35 duplex units (70 units total). This DEIS evaluates possible environmental impacts associated with the proposed action.

The proposed action is a Type I action, pursuant to the State Environmental Quality Review Act (SEQR) and Part 617 of the implementing regulations. The Town Board issued a Positive Declaration on February 8th, 2011, requesting the preparation of an EIS for the proposed action. The DEIS contents were established by a Final Scoping Document, which was adopted at a meeting of the Yorktown Town Board, acting as lead agency, on April 12th, 2011. The Final Scoping Document provides an outline of the items requested to be studied by the Town Board and other involved agencies through the SEQR process.

Description of Proposed Action

Croton Overlook Corporation (COC) is seeking Town Board approval for a proposed 72 lot subdivision to facilitate construction of a 55-and-over active adult residential community named the Croton Overlook Development. The community will consist of 70 residential fee simple duplex units on individual lots, 1 additional lot, containing approximately 44 acres of open space, which will be owned and maintained by the development's Home Owners Association (HOA) and 1 lot consisting of the Wastewater Treatment System with a subsurface infiltration area to be owned by a public transportation company. The open space area will be deed restricted, serving as an active and passive recreational resource for the community. The project site consists of approximately 62.76 acres located east of the intersection of NYS Routes 134 and 100 (Figure 1). COC is the owner of the subject property designated within the Town of Yorktown as parcel 70.15-1-2 and contract vendee to parcel 70.15-1-1 (Yaskovic property).

COC is seeking the Board's consideration to amend the current zoning map as it pertains to the Site from R-160, One-Family Residential Units to RSP-1, Age Oriented Community. This zone change is necessary to accommodate the type of housing community and amenities proposed in the Croton Overlook Development Conceptual Subdivision Site Plan. As the County's population ages, individuals and couples aged 55 and over choose to down-size and thus, a demand for this type of housing exists within the Town and County.

Summary of Significant Impacts and Mitigation Measures

A. Land Use, Zoning, and Public Policy

Yorktown's 40 square miles encompass high and low density residential housing, several office campuses, five business hamlets, and a high proportion of open space. The proposed site for Croton Overlook in the southeast quadrant of the town, has the versatility to nestle clustered housing into a verdant setting while preserving wetlands, slopes, view sheds and watersheds as well as to bring road improvements to the existing rough cut Dell Avenue Once targeted by the Town as a future location for an office campus use, the lands used by Croton Overlook incorporates a campus-like atmosphere into the proposed housing development.

As one follows the perimeter of the site there is a tavern that has long been a way station for passing travelers, known as Travelers' Rest, which lies immediately to the southwest of the project. The single family residential neighborhood due south and southeast is buffered by a large lot to be dedicated as open space. To the west are large overheard utility transmission lines and an underutilized, unimproved public road: Dell Avenue. Dell Avenue runs between two points along NYS Route 100 which is a major state thoroughfare carrying around 8,100 cars per day. Croton Overlook spans between an excavation yard on the south (Pogact Excavating) and the Croton Reservoir toward the north. Thus this site, which borders Dell Avenue, is truly a transition site from the more densely settled area to the south enroute to the hamlet of Millwood in the Town of New Castle and the reservoir created by the New York City Water Supply, which lies immediately to its north.

The zoning for the 62.76 acre site is currently R-160, four acre residential. Arguably, the single family conventional layout of R-160 will sprawl over the property presenting greater impacts than the clustered subdivision presented in this proposal. The project calls for a rezoning action to enable RSP-1, senior independent living. Thirty-five duplex units, (70 homes) are proposed, which is about 1.15 dwelling units per acre, well within the parameters set for low density rural area zoning as set by Westchester County's Patterns map, which notes 2 to 1.5 dwellings units per acre meets the low density designation.

The recently adopted Comprehensive Plan for Yorktown and Westchester County's current major planning effort, Westchester 2025, highlight the wish to provide a diversity of housing opportunities for residents with a strong emphasis on preserving the natural environment. Croton Overlook seeks to meet this goal with an emphasis on protecting the natural contours, forested lands and habitat of the 62.76 acres that comprise the project site. Forty-four (44) acres of the project are to be set aside as permanent open space with the

35 fee simple duplex units to be cradled in the remaining property along with a single lot dedicated to the onsite wastewater treatment system.

As Westchester's population ages there is continued need for residents to find homes that meet their lifestyle requirements without the high maintenance issues associated with owning a single family home. In a duplex environment the Homeowner's Association manages the larger capital improvements and routine maintenance on the property. Individuals and couples have an instant community and the proximity of close neighbors that often provides a sense of safety and well being, especially for those on their own. It is anticipated that many of the residents will have lived in single family homes in the nearby vicinity and will choose to move to Croton Overlook as their children graduate and the larger home and yard become less desirable.

Environmentally, the plan seeks to leave the property's wetlands intact and avoid sensitive steep slope areas. As noted, earlier, the majority of the property will be open space. Yorktown has a deeply imbedded wish to preserve its open space while still providing homes and opportunities for business to thrive within its community. This project meets the community's goals and helps to further them, including protection of natural resources, creation of housing stock diversity and collection of tax revenues.

B. Visual Resources

Currently, the majority of the site is heavily wooded with a mix of large deciduous trees and a mixed understory of small trees and herbaceous cover. The rolling terrain in the vicinity of the site contains hilltops and valleys of similar and greater elevations compared to the project site. Thus, the topography of the local region eliminates most potential views of the project, with only particular points having visibility of the proposed project.

A Visual Resource Assessment, which follows the New York State Department of Environmental Conservation guidelines in their document "Assessing and Mitigating Visual Impacts", has been prepared and attached in the Appendices.

The following sensitive off-site areas where views could be impacted were analyzed: the Taconic State Parkway, Turkey Mountain Hill, Hilltop Hanover Farm, Kitchawan Preserve, the nearby public bike trail, Hanover Road, Rt 118, the point at which the development first becomes visible along Rt 134, and Rt 100.

View from Taconic State Parkway

The Taconic State Parkway is a long winding scenic byway that stretches from Kenisco Dam to Chatham. The highway was listed on the National Register of Historic Places in 2005. The Taconic State Parkway runs west of the project site, and lies approximately 1.5 miles away at its closest proximity to the proposed area of disturbance.

A line of site profile was prepared to show the potential visibility of the project site from the Taconic State Parkway. As drivers pass the site going either north or south on the Taconic State Parkway, they would have distant views of the proposed roofline, if mitigation practices were not employed. The existing topographic knolls block most views to the site. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees.

View from Turkey Mountain

Turkey Mountain is approximately 125 acres of land located on a land reserve and is currently maintained by the Yorktown Land Trust. Turkey Mountain Hill lies to the northwest of the project site, and its highest peak lies approximately 2.5 miles away to the proposed area of disturbance. Turkey Mountain is the highest point in Westchester County, though the topography only permits clear views of the Taconic Parkway and Croton Reservoir.

A line of site profile was prepared to show the potential visibility of the project site from Turkey Mountain Hill. As you can see from photographs, taken from the highest elevation on the hill looking towards the project, in the attached Visual Resource Assessment, there is no clear view of the site through the dense vegetation. It is possible that without the proposed earthen berm and plantings, distant views of rooflines could be seen from Turkey Mountain Hill. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees.

View from Hilltop Hanover Farm

Hilltop Hanover Farm is a working crop farm and a former dairy farm dating back to the 1600's. Hilltop Hanover Farm is owned by Westchester County and lies approximately 2.6 miles to the north of the project site and the proposed area of disturbance. Views from the

farm and the nearby Crow Hill are limited due to wooded vegetation, with heights over 40 feet tall, that surrounds the premises.

A line of site profile was prepared to show the potential visibility of the project site from Hilltop Hanover Farm. As shown in the photographs, taken from the highest elevation on the hill looking towards the project, there is the potential for limited and distant views of the proposed roofline from the project if mitigation practices were not employed. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees. Additionally, the natural colors used for the roofs will blend in with the existing scenery. When the plantings on the berms grow and mature, all views will be completely blocked.

Kitchawan Preserve

Kitchawan preserve is a 208 acre natural preserve bordered by the New York City reservoir property and the North County Trailway, which runs along the eastern edge. The park features native woodland and open fields, where butterflies and migrating birds can be seen in abundance in late spring. The top of the hill on the Kitchawan Preserve lies approximately 0.4 miles to the west of the project.

A line of site profile was prepared to show the potential visibility of the project site from the top of the hill at Kitchawan Preserve. As shown in the photographs, taken from the highest elevation on the hill looking towards the project, attached in the Visual Resource Assessment, there is a potential for limited and distant views of the proposed roofline from the project if mitigation practices were not employed.

View from Rt 134

New York State Route 134 is a 6.35-mile long state highway that connects the village of Ossining with the hamlet of Kitchawan. The point at which the project first becomes visible along Route 134 is approximately 0.15 miles from the proposed area of disturbance. Due to wooded vegetation lining both sides of the roadway, there is a limited window of view to the project site.

A line of site profile was prepared to show the potential visibility of the project site from the location where the project first becomes visible along Route 134. As shown in the provided section view, there is a potential for limited views of the proposed roofline from the project if mitigation practices were not employed.

View from Rt 100

New York State Route 100 is a major north-south state highway, which runs adjacent to the western side of the site. Due to wooded vegetation lining both sides of the roadway, there is a limited window of view to the project site.

A line of site profile was prepared to show the potential visibility of the project site from the location where the project first becomes visible along Route 134. As shown in the provided section view, there is a potential for limited views of the proposed roofline from the project if mitigation practices were not employed.

View from North County Trailway Bike Path

The North County Trailway is a 22.1-mile-long paved bicycle and pedestrian path which runs from Yonkers to Albany in NY. This path runs by the site to the west, crossing over Rt 134 and running along the western side of New Croton Reservoir in the Kitchawan Preserve.

A line of site was prepared to show the potential visibility of the project site from the location along the bike path with the greatest potential visibility of the proposed rooflines. Photographs were taken from this location, and they are attached in Visual Resource Assessment.

As depicted in the plan views of the attached Visual Resource Assessment, a tree buffer exists along Rt 100, which consists of trees 20 – 50 ft in height. This buffer of dense vegetation and trees blocks all potential views of the project from the North County Trailway Bike Path.

Proposed mitigation techniques will include screening, as achieved by berms and planted vegetation, and the use of natural colors for the houses to blend with existing scenery. The earthen berm and planted vegetation have been designed to mitigate all impacts to views from all of the previously identified sensitive off-site areas. A section view and plan view of the proposed berm and vegetation are presented in the Visual Resource Assessment attached in Appendix C. In addition to screening, natural colors, such as earth-tones, will be used for the houses. This will ensure additional mitigation of visual impacts.

In addition to the above-mentioned mitigation techniques, the layout of the site plan itself will help protect the surrounding viewshed. As the site plan clearly displays in Appendix G, attached, the proposed homes are centrally located along the western flank of the property. This layout allows the homes to be easily and completely screened from view by a single and naturally landscaped berm and plantings. Furthermore, conventional layout in the current R1-160 zoning would require the homes to be spread out across the property. This would create a vast disturbance to the surrounding viewshed

which would be difficult, if not impossible, to fully mitigate. As such, the proposed zone change will aid in mitigating any potential visual impacts.

C. Flora and Fauna

Vegetation Communities

In an effort to determine the vegetative characteristics of the site, research information was gathered, and field studies were initiated by Environmental Compliance Services, Inc. (ECSI), on behalf of COC. Existing on-site wetland areas, Wetlands A and B, were delineated by ECSI during November 2009. During April 2011, these areas received complete field confirmation by the Town of Yorktown Wetlands Consultant.

Field surveys performed at the site revealed that a variety of vegetation exists; the greatest vegetation diversity occurs within one large on-site freshwater wetland, Wetland A. This wetland consists of a Forested Wetland with a Closed Canopy (FW-CC), Forested Wetlands with an Open Canopy (FW-OC) and Wet Sedge Meadow (WSM) vegetation. Adjoining habitat areas consist of Hardwood Forest (HF), Highland Hardwood Forest (HHF), Forested Floodplain (FFP), Perennial Stream (PS) and a Disturbed Area (DA).

Physical impacts associated with the removal of vegetation will be mitigated by implementing a Storm Water Management Plan. Disturbed areas will be stabilized with seed and mulch during and after construction, and state-of-the-art erosion and sediment control devices will be installed in predetermined design areas. A combination of silt fencing and hay bales, and permanent controls, will be utilized to provide protection. Sediment and chemical applications generated by the development will be addressed (adsorbed) by directing runoff to vegetated storm water basins.

It is important to note that the proposed design layout of the Croton Overlook Development has been configured to provide safe and efficient access for residents, maintenance of existing drainage patterns for sustaining on-site freshwater wetland communities and incorporation of appropriate storm water management practices. The Applicant will ensure that as much of the Hardwood Forest community is maintained as practicable, as well as to reduce overall visual impacts. Trees greater than 12 inches in diameter will be preserved, unless their removal is necessary for construction purposes.

Loss of habitat will be mitigated by preserving on-site wetlands and mature forests situated north, south and east of the development, as well as incorporating a landscape design that will provide visual screening and

additional vegetation cover along the western portions of the development site. These areas will be protected as "open space" under a conservation agreement. Indigenous species will be planted along the western limits of the development in conjunction with construction of storm water management ponds. Approximately 12 acres of new vegetation will be added as part of removing Dell Avenue and restoring the area for passive recreation and storm water management. These measures will provide a passive recreation park for residents of the development with vegetation screening necessary to reduce expected viewshed impacts. This area will eventually become established as a forested storm water bio-retention area designed to provide a diverse vegetation community comprised of 12 acres of wetland, understory and upland vegetation.

Wildlife Resources

The eight vegetative communities identified at the Croton Overlook Development property support a variety of avian, mammalian, and herpetological species with various food sources and shelter.

Potential inhabitant listings were developed by ECSI utilizing "reference" sites located in the Town of Yorktown with similar vegetation communities and conditions, as well as resource listings maintained by the State of New York and Westchester County. Species denoted as being "observed" were identified by ECSI during recent field visits conducted under the ongoing Bio-diversity Assessment. Additional field surveys are planned for the property (May through July 2011) which will further explain and confirm habitat conditions and species diversity for the site.

Mammals observed on-site include White Tailed Deer (*Odocoileus virginianus*), Eastern Gray Squirrel (*Sciurus carolinensis*) and Eastern Chipmunk (*Tamias striatus*); observed avian species include various woodpeckers (*Picoides spp.*), several perching and song birds *(Passeriformes* and *Oscines spp.*), Wild Turkey (*Meleagris gallopavo*), Raptor (*Buteo spp.*) and Turkey Vulture (*Cathartes aura*); observed reptiles and amphibians include Eastern Box Turtle (*Terrapene carolina*), Eastern Garter Snake (*Thamnophis sirtalis*), Northern Spring Peeper (*Hyla crucifer*), Green Frog (*Rana clamitans*) and Gray Tree Frog (*Hyla versicolor*). These species are highly mobile and have the potential to inhabit most communities on site.

The various vegetative cover types found on site provide habitat to a number of wildlife species. Development of the site would require the removal of existing vegetation which in turn will result in reduced habitat area for some wildlife species. Most of the populations on the property are highly mobile, comprised primarily of birds and mammals. It is assumed that, during construction, these species will occupy undisturbed portions of the site, or migrate to adjacent areas for food and shelter.

Impacts due to habitat loss will be minimized by preserving as much of the natural Hardwood Forest community as possible, and as protected open space. The undeveloped portions of the site consist of forested wetlands, forested uplands, intermittent and perennial streams and open water ponds. The majority of the remaining open space (slightly less than 41.7 acres) consists of second growth deciduous forests and productive wetlands located in the central and eastern portions of the property. This land will provide suitable habitat for those species displaced from the areas of the site under construction. Once construction is complete, a landscape plan will be implemented to maximize the creation of wildlife habitat.

D. Soils, Topography, and Steep Slopes

Soils

The soils of the entire project site, which consists of approximately 64 acres, consist primarily of Woodbridge-Loam, Charlton-Chatfield Complex, Hollis, Sun Loam, and Chatfield-Hollis soils. Other soils on-site include Charlton loam, Fluvaquents-Udifluvents complex, Ridgebury loam, Unadilla silt loam.

The total area of disturbance consists of approximately 19 acres, or 30.11% of the entire project site.

A Soil Erosion and Sediment Control Plan has been prepared in accordance with the most recent editions of the New York State Guidelines for Erosion and Sediment Control, and the New York State Storm Water Design Manual, and is available in detail in Appendix E.

Additionally, the construction activity and area of disturbance are specifically located on-site to avoid steep slopes, unsuitable soils, and wetlands and their associated buffers. Other various steps to be carried out to reduce the impact on soils and steep slopes include, but are not limited to: proper stockpiling methods for excavated materials, seeding and mulching of stockpiled materials that will be unused for more than seven days, balancing the cut and fill so as to reduce the number of vehicle trips to and from the site during construction, and installing a proper subsurface wastewater treatment discharge system which is discussed in more detail in Appendix M.

Slopes

The proposed 64-acre project site features woodlands with open vegetation, varied inclines, and some bedrock outcroppings. The total area of disturbance is just over 19 acres, located in the western portion of the

project site. Forty seven and a half percent (47.5%) of the entire project area has slopes under 10%, thirty-one and 3 tenths percent (31.3%) of the entire project area has slopes ranging between 10-20%, and nineteen and a tenth percent (19.1%) of the entire project area has slopes greater than 20%.

The construction process requires excavation and grading of slopes to create a level area. For the proposed project site, total cut is expected to be 37,000 cubic yards and total fill is expected to be 37,000 cubic yards. As such, the cut and fill are balanced for the site. The excavated material will be used primarily for the proposed earthen berm along the western side of the site, discussed more in Section B Visual Resources, and the grading of the site for the proposed units. As the cut and fill will be balanced during the entire construction process, no extra traffic will be created by needs for external fill resources, or exporting excess cut material. Due to the fact that excavated soils are not anticipated to be removed from the site, actions need to be taken to minimize erosion impacts on stockpiled soil. These actions are specifically addressed in the Erosion and Sediment Control Plan in Appendix E. The main actions include the installation of a silt fence around any temporary stockpile of soil, and seeding and mulching stockpiles that are not expected to be used within seven days of their excavation.

E. Wetlands and Surface Water Resources

During November 2009, ECSI on behalf of the Croton Overlook Corporation, delineated two on-site wetland areas within the boundaries of the project site. These areas were delineated in accordance with the Town of Yorktown Code, Chapter 178, and the "US Army Corps of Engineers 1989 Interagency Wetland Delineation Manual." ECSI performed field visits to obtain soils, vegetation and hydrology information, pursuant to the "USACE Interim Regional Supplement to the Corps Wetland Delineation Manual: Northcentral and Northeast Region."

Wetland A is the largest of the two on-site wetlands and is 12.69 acres in size and includes a small upland area within the southeast portion of this wetland; Wetland B is 0.07 acres in size. A nearby off-site wetland exists along the Con-Edison utility right-of-way west of Dell Avenue. This wetland is approximately 1,100 square feet in size.

Storm water generated by the proposed development will be routed into permanent storm water basins designed in accordance with the NYSDEC Storm Water Design Manual. These basins have been designed to handle expected volumes of storm water under the project and meet water quality discharge standards required by the NYSDEC. Four of these basins will be designed as bio-retention basins along the eastern limits of the development, and outside the 100 foot regulated wetland buffer area projected by Wetland A. These basins have been designed to ensure that on-site water resources will continue to receive the

volume and quality of surface water (and groundwater) runoff that is normally directed to these resources as determined under the pre-construction scenario. Pollutant loading and sedimentation potentials generated by the development will also be properly mitigated by these basins and thus, potential poor storm water quality discharge impact potentials to on- and off-site receiving waters will be mitigated.

Planned improvements along Dell Avenue which encroach within the buffer of Wetland B and that of the approximate 1,100 square foot wetland within the nearby Con-Edison right-of-way, will be mitigated with the removal of pavement along a portion of Dell Avenue and the establishment of buffer vegetation plantings. These plantings will surround storm water recharge basins to form a passive recreational park for community residents to enjoy. Further, this park land and 42.7 acres of the remaining portions of the site after development will be managed as open space under a conservation easement agreement. The combined establishment of a park west of the development and the preservation of the remaining 42.7 acres (including Wetlands A and B and connecting waterways and contributory drainage areas) will be protected. Further, the planting of vegetation and the protection of these open space areas will serve to mitigate (offset) planned improvements along Dell Avenue.

F. Cultural Resources

The proposed project requires OPRHP's review due to the presence of a precontact (dating prior to European contact) archaeological site "in or adjacent to" the proposed project site, and thus must follow the criteria determined by OPRHP for cultural resource management, as set forth in the "Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State." These standards were developed by the New York Archaeological Council and adopted by the OPRHP to ensure uniformity in the review of cultural material in New York State.

There are no previously recorded historical sites documented within the boundaries of the project site. The majority of sites recognized as precontact habitation sites in Westchester County have been found in sheltered, elevated sites close to wetland features, or other sources of fresh water. Sloping hillsides and areas of exposed bedrock within the project site likely prevented precontact habitation of the area. However, some of the linear terraced areas of the site may have been utilized as short term hunting stations or temporary encampments. Precontact sensitivity is also affected by the level of disturbance to the natural landform since European settlement. Some areas of the project APE experienced extensive disturbance as a result of stone quarrying. Therefore, only areas which are located within the APE

and which have not experienced past subsurface disturbance are considered potentially sensitive for precontact resources. Ultimately, as much of the site is defined by steep hillsides, a large part of the project APE was not considered to have precontact sensitivity.

Research of prior buildings on the site APE identified one structure present during the late nineteenth century and two twentieth century structures that stood in approximately the same location. None of these structures is still standing.

As noted previously, the only potentially historical site is located approximately ½ mile from the proposed project site and will not be affected by the development of the site. Considerable disturbances associated with the demolition of the twentieth century structures eliminate the potential for significant historical archaeological deposits in the nearby surrounding area. The topography and terrain of the APE excluded a significant portion of the site from being considered potentially sensitive.

No isolated precontact artifacts were recovered from any of the shovel tests. No precontact or early historical features were identified during the field investigation. Further, no evidence of nineteenth century occupation related to the structure noted on late nineteenth century maps was identified. Only a handful of tests units contained a few isolated modern artifacts which were determined to be insignificant. Modern refuse piles from the demolition of the two twentieth century structures were examined by the field team, with no observable evidence of significant historical artifacts.

Based on the Phase I archaeological study on the proposed site APE, no further archaeological testing or mitigations to the proposed site boundaries are necessary.

G. Noise, Air, and Construction Impacts

The proposed project site is located in Westchester County in the Town of Yorktown. Currently, the site is primarily woodlands with surrounding businesses and residential areas. As a result, the most significant source of noise is from traffic on NYS 100, which experiences high volumes of traffic on a regular basis. Air quality at the proposed site is very good, because there are no sources of air pollutant loading on or in close proximity to the site.

Possible impacts on local air quality conditions during the construction process of the proposed project include: fugitive dust (particulate)

emissions from land clearing operations, and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Potential impacts on noise levels during construction of the proposed development project would include noise and vibration from the operation of construction equipment. The severity of impacts from these sources would depend on the noise characteristics of the equipment used, the construction schedule, and the distance between the construction site and potentially sensitive noise receptors. Noise caused by construction activities would vary widely, depending on the phase of construction and the specific task being undertaken.

Construction generated noise will not impact a significant number of residents of the Town of Yorktown or the Town of New Castle, as the proposed site is relatively isolated. Regardless, all necessary actions will be taken to ensure proper mitigation of short term noise impacts. Air quality will be most significantly affected by the idling of construction vehicles, and fugitive dust released during various phases of the construction process. These processes affecting air quality will be monitored and limited as much as possible.

Air quality control measures will include, as necessary, the following. All appropriate fugitive dust control measures will be implemented during the construction of the proposed development, including the watering of exposed areas and the use of dust covers for trucks. Proper use of construction material containing volatile organic compounds will be implemented. Mobile source emissions, though not expected to be at critical levels, will be limited by implementing the following: construction requiring temporary street closings would be performed during off-peak hours wherever possible, the existing number of traffic lanes would be maintained to the maximum extent possible, and idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times.

H. Community Facilities and Services

Police Protection

According to correspondence on April 28th, 2011, from Lieutenant Kevin Soravilla of Yorktown Police Department, the department received approximately 13,000 calls to service in 2010, or approximately 0.03 calls per capita per month. As such, the projected additional 140 residents may increase the monthly services calls to the Yorktown Police Department by approximately 4 calls per month. The Development Impact Assessment Handbook by the Urban Land Institute states that an increase in population of 140 persons would

generate a need for approximately 0.3 additional police personnel and 0.1 police vehicles. As such, the proposed development will not have a significant impact on police protection provided to the Town of Yorktown.

Fire Protection

The 1994 "Development Impact Handbook" by the Urban Land Institute provides an estimated need for 0.2 additional fire personnel based on an increase in population of 123 persons. As the Croton Overlook development projects approximately 140 residents, it can be interpolated that the increased need for fire personnel is on the order of 0.3.

Libraries

There are a projected 140 residents as a result of the project. If, at most, 1/4 of the residents attend the library on a given day, there would be approximately an additional 12 people per each of the three nearby libraries. Because the project is proposed as a subdivision, all taxes, including taxes which fund the library, would be paid at full tax rates for the units. As such, the project will not have any significant impacts on public libraries in the vicinity.

Transportation

Until January 2010, the Bee Line Bus Service ran the number 15 line North and South on Rt 100. The bus stop for this line was located at the corner of Dell Ave and Rt 100. Unfortunately, due to budget cutbacks, this line was discontinued. Although the number 15 line was discontinued, the number 17 line runs along the Taconic approximately 2 miles west of the site, and the number 19 line runs along Bedford Rd approximately 3 miles east of the site. Other public transportation in close proximity to the site includes the Hudson Rail Line and the Harlem Line. The Hudson Rail Line runs North and South along the Hudson River, and the nearest stop is located in Ossining NY. The Harlem Line runs from New York City to eastern Duchess County. These public transportation routes typically have commuter lots available for parking and are approximately 2.5 miles away from the site, one to the East and one to the West.

As for walkability of the project, the North County Trailway is adjacent to the property. A short walk along this scenic trail will bring you to the Hamlet of Millwood, which has a supermarket, a pharmacy, various restaurants, a hardware store, a delicatessen, and gas stations.

Immediately across Rt 100 within walking distance is Traveler's Rest, a German restaurant.

School Children

If extenuating circumstances were to occur and the plan needed to be rezoned to a market rate zone, children would be permitted in the development. The projected number of children for this circumstance is 12 children. This projection is based on a "children multiplier" of 0.17 from the "Rutgers University, Center for Urban Policy Research. Residential Demographics Multipliers – New York (June 2006)", a method recommended by the Planning Board.

Because the project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur — e.g., the plan were rezoned, children were allowed in the community, the children's school taxes were being paid for — there would be no financial impact on the Town of Yorktown.

No adverse impacts to community facilities and services are anticipated as a result of the proposed action. As previously stated, any possible impact to community facilities and services would be offset by the full tax rates paid by residents of Croton Overlook. As such, no mitigation measures are proposed.

I. Community Growth and Character

Westchester's population has shown slow growth over the last decade and Yorktown's population has mirrored the county's experience. Once a minimally populated agricultural community, over the passing years Yorktown has matured into a thriving residential community with five business hamlets and the research base of world renowned IBM, just a few miles away from the proposed site on Route 134. Its population growth, which boomed in the mid-20th century has slowed but continues to increase at a consistent rate as people look for safe, healthy environments in which to live, work and raise a family. Yorktown also supports several retirement communities, primarily in the more central and northern portions of the town where sewers have been available.

Croton Overlook borders the Town of New Castle and its Hamlet of Millwood as well as the neighborhoods in southern Yorktown of Crow Hill, Hog Hill, and Kitchawan. Once an area known for its lovely hotels bringing city residents to enjoy the tranquility of the wooded terrain and Croton River/reservoir system, the neighborhood of the proposed Croton Overlook development has supported mixed zoning uses for most of its history.

During the War for Independence, the Colonial line was generally along the property's perimeter and local troops used the nearby Crow Hill to post lookouts for British activity and oncoming raids. The protection of the nearby Pines Bridge crossing on the Croton River was a key element in the American troop strategy. Even today, the Battle of Pines Bridge and subsequent massacre of members of the First Rhode Island Regiment who were stationed nearby is being commemorated by a monument to be installed near the reservoir at Route 129/118, not too far from the proposed site. This project of the Yorktown Historical Society seeks to bring to life a sense of the area's involvement in our history, and to highlight the multi-cultural nature of the brave soldiers in the First Rhode Island Regiment, many of whom lost their lives in Yorktown in 1788.

As a northern Westchester Community, Yorktown with its 40 square miles is similarly sized to Manhattan. Yet, unlike Manhattan, it has chosen to protect more than a third of its acreage in permanent open space. By carefully placing the proposed housing on this site, Croton Overlook seeks to integrate an appreciation for open space, wooded hillsides and the marvelous opportunity to live near the Croton Reservoir in an historic setting. It works with the goals of keeping Yorktown's community character in this hamlet as low density residential while still providing an alternative housing form for its residents.

Improvements to the site will include a relocation of the Dell Avenue roadway to better integrate with the housing development and provide a safe ingress and egress for the residents. Native plants will be highlighted in a landscaping plan aimed at enhancing the natural beauty of the area, while preserving the eco-system. A sub-surface wastewater treatment plant will be constructed on the property to manage the waste products coming from the units. The developer will work closely with the NYC Department of Environmental Protection and the Westchester County Department of Health to ensure this plant protects both the groundwater and surface waters of the nearby reservoir. An application for public water will be made to the Town of New Castle to bring filtered water onto the site.

Over the past several years the development in the south end of Yorktown has included the conversion of a single family home into a child care center on Route 134; The Jehovah's Witness Church and Community Bible Churches have remodeled their facilities and there has been the establishment of a sustainable organic produce farm, and a separate retail nursery operation all also on Route 134. Nearby Traveler's Rest Restaurant on Route 100 has invested in and upgraded its infrastructure and amenities. The changes are largely ones that would fall into institutional, agricultural or commercial

classifications rather than residential, which is endemic to this area of Yorktown.

The proposed rezoning of the lands that comprise Croton Overlook fits neatly into this quilt of mixed uses in the Southern End of Yorktown. Most of the uses have an emphasis on campus-like settings with open space components. Croton Overlook looks to provide housing stock that is currently unavailable in this area and has been shown to be in high demand, as indicated by the sales at Glassbury Court in the central portion of Town during a recession in the housing market. It supports housing that creates its own neighborhood and surrounds it with open space. It lies separate from most of its surroundings by physical barriers, namely, the power lines, roads and topography. As a housing development it fits neatly into the pattern of eco-sensitive developments that define the area.

J. Stormwater Management

The proposed improvements to the site will disturb only about 21 acres, and only 11.98 acres will ultimately be disturbed after ground disturbing activities are completed. Since this area's water discharge is radially outward, with no upland contributing runoff, only this area was used to evaluate predevelopment drainage conditions. To analyze existing drainage conditions, these 21 acres were divided into 5 drainage areas.

The proposed stormwater management system has been designed to conform to the guidelines established in the New York State Stormwater Design Manual, August 2010, and the guidelines established in the NYSDEC publication "Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources," effective May 1, 1997, as amended April 4th, 2010. Additionally, the proposed stormwater management system has been designed to comply with standards set forth in the SPDES General Permit for Stormwater Discharges from Construction Activity GP-0-10-001.

To sufficiently meet NYCDEP water quality treatment requirements, two types of stormwater management practices in series are proposed at the north end of the project site: Sand Filter and Micropool Extended Detention Pond. At the southwest corner of the site, near the new proposed entrance to the development, an Infiltration Basin is proposed. In accordance with NYCDEP regulations, the Infiltration Basin will provide both water quality treatment and quantity control without necessitating an additional practice in series.

The proposed improvements will result in replacement of wooded area with lawn and impervious surfaces. The proposed stormwater management system has been designed to mitigate any increase in the peak rate of runoff generated by the increase in impervious surface.

The proposed Sand Filtration, Micropool Extended Detention Pond and Infiltration Basin have been designed to mitigate contamination from the developed areas in conformance with the guidelines established in the New York State Stormwater Management Design Manual, August 2010, and the guidelines established in the NYSDEC publication "Rules and Regulations for the protection from Contamination, Degradation and Pollution of the new York City Water Supply and Its Sources," effective May 1, 1997, as Amended April 4th, 2010. Detailed design calculations are presented in the attached Appendix D., SWPP.

Rain gardens are proposed as a Better Site Design feature to assist in reducing the total water quality volume by source control. Rain gardens will be located on each of the lots located within drainage area D. The rain gardens are designed to allow infiltration of runoff volume and decrease the flow to the Sand Filter and Micropool Extended Detention pond.

Sediment and erosion control measures to be implemented during construction include, but are not limited to, the use of silt fences along the downhill slopes of all areas to be disturbed on the site, construction sequencing and phasing, temporary diversion swales, and double net erosion control blanket, where applicable. The full erosion and sediment control plan is attached in Appendix D.

K. Solid Waste

The Town of Yorktown Garbage and Refuse District provides municipal solid waste collection and disposal services through a private hauler for residents within the Town, including the project site.

According to information provided by the Yorktown Environmental Conservation Department, a standard of one ton per family per year is used to project future solid waste generated by proposed developments. As such, the residents of the Croton Overlook development would be expected to generate approximately 70 tons of solid waste annually. This anticipated 70 tons is only 0.12 percent (12/100 of a percent) of the domestic solid waste currently managed by the Town. The projected waste production of the

Croton Overlook community will have no significant impact on the receiving disposal sites.

Recyclables in Yorktown are collected one day per week by CRP Sanitation. One (1) green recycling bin is provided by the town, and additional bins can be purchased for a minimal fee. Items permitted for collection in these bins include: clear, green or brown glass jars and bottles; plastic containers coded 1 & 2; food and beverage cans, clean aluminum foil and trays, and empty aerosol cans. Up to four (4) brown paper bags containing paper and cardboard recyclables, set next to the green recycling bin, will be collected. Acceptable paper and cardboard recyclables include: newspapers, magazines, catalog, junk mail, telephone books, brown corrugated cardboard and one-layered grey cardboard.

As no significant adverse impacts regarding solid waste collection are anticipated from the proposed project, no mitigation measures are proposed.

L. Utilities, Water

No water utilities are currently provided to the site.

Water for domestic, mechanical, fire and miscellaneous uses would be supplied from the Town of New Castle water supply system and circulated throughout the project site by the proposed water distribution system.

The Town of New Castle Department of Public Works would require that all new water mains be constructed of Class 54, double cement-lined ductile iron pipe to conform to Town standards. The proposed water supply system components would also have to meet the requirements and obtain the approval of the Westchester County Health Department.

All residential units would be metered independently to promote water conservation. All water meters can be read from the outside of all proposed structures.

It is estimated that the proposed action would create a daily water demand of approximately 18480 GPD or 12.8 GPM. The estimated water demand will be met by the approximate 4.4 MGD excess supply capacity of the Water Treatment Plant. This represents the use of less than 0.4% (4/10 of a percent) of the available excess system capacity. Therefore no impacts are anticipated to the New Castle water supply district or Millwood Wastewater Treatment Plant.

M. Utilities, Sewer

There is currently no municipal sewer adjacent to the project site. Piping to the nearest municipal sanitary sewer has been evaluated. This process would require the construction of a pump station and force main. This method was determined to be cost prohibitive. Furthermore, the county has indicated no desire for municipal sanitary sewer plants to accommodate the project's additional flows. Therefore Croton Overlook is proposing a wastewater treatment facility and subsurface discharge system to be constructed on-site.

The proposed wastewater treatment facility will consist of the following major components: equalization tank with pumps, fine screens, and a membrane bioreactor. The membrane bioreactor will include the following components: anoxic tank, aeration tank with membrane modules, recycle pumps, air blowers, chemical feed systems, control panel, and an alarm monitoring system. The treated effluent will be discharged subsurface to an infiltration area. The proposed wastewater treatment system is fully described in the attached Engineer's Report for the system in Appendix M.

In accordance with the flow confirmation letter dated October 25, 2010, and attached in Appendix N, the sanitary sewer demands were calculated using 300 GPD per unit in accordance with NYSDEC standards. The development will consist of 70 two-bedroom units. After applying the 20% credit for water saving devices, the total average daily flow is 16,800 GPD.

The wastewater treatment plant will be sized to treat an average daily flow of 16,800 GPD, a maximum average daily flow of 21,000 GPD and a peak hourly flow of 1,400 GPH.

Any risk associated with mechanical failure will be addressed by providing redundancy for the following equipment: equalization tank pumps, fine screens, recycle pumps, membrane modules, air blowers, and permeate pumps. This built-in level of redundancy means that if any of these components of the wastewater treatment facility fails, the WWTP will still be capable of treating the maximum design flow to required standards.

An alarm monitoring system for the WWTP will be provided. Alarms will monitor the following: an overflow for each screen, an equalization tank pump failure, low level and high level alarms in tanks, an air blower system failure, a transmembrane pressure alarm, a permeate pump failure, and a pH alarm.

An alarm dialer will be provided to alert the operator of a problem.

The proposed membrane bioreactor provides a physical barrier. This design minimizes the risk of a contaminant breakthrough that would

cause a violation of the permit limits. The service life of each membrane module is anticipated to be approximately 10 years. The risk of rupture of one of the membranes is mitigated by providing fine screens at the head of the plant. It is anticipated that the SPDES permit will require that effluent samples bet taken daily. Should a membrane rupture occur, evidence of the rupture will be clearly visible in the effluent sample.

Croton Overlook will provide both a primary infiltration area and a secondary expansion area as required by the Westchester County Department of Health. In the unlikely event that the primary infiltration area fails, the secondary expansion area would be prepared to receive the effluent. Concurrently, the primary infiltration area would be investigated and measures taken to rectify any problems. In the very unlikely event that both the primary infiltration area and the expansion area fail, an application would need to be submitted for a revised SPDES permit and a variance from DEP for surface discharge.

N. Fiscal & Socioeconomic Impacts

As per information from the US Census Bureau for the Town of Yorktown for 2005-2009, the town's population is approximately 37,538. Approximately 1,869 are of 5 years of age and younger. Approximately 27,940 are 18 and older. Approximately 5,082 are 65 and older. The average household size is approximately 2.84 people per unit.

As per information from The Yorktown Comprehensive Plan (adopted June 15, 2010), the summation of Yorktown's and Westchester's populations ages 55 and over shows that slightly more than 1/4 of the town's and the county's populations are age 55 or over: 25.6% of Yorktown and 25.9% of Westchester.

If the Croton Overlook development were forced to sell as market rate units, impacts to fiscal and socioeconomic conditions would be minimal. Because the Croton Overlook project is proposed as a subdivision, taxes would be paid at full rates for the units. The proposed action is expected to generate $16,105 per unit and $1,127,350 annually.

The applicant was asked to determine the possible impact that school-age children would have on a development similar in size and type to the Croton Overlook plan. To calculate the projected number of children for this scenario, the number of proposed units, 70, was multiplied by the "children multiplier" 0.17. This multiplier correlates the number of children to housing

types, as in the "Rutger's University, Center for Urban Policy Research, Residential Demographic Multipliers – New York (June 2006)," a method recommended by the Planning Board. The projected number of children for this circumstance is 12.

Any potential fiscal and socioeconomic impacts are anticipated to be mitigated by the project's tax generation. The proposed action is expected to generate $16,105 per unit and $1,127,350 annually. School taxes for the Croton Overlook Community are projected at $821,418 annually. This is a substantial economic benefit to the town, as there are no additional children being added to the school system. Trash pickup will be provided by Yorktown. The estimated annual tax collected for trash pickup is $27,390. This tax is totally separate from the Town of Yorktown annual tax of $119,575. Life and Fire Services will be provided by Yorktown. The cost for the Police is included in the estimated annual Yorktown tax of $119,575.

Croton Overlook recognizes an obligation to help meet the variety of needs throughout Yorktown. Therefore Croton Overlook made the decision to develop the site as a sub-division, not a site plan. Croton Overlook's estimated annual taxes, generated under fee simple ownership, are expected to be $1,127,400. If the project were submitted for approval as a condominium site plan, the estimated annual taxes would be $532,000.

Croton Overlook's single largest economic benefit to Yorktown is the estimated annual school taxes of $821,418. The development is a 55+ Active Adult Community. These taxes will be paid, annually, with no additional children to the school system.

In addition, Croton Overlook is making a one-time $650,000 contribution to Yorktown for uses in areas such as senior services, recreation, and safety. There are many other economic benefits resulting from the development and sales of these homes: percentage of Real Estate Transfer Taxes, Mortgage Taxes and Sales Taxes generated by shopping and the use of vendor services in Yorktown.

O. Traffic Conditions, Safety, and Flow

The subject site is in the Town of Yorktown, Westchester County, New York. Local roadways in the vicinity of the site include Dell Avenue, NY Rt. 100 (Saw Mill River Road), and NY Rt. 134 (Pinesbridge Road). The site lies to the east of NY Rt. 100. The access points to the subject site are at the intersections of Dell Ave. and NY Rt. 100, which are located at the extreme ends of Dell Ave. to the north and south of the site.

The seventy lot subdivision will generate approximately 15 vehicle trips during the AM peak hour and 19 during the PM peak hour. During non-peak periods, trips to and from the site will be not only less but even insignificant when considering the traffic impact of the proposed site. It should be noted that age-restricted developments usually generate approximately three to four times less traffic than traditional single family housing developments, because a percentage of the residents are retired and typically do not have children living with them.

The intersections of NY Rt. 100 with Dell Avenue and NY Rt. 134 are considered the critical intersections that will be utilized by residents of the subdivision when traveling to and from the site. Based on a review of available traffic volume data published by the New York State Department of Transportation (NYSDOT), it is anticipated that approximately 60% of the site generated trips will enter and exit the site via NY Rt. 100 from the south, and the remaining 40% will enter the site from the north.

Comparing the maximum increase in traffic volumes on intersection approaches with existing average annual daily traffic shows that the peak hour traffic generated from the site represents less than one percent of the daily traffic volumes on these roadways. An increase in traffic volumes of the size expected with this development will easily accommodated by the existing roadway network. It is also noted that the NYSDOT threshold for requiring a detailed traffic impact study is 100 peak hour trips, confirming that the development of the site will not have a measurable impact on the surrounding network. This 100 vehicle per hour trip threshold is also consistent with the methodologies presented by ITE in *Transportation Impact Analysis for Site Development*. Therefore, based on NYSDOT and ITE guidelines, the increase in traffic generated by this site will not have any noticeable impact on the surrounding transportation network.

The proposed relocation of Dell Avenue creates a safer and more efficient roadway, and also provides a convenient access road to the Croton Overlook Development. All appropriate signage will be implemented in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) as required by the New York State Department of Transportation. The existing traffic network will not be significantly impacted by the traffic generated at the proposed development, therefore no improvements are necessary. The future build scenario has no predictable negative consequences on the roadway network, and actually provides improvements to the existing

Dell Avenue. The future no-build scenario would leave the avenue as a hazardous narrow roadway needing improvement.

P. Electromagnetic Fields (EMF)

Due to Con Edison's high tension power lines running adjacent to the property near Dell Ave, an Electromagnetic Field Study was conducted to determine the existing conditions of EMF levels on site and determine any potential impacts these conditions could have on health and safety of the residents.

While there are no official standards or guidelines, this analysis compares measured electromagnetic field data to the general guidelines of the International Radiation Protection Association (IRPA) general public limit and of the New York State Right-of-way (NYSROW) maximum guidelines for electric and magnetic fields.

There are no anticipated detrimental impacts by electromagnetic fields on health or safety from the Croton Overlook development. All EMF measurements were several orders of magnitude less than the IRPA general public limit, and significantly lower than the NYSROW maximum guidelines for magnetic field strength. Houseline and ambient EMF measurements, after incorporating a factor of safety, were all in the range of 1.1 to 7.4 milliGauss. For comparison purposes, the EMF of a fluorescent light bulb at a distance of 1 meter can be measured at 0.2 to 2.5 milliGauss.

Q. Use and Conservation of Energy, Green Technology and Infrastructure

All calculations and methodology used in this section conform to the NYSDEC 2009 Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements.

The Environmental Protection Agency's Household emissions calculator, which incorporates variables such as: average number of occupants, number of vehicles, miles driven by each vehicle, sources/volume of power, waste produced/recycled, green energy use/purchase, was used to determine the approximate lbs of CO_2 produced. The estimated annual CO_2 emissions for a single-family home in the vicinity of the project area, in Westchester County, NY, is approximately 40,550 pounds of CO_2 per year. This includes the CO_2 produced from heating, cooling, lighting, and fuel for trips to and from the homes.

Based on the Environmental Protection Agency's household emissions calculator, the estimated annual CO_2 emissions for a home in the finished development would be approximately 24,554 pounds of CO_2 per year. Due to the project's green initiative, this emission number is significantly lower than the average CO_2 emissions for a home in proximity to the project area. In an effort to remain environmentally responsible, Croton Overlook homes will be constructed with a variety of green features. Geothermal heating and cooling, for example, will be installed in all homes. This method of heating and cooling is completely sustainable, using an exchange of natural renewable heat within the ground and the homes above it. This will considerably reduce energy costs to the homeowner, while providing reliable HVAC. In addition, by implementing geothermal technology, the overall carbon footprint of each home will be greatly reduced.

Recycled building materials will be used in home construction whenever possible. By recycling building materials, the amount of fill materials will be cutback, reducing the GHG emission and at the same time reducing the number of trees being harvested for new building materials. Natural ventilation will be implemented wherever possible in the homes. Unlike conventional fan-forced and greenhouse-gas-producing ventilation, natural ventilation uses the natural force of wind to deliver fresh air into buildings. Homes will be designed to promote optimal airflow and circulation.

Solar panels will be placed on top of any maintenance buildings as well as the on-site sewage treatment facility. This sustainable energy will offset energy costs to the community. Solar panels are a simple and low-maintenance renewable energy source, as well as a good way to cut back on GHG emissions. Trees that are being cut down on site will be mulched and used as topping for recreational trails and in community gardens. This will reduce the amount of $C0_2$ released into the atmosphere. Allowing the harvested wood to decompose will allow the carbon dioxide to be sequestered in the soil horizon, thus enriching the overall soil nutrition.

Recycled on-site materials will ensure that rock or vegetation that must be removed from the site is reused in an environmentally responsible manner. For example removed rock material can be used as fill, which is required in various locations on-site, for sub base under asphalt roads, surface for maintenance roads, and surrounding wastewater discharge infiltrators. By recycling rock and other blasting material the GHG's will be reduced due to a reduced number of loads to and from the site.

Increasing the acreage of open water pond and wetland areas will benefit natural on-site ecosystems. Open water ponds serve to increase biodiversity by providing habitats for local plant and animal species. Wetlands act as a buffer for storm events by providing excellent rainwater absorption. Wetlands also naturally purify storm water runoff. When all of these factors are taken into account, we see an increase in the abilities of the environment itself to act as a sponge and retain higher amounts of GHG.

Native trees and vegetation will be planted wherever feasible in areas of the site where vegetation removal was necessary. These native species will blend with existing vegetation to create a healthy and balanced ecosystem. As such, the natural beauty and viewscape of the on-site and surrounding environment will be preserved. The healthier an ecosystem is, the stronger of a carbon sink it can be.

A community composting program along with organic waste, such as leaves and brush, collected by maintenance crews, will reduce the amount of material going into the landfill, while increase the amount of minerals being returned to the soil. The compost will increase vital organic matter in the soil, creating ideal fertile conditions, for the community gardens. By significantly reducing the amount of landfill material and increasing the health of the soil the development will be seeing substantial reduction in GHG emissions as well as an increase in the soils ability to sequester said emissions.

Storm water collection will capture almost all of the storm water on-site using ponds and infiltration basins. This water will be used to irrigate the community garden and homeowner's lawns. Collecting storm water, as opposed to pumping from groundwater, is a sustainable method of irrigation, which reduces off-site runoff and the community's environmental impact on the groundwater aquifer. This method of irrigation is also a lower impact to the environment since comparably little energy is used, seeing as all of the water is being supply via ponds directly onsite. Thus, lowering the overall green house gas emissions for the development, and at the same time additional wetlands and buffer are being created, which will help naturally scrub GHG(s) from the environment.

The homes in the proposed Croton Overlook development are anticipated to be Energy Star Certified, meeting all applicable Energy Star requirements set forth by the US EPA guidelines.

R. Hazardous Material and Waste

During May 2011, ECSI, on behalf of the COC, conducted a Phase I Environmental Site Assessment (ESA) of the 62.7 acre property site. The objective of the ESA was to determine, to the extent feasible and practicable, if any suspect or questionable environmental conditions exist for the site, or in the immediately surrounding vicinity, that could result in environmental risk and liability, or negatively impact the development potential of the site.

A limited amount of necessary hazardous materials will be present during and after construction. During construction, hazardous materials will include fuels, petroleum products, and other materials necessary for the proposed construction activity. After construction, hazardous materials will include primarily pesticides and petroleum products. It is anticipated that each new home will have a 100 gallon propane storage tank for stove and other miscellaneous uses. All of these materials will be used in strict accordance with OSHA and other applicable methods.

Based on the information gathered under the Phase I Environmental Site Assessment, no evidence of any environmental conditions, risk, or liability exists for the site, and none exists within immediately surrounding land areas. As such, it is recommended that no further investigations be performed for the subject site and thus, no form of mitigation or remediation is necessary for the site and none appears to be necessary for immediately surrounding land areas.

S. Groundwater and Geology

A Groundwater Modeling Report for On-Site Subsurface Wastewater Disposal System has been prepared by HydroEnvironmental Solutions, Inc.

A site model was prepared utilizing known site specific information to predict the results of water from the two proposed septic system disposal scenarios. The MODFLOW groundwater modeling program was used to solve the equations for groundwater flow within the model. This program is widely accepted industry standard for simulating groundwater flow through porous media. The modeling effort resulted in a simulation that appears to accurately represent groundwater and wastewater flow across the subject site.

The groundwater head results indicate that for all trials no breakout of the water table at the surface will occur, as there is an adequate layer of unsaturated soils between the steady-state head and the site surface. This aeration zone between the slightly mounded water table

and the septic area meets the appropriate requirements for the Westchester County Department of Health (WCDOH) and New York City Department of Environmental Protection (NYCDEP). For the simulated mound occurring within the proposed disposal area (approximately 174,240 sq ft) it has been calculated that only 6.5% (11,325 sq ft) of the mound makes up the mound crest which ranges at a depth of 7-8 ftbg.

Based on these results, it is clear that the hydrogeology in the area of the proposed septic system can accommodate the discharge of 144 in/yr at an application rate of 16,320 gpd.

The onsite geology features some rock outcropping. The approximate acreage and location of the rock outcropping is shown in the Rock Outcropping Plan attached in Appendix L. The general topography of the property ranges from gentle to steep with grades ranging from less than 5 percent to greater than 15 percent. Elevations at the site range from approximately 230 feet above mean sea level (ftamsl) to 335 ftamsl.

Blasting will occur during the early phases of construction, as some rock outcrops will be excavated for use as crushed stone in other areas of the proposed development. The use of blasting does not significantly impact the underlying geology or soils as only a small percentage of the rock outcroppings on the project site will be in the area of potential effect, thus requiring blasting.

There are no anticipated impacts to groundwater or geology and no mitigation is proposed.

Summary of Alternatives Analyzed

The New York State Environmental Quality Review Act (SEQRA) calls for a description and evaluation of reasonable alternatives to the proposed action that are feasible, considering the objectives and capabilities of the project sponsor. The proposed project is presented in detail in the project description of this document and assessed in detail in the various sections of this document. Following is an assessment of alternatives to the proposed action that were included in the Lead Agency's adopted Scope.

No Action Alternative

The No Action Alternative is the scenario that would occur if no development were to take place on the project site. This is effectively an open space preservation alternative. The site would remain in its current undeveloped and underutilized condition. A summary of impacts of this alternative, as compared to the proposed action, is presented below.

Zoning and Land Use: With no improvements to the site under the No Action Alternative and no construction associated with the proposed project, the project site would remain vacant, with no resulting land use impacts. The creation of housing in an area where there is a demand for such housing would not be realized.

Visual Resources: There would be no change to the visual environment as a result of this alternative. The site would remain vacant and largely unchanged.

Flora and Fauna: Under the No Action Alternative, the disturbance or removal of on-site vegetation and available wildlife habitat, with the introduction of buildings and associated infrastructure on the site would not occur The site would provide more habitat and cover for local wildlife than under conditions with the proposed action.

Soils, Topography, Steep Slopes, and Geology: There would be no disturbance to soils or topography under the No Build alternative. No grading of soils would occur on the project site under the No Build alternative.

Wetlands and Surface Water Resources: No disturbance of wetlands or their regulated areas would occur under the No Action alternative.

Cultural Resources: No impact to existing cultural resources will occur in the No Action alternative.

Noise, Air, and Construction Impacts: No construction impacts will occur in the No Action alternative.

Community Facilities and Services: With the project site remaining vacant, there would be no impacts to community services, and no significant increases in municipal property tax revenues generated by the project site to fund community services.

Community Growth and Character: No impact to existing community growth and character will occur in the No Action alternative.

Stormwater Management: No impact to stormwater flows will occur in the No Action alternative.

Solid Waste: No impact to solid waste collection in the town will occur in the No Action alternative.

Utilities, Water: No impact to existing utilities will occur in the No Action alternative.

Utilities, Sewer: No impact to existing utilities will occur in the No Action alternative.

Fiscal & Socioeconomic Impacts: In the No Action alternative, the Town of Yorktown will not benefit from the anticipated $1,127,400 taxes to be generated by the project annually. Additionally, in the No Action alternative, the Town of Yorktown will not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: The No Action alternative would not alter the traffic patterns that occur presently in the site area. No additional traffic would be generated by the site and no impacts to traffic would result.

Electromagnetic Fields (EMF): No impact from electromagnetic fields will occur in the No Action alternative.

Use and Conservation of Energy, Green Technology and Infrastructure: No impacts to the environment regarding energy use or conservation, green technology, and infrastructure will occur in the No Action alternative.

Hazardous Material and Waste: No impact from hazardous material and waste will occur in the No Action alternative.

Groundwater and Geology: There would be no interaction with groundwater under the no action alternative, and therefore existing residential groundwater use, in the vicinity of the site would remain unchanged.

Given the benefits to the town and surrounding community by the construction of this project, the No Action alternative, or the continuation of the vacant state of the project site, is not a likely alternative. It should be noted that with the proposed development plan, the majority of the property would remain as undeveloped open space.

R1-160 Zoning Compliant Conventional Development

The project site is presently zoned as R1-160, which allows for single family residential lots with a minimum lot size of 160,000 square feet (approximately 4 acres).

Zoning and Land Use: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in no deed restricted open space.

Visual Resources: Building the project compliant to conventional R1-160 zoning would result in a units with large properties sprawled across the project site. This would create a large visual impact to the surrounding viewshed and prove difficult, if not impossible, to fully mitigate.

Flora and Fauna: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in

RSP-1 zoning, and would result in no deed restricted open space. As such, impact to flora and fauna would also increase.

Soils, Topography, Steep Slopes, and Geology: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning. As such, impacts to existing soils, topography, steep slopes, and geology would increase.

Wetlands and Surface Water Resources: Building the project compliant to conventional R1-160 zoning would result in lots that covered the entirety of the site, including all existing onsite wetlands and surface waters.

Cultural Resources: Building the project compliant to conventional R1-160 zoning would not result in any impacts to cultural resources.

Noise, Air, and Construction Impacts: Building the project compliant to conventional R1-160 zoning would not result in a significant increase in impacts to noise, air, and construction as compared to RSP-1 zoning.

Community Facilities and Services: Building the project compliant to conventional R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. As such, building the project compliant to conventional R1-160 will not benefit community facilities to the extent which building the development under RSP-1 zoning will.

Community Growth and Character: As the land use around the project exhibits widely varied uses, building the project compliant to conventional R1-160 zoning would result in impacts to community growth and character similar to that resulting from building the project under RSP-1 zoning.

Stormwater Management: Building the project compliant to conventional R1-160 zoning would result in a decrease in the creation of impervious areas. As such, impacts on stormwater management would be decreased.

Solid Waste: Building the project compliant to conventional R1-160 zoning would result in larger families, which would generate more solid wastes.

Utilities, Water: Building the project compliant to conventional R1-160 zoning would result in larger families, which would require a greater quantity of water and put a greater strain on the local water district.

Utilities, Sewer: Building the project compliant to conventional R1-160 zoning would require the construction of individual septic systems.

Fiscal & Socioeconomic Impacts: Building the project compliant to conventional R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the

development under RSP-1 zoning. Additionally, the Town of Yorktown will not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: Building the project compliant to conventional R1-160 zoning would result in larger families, including younger citizens. As such, the traffic from the project would most likely increase as a result.

Electromagnetic Fields (EMF): Building the project compliant to conventional R1-160 zoning would result in no significant impact from the EMF created by the nearby high tension power-lines.

Use and Conservation of Energy, Green Technology and Infrastructure: Building the project compliant to conventional R1-160 zoning is inherently less environmentally responsible and "green" due to the lack of deed restricted open space, septic sewers, and larger home size.

Hazardous Material and Waste: Building the project compliant to conventional R1-160 zoning would result in no significant impacts from hazardous material and waste.

Groundwater and Geology: Building the project compliant to conventional R1-160 zoning would result in the use of individual septic systems, which would invariably adversely affect the groundwater to a certain extent.

Given the impacts from the R1-160 Zoning Compliant Conventional Development alternative, this is not a practical alternative. As confirmed in a letter from the Yorktown Conservation Board, the proposed RSP-1 zone represents a more desirable use of this property than R1-160 zoning. R1-160 zoning would allow big houses with big lawns, more fertilizer and septic systems spread across the entire area. RSP-1 zoning would concentrate potential environmental impacts in such a way as to preserve more of the sensitive environmental features of the site.

R1-160 Zoning Compliant Cluster Development

The purpose of clustering is to encourage flexibility of design and development of land to promote the most appropriate use of land, to facilitate the adequate and economical provision of streets and utilities, and to preserve the natural and scenic qualities of open land. Appendix U. shows a clustered site plan that was prepared for the project in compliance with R1-160 zoning.

Zoning and Land Use: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in less deed restricted open space.

Visual Resources: Building the project compliant to cluster R1-160 zoning would result in a units with larger properties across more of the project site. This would create a large visual impact to the surrounding viewshed and prove difficult, if not impossible, to fully mitigate.

Flora and Fauna: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in no deed restricted open space. As such, impact to flora and fauna would also increase.

Soils, Topography, Steep Slopes, and Geology: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning. As such, impacts to existing soils, topography, steep slopes, and geology would increase.

Wetlands and Surface Water Resources: Building the project compliant to cluster R1-160 zoning would result in lots that covered the more of the site, including some existing wetlands and surface waters.

Cultural Resources: Building the project compliant to cluster R1-160 zoning would not result in any impacts to cultural resources.

Noise, Air, and Construction Impacts: Building the project compliant to cluster R1-160 zoning would not result in a significant increase in impacts to noise, air, and construction as compared to RSP-1 zoning.

Community Facilities and Services: Building the project compliant to cluster R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. As such, building the project compliant to cluster R1-160 will not benefit community facilities to the extent which building the development under RSP-1 zoning will.

Community Growth and Character: As the land use around the project exhibits widely varied uses, building the project compliant to cluster R1-160 zoning would result in impacts to community growth and character similar to that resulting from building the project under RSP-1 zoning.

Stormwater Management: Building the project compliant to cluster R1-160 zoning would result in a decrease in the creation of impervious areas. As such, impacts on stormwater management would be decreased.

Solid Waste: Building the project compliant to conventional R1-160 zoning would result in larger families, which would generate more solid wastes.

Utilities, Water: Building the project compliant to cluster R1-160 zoning would result in larger families, which would require a greater quantity of water and put a greater strain on the local water district.

Utilities, Sewer: Building the project compliant to cluster R1-160 zoning would require the construction of individual septic systems.

Fiscal & Socioeconomic Impacts: Building the project compliant to cluster R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. Additionally, the Town of Yorktown will not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: Building the project compliant to cluster R1-160 zoning would result in larger families, including younger citizens. As such, the traffic from the project would most likely increase as a result.

Electromagnetic Fields (EMF): Building the project compliant to cluster R1-160 zoning would result in no significant impact from the EMF created by the nearby high tension power-lines.

Use and Conservation of Energy, Green Technology and Infrastructure: Building the project compliant to conventional R1-160 zoning is inherently less environmentally responsible and "green" due to the lack of deed restricted open space, septic sewers, and larger home size.

Hazardous Material and Waste: Building the project compliant to cluster R1-160 zoning would result in no significant impacts from hazardous material and waste.

Groundwater and Geology: Building the project compliant to cluster R1-160 zoning would result in the use of individual septic systems, which would invariably adversely affect the groundwater to a certain extent.

Given the impacts from the R1-160 Zoning Compliant Clustered Development alternative, this is not a practical alternative. As previously stated and as confirmed in a letter from the Yorktown Conservation Board, the proposed RSP-1 zone represents a more desirable use of this property than R1-160 zoning. R1-160 zoning would allow big houses with big lawns, more fertilizer and septic systems spread across the entire area. RSP-1 zoning would concentrate potential environmental impacts in such a way as to preserve more of the sensitive environmental features of the site.

Age-Restricted versus Market Rate Comparison

If extenuating circumstances were to occur and the plan needed to be rezoned to a market rate zone, children would be permitted in the development. The projected number of children for this circumstance is 12 children. This projection is based on a "children multiplier" of 0.17 from the "Rutgers University, Center for Urban Policy Research. Residential Demographics Multipliers – New York (June 2006)", a method recommended by the Planning Board.

The recent Yorktown Farms development in the Town of Yorktown, projected 30 school age children, as they calculated per the Urban Land Institute's "Development Impact Assessment Handbook". Yorktown Farms residences are expected to be constructed and sold over a multi-year period. This allows for additional students to be introduced to the school system gradually. In additional, costs to the school district as a result of the development will be offset by projected additional annual school tax revenues from the project. Both of these methods of mitigation are implemented in the Croton Overlook development.

Because the project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur, the plan was rezoned, and children were allowed in the community, the children's school taxes are being paid for; therefore, this would have no financial impact on the Town of Yorktown.

Required Reviews and Approvals

Town of Yorktown Town Board

- Amendment of Zoning Map
- Initiate Establishment of Water and Wastewater Districts

Town of Yorktown Planning Board

- Subdivision and Site Plan Approvals
- Tree Permit
- Stormwater Permit
- Wetlands Permit

Town of New Castle

- Authorization for Water Supply Connection

Westchester County Board of Legislators

- Creation of Sewer District

Westchester County Health Department

- Approval of Sanitary Wastewater Treatment and Disposal System Design

Westchester County Planning Department

- Subdivision and Site Plan Review
- Recommendations on rezoning and project approval under GML § 239-m

New York State Department of Environmental Conservation

- SPDES Permit for Sanitary Wastewater Treatment and Disposal System Operations
- SPDES General Permit for Stormwater Discharges from Construction Activities
- Storm Water Pollution Prevention Plan Approval

New York State Attorney General

- Approval of Home Owners Association Public Offering Statement

New York State Department of State

- Approval to Establish a Public Transportation Company to Own and Operate the On-site Wastewater Treatment and Disposal Systems

New York State Department of Environmental Protection

- Stormwater approval
- Septic Approval
- DEP Jurisdictional Watercourses

II. PROJECT DESCRIPTION

Public Purpose, Needs, and Benefits

Croton Overlook offers a unique social opportunity for like minded individuals, 55 and older, to live in a community and enjoy the benefits of the interaction

fostered by the placement of the homes and the passive recreation located on or adjacent to the site.

Croton Overlook recognizes an obligation to support the variety of needs in Yorktown. It was with this in mind that Croton Overlook made the decision to develop this site as a subdivision, not a site plan. Croton Overlook's estimated annual taxes are projected to be $1,127,400. If the project was submitted for approval as a site plan the annual taxes would be $532,000.

Croton Overlook's single largest economic benefit to Yorktown is the annual school taxes of $821,418. These taxes will be paid, annually, with no additional children being added to the school system.

In addition, Croton Overlook has offered to make a one time, $650,000 contribution to Yorktown for uses in areas such as senior services, recreation, safety, etc.

Other economic benefits resulting from the development and sales of these homes are many; percentage of Real Estate Transfer Taxes, Mortgage Taxes and Sales Taxes generated by shopping and the use of vendor services in Yorkton.

As the project progresses, Croton Overlook will be reaching out to local businesses to get information and prices, and plans on using local contractors for the work.

Croton Overlook's objective is to provide a well-planned, 55 and over, active adult housing community to meet market demands for this type of housing.

Croton Overlook would like to foster a relationship with our Community and the students of Yorktown's Schools. The Development provides an excellent educational opportunity through its wetlands, open space, and community gardens.

The Croton Overlook Community would also conform with the municipal objectives of Yorktown based on the Yorktown Comprehensive Plan. In the executive summary of the Town Comprehensive Plan, the vision statement under Land Use reads: "Yorktown will continue to be primarily a low-density community of single-family homes, with strong neighborhoods that have a balance of developed areas and open space. Yorktown's five hamlet business centers should be vital centers of community life, with a mix of retail, office, civic, and residential uses. Throughout Yorktown, development should be carefully balanced with natural resource conservation and scenic historic preservation, and it should be coordinated with circulation and infrastructure improvements."

Croton Overlook has made a clear effort to maintain the balance set forth in this vision statement: between the low density of housing, the natural resource

conservation, and the infrastructure improvements. It is with these goals in mind that the Croton Overlook project was designed.

In the Yorktown Comprehensive Plan under the Land Use section: "Goal 2-A: Provide for low-density development and preserve open space throughout Yorktown's residential neighborhoods, as discussed in Chapter 5, in a manner consistent with community character. Goal 2-F Promote housing for people in all stages of life, from young adults and couples, to families with children, to seniors." Both of these goals are primary themes in the Croton Overlook development.

In the Yorktown Comprehensive Plan under Table 2-4: Senior Independent Living (RSP-1):

"Purpose: to provide opportunities for senior citizens to find appropriately sized housing units for their years as empty nesters and young retirees. This zone helps to meet the growing demand among retirees and seniors for age-restricted housing, where they can live in greater tranquility with other people of the same age and in an environment more tailored to their needs.

Typical Land Uses include two-family homes and townhouses for independent senior living (age-restricted).

Design & Development Concepts:

1. Campus-like layout, forming a complete village or community (e.g., Jefferson Village).
2. Large minimum tract size.
3. Significant open space requirement with woodland buffers along street frontage(s) and adjacent to single-family residential zones.
4. Maximum density: 12 units per acre after open space set-aside (same as previous zoning)
5. All residential units should have sanitary sewer and public water service.
6. All areas should be subject to natural resource protection requirements relating to wetlands, water bodies, steep slopes, tree clearing, etc.

Croton Overlook was designed to conform with these specific concepts, and successfully comports with all of them.

Site Location

The project site is located off of Dell Avenue in the Town of Yorktown, Westchester County, New York. The project site is situated south of the New Croton Reservoir, east of Cornell Brook, and east of intersection of NYS Route 134 and Rt 100.

The regional location and location of the project in relation to surrounding land uses are displayed in the Figures A-1 and A-2 below.

Figure A-1

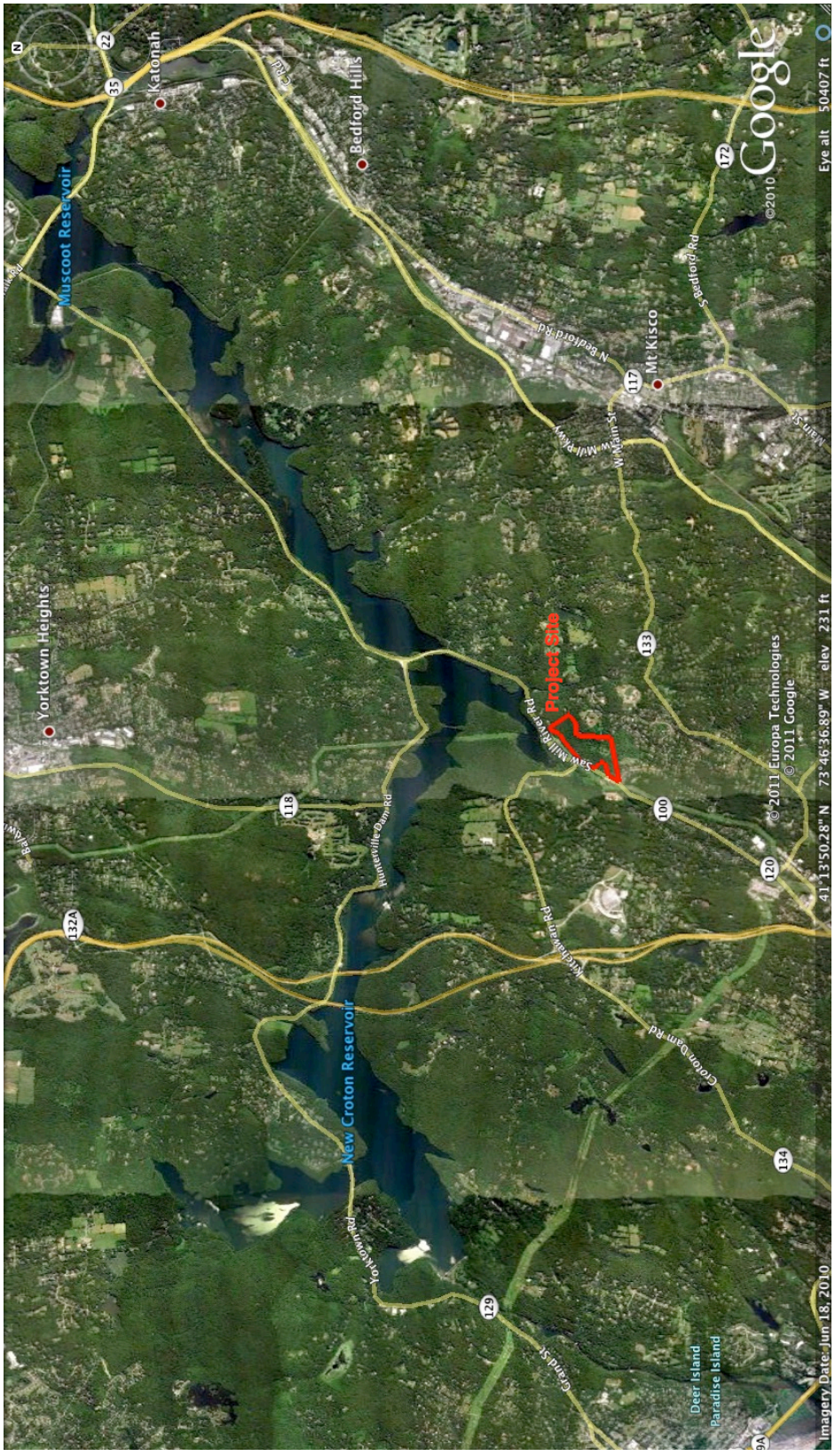
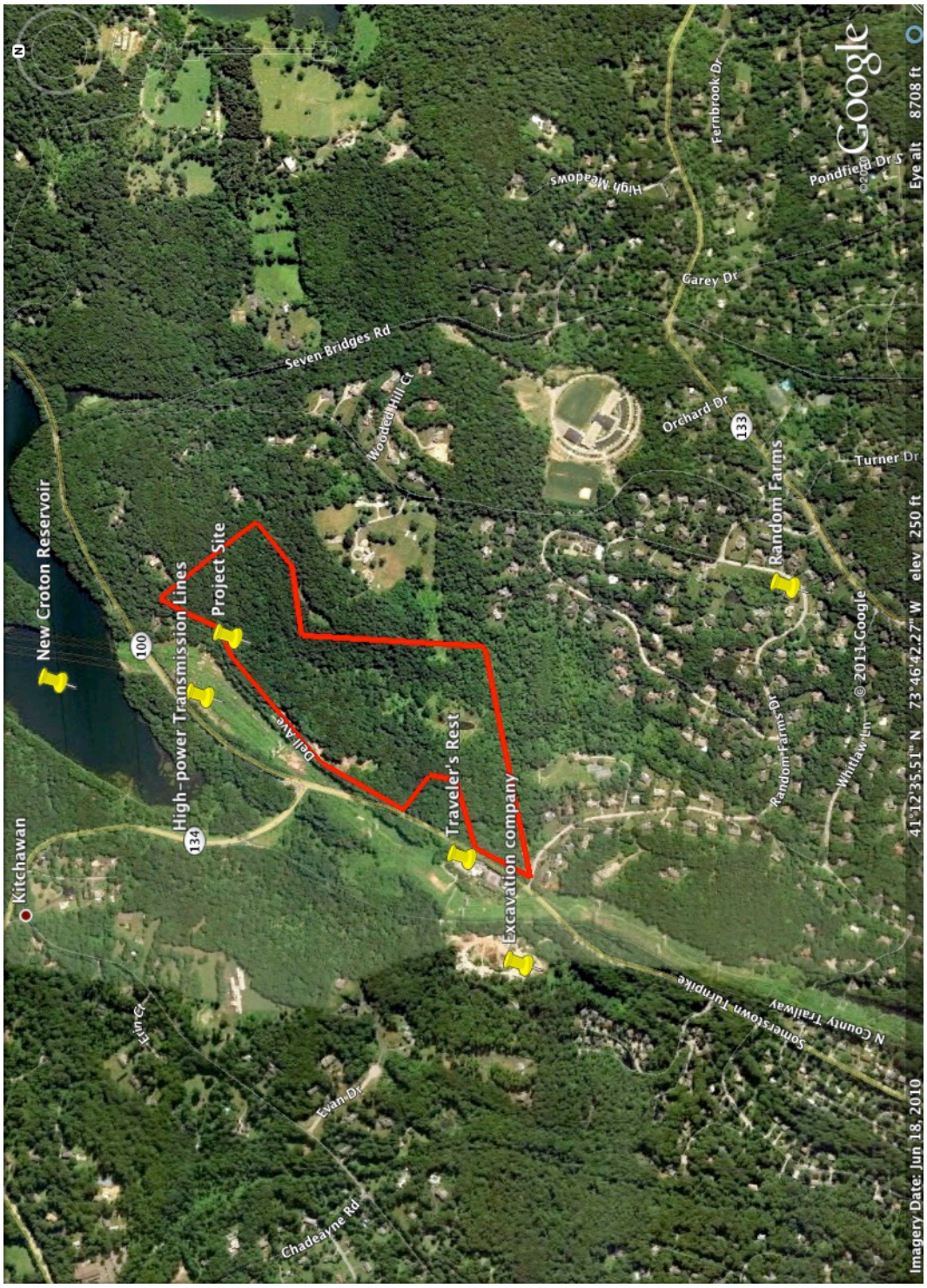

Project Site
Muscoot Reservoir
New Croton Reservoir
Katonah
Bedford Hills
Mt Kisco
Yorktown Heights
Google
©2010
©2011 Europa Technologies
©2011 Google
Imagery Date: Jun 18, 2010
Deer Island
Paradise Island

Figure A-2


New Croton Reservoir
High-power Transmission Lines
Project Site
Traveler's Rest
Excavation company
Random Farms
Kitchawan
Seven Bridges Rd
Garey Dr
Orchard Dr
Turner Dr
Fernbrook Dr
Pondfield Dr S
Woodedge Hill Ct
Doll Ave
Random Farms Dr
Whitlaw Ln
Somerstown Turnpike
N County Trailway
Evan Dr
Erin Ct
Chadeayne Rd
100
133
134
Google
© 2011 Google
Imagery Date: Jun 18, 2010
41°12'35.51" N 73°46'42.27" W elev 250 ft
Eye alt 8708 ft

Project Background and Site History

Site history

The site was farmland during the late 17th century and throughout the 1800's. It was bought by the Doge family and turned into a family retreat at the beginning of the 1900's. Sometime in the 1930's the land stopped being maintained and it returned to the condition it is in now.

Project History

Sometime in the early 2000's the owner entered into an agreement with a development company from New Jersey. The development company presented the town with plans to build 119 townhomes on the site, but went bankrupt before seeing the project to completion. The property owner then decided to develop the property and developed the current plan calling for 35 high end duplex units to be built on the site.

Proposed Development

Croton Overlook Corporation (COC) is seeking Town Board approval for a proposed 72 lot subdivision to facilitate construction of a 55 and over active adult residential community named the Croton Overlook Development. The community will consist of 70 residential fee simple duplex units on individual lots, 1 additional lot, containing approximately 44 acres of open space, which will be owned and maintained by the development's Home Owners Association (HOA) and 1 lot consisting of the Wastewater Treatment System with a subsurface infiltration area to be owned by a public transportation company. The open space area will be deed restricted, serving as an active and passive recreational resource for the community.

The applicant seeks to create a pleasant and attractive community of homes that will add positive character and revenue to the Town of Yorktown and surrounding communities. The project sales prices for the units are $650,000 per unit. The propose lots are approximately 5900 - 6400 square feet each.

The proposed homes will have approximately 2,400 to 4,000 square feet of finish floor space depending on the model, and not including the finished floor space provided by opting to finish the basements. Most lots will allow for full height, walk out basements. Two car garages are standard. The proposed homes will have a master bedroom on the first floor and a guest bedroom on the second floor. The interior colors, trims, and finishes will be left up to the home buyer. The typical exterior coloring and trims will blend with the surrounding community character and environment of the area. This includes using earth-tone colors to blend with the surrounding scenery.

Information on roadway improvements are summarized below:

Table II – Roadway Improvements

Linear Feet of Proposed Roads	2,544 LF of new road 1,425 LF of removed existing road 1,119 LF of net road addition
Pavement Widths	24 ft
Grades	As per Grading Plan attached in the Site Plans in Appendix G
Road Bed Composition	As per town code

As previously stated, approximately 80% of the 64 acre site will remain as deed restricted open space, featuring various forms of passive recreation for citizens of Croton Overlook. All area outside of the proposed limit of disturbance, shown in the Site Plan attached in Appendix G, will be designated as the deed restricted open space. The details of the deed restriction and Homeowners Association will be finalized at a later date. The Yorktown Town code § 300-129 states that "all open space on a site not designated on the site plan for present or future building purposes shall be deemed to be required open space on such site and shall not thereafter be built on or encroached on in any manner, except as hereinafter provided." The Croton Overlook project will comply with this code, as all open space on site that is not initially designated for development will be deed restricted so it cannot be built or encroached upon in the future.

The projected household size is for a family of two (2) based on the size and layout of the homes. The age of residents will be restricted, through the Homeowner's Association and the Town Zoning of RSP-1, to adults 55 years of age and older.

Utilities provided for the units include typical electric, water, and sewer connections. Water services provided to the community are described in detail in Section L of this document. Sewer services are discussed in detail in Section M of this document.

The Yorktown Town Code § 300-127 E requires that for RSP-1 Zones "for each proposed dwelling unit, there shall be a minimum of 40 square feet of floor space constructed for accessory uses. Of the required minimum accessory floor space, not more than ½ of such space may be composed of private garage space." There are 70 proposed units, resulting in 2,800 square

feet of floor space for accessory buildings required. All of the proposed units will feature garages, and as such this reduces the required accessory building floor space of the development to 1,400 square feet. The proposed on- site Wastewater Treatment Facility will be contained in a 30 ft by 50 ft building, totaling at 1,500 square feet of accessory floor space. The accessory floor requirements of RSP-1 zoning will thereby be met through garages and the on-site WTP.

COC is seeking the Board's consideration to amend the current zoning map as it pertains to the Site from R-160, One-Family Residential Units to RSP-1, Age Oriented Community. This zone change is necessary to accommodate the type of housing community and amenities proposed in the Croton Overlook Development Conceptual Subdivision Site Plan. As the County's population ages, individuals and couples aged 55 and over choose to down-size and thus, a demand for this type of housing exists within the Town and County.

The general layout of the community is depicted in the Site Plans attached in Appendix G. There are two (2) proposed access points to the community, whose locations are also depicted in the Site Plans. Landscape plans are attached in the Appendix. There is currently no proposed signage for the development. Erosion and sediment control procedures are discussed in the Preliminary Erosion and Sediment Control Plan attached in Appendix E. Screening and buffer treatments are described in detail in Section B – Visual Resources of this document. There is currently no proposed lighting plan for the Croton Overlook development. Internal road systems are comprised only of the improvements to Dell Avenue as depicted in the Site Plans. Emergency access is provided at both of the two (2) proposed access points to the community. Utilities provided for the units include typical electric, water, and sewer connections. Stormwater management practices are discussed in the Stormwater Pollution Prevention Plan attached in Appendix D. The property within areas of proposed improvements is owned by the applicant and is currently undeveloped private property.

There are no, nor has there ever been, any covenants, restrictions and limitations imposed on the project site.

Croton Overlook proposed to develop 70 age restricted (55 and older) units and is requesting a zone change from the existing R1-160, which the project does not meet the requirements of, to RSP-1, where the proposed development is fully compliant with the current zoning. As there is no cluster zoning applicable to the R1-160 zoning, only the alternative of standard R1-160 zoning can be analyzed. In this case, R1-160 zoning compliance would result in 15 homes to be built. Although the 70 proposed units by the Croton Overlook development is a greater number of units, the impact from the these units would be far less than the impact from 15 homes built to R1-160 zoning. This is clearly demonstrate in the Alternatives section of this

document. The impact from the mini-mansions, the individual septic fields that will be built on each 4 acre estate, the potential disturbance to the land in the future as residents add pools, tennis courts, and play areas for children, the impact of 15 homes under R1-160 zoning is vast. The proposed Croton Overlook development will be far less due to its Homeowner's Association, which will enforce the restrictions that will be put in place to preserve the open space as shown on the provided site plans.

Existing Zoning

The project site is presently zoned as R1-160, which allows for single family residential lots with a minimum lot size of 160,000 square feet (approximately 4 acres).

The Yorktown Town Code, in §300-21, describes "as-of-right" uses for the R1-160 District to include the following:

- One single-family dwelling per lot
- Church, other place of worship, convents and rectories
- Public, elementary, and high schools
- Governmental use of the Town of Yorktown, NY, except incinerators or dumps
- Farms, farm uses, customary farm occupations, plant and tree nurseries and greenhouses in accordance with the provisions of §300-45, provided that no retail sales space greater than 500 square feet in area is maintained on the premises in connection with their use.
- Religious, charitable, and eleemosynary institutions
- Railroad stations and rights-of-way, but not including storage or freight yards.
- Private and public parks, parkways and recreation facilities, but not including a commercial facility.
- Deposit of waste material in accordance with the provisions §300-17.
- Extraction of stone, clay, sand and gravel or other natural resources for a noncommercial purpose in accordance with the provision of §300-177.
- Family day-care homes as defined herein.

The Residence Zone Standards for R1-160 district are summarized in Table A-1 below.

Table A-1 - Town of Yorktown – Residence Zone Standards for R1-160

Features	Required Minimum
Lot area (square feet)	160,000
Floor area ratio, usable (square feet)	-
Minimum site area (acres)	-
Lot width at main building line (feet)	200
Lot depth (feet)	200
Front yard (feet)	75
Side yard (feet)	
Main or accessory building, minimum either side	30
Two combined	80
Accessory building if in rear yard, min either side	10
Rear yard (year)	
Main building	75
Accessory building	10
Maximum height (feet)	
Main building	35
Accessory building or structure	15
Minimum useable floor area of dwelling (square ft)	1200
Maximum building coverage (all buildings)	10%
required off-street parking spaces per dwelling unit	4
Road frontage (feet)	200

III. REQUIRED PERMITS AND APPROVALS

Town of Yorktown Town Board

- Amendment of Zoning Map
- Initiate Establishment of Water and Wastewater Districts

Town of Yorktown Planning Board

- Subdivision and Site Plan Approvals
- Tree Permit
- Stormwater Permit
- Wetlands Permit

Town of New Castle

- Authorization for Water Supply Connection

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- Creation of Sewer District

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- SPDES Permit for Sanitary Wastewater Treatment and Disposal System Operations
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- Approval of Home Owners Association Public Offering Statement

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- Approval to Establish a Public Transportation Company to Own and Operate the On-site Wastewater Treatment and Disposal Systems

New York State Department of Environmental Protection

- Stormwater approval
- Septic Approval
- DEP Jurisdictional Watercourses

IV. EXISTING CONDITIONS, POTENTIAL IMPACTS, MITIGATION

A. Land Use and Zoning

1. Existing Conditions

The Petitioner is owner of 62.5 acres of real property located east of the intersection of NYS Routes 134 and 100, along the eastern side of Dell Avenue designated on the Town tax maps as parcels 70.15-1-2 and 70.11-1-16. The Petitioner is the prospective contract vendee of real property, comprised of 1.65 acres, presently owned by Ronald Yaskovic and designated on the Town tax maps as parcel 70.15-1-1, collectively known as the "property." The property is currently zoned R1-160.

Route 100 in this location carries more than 8,100 cars per day, while the adjacent Route 134 handles a volume of around 4,500 cars per day. They are both major thoroughfares for the area. Prior to the construction of State Route 100, the adjacent Dell Avenue was used as a major roadway. It is now seldom used and poorly maintained as traffic shifted to the larger newer Route 100. In between Dell Avenue and the current Route 100 on its west are Con Edison High Tension Transmission Lines carrying power from larger generating sources to the smaller substation distribution locations. These major roadways and utility lines abut the subject Property.

Indeed, the site's proximity to these major roadways and utility lines gives weight to the de minimus impact the development will have in the area. There are major physical separations from the Hog Hill neighborhood, which is separated by steep grades and forested lands and accessed only from NYS Route 133 and Seven Bridges Road. The Crow Hill neighborhood, nearly a mile away, is accessed much further north along NYS Route 100 toward Crow Hill and Lake Roads; the Kitchawan neighborhood, which lies along Route 134 and Pinesbridge Road; Millwood, a New Castle Business Hamlet and residential area, several miles south along NYS Route 100 are all too far away to be directly impacted. Even Random Farms of New Castle, the closest residential subdivision to the subject property, is separated by forest, wetlands and protected open space areas thus minimizing any impacts from the proposed development. There are two residential homes on Dell Avenue at its northern tip, which will benefit from the improvements made to Dell Avenue.

As one follows the perimeter of the site there is a tavern that has long been a way station for passing travelers, known as Travelers' Rest, which lies immediately to the southwest of the project. Croton Overlook spans between an excavation yard on the south (Pogact Excavating) and the Croton Reservoir toward the north. Thus this site, which borders Dell Avenue, is truly a transition site from the more densely settled area to the south in the hamlet of Millwood within the Town of New Castle and the sparsely populated

watersheds of the reservoir created by the New York City Water Supply, which lie immediately to its north and surrounding most of the site.

In other words, this property is fairly isolated from existing development, with a restaurant [Traveler's Rest] and an excavation yard [Pogact Excavation and Supply] among its closest neighbors, lending an ideal opportunity for the rezoning action.

Figures A-1 and A-2 reflect the regional location of the site.

Figure A-1

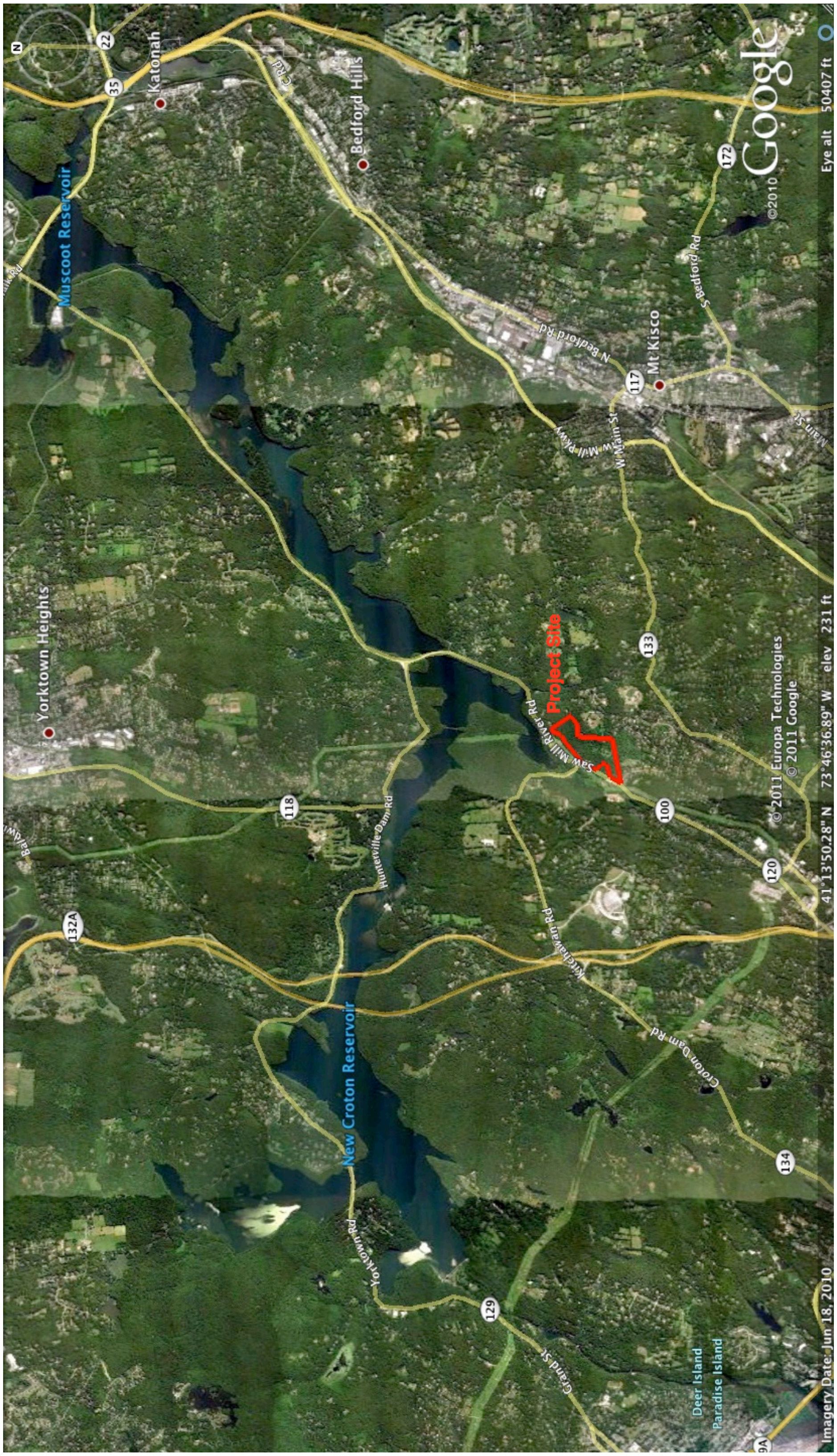
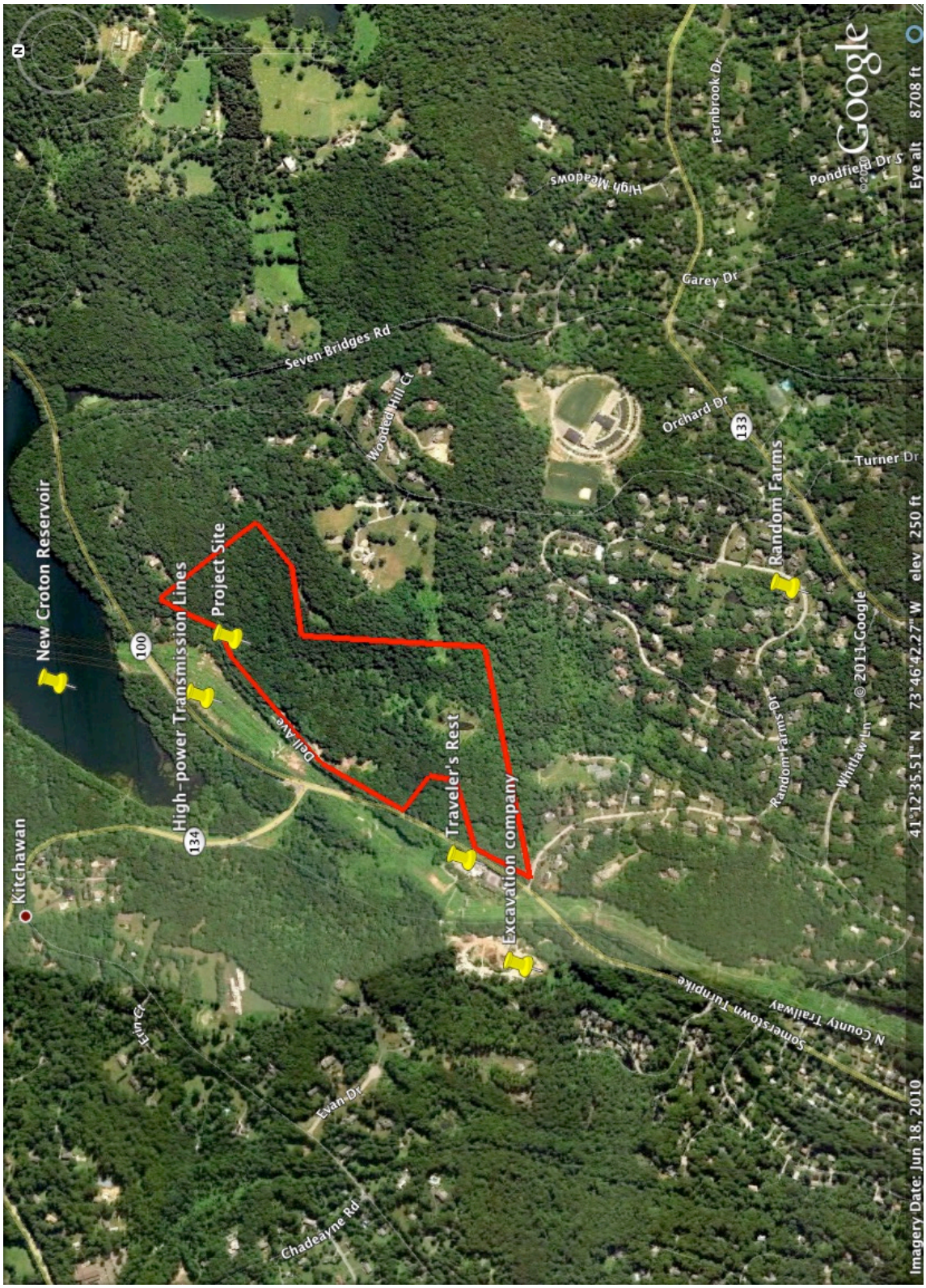

Katonah
Bedford Hills
Muscoot Reservoir
Mt Kisco
N Bedford Rd
S Bedford Rd
W Main St
Saw Mill Pkwy
Yorktown Heights
Project Site
Saw Mill River Rd
Huntersville Dam Rd
Kitchawan Rd
Croton Dam Rd
New Croton Reservoir
Yorktown Rd
Grand St
Deer Island
Paradise Island
Google
©2010
© 2011 Europa Technologies
© 2011 Google
Imagery Date: Jun 18, 2010
41°13'50.28" N 73°46'36.89" W elev 231 ft
Eye alt 50407 ft

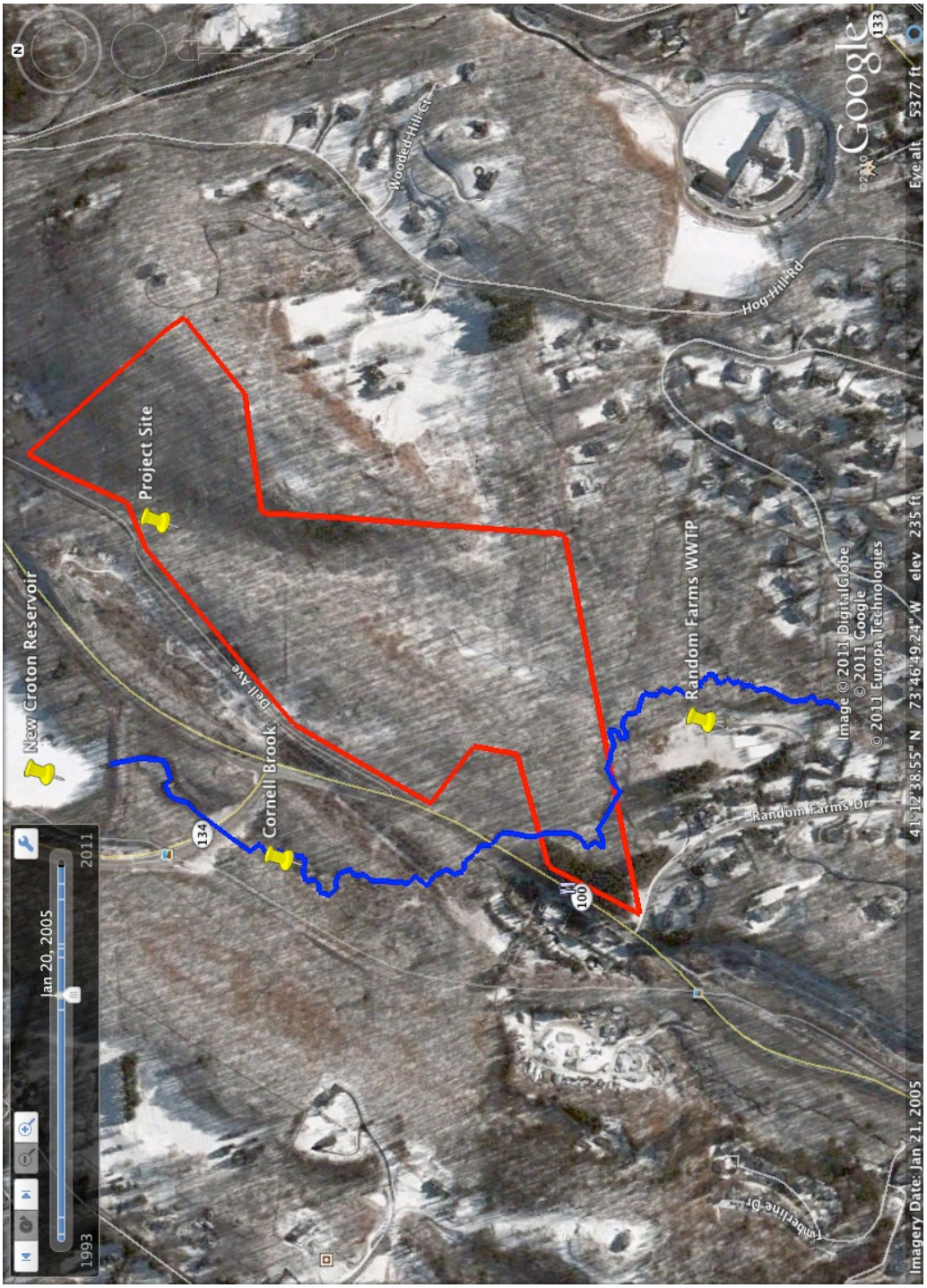
Figure A-2


New Croton Reservoir
Project Site
High-power Transmission Lines
Traveler's Rest
Excavation company
Random Farms
Kitchawan
Seven Bridges Rd
Garey Dr
Orchard Dr
Turner Dr
Dell Ave
Somerstown Turnpike
N County Trailway
Evan Dr
Chadeayne Rd
Google
Imagery Date: Jun 18, 2010

The surrounding area, in both the Town of New Castle and the Town of Yorktown in Westchester County, is a varied collection of zones and development. The property is bounded on the east by a single estate. To the west the area is intersected by high-power transmission lines. Further westward from the site is Rt 100, a 55 mph major North-South highway carrying 8,100 vehicles per day. Rt 134 connects to Rt 100 at a perpendicular angle, adjacent to the property. Rt 134 is a 40 mph state roadway carrying approximately 4,500 vehicles per day. West of Rt 100 is a commercial zone including the restaurant Traveler's Rest. Southwest of Traveler's Rest is an industrial complex, Pogact Exacavating, that crushes rock and processes soil into landscape product, houses all manner of trucks and heavy equipment, and performs retail sales to the public. To the south of the site is residential housing. Adjacent to the project to the north is a multifamily house and general residential. The hamlet of Millwood in the Town of New Castle lies rough 1.3 miles to the south of the project site.

New Croton Reservoir is located in close proximity to the West of the project site. New Croton Reservoir is created by New Croton Reservoir Dam on the Croton River, and is used for drinking water purposes. Cornell Brook is a nearby stream, which runs through the southern portion of the site and then along the western side of Rt 100 where it finally meets with the New Croton Reservoir. A map with Cornell Brook highlighted is depicted in Figure A-3 below.

Figure A-3


Project Site
New Croton Reservoir
Cornell Brook
Dell Ave
Random Farms WWTP
Random Farms Dr
Hog Hill Rd
Wooded Hill Ct
Timberline Dr
Google
Eye alt 5377 ft
Image © 2011 DigitalGlobe
© 2011 Google
© 2011 Europa Technologies
41°12'38.55" N 73°46'49.24" W elev 235 ft
Imagery Date: Jan 21, 2005
Jan 20, 2005
1993
2011
134
100
133

Currently the project site consists of an undeveloped and vacant parcel of land. The only existing structures on site are old stonewalls and a small, old, and unused wooden pump shed. The terrain contains topographic variants, and some wetlands and watercourses. Topography on the site ranges from gentle to steep, with elevations ranging from approximately 220 to approximately 340 feet above mean sea level (ft-msl). Grades range from less than 5 percent to greater than 15 percent.

The project site is presently zoned as R1-160, which allows for single family residential lots with a minimum lot size of 160,000 square feet (approximately 4 acres). Figure A-4 below, from the Town of Yorktown Comprehensive Plan, shows the existing zoning of the project site and the surrounding area.

The 64 acre site is woodland with growth typical of the area. It has a beautiful sedge wet meadow that is protected in the open space, many glacial erratics – stones left scattered from the Ice Age – and remnants of farmland and stone wall demarcations of the past eras. The proposed townhomes are sited on a knoll with gentle slopes protecting the wetlands below. Wildlife and vegetation surveys are included in later sections. The slopes range from less than five percent (5%) to greater than 15% and are reflected in detail on later pages. Wetlands maps are included in later sections as well.

The site is currently zoned R1-160, a large lot single family residential classification typical of areas without sewers or public water near the reservoir. It allows for single family subdivision with a minimum lot size of 160,000 square feet (approximately four acres per lot). Figure A-4 shows the existing zoning of the project site and surrounding area, as shown in the Town's Comprehensive Plan.

Figure A-4

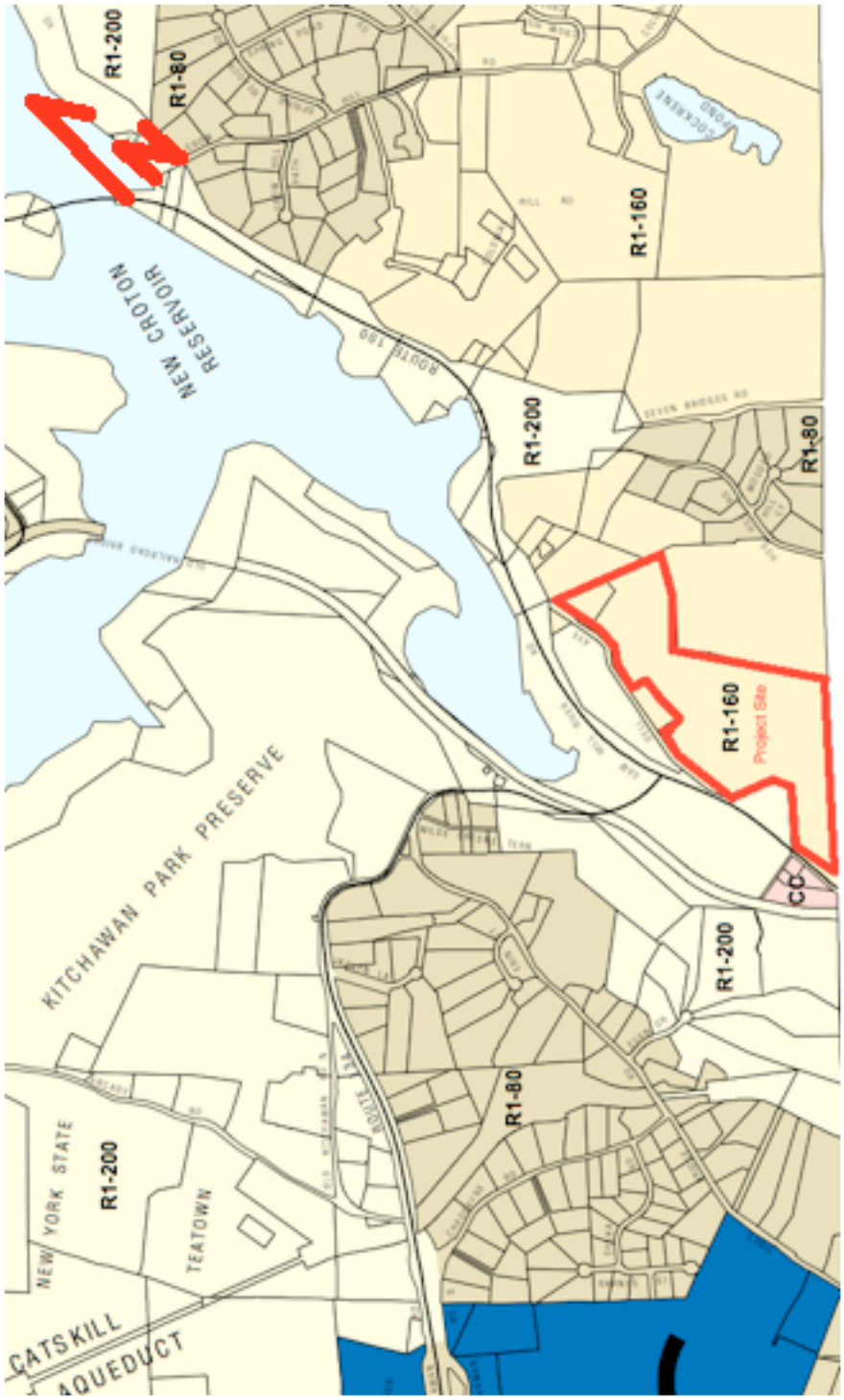

R1-200
R1-80
R1-160
NEW CROTON RESERVOIR
R1-200
R1-80
R1-160
Project Site
CC
KITCHAWAN PARK PRESERVE
R1-200
R1-80
NEW YORK STATE
R1-200
TEATOWN
CATSKILL
AQUEDUCT

Table 2-1: Single-family Residential (R1-10, R1-20, R1-40, R1-80, R1-160, & R1-200) from Yorktown Comprehensive Plan

Purpose*: To promote and protect single-family residential neighborhoods throughout Yorktown, with lots and houses in scale and in character with surrounding areas.*

Typical Land Uses *include single-family homes, as well as other compatible uses, such as schools. Charitable organization and places of worship will require special use standards.*

Design & Development Concepts
• Minimum lot size is the main distinguishing characteristic of each zone:
- R1-10: 20,000 sq. ft.
- R1-20: 20,000 sq. ft.
- R1-40: 40,000 sq. ft.
- R1-80: 80,000 sq. ft.
- R1-160: 160,000 sq. ft.
- R1-200: 200,000 sq. ft.
• Residential lots smaller than 40,000 sq. ft. in size should have sanitary sewer and public water service.
• All areas should be subject to natural resource protection requirements relating to wetlands, water bodies, steep slopes, tree clearing, etc.
• Supplementary standards should be revisited for compatible non-residential uses, such as larger minimum lot size, required location on collector or arterial roads, etc. to ensure proper fit with surrounding neighborhoods.
• Increased setback, building coverage, and impervious coverage requirements should be revisited for the R1-80, -160, and -200 zones.
• Floor area ratio limits should be considered in order to limit potential for McMansions.

The Yorktown Town Code, in §300-21, describes "as-of-right" uses for the R1-160 District to include the following:

- One single-family dwelling per lot
- Church, other place of worship, convents and rectories
- Public, elementary, and high schools

- Governmental use of the Town of Yorktown, NY, except incinerators or dumps
- Farms, farm uses, customary farm occupations, plant and tree nurseries and greenhouses in accordance with the provisions of §300-45, provided that no retail sales space greater than 500 square feet in area is maintained on the premises in connection with their use.
- Religious, charitable, and eleemosynary institutions
- Railroad stations and rights-of-way, but not including storage or freight yards.
- Private and public parks, parkways and recreation facilities, but not including a commercial facility.
- Deposit of waste material in accordance with the provisions §300-17.
- Extraction of stone, clay, sand and gravel or other natural resources for a noncommercial purpose in accordance with the provision of §300-177.
- Family day-care homes as defined herein.

The Residence Zone Standards for R1-160 district are summarized in Table A-1 below.

Table A-1 - Town of Yorktown – Residence Zone Standards for R1-160

Features	Required Minimum
Lot area (square feet)	160,000
Floor area ratio, usable (square feet)	-
Minimum site area (acres)	-
Lot width at main building line (feet)	200
Lot depth (feet)	200
Front yard (feet)	75
Side yard (feet)	
Main or accessory building, minimum either side	30
Two combined	80
Accessory building if in rear yard, min either side	10
Rear yard (year)	
Main building	75
Accessory building	10
Maximum height (feet)	
Main building	35
Accessory building or structure	15
Minimum useable floor area of dwelling (square ft)	1200
Maximum building coverage (all buildings)	10%
required off-street parking spaces per dwelling unit	4
Road frontage (feet)	200

The project property abuts on Dell Avenue to the West, which experiences little to no traffic on a regular basis. Before the construction of Rt 100, Dell Ave was used as a major roadway in the area. Currently, Dell Avenue is seldom used and poorly maintained. Past Dell Avenue to the West lays a utility easement of high tension power lines owned by Con Edison. Past the power lines to the West lays Rt 100 Saw Mill River Road, which experiences high volumes of traffic on a regular basis.

Land abutting the site to the west and north is zoned R1-200, permitting single-family residential use with a minimum lot size of 200,000 square feet (approximately 5 acres). Land abutting the site to the east is zoned R1-160, the same as the project site.

2. Potential Impacts

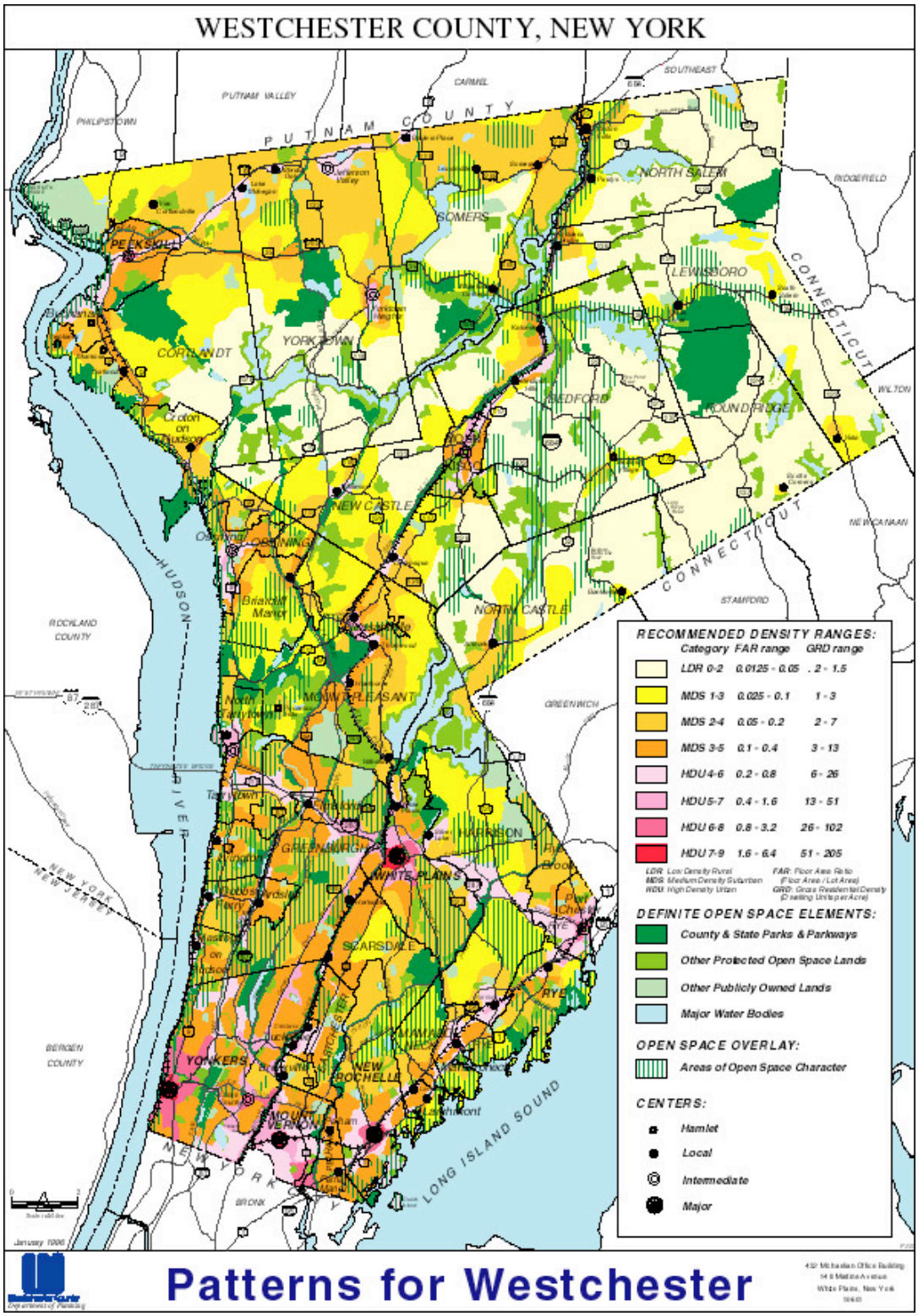
Compatibility of Subdivision with Area-Wide Planning

Westchester County's Patterns for Westchester "is dedicated to sustainable development which balances economic and environmental concerns and serves the needs of the changing population". The project site is located in the portion of the Town of Yorktown that is classified as a Low Density Rural Area (LDR 0-2), which is described as having the lowest recommended density range, excluding open space elements of the Patterns for Westchester density map. LDR areas include hamlets, however, the primary use is single family residential and the majority of Westchester's undeveloped land and its remaining farms are located here. Surrounding existing land uses in the same LDR 0-2 zoning include the previously mentioned Traveler's Inn restaurant, the industrial complex to the south of the project, and the multifamily home and residential housing to the north of the project.

The recommended gross residential density (dwelling units per acre) for LDR 0-2, according to Patterns, is 0.2-1.5 dwelling units per acre. The density of the proposed project would be about 1.15 dwelling units per acre, which falls well within the recommended density for LDR 0-2 designations. As such, the 70 proposed units will be constructed on the 62.76 acre site. In addition to the proposed project meeting the recommended density for the LDR 0-2 designation, the majority of the project will remain undisturbed as open space.

"Patterns" recognizes that a variety of housing is important to a local economy. The proposed action, when completed, would add to the variety of housing available within the Town of Yorktown and in the vicinity of the smaller nearby centers, such as Millwood, Yorktown Heights, and Crompond. As such, the Croton Overlook development would follow suit with the goals and recommendations set forth by Patterns by constructing new development that adds to the variety of housing to the smaller centers and within the Town of Yorktown.

Figure A-5


WESTCHESTER COUNTY, NEW YORK
PUTNAM COUNTY
CONNECTICUT
HUDSON RIVER
LONG ISLAND SOUND
NEW YORK
NEW JERSEY
RECOMMENDED DENSITY RANGES:
Category FAR range GRD range
LDR 0-2 0.0125 - 0.05 .2 - 1.5
MDS 1-3 0.025 - 0.1 1 - 3
MDS 2-4 0.05 - 0.2 2 - 7
MDS 3-5 0.1 - 0.4 3 - 13
HDU 4-6 0.2 - 0.8 6 - 26
HDU 5-7 0.4 - 1.6 13 - 51
HDU 6-8 0.8 - 3.2 26 - 102
HDU 7-9 1.6 - 6.4 51 - 205
DEFINITE OPEN SPACE ELEMENTS:
County & State Parks & Parkways
Other Protected Open Space Lands
Other Publicly Owned Lands
Major Water Bodies
OPEN SPACE OVERLAY:
Areas of Open Space Character
CENTERS:
Hamlet
Local
Intermediate
Major
Patterns for Westchester

Compliance with the Yorktown Comprehensive Plan

Throughout the Town of Yorktown Comprehensive Plan – June 15th, 2010, there are many instances of objectives for the Town of Yorktown that are met or in-line with the objectives of the proposed Croton Overlook Community.

Goal 2-A under Chapter 2 – Land Use, reads "Provide for low-density development and preserve open space throughout Yorktown's residential neighborhoods, as discussed in Chapter 5, in a manner consistent with community character". The density of the proposed project would be about 1.15 dwelling units per acre, which falls well within the recommended density for Low Density Residential 0-2 designations. In addition, approximately 82% of the 64 acre project site will remain as deed restricted and undisturbed open space.

Goal 2-F under Chapter 2 – Land Use, reads "Promote housing for people in all stages of life, from young adults and couples, to families with children, to seniors". The Croton Overlook Community is a proposed 55 and over active adult community, and as such promotes housing for a specific demographic in the community of Yorktown. Surrounding areas of development accommodate the need for other demographics in the community of Yorktown. Specifically, the second paragraph from Section 5.3 – Overview of Housing & Quality of Life from Chapter – Housing & Neighborhood Quality of Life, reads "Yorktown currently has a wide range of housing types (single-family homes, apartments, condos, senior housing, accessory apartments, townhouses, etc."

Policy 2-4 from Chapter 2 – Land Use, reads "Monitor future development and population trends, and regularly update the Land Use and Plan and Comprehensive Plan. As new development occurs, portions of the Land Use Plan may no longer make sense, or new ideas may spring forth. The Town should regularly reevaluate and update the Plan, so that it remains current and relevant. The Town should establish a reasonable time horizon for a comprehensive update." The benefits to the town presented by this project are numerous, including but not limited to taxes to fund community facilities and schools. As such, a need for the Croton Overlook Community should be recognized by the Town of Yorktown.

Table 2-4 – Senior Independent Living (RSP-1) in Chapter 2 – Land Use, states the purpose of RSP-1 designations as "To provide opportunities for senior citizens to find appropriately sized housing units for their years as empty nesters and young retirees. This zone helps to meet the growing demand among retirees and seniors for

age-restricted housing, where they can live in greater tranquility with other people of the same age and in an environment more tailored to their needs". This paragraph clearly states and recognizes the growing demand among retirees and seniors of age-restricted housing. Over 1/4th of Yorktown's populations and over 1/4th of Westchester County's population is of the age 55 and over, as further discussed in the Community Growth and Character Section of this EIS.

A paragraph in Section 5.3 – Overview of Housing & Quality of Life from Chapter – Housing & Neighborhood Quality of Life, reads, "Yorktown's "Quality of Life" consists of all of those characteristics that make it an attractive place to live: beautiful homes, streets, and trees; abundant parks and open space; the ability to have peace and quiet at home; good utilities and services; remnants of its rural heritage; etc". The applicant has shown copious effort in making sure the proposed Croton Overlook Community will be consist with Yorktown's Quality of Life. The proposed relocation of Dell Avenue will be far more aesthetically pleasing than the existing washed out and poorly maintained Dell Avenue. The site will feature landscaping and plantings of indigenous species to preserve the natural beauty and health of the surrounding ecosystem. The homes will feature high-end finishes with beautiful architecture, subjected to ABACA review, consistent with surrounding community character. As previously mentioned, approximately 82% of the 64 acre site will remain as deed restricted open space, featuring various forms of passive recreation for citizens of Croton Overlook.

From the Observations of Realtors section of Chapter 5 – Housing & Neighborhood Quality of Life: "The supply of townhouse units, condos, apartments, and senior housing is limited. Some of the demand goes unmet. Empty-nesters often want to downsize, but have limited options for housing in town." The Croton Overlook Community is specifically marketed to "empty-nesters" as it is an active adult 55 and over community.

From the National Trends & Standards section of Chapter 9 – Parks & Recreation: "In order by participation level, the most popular forms of recreational activity (i.e., with the greatest number of participants) are: walking as exercise, swimming, exercise with equipment, bicycle riding, golf, camping, bowling, hiking, fishing (fresh water), basketball, and aerobic exercise." The proposed Croton Overlook Community will feature over 1.8 miles of wooded trails for walking, jogging, bicycling, and hiking. Additionally, the project site is only a tenth of a mile from the Croton Reservoir, where residents could fish or boat. The 52.48

acres of deed restricted open space on site can be used for a variety of other passive recreational activities.

From the Open Space Preservation & Sustainable Development section of Recommendations in the Executive Summary: "promote energy conservation and "green" buildings". The proposed Croton Overlook homes will be constructed with a variety of environmentally responsible and green features. These proposed features will include, wherever feasible: geothermal heating and cooling, using recycled building materials, natural ventilation, solar panels, renewable lumber, sustainable community design. Many green practices will also be utilized during the construction process, including, wherever feasible: recycled on-site materials, open water ponds and wetlands creation, community gardens, native tree and vegetation plantings, community composting, and storm water collection.

Compliance with the Westchester 2025 document

In the County of Westchester's planning document Westchester 2025, the Page 4, Item 8: Housing demand, states that communities must create more "livable" neighborhoods for our aging population that feature transit-oriented development. The proposed Croton Overlook Development, being an Age Oriented Community, would provide an excellent addition to the town to accommodate for the aging population while providing a variety of nearby public transportation options. The Bee Line Bus System runs the number 17 line along the Taconic approximately 2 miles west of the site, and number 19 line runs along Bedford Rd approximately 3 miles east of the site. Other public transportation in close proximity to the site includes the Hudson Rail Line and the Harlem Line. The Hudson Rail Line runs North and South along the Hudson River, and the nearest stop is located in Ossining NY. The Harlem Line runs for New York City to eastern Duchess County. These public transportation routes typically have commuter lots available for parking and are approximately 2.5 miles away from the site, one to the East and one to the West. As for walkability of the project, the North County Trailway is adjacent to the property. A short walk along this scenic trail will bring you to the Hamlet of Millwood, which has a super market, a pharmacy, various restaurants, a hardware store, a delicatessen, and gas stations. Immediately across Rt 100 within walking distance is Traveler's Rest, a German restaurant.

The vision statement from the Town Comprehensive Plan for Parks and Recreation states: " Parks and recreational facilities should provide Yorktown residents with a diverse range of recreational opportunities, from exercise to team sports, to experiencing the

natural environment. They should contribute to community character and quality of life and should be coordinated with efforts to provide natural resources and scenic landscapes." Croton Overlook certainly comports with this vision with its approximately 48 acres of deed restricted open space which will protect the natural resources of the open space while showcasing the scenic landscapes.

The following is an exert from the Recreation section of the Town Comprehensive Plan: "Goal 9-A: Provide safe, attractive, and well-maintained parks and recreational facilities of adequate number and size that contribute to a high quality of life for Yorktown residents. Goal 9-B: Provide plentiful opportunities for both active and passive recreation in Yorktown and continue to surpass national parkland standards. Goal 9-C: Provide plentiful opportunities for both active and passive recreation in Yorktown and continue to surpass national parkland standards. Goal 9-H: Ensure that parks and recreational facilities are expanded or improved over time to reflect changes in demographic trends, recreational interests, or facility use patterns. Goals 9-I: Coordinate park planning with initiatives for open space preservation and natural resources conservation." The proposal set forth by Croton Overlook clearly features all of these aspects in its plan of development. From community gardens to meditation areas to large untouched open space and picnic areas, it is abundantly clear that this development meets all of these goals.

The following is an exert from the Overview of the Recreation Section in the Town Comprehensive Plan: "Yorktown has an abundant supply of parkland, exceeding national standards for park acreage. In the future, enhancing recreational opportunities will not be primarily about setting aside more land for recreational purposes, but about making strategic improvements that make the park system responsive to demographic shifts. According to national standards, the town needs a mix of different types of parks: small pocket parks within walking distance of their houses…"

These overviews align perfectly with Croton Overlook's view of its recreation areas, as the median age in the town and county increase the need for passive recreation and pocket parks grows. One could say all of Croton Overlook's open space is one large pocket park complete with active passive recreation. Additionally, Croton Overlook is situated just across the street from the North County Trailway and Kitchawan Preserve on the Croton Reservoir.

The following is an exert from the vision statement for Scenic and Historic Preservation in the Yorktown Comprehensive Plan: "Yorktown has a distinctive scenic and historic character, comprised

of farmland, woodlands, lakes and streams, historic structures and sites, and unique natural resource areas like the Croton Reservoir. These characteristics contribute to Yorktown's unique character and help make the Town an attractive place to live, work and play. Yorktown's scenic and historic resources should be protected and carried forward into the Town's future."

It was with this concept of scenic and historic beauty that Croton Overlook designed this project. Leaving acres of open space, as many stone walls untouched as possible, and predominantly all of the site's natural and historic resources untouched.

The following is an exert from the Historic section of the Yorktown Comprehensive Plan: "Goal 6-A: Preserve the unique character, heritage, and identity of Yorktown for the benefit of future generations, by protecting historic sites, historic districts, and scenic corridors. Goal 6-C: Work with private property owners, residents, and local, County, and State organizations to continuously identify, document, and preserve historic sites and districts."

In order to determine if any historic sites were present at the project location, Croton Overlook performed a Phase 1A and B Archeological survey of the site. No such sites were found, and the full survey is located in the Appendix item Q.

While there is no specific section in the Town's Comprehensive Plan for culture, it flows through the entire document and is summarized in the introduction: "Yorktown is a diverse community that encompasses many landscapes: the Croton Reservoir and Mohegan Lake; the Jefferson Valley Mall, one of the largest retail centers in the County; the Teatown Lake Reservation, Turkey Mountain, and FDR Park; athletic fields of all kinds, the Shrub Oak pool and the Yorktown Community and Cultural Center; old stone walls; extensive hiking paths and the North County Trail way; historic sites and districts dating to the Revolutionary War; two fire districts; four school districts; five commercial hamlet centers; and 12 distinct residential neighborhoods, each with its own unique character and identity.

Yet Yorktown is more than just the sum of its parts. With a vibrant civic and cultural life; one of the most frequently visited libraries in the County; many sporting clubs; a dynamic Chamber of Commerce; active neighborhood and homeowner's associations; dedicated religious leaders, teachers, police officers, fire fighters, and volunteers; and multi-generational facilities like the YCCC, Yorktown has a rich quality of life."

The development of Croton Overlook will merge seamlessly with the cultural aspects of Yorktown given its desire to maintain the values and character of the town.

The following is an exert from the vision statement for Scenic and Historic Preservation in the Yorktown Comprehensive Plan: "Yorktown has a distinctive scenic and historic character, comprised of farmland, woodlands, lakes and streams, historic structures and sites, and unique natural resource areas like the Croton Reservoir. These characteristics contribute to Yorktown's unique character and help make the Town an attractive place to live, work, and play. Yorktown's scenic and historic resources should be protected and carried forward into the Town's future."

It was with this concept of scenic and historic beauty that Croton Overlook designed this project. Leaving acres of open space, as many stone walls untouched as possible, and predominantly all of the site's natural and historic resources untouched. The scenic beauty is one of the main strengths of Croton Overlook.

The following is an exert from goals of the Scenic section of the Yorktown Comprehensive Plan: "Goal 6-F: Ensure visual compatibility between new development and nearby historic sites and districts."

Croton Overlook was aware from the start that visual compatibility and resources are of a primary importance to the town. It was with this in mind that a full-scale visual resource assessment report is available in Appendix C. To sum up this report, there will be no visibility from any of the historic, culturally significant or nearby homes or roads.

The follow is an exert from the overview of the Scenic section of the Town's Comprehensive Plan: "Through the topography and natural features of its landscape, from wetlands and woodlands, to farms and meadows, to hills and slopes, Yorktown has a valuable scenic beauty and retains important elements of its rural character."

Again, starting with the designed lack of visibility and continuing this thread through the site design and even into the design of the homes, Croton Overlook has strived to maintain the highest level of sophisticated harmony with the beauty of the surroundings.

The following is an exert from the vision statement from the Community Facilities and Services section of the Town Comprehensive Plan: "Community facilities and services should protect public safety and enhance Yorktown's quality of life. They should be improved and/or expanded to meet growing needs, and

they should be provided in a cost effective manner. The Town's cultural and community facilities should help build a rich civic life for all Yorktown residents to enjoy."

As further discussed in the Community Facilities section of the DEIS, the proposed Croton Overlook community will add substantial taxes to support and benefit all community facilities and services.

Compatibility of Subdivision with Adjacent Land Use

The Croton Overlook community will consist of 70 residential fee simple duplex units on individual lots, 1 additional lot, containing approximately 44 acres of open space, which will be owned and maintained by the development's Home Owners Association (HOA) and 1 lot consisting of the Wastewater Treatment System with a subsurface infiltration area. This subsurface infiltration area will be operated and maintained by a public transportation company, which is also owned by the Home Owners Association. The open space area will be deed restricted, serving as an active and passive recreational resource for Croton Overlook residents. All units are proposed as age restricted to 55 and older, and are two-bedroom units. All parking spaces will be from the two-car garages, totaling at 140 spaces. Stormwater management facilities will be provided for the treatment of stormwater from paved areas and other impervious surfaces.

The proposed residential buildings, which are intended to include sensitive building architectural designs, varied roof lines, and earth tone colors, would be centrally located on site. Access will be provided from entrances on both ends of Dell Avenue.

A full set of engineered site plans, attached in Appendix G., shows proposed locations for the access roads, driveways, lot lines, trees and buffer plantings for this development. The proposed development will only occupy a final disturbed area of 11.98 acres of the entire 64 acre project site. This 11.98 acres is located along the western side of the site, which abuts the existing Dell Avenue and a high tension power line utility easement. As previously stated, residences lie to the north, south, and west of the property. There will be significant open space, which will act as a buffer, between proposed 11.98 acre community and the surrounding residences. As such, there will be no impact to the adjacent land use from the proposed community

Examples of nearby commercial land use include Pogact Excavating, located adjacent to the south-eastern portion of the project site, and the Con-Edison high tensions power lines, located adjacent to the north-eastern portion of the site. Additionally a commercial horse

stable lies on Old Kitchawan Rd, while both a commercial farm and the Hand Institute, a chemical research center, lie on Rt 134, all in close proximity of the project site.

Overall, the proposed action is compatible with surrounding land use pattern in the vicinity of the project site. As described above, the study area consists of a mixture of land uses including undeveloped property, a utility easement, and a residential development.

Zone Change Request

This property stands alone among surrounding properties and is isolated from other housing developments and other uses in the vicinity. In order for the project to be developed the applicant has submitted a petition dated June 10, 2010 asking the Yorktown Town Board to consider amending the zoning classification of the site to RSP-1, Senior Independent Living. As described in the Yorktown Comprehensive Plan:

> ***Senior Independent Living (RSP-1)***
>
> ***Purpose****: To provide opportunities for senior citizens to find appropriately sized housing units for their years as empty nesters and young retirees. This zone helps to meet the growing demand among retirees and seniors for age-restricted housing, where they can live in greater tranquility with other people of the same age and in an environment more tailored to their needs.*
>
> ***Typical Land Uses*** *include two-family homes and townhouses for independent senior living (age-restricted).*
>
> ***Design & Development Concepts***
> *• Campus-like layout, forming a complete village or community*
> *• Large minimum tract size.*
> *• Significant open space requirement with woodland buffers along street frontage(s) and adjacent to single-family residential zones.*
> *• Maximum density: 12 units per acre after open space set-aside*
> *• All residential units should have sanitary sewer and public water service.*
> *• All areas should be subject to natural resource protection requirements relating to wetlands, water bodies, steep slopes, tree clearing, etc.*
>
> *(LAND USE Town of Yorktown Comprehensive Plan,* ***Table 2-4)***

The request for rezoning is consistent with the goals of the Comprehensive Plan to have Yorktown remain primarily a residential community of diverse housing options and ample open space preserves. The development proposes to construct 35 duplex structures yielding 70 individual units of age-restricted (55 and older) housing on 64 acres offered as fee simple townhouses, with

each individual owning his or her property. The developed portion of the property would be on approximately 19 acres, with the remaining 45 acres dedicated as open space. A separate lot is to be dedicated for the waste water treatment facility.

In the applicant's opinion the development will have a lesser impact on the property than would a spread out single family residential subdivision of four acres each. By grouping the homes together with a joined roadway, shared wastewater treatment plant, shared stormwater attenuation and public water supply, the amended zone will provide for a type of housing currently unavailable in this section of the Town as well as minimizing the environmental impacts.

The design of the project takes into consideration the topographic characteristics of the site and the applicant will work with a landscape architect to accentuate the site's assets. Limiting the development to a portion of the site with a smaller per unit footprint and dedicating a larger portion of the site to protected open space works to both the future residents and Town's advantage.

As already noted, the zoning for the 62.76 acre site is currently R1-160, four acre residential. Arguably, the single family conventional layout of R1-160 will sprawl over the property presenting greater impacts than the configuration for subdivision presented in this proposal. The project calls for a rezoning action to enable RSP-1, senior independent living. Thirty-five duplex units, (70 homes) are proposed, which is about 1.15 dwelling units per acre, well within the parameters established for low density rural area zoning by Westchester County's Patterns map, which notes 2 to 1.5 dwellings units per acre meets the low density designation.

The recently adopted Comprehensive Plan for Yorktown, as well as Westchester County's current planning initiative Westchester 2025, highlight the desire to provide a diversity of housing opportunities for residents with a strong emphasis on preserving the natural environment. Croton Overlook seeks to meet this goal with an emphasis on protecting the natural contours, forested lands and habitat of the 62.76 acres that comprise the project site. Forty-four (44) acres of the project are to be set aside as permanent open space with the 35 fee simple duplex units to be cradled in the remaining property along with a single lot dedicated to the onsite wastewater treatment system and two (2) lots set aside for stormwater mitigation.

As Westchester's population ages there is continued need for residents to find homes that meet their lifestyle requirements without the high maintenance issues associated with owning a single family home. In a duplex environment the Homeowner's Association manages the larger capital improvements and routine maintenance on the property. Individuals and couples have an instant community and the proximity of close neighbors that often provides a sense of safety and well being, especially for those on their own. It is anticipated that many of the residents will have lived in single family homes in the nearby vicinity and will choose to move to Croton Overlook as their children graduate and the larger home and yard become less desirable.

As previously stated, the project site currently falls into the R1-160 zone, single family residential with roughly a 4 acre minimum lot size. The applicant is seeking a Zoning Map change for the property to an RSP-1 district, an Age Oriented Community restricted to citizens 55 years of age or older. This zone change is necessary to accommodate the type of housing community and amenities proposed in the Croton Overlook Development Conceptual Subdivision Site Plan. As the County's population ages, individuals and couples aged 55 and over choose to down-size and thus, a demand for this type of housing exists within the Town and County. As previously stated, the Yorktown Comprehensive Plan – July 15, 2010 - Table 2-4 – Senior Independent Living (RSP-1) in Chapter 2 – Land Use, "This (RSP-1) zone helps to meet the growing demand among retirees and seniors for age-restricted housing, where they can live in greater tranquility with other people of the same age and in an environment more tailored to their needs"

The Yorktown Town Code § 300-127 E requires that for RSP-1 Zones "for each proposed dwelling unit, there shall be a minimum of 40 square feet of floor space constructed for accessory uses. Of the required minimum accessory floor space, not more than ½ of such space may be composed of private garage space." There are 70 proposed units, resulting in 2,800 square feet of floor space for accessory buildings required. All of the proposed units will feature garages, and as such this reduces the required accessory building floor space of the development to 1,400 square feet. The proposed on-site Wastewater Treatment Facility will be contained in a 30 ft by 50 ft building, totaling at 1,500 square feet of accessory floor space. The accessory floor requirements of RSP-1 zoning will thereby be met through garages and the on-site WTP.

The Residence Zone Standards for RSP-1 district are summarized in Table A-1 below.

Table A-2 - Town of Yorktown – Residence Zone Standards for RSP-1

Features	Required Minimum
Lot area (square feet)	-
Minimum site area (acres)	15
Lot depth (feet)	200
Front yard (feet)	40
Maximum height (feet)	
Main building	35
Minimum useable floor area of dwelling (square ft)	750
required off-street parking spaces per dwelling unit	2
Road frontage (feet)	40

The impacts from existing zoning are more full described in Chapter V – Alternatives of this document. Given the impacts from the R1-160 Zoning Compliant Conventional Development alternative, this is not a practical alternative. As confirmed in a letter from the Yorktown Conservation Board, the proposed RSP-1 zone represents a more desirable use of this property than R1-160 zoning. R1-160 zoning would allow big houses with big lawns, more fertilizer and septic systems spread across the entire area. RSP-1 zoning would concentrate potential environmental impacts in such a way as to preserve more of the sensitive environmental features of the site.

Legal Basis

Croton Overlook's Occupancy Rules for Senior Units are based on and authorized by the federal Housing for Older Persons Act ("HOPA") and the New York State Human Rights Law, both of which exempt certain housing restricted to ages 55 and older from prohibition on discrimination due to familial status set forth in the Federal Fair Housing Act ("FHA") and in the New York State Human Rights Law. Housing facilities or communities may thus legally restrict occupancy to ages 55 and older and prohibit school-age children as long as the community qualifies as "housing for older persons" as a 55 and older community, which requires that (a) at least one person who is 55 or older occupy at least 80% of the occupied units; and (b) the residential community demonstrate an intent to house persons who are 55 or older pursuant to HOPA and its implementing regulations.

In addition, the Applicant intends to place deed restrictions relative to age of the residents for the proposed development.

Context and Public Policy

As noted earlier the project site is located off Dell Avenue in the Town of Yorktown, Westchester County. New York. It is situated south of the New Croton Reservoir and south and east of NYS Route 100, as well as the juncture of NYS Routes 134 and 100. It lies east of Cornell Brook. Croton Overlook is bordered by a large residential estate to the southeast, from which the property was subdivided. It is closest to Traveler's Rest restaurant and Pogact Excavating Company. IBM – Thomas J. Watson Research Center is about one mile away on Route 134.

It is in an area marked by institutional and commercial uses on the major roads, including several churches a few miles away on both Route 100 and Route 134. It is not in a typical Yorktown neighborhood with many surrounding homes that would be impacted by this development. The property is physically separated from most everything due to its topography, proximity to the power lines and a state highway, which create in essence a three tiered boundary limiting impacts.

The proposed development is easily accessible by major highways and roadways including interstate 684, Katonah exit; the Taconic Parkway, Millwood, Pines Bridge and Route 134 exits; the Saw Mill River Parkway, both the Katonah and Chappaqua exits and, as referred to earlier, it is sited along a major state thoroughfare, Route 100, near its juncture with State Route 134.

The development proposal, in the Applicant's opinion, would be an asset to the local area, providing a housing subset that is not found nearby and that would support the local area. The development is nestled in a bucolic setting that as an RSP-1 will "provide opportunities for senior citizens to find appropriately sized housing units for their years as empty nesters and young retirees." (Draft Comprehensive Plan; 2-11). There will be no additional school children as a result of the proposed development and it is anticipated Croton Overlook will result in the generation of approximately

$1,095,174.68 in gross tax revenue, as well as important other contributions to the Yorktown community.

Significantly the project will fulfill a recognized dearth of housing for the seniors within the community.

Yorktown's 40 square miles encompass high and low density residential housing, several office campuses, five business hamlets, and a high proportion of open space. The proposed site for Croton Overlook in the southeast quadrant of the town, has the versatility to nestle clustered housing into a verdant setting while preserving wetlands, slopes, view sheds and watersheds as well as to bring road improvements to the existing rough cut Dell Avenue Once targeted by the Town as a future location for an office campus use, the lands used by Croton Overlook incorporates a campus-like atmosphere into the proposed housing development.

Environmentally, the plan seeks to leave the property's wetlands intact and avoid sensitive steep slope areas. As stated earlier, the majority of the property will be dedicated open space. Yorktown has a deeply imbedded wish to preserve its open space while still providing homes and opportunities for business to thrive within its community. This project meets the community's goals and helps to further them, including protection of natural resources, creation of housing stock diversity and enhanced collection of tax revenues.

Age Restriction versus Market Rate Homes

Recent developments in the vicinity of the project, which were originally zoned as RSP-1, have sold units as market rate. This is due to fair and affordable housing laws which allows a certain percentage of homes to sell as market rate units despite age restrictions. As opposed to the 55 and older age restricted units in RSP-1 zoning, market rate homes allow for families with children. Adding a significant number of children to the town will increase the attendance at local schools, and has the potential for undesirable tax implications.

Because the Croton Overlook project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur, the plan was rezoned, and children were allowed in the community, the children's school taxes are being paid for; therefore, this would have no financial impact on the Town of Yorktown.

Furthermore, the town code does not allow for children in the proposed RSP-1 zoning. Croton Overlook is taking further steps to ensure that children will not reside in this development by placing covenants and restrictions within the homeowners associates bylaws and placing restrictions on the individual property's deed.

Furthermore, the Croton Overlook units are not appealing to families with children. The units will have 2 bedrooms, which is not conducive to any family other than empty nesters, to which the units are marketed, or possibly young newly married couples. These young newly married couples may potentially have 1 child, who would most likely be below the age where they would enter public school. Therefore, the families these units are conducive to will not have any impact on school taxes.

It should also be noted that a project similar in location and scope, Glassbury Court at Hunter Brook, has sold out almost all of its units. The Glassbury Court is an adult community, 55 and older, located in Cortlandt Manor, NY. This community provides a luxury townhouse condominium community with 64-carriage style homes. That a similar number of homes, marketed to the same population, in a similar area, could sell out, demonstrates a need for this type of housing in the community.

Age Restriction vs Market Rate homes is further discussed in the Fiscal & Socioeconomic Impacts Section and the Alternatives Chapter of this EIS.

3. Proposed Mitigation

Land use mitigation measures are incorporated into the design and layout of the proposed Croton Overlook development. The proposed buildings would be built in a centralized location on site in order to avoid sensitive natural areas such as wetlands and steep slopes, as well as to minimize exposure to off-site views of the proposed development. By constructing the units at a centralized location near the western side of the property and leaving the majority of the property as open space, the development complies with the low density requirements while concurrently not sprawling the units across the property. The architecture of the residential buildings includes varied roof lines, and the use of earth tone colors. In addition, an earthen berm and planted vegetation will provide effective screening from off-site views of the proposed development, as described in Section B. Visual Resources.

The project design includes the preservation of existing trees and natural buffers in the majority of the site (outside of the 11.98 acres of proposed development area). Landscaping will be provided throughout the development and include street trees and buffer plantings. The majority of stone walls would be retained on the project site.

Please refer to Section G. Construction Impacts, for type, operation, and maintenance of construction and site maintenance equipment.

B. Visual Resources

1. Existing Conditions

The project site is situated south of the New Croton Reservoir, east of Cornell Brook, and east of intersection of NYS Route 134 and Rt 100.

The area is a varied collection of zones. The property is bounded on the east by a single estate. To the west the area is intersected by high-power transmission lines. Further westward from the site is Rt 100, a 55 mph major North-South highway carrying 8,100 vehicles per day. Rt 134 connects to Rt 100 at a perpendicular angle, adjacent to the property. Rt 134 is a 40 mph state roadway carrying approximately 4,500 vehicles per day. West of Rt 100 is a commercial zone including the restaurant Traveler's Rest. Southwest of Traveler's Rest is an industrial complex, Pogact Exacavating, that crushes rock and processes soil into landscape product, houses all manner of trucks and heavy equipment, and performs retail sales to the public. To the south of the site is residential housing. Adjacent to the project to the north is a multifamily house and general residential. The hamlet of Millwood in the Town of New Castle lies rough 1.3 miles to the south of the project site. Surrounding land features intervening woodland cover.

The developed land to the North and East of the site, an estate and residential housing, has no view of the site due to the existing woodland vegetation and topography. As the topography and woodland vegetation of this section of the site will remain undisturbed, there are no anticipated impacts in this area. Due to this topography, the site is only partially visible to West and South, where the view is still mostly obscured by vegetation.

Currently, the majority of the site is heavily wooded with a mix of large deciduous trees and a mixed understory of small trees and herbaceous cover. The rolling terrain in the vicinity of the site contains hilltops and valleys of similar elevations to the project site. Thus, the topography of the local region eliminates most potential views of the project, with only particular points having visibility of the proposed project.

A visual resource field survey was conducted in December of 2010. This survey was conducted to identify locations where the project site may be visible from roads and properties with public access, and to

describe the factors limiting the visibility of the site, including topography, vegetation, alignment of roads and buildings. The locations determined in the survey were analyzed in conjunction with the locations recommended by methodology in the New York State Department of Environmental Conservation guidelines in their document "Assessing and Mitigating Visual Impacts".

Figures B-1, B-2 and B-3. show photographs from the proposed Limit of Disturbance (LOD) facing South, East, and North. As previously discussed, the Western LOD abuts the existing Dell Ave followed by a high tension power line utility easement. There will be no impact to the high tension power lines from the proposed project, and as such no pictures were taken facing West from the LOD taken from determined areas of potential visual impact. Pictures from the LOD were taken during leaf-off conditions, when possible visibility of the project from adjacent land uses is greatest. During leaf-on conditions, visibility will be greatly decreased. As is depicted in the pictures, there are no views of the project to or from Southern, Eastern, and Northern adjacent land uses.

Figure B-1 - Southern Limit of Disturbance facing Random Farms

Figure B-2 - Eastern LOD facing adjacent estate

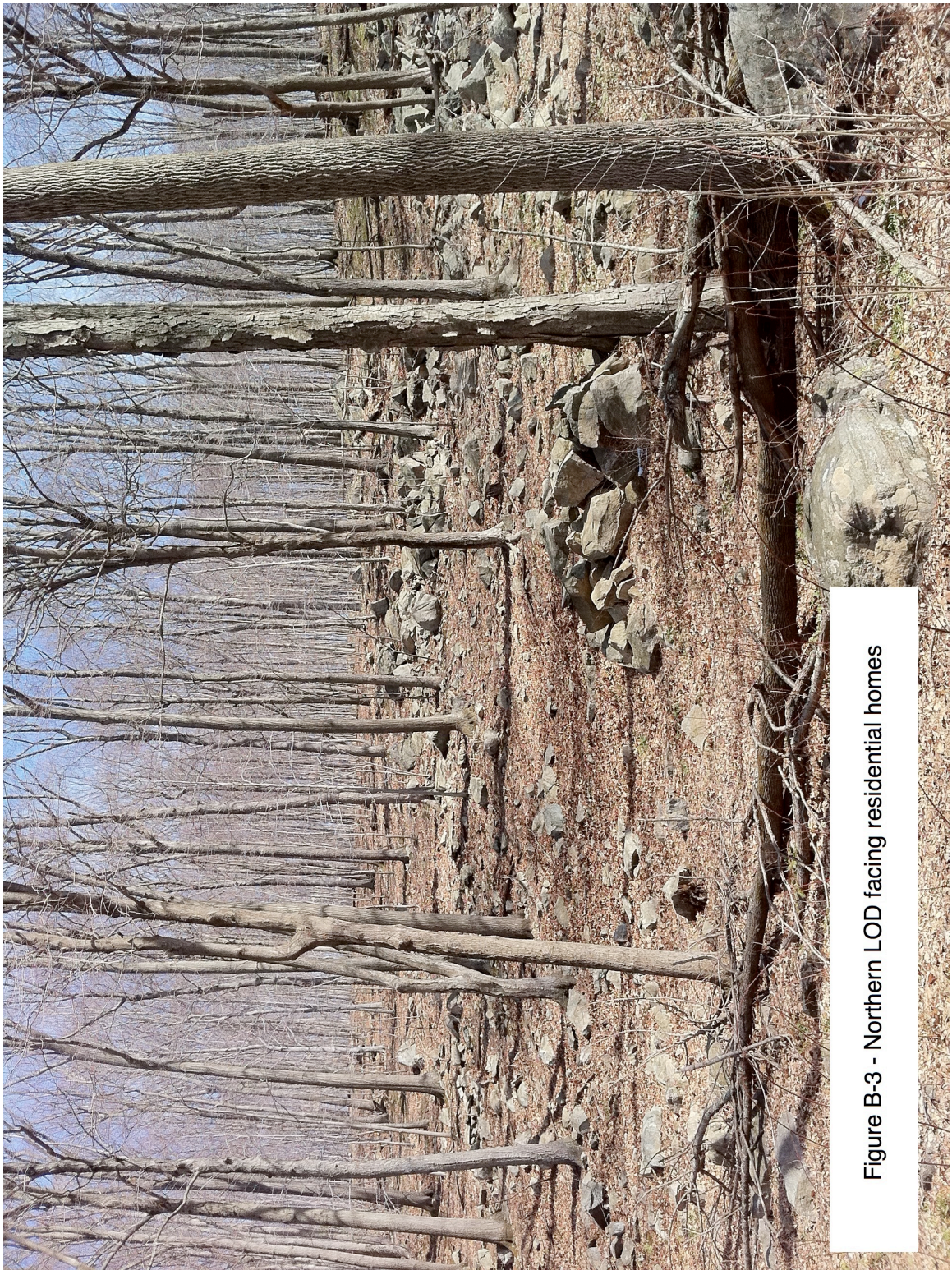


Figure B-3 - Northern LOD facing residential homes

Line of sight profiles have been prepared to illustrate the topographic character of the site area. The sight line figures are drawn to scale and depict actual ground line profile, as well as proposed grading, along the lines of sight from specific viewpoints in the site vicinity. These line of site sections and plan views are included in the Visual Resource Assessment attached in Appendix C.

2. Potential Impacts

A Visual Resource Assessment, which follows the New York State Department of Environmental Conservation guidelines in their document "Assessing and Mitigating Visual Impacts", has been prepared and attached in the Appendices. In addition, Chapter 6: Scenic & Historic Preservation of the Town of Yorktown Comprehensive Plan, adopted June 15, 2010, was consulted, and all locations designated as scenic resources and listed in Table 6-2 in that document were examined for potential impacts. Scenic resources in Table 6-2 of the Comprehensive Plan which are greater than 5 miles in distance from the project site or which existing topography significantly blocks a view of the project site, were not included in the report. The following sensitive off-site areas where views could be impacted were analyzed: the Taconic State Parkway, Turkey Mountain Hill, Hilltop Hanover Farm, Kitchawan Preserve, the nearby public bike trail, Hanover Road, Rt 118, the point at which the development first becomes visible along Rt 134, and Rt 100.

View from Taconic State Parkway

The Taconic State Parkway is a long winding scenic byway that stretches from Kenisco Dam to Chatham. The highway was listed on the National Register of Historic Places in 2005. The Taconic State Parkway runs west of the project site, and lays approximately 1.5 miles away at its closest proximity to the proposed area of disturbance.

A line of site profile was prepared to show the potential visibility of the project site from the Taconic State Parkway. As drivers pass the site going either north or south on the Taconic State Parkway, they would have distant views of the proposed roofline, if mitigation practices were not employed. The existing topographic knolls block most views to the site. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees.

View from Turkey Mountain

Turkey Mountain is approximately 125 acres of land located on a land reserve and is currently maintained by the Yorktown Land Trust. Turkey Mountain Hill lies to the northwest of the project site, and its highest peak lies approximately 2.5 miles away to the proposed area of disturbance. Turkey Mountain is the highest point in Westchester County, though the topography only permits clear views of the Taconic Parkway and Croton Reservoir.

A line of site profile was prepared to show the potential visibility of the project site from Turkey Mountain Hill. As you can see from photographs, taken from the highest elevation on the hill looking towards the project, in the attached Visual Resource Assessment, there is no clear view of the site through the dense vegetation. It is possible that without the proposed earthen berm and plantings, distant views of rooflines could be seen from Turkey Mountain Hill. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees.

View from Hilltop Hanover Farm

Hilltop Hanover Farm is a working crop farm and a former dairy farm dating back to the 1600's. Hilltop Hanover Farm is owned by Westchester County and lies approximately 2.6 miles to the north of the project site and the proposed area of disturbance. Views from the farm and the nearby Crow Hill are limited due to wooded vegetation, with heights over 40 feet tall, that surround the premises.

A line of site profile was prepared to show the potential visibility of the project site from Hilltop Hanover Farm. As shown in the photographs, taken from the highest elevation on the hill looking towards the project, there is the potential for limited and distant views of the proposed roofline from the project if mitigation practices were not employed. The dense tree buffer and sloping topography between the road and the proposed development area would soften the view to the proposed buildings in winter and obscure the view when leaves are on the trees. Additionally, the natural colors used for the roofs will blend in with the existing scenery. When the plantings on the berms grow and mature all views will be completely blocked.

Kitchawan Preserve

Kitchawan preserve is a 208 acre natural preserve bordered by the New York City reservoir property and the North County Trailway, which runs along the eastern edge. The park features native woodland

and open fields, where butterflies and migrating birds can be seen in abundance in late spring. The top of the hill on the Kitchawan Preserve lies approximately 0.4 miles to the west of the project.

A line of site profile was prepared to show the potential visibility of the project site from the top of the hill at Kitchawan Preserve. As show the photographs, taken from the highest elevation on the hill looking towards the project, attached in the Visual Resource Assessment, there is a potential for limited and distant views of the proposed roofline from the project if mitigation practices were not employed.

View from Rt 134

New York State Route 134 is a 6.35-mile long state highway that connects the village of Ossining with the hamlet of Kitchawan. The point at which the project first becomes visible along Route 134 is approximately 0.15 miles from the proposed area of disturbance. Due to wooded vegetation lining both sides of the roadway, there is a limited window of view to the project site.

A line of site profile was prepared to show the potential visibility of the project site from the location where the project first becomes visible along Route 134. As show in the provided section view, there is a potential for limited views of the proposed roofline from the project if mitigation practices were not employed.

View from Rt 100

New York State Route 100 is a major north-south state highway, which runs adjacent to the western side of the site. Due to wooded vegetation lining both sides of the roadway, there is a limited window of view to the project site.

A line of site profile was prepared to show the potential visibility of the project site from the location where the project first becomes visible along Route 134. As show in the provided section view, there is a potential for limited views of the proposed roofline from the project if mitigation practices were not employed.

View from North County Trailway Bike Path

The North County Trailway is a 22.1 mile long paved bicycle and pedestrian path which runs from Yonkers to Albany in NY. This path runs by the site to the west, crossing over Rt 134 and running along the western side of New Croton Reservoir in the Kitchawan Preserve.

A line of site prepared to show the potential visibility of the project site from the location along the bike path with the greatest potential visibility of the proposed rooflines. Photographs were taken from this location, and they are attached in Visual Resource Assessment.

As depicted in the plan views of the attached Visual Resource Assessment, a tree buffer exists along Rt 100, which consists of trees 20 – 50 ft in height. This buffer of dense vegetation and trees blocks all potential views of the project from the North County Trailway Bike Path.

3. Proposed Mitigation

Proposed mitigation techniques will include screening, as achieved by berms and planted vegetation, and the use of natural colors for the houses to blend with existing scenery. The earthen berm and planted vegetation have been designed to mitigate all impacts to views from all of the previously identified sensitive off-site areas. A section view and a plan view of the proposed berm and vegetation is presented in Appendix C. Visual Impact Assessmet. In addition to screening, natural colors, such as earth-tones, will be used for the houses. This will ensure additional mitigation of visual impacts.

In addition to the above-mentioned mitigation techniques, the layout of the site plan itself will help protect the surrounding viewshed. As the site plan clearly displays, attached in Appendix G, the proposed homes are centrally located along the western flank of the property. This layout allows the homes to be easily and completely screened from view by a single and naturally landscaped berm and plantings. Furthermore, conventional layout in the current R1-160 zoning would require the homes to be spread out across the property. This would create a vast disturbance to the surrounding viewshed which would be difficult, if not impossible, to fully mitigate. As such, the proposed zone change will aid in mitigating any potential visual impacts.

The proposed methods of mitigation will sufficiently prevent all impacts to visual resources and preserve the surrounding viewshed.

C. Flora and Fauna

1. Existing Conditions

Vegetation Communities

In an effort to determine the vegetative characteristics of the site, research

information was gathered, and field studies were performed by Environmental Compliance Services, Inc. (ECSI), on behalf of COC. Existing on-site wetland areas, Wetlands A and B, were delineated by ECSI during November 2009. During April 2011, these areas received complete field confirmation by the Town of Yorktown Wetlands Consultant.

A total of eight (8) vegetation communities exist within the boundaries of the Croton Overlook Development site. Figure C-1 presents the approximate limits of these communities. These communities support a variety of avian, mammalian, and herpetological species which have been observed and are expected to inhabit these areas. These communities were identified by ECSI as part of completing a wetland delineation of on-site wetlands, as well as during field activities performed under a Bio-diversity Assessment. A summary of the protocols developed for the Bio-diversity Assessment, as well as an e-mail of acceptance of the summary by the Town's Environmental Consultant, is contained in the Appendicies of this EIS.

The Assessment includes herpetological and avian surveys which were performed between April and late-June 2011. Once all field activities were completed, a separate Bio-diversity Assessment report was prepared by ECSI and submitted to the Town of Yorktown with this document. The Assessment documents whether or not rare, threatened or endangered species exist on-site, as well as indicate if wildlife/green corridors exist between the site and nearby natural resource areas. Files maintianed by the the US Fish and Wildlife Services were also revied for resource information concerning the possible recorded presence of rare, threatended and endangered species. Field findings were also compared to the Biodiversity Conservation Study, Town of Yorktown, Westchester County, New York, prepared by Stearns & Wheler, LLC, (updated March 2010) and the "Croton to Hudson Biodiversity Plan" (2004) prepared by the Metropolitan Conservation Alliance, to include additional species for those habitat areas which are similar to those of the habitats identified for the Croton Overlook Development property. In addition, Federal and State rarity indications have been added to the tabulations within the assessment report, as well as indications as to whether a listed species is a "Development-Associated Focal Species" or a "Development-Sensitive Focal Species". It is important to note that ECSI has sufficient experience in the performance of Bio-diversity Assessments which has been gained from completing natural resource inventories at other project sites throughout the Town of Yorktown. This experience gained has been applied to this project, especially for the development of expected species inhabitants noted under this section.

Field surveys performed at the site revealed that a variety of vegetation exists; the greatest vegetation diversity occurs within one large on-site freshwater wetland, Wetland A. This wetland consists of a Forested Wetland with a Closed Canopy (FW-CC), Forested Wetlands with an Open Canopy (FW-OC) and Wet Sedge Meadow (WSM) vegetation Figure C-1. Adjoining habitat areas consist of Hardwood Forest (HF), Highland Hardwood Forest (HHF), Forested Floodplain (FFP), Perennial Stream (PS) and a Disturbed Area (DA). Table C-2 presents observed vegetation for each of the vegetation communities identified for the entire site. These vegetation communities are further discussed below:

Hardwood Forest (HF)

This upland community lies atop a slight topographic rise located along the western portions of the project site. Observed vegetation consist of second growth hardwood species with little understory vegetation within the central and northern reaches of this community. Stands of White Oak (*Quercus alba*), Burr Oak (*Quercus macrocarpra*), Northern Red Oak (*Quercus rubra*), and Scarlet Oak (*Quercus coccinea*) are the most dominant forms of vegetation, along with co-dominant species of Shagbark Hickory (*Carya ovata*), Bitternut Hickory (*Carya cordiformis*) and Black Birch (*Betula lenta*). The observed range of diameter-at-breast-height (DBH) is 6 to 18 inches. Based on the apparent structure of these stands, strong evidence of competitive growth patterns have occurred over time, whereby very little branching exists and the boles of most trees are straight with limited lower branching. Branch and leaf structure exists mostly within a tight fitted canopy which has been observed 55 to 65 feet above the surface. Some seedlings and saplings comprised of both dominant and co-dominant species make up an understory which can be described as somewhat sparse.

Within the south-central and southern reaches of this community, White Oak, White Ash (*Fraxinus americana*), Northern Red Oak, Sugar Maple (*Acer saccharum*), Red Maple (*Acer rubrum*) and Shagbark Hickory are the most dominant tree species. The range in DBH is 8 to 12 inches. Some understory vegetation also exists which is comprised of Slippery Elm (*Ulmus rubra*), American Beech (*Fagus grandifolia*), Red Maple and Sugar Maple. The understory structure within this portion of the community is slightly more pronounced.

The predominant types of herbaceous vegetation observed within this community consists of Solomon Seal (*Polygonatum communtatum*), Wild Lilly-of-the-Valley (*Maianthemum dilatatum*), Japanese Barberry (*Berberis thunbergii*), Pennsylvania Sedge (*Carex pennsylvania*), Wild Onion (*Allium canadense*), Japanese Honeysuckle (*Lonisera japonica*),

Garlic Mustard (*Alliaria petiolata)*, Japanese Stiltgrass (*Microstegium vimineum),* Common Blue Violet *(Viola soroia*)*,* Christmas Fern *(Polystichum acrostichoides*) and New York Fern (*Thelypteris noveboracensis*).

Highland Hardwood Forest (HHF)

This upland community is found along a high topographic ridge line situated along the northeast and eastern boundaries of the site. Observed vegetation consist of second growth hardwood with limited understory vegetation within it's central and northern reaches. Stands of White Oak, Burr Oak, Northern Red Oak, and Scarlet Oak are the most dominant tree species, along with co-dominant species of Shagbark Hickory, Black Cherry (*Prunus serotina*) and Black Birch. The observed range of diameter-at-breast-height (DBH) is 5 to 18 inches. As in the case of the Hardwood Forest situated west of this ridge line, these stands display evidence of competitive growth patterns whereby very little lower trunk branching exists and the boles of most trees are straight. Primary branch and leaf structure exists within the canopy which can be observed to be 60 to 70 feet above the surface.

Within the south-central and southern reaches of this community, White Oak, Northern Red Oak, Sugar Maple, Red Maple and Shagbark Hickory are the most dominant species. The range in DBH is 6 to 18 inches. Some understory vegetation also exists which are predominantly comprised of Rhododendron varieties (*Rhododendron spp.*), Shagbark Hickory, American Beech, and Sugar Maple. Within this portion of this community, understory structure is slightly more pronounced compared to it's northern limits.

This community also supports herbaceous vegetation consisting of Wild Lilly-of-the-Valley, Pennsylvania Sedge, Wild Onion, Garlic Mustard, Common Blue Violet, Christmas Fern and New York Fern.

Forested Wetland - Closed Canopy (FW-CC)

This community is situated at the lowest elevations of the site, and is surrounded by the Forested Wetland - Closed Canopy (FW-CC) vegetation community. This community includes two connecting open water ponds which are configured north and south, and are tributary to an unnamed stream located at the southern boundaries of the site. The north pond receives seasonal surface and groundwater flow from the north just beyond the drainage divide separating Wetland B from Wetland A. The south pond receives this flow component as spill over from the north pond

during high seasonal precipitation events; it and also receives surface water from two unnamed perennial stream originating upgradient from the Random Farms development. During field surveys conducted under the Biodiversity Assessment, it was observed that the north pond is susceptible to seasonal water level fluctuations; water levels within the south pond appear to be more stable given the volume of surface flow received from the unnamed upgradient streams. Overall, upgradient intermittent surface/groundwater flow sources, originating from the north and east, provide a perennial moisture regime suitable to support a variety of water tolerant vegetation observed within this community. Dominant herbaceous vegetation forms observed within this community is comprised of Tussocks Sedge, Skunk Cabbage, False Hellebore, Common Reed, Multiflora Rose, Soft Rush, Japanese Barberry, and Cattail.

Herbaceous vegetation identified within this community is comprised of Tussocks Sedge (*Carex stricta*), Skunk Cabbage *(Symplocarpus foetidus*), False Hellebore (*Veratrum californicum)*, Cinnamon Fern (*Osumunda cinnamomea*), Common Reed (*Phragmites communis*), Multiflora Rose (*Rosa multiflora*), Soft Rush (*Juncus Effusus*), Japanese Barberry (*Berberis thunbergii*), and Cattail (*Typha latifolia*).

Forested Wetland - Open Canopy (FW-OC)

This community is situated at the lowest elevations of the site, and is surrounded by the Forested Wetland - Closed Canopy (FW-CC) vegetation community. This community includes two open water ponds which are tributary to an unnamed stream located at the southern boundaries of the site. Upgradient intermittent surface/groundwater flow sources, originating from the north and east, provide a perennial moisture regime suitable to support a variety of water tolerant vegetation. Dominant vegetation forms observed within this community is comprised of Tussocks Sedge, Skunk Cabbage, False Hellebore, Common Reed, Multiflora Rose, Soft Rush, Japanese Barberry, and Cattail.

Wet Sedge Meadow (WSM)

This vegetation community is situated between the Forested Wetland-Closed Canopy and the Forested Wetland-Open Canopy. Saturated soil conditions exists throughout this area which is fed by upgradient intermittent surface water and groundwater seeps originating from the surrounding Hardwood Forest and Highland Hardwood Forest communities. Observed predominant herbaceous vegetation within this community is comprised of Tussocks Sedge, Skunk Cabbage, False Hellebore, Common Reed, Soft Rush, Japanese Barberry, Cattail, Multiflora Rose, Star Sedge (*Carex echinata*), Bladder Sedge (*Carex*

intermescens), Lurid Sedge (*Carex lurida*), Fox Sedge (*Carex vulpinoidea*) and Umbrella Sedge (*Cyperus strigosus*).

Forested Floodplain (FFP)

This community is seasonally flooded, portions of which consist of open canopy with heavily laden surface sediments; a Perennial Stream (PS) lies within the limits of the Floodplain. Skunk Cabbage, Spotted Jewelweed (*Impatiens capensis*) and False Hellebore are the most predominant types of herbaceous plants existing throughout the limits of this community. These plants thrive on wet woodland sites where perennial stream flow provides a persistent moisture regime. Along the upper limits of flood stage, Shagbark Hickory, Northern Pin Oak, American Elm (*Ulmus americana*), Sycamore *(Ficus sycomorus*), Black Willow (*Salix nigra*) and Eastern Cottonwood (*Populus deltoides*) are dominant canopy species. Stands of Eastern Hemlock (*Tsuga canadensis*) primarily occupy the southeastern limits of this community. The observed range in DBH is 4 to 18 inches.

The understory is sparse with Multiflora Rose, American Elm, Spicebush and Pussy Willow (*Salix cabrea*) as predominant species.

Perennial Stream (PS)

The Perennial Stream community is located within the limits of the Forested Floodplain community and thus, the canopy, understory and herbaceous species observed within the Forested Floodplain community "overlap" within this community. This community is dependent upon on-site surface water flows originating from the east, southeast and southern portions of the property, as well as from adjoining off-site areas situated upgradient of the property. This community lies at the lowest elevation of the site where a flow gradient occurs from east to west, towards the New Croton Reservoir.

Disturbed Area (DA)

Because of its disturbed ground conditions, this community is comprised of limited herbaceous "pioneer" species resulting in an "ecological edge" border along the Hardwood Forest (HF) community. This community is situated along the western boundary of the site and lies within the proposed limits of the development. Expected predominant herbaceous species consist of Queen Anne's Lace (*Daucus carota*), Common Mullen (*Verbascum thapsus*), Dandelion (*Taraxacum officinale*), Crab Grass (*Digitaria sanguinalis*), Golden Rod (*Solidago spp.*), Virginia Creeper

(*Parthenocissus quinnquefolia*), Poison Ivy (*Toxicondendron radicans*), Chicory (*Cichorium intybus*) and Common Milkweed (*Asclepias syriaca*).

Endagered, Threatened and Species of Special Concern

As part of gathering information contained within this document, COC contacted the New York State Natural Heritage Program to determine if any rare, threatened, and/or endangered (or of special concern) habitats, or species, exist at or near the project site. COC received correspondence from the Heritage Program on September 30, 2010 indicating that no rare, threatened, and/or endangered (or species of special concern) species or habitats exist for the project area.

During surveys performed by ECSI under the Biodiversity Assessment, no rare, threatened, and/or endangered species were observed within the vegetation communities inspected during April through late June. As part of completing the Biodiversity Assessment for the Croton Overlook property, ECSI compared potential and observed listed species to that of State and Federal listings; this comparison revealed that none of the species listed are either endangered, or threatened.

Species Rarity

ECSI also compared listings of observed and potential flora species to rarity indices published by the New York Natural Heritage Program. The indices were reviewed to determine if any observed or potential animal or plant species listed under the vegetation communities identified at the Croton Overlook property are considered rare or most imperiled species. The listings were generated in consultation with the New York State Department of Environmental Conservation's Endangered Species Unit and Nongame Unit, Natureserve, researches, conservation organizations and knowledgeable amateur botanists.

One observed plant species was Carex spp., identified within the FW-CC vegetation community. This plant is listed for the Westchester County area. Depending on the actual species, the listings vary from endangered to unprotected.

Wildlife Resources

The eight vegetative communities identified at the Croton Overlook Development property support a variety of avian, mammalian, and herpetological species with various food sources and shelter. Tables C-1 through C-12 present both observed (denoted with an "O") and potential

inhabitants for the eight vegetation habitat communities identified at the site, including observed and potential insect species for the entire property. Potential inhabitant listings were developed by ECSI utilizing "reference" sites located in the Town of Yorktown with similar vegetation communities and conditions, as well as resource listings maintained by the State of New York and Westchester County. Species denoted as being "observed" were identified by ECSI during field visits conducted under the Biodiverstiy Assessment completed during late June. The field activities initiated during April to June served to confirm habitat conditions and species diversity for the Croton Overlook property.

During daytime (Diurnal) and twilight (Crepuscular) periods of the day when field surveys were performed at the site, a number of avian, mammalian, reptile and amphibian species were recorded. As noted in Tables C-1 through C-12, mammals observed on-site include White Tailed Deer (*Odocoileus virginianus*), Eastern Gray Squirrel (*Sciurus carolinensis*) and Eastern Chipmunk (*Tamias striatus*); Little Brown Bat (Myotis lucifugus) and Red Fox (Vulpes vulpes); observed avian species include various woodpeckers (*Picoides spp.*), several perching and song birds *(Passeriformes* and *Oscines spp*.), Wild Turkey (*Meleagris gallopavo*), Raptor (*Buteo spp.*) and Turkey Vulture (*Cathartes aura*); observed reptiles and amphibians include Eastern Box Turtle (*Terrapene carolina*), Eastern Garter Snake (*Thamnophis sirtalis*), Northern Spring Peeper (*Hyla crucifer*), Green Frog (*Rana clamitans*) and Gray Tree Frog (*Hyla versicolor*). These species are highly mobile and have the potential to inhabit most communities on site.

Hardwood Forest (HF)

The Hardwood Forest vegetation habitat displays the least structure and variety of vegetation compared to other on-site communities. The majority of this community contains little opportunity for nest sites, as the surface is open and "smooth" with little understory structure and herbaceous cover. Tree branching occurs at heights of approximately 45 to 65 feet above the ground and thus, little is offered in the way of long-term shelter protection from the elements; however, this area is enriched with a variety of food source including acorns, seed and insect inhabitants favored by large and small mammals, reptiles and various avian species.

A variety of migratory and indigenous avian species have been observed to occupy the canopy as perch sites (Passerines). Table C-5 and C-6 presents these observed species. Small mammals such as the White-footed Mouse, Deer Mouse, Skunk, Virginia Opossum, Star-nosed Mole, Little Brown Bat and Northern Myotis (*Myotis septentrionalis*) may

likely inhabit this habitat community. The Eastern Chipmunk, White Tailed Deer and the Eastern Gray Squirrel were observed in this habitat community. Reptile and amphibian species that may inhabit this community include the Wood Frog (*Rana sylvatica*) and the Fowler's Toad *(Bufo fowleri*). The Eastern Box Turtle and the Eastern Garter Snake were observed in this community. During preliminary field surveys, small herds of White Tailed Deer (comprised of 4 to 6 individuals) have been observed feeding on the variety of acorns (mast), leaves, forbs and twigs produced by the Oak, Beech, Birch and Maple trees within this community.

Highland Hardwood Forest (HHF)

The Highland Hardwood Forests is expected to be utilized by various mammalian, avian and reptile species as forage and for temporary/long-term shelter, both on the ground and within the understory. Surface soil conditions within the Highland Hardwood Forest is irregular with various sized stones and boulders capable of providing suitable temporary and long-term shelter for small borrowing mammals and reptiles. Observed understory and herbaceous species within this community are preferred by nesting song birds and Passerines, as well as large and small mammals, including the White Tailed Deer (Observed), Eastern Gray Squirrel (Observed), Eastern Chipmunk (Observed), Star-nosed Mole (*Condylura cristata*), Little Brown Bat (*Myotis lucifugus*), Northern Myotis (*Myotis vivesi*) and reptiles (turtles and snakes) for food and shelter. The Red Tailed Hawk (*Buteo jamaicensis*) was observed in this community which hunts small mammals and is know to nest within the canopy at higher elevations; the Great Crested Fly Catcher (*Myiarchus crinitus*), also observed in tis community, is likely to be a repeat inhabitant as this species is noted for hunting large insects within the canopy and it nests within cavities.

Forested Wetland - Closed Canopy (FW-CC)

This vegetation community is diverse and supplies food and shelter for a variety of wildlife. Observed understory and herbaceous species provide temporary- and long-term shelter, as well as fairly abundant sources of seed and fruit, which in turn are suitable to support large insect populations. These food sources attract small and large mammals, reptiles and various avian species. Tables C-5 and C-6 presents both several observed and potential species for this habitat community.

The ecology of this habitat is diverse in that "predator and prey" relationships are somewhat stable to sustain the listed observed and expected populations. Adequate cover and ground conditions exists to

enable small mammals, reptiles and birds to move freely to adjoining vegetated habitats for food and shelter. This in turn compliments and supports a wildlife diversity within adjoining vegetation habitats.

As an example, large mammals such as the White Tailed Deer (Observed) utilize this habitat for bedding and protection for nurturing their young. Tree frogs and reptiles are attracted to the large variety of insects and plants available to satisfy needs for food and shelter. Songbirds are also attracted by insects and both perch and nesting sites (including cavities) are available within the understory. Bird surveys conducted under the Biodiversity Assessment revealed that a large variety of species were observed in this community.

Forested Wetland - Open Canopy (FW-OC)

This habitat community contains the highest diversity of plant species and overall support resources favored by the listed observed and expected wildlife. The two open-water ponds existing within this community support limited reptile and amphibian populations with shelter, food and temperature gradients necessary for survival. The Green Frog, Bull Frog (Rana catesbeinaa), Spring Peeper and Gray Tree Frog were observed in this community. These ponds ensure favorable ectothermic conditions for seasonal propagation and hibernation; however, observations of water level conditions within the north pond indicate that this body of water is prone to wide seasonal fluctuations, while levels in the south pond are more stable.

Several avian species have been observed migrating through and/or inhabiting this habitat community. Woodpeckers, and a variety of indigenous and migratory warblers (songbirds) feast on an abundant insect population, as well as a variety of seeds and fruits produced by a diverse understory. White Tailed Deer, Little Brown Bat and Red Fox were observed in this community. Tables C-1 through C-12 present several observed and potential avian species for this habitat community.

In addition, several dead trees (snags) surround the two ponds which in turn provide habitat for the types of insects sort after by several bird species and small mammals. Natural holes within decayed and standing and/or fallen tree trucks (and those excavated by Woodpeckers) are used by small mammals, amphibians and birds for nesting sites (cavity nesters). As with the FW-CC community, bird surveys conducted under the Biodiversity Assessment revealed that a large variety of species were observed in this community.

Wet Sedge Meadow (WSM)

This vegetation community is inhabited by plants which favor soil saturation and direct sunlight conditions. These conditions are also favored by several reptile and amphibian species which seek ideal seasonal ectothermic temperature gradients to survive. An abundance of decaying plant matter, water tolerant rush and reed plants, and surface stones exist throughout this community; these features provide food source and shelter for several species. Potential may inhabitants include the Northern Red-backed Salamanders (Plethodon serratus), Red Newt (Notophthalmus viridescens), Green Frog (*Rana clamitans)*, Spring Peeper (Pseudacris crucifer), Gray Tree Frog (Hyla versicolor) and Pickerel Frog (Rana palustris). The Eastern Box Turtle and Spring Peeper were observed within this community. Both small and large mammals such as the Raccoon, Little Brown Bat and Red Fox, hunt prey within wet meadows and may seek temporary shelter as well. This habitat also attracts a large variety of avian species including the Empidonax Flycatchers (Willow, Alder and Arcadian); the American Goldfinch (Spinus tristis), Bluebird (Sialia sialis) and Yellow Warbler (Dendroica petechia) were observed feeding on insects in this habitat community. As with the FW-CC and FW-OC communities, bird surveys conducted under the Biodiversity Assessment in the vicinity of this community revealed that a large variety of species exist.

Forested Floodplain (FFP)

This habitat community attracts several avian species which feed upon plant seeds and insects common to floodplain communities. The American Robin (*Turdus migratorius*), Gray Catbird (*Dumetella carolinensis*), American Crow (*Corvus brachyrhynchos*), White-breasted Nuthatch (*Sitta carolinensis*), Red-eyed Vireo (*Vireo olivaceus*), Red-bellied Woodpecker (*Melanerpes carolinus*), American Goldfinch, Veery (*Catharus fuscescens*) and Eastern Wood-Peewee (*Contopus virens*) are typical avian inhabitants in this community.

Reptile and amphibian inhabitants may include Wood Frog, American Toad, Pickerel Frog, Two-lined Salamander (*Eurycea bislineata*), Spring Peeper, Eastern Garter Snake and Red-backed Salamander. Typical mammalian inhabitants include White Tailed Deer, Raccoon (*Procyon lotor*), Skunk, Eastern Gray Squirrel, Eastern Chipmunk, Virginia Opossum *(Didelphia virginiana)*, Star-nosed Mole, Little Brown Bat and Northern Myotis.

Perennial Stream (PS)

The Perennial Stream community flows from east to west through the Floodplain (FP) community. Two unnamed tributaries which originate from upgradient sources east and southeast of the property, connect with the on-site perennial stream along the southern reaches of the property. In addition, the Cornell Brook (also a perennial stream) flows from the south and connects with the on-site perennial stream at a nearby off-site location (south). The majority of on-site streams (intermittent and perennial) flow through forested wetlands with closed canopy (FW-CC). These on-site streams are found within the southern limits of Wetland A.

Field surveys completed by ECSI under the Biodiversity Assessment revealed that the perennial stream meanders through the site and is comprised of both soft (fine sediment) and hard (sand and gravel) bottom conditions. Bank undercutting exists along portions of the stream which serves to cool water temperatures and provides temporary shelter for aquatic insects and young fish. In addition, fallen tree trunks and branches exist across portions of the stream; these features produce eddies which in turn provide rest points for small fish and aquatic insects. The branching habit of observed understory species does not overhang the stream whereby insects may be a food source for fish; the understory does serve to shade and cool stream waters. No fish species or aquatic insects have been observed within the stream during any of the herpetological and fish surveys completed under the Bio-diversity Assessment.

Disturbed Area (DA)

This community is somewhat void of vegetation. Small clusters of plants do exist sporadically, which are primarily comprised of "pioneer" forms of vegetation (Tables C-2 and C-3). These plants seasonally offer fruits and seeds, as well as attract insects, which are favored by avian species and small mammals. Tables C-5 and C-6 present potential avian species which may inhabit this community. In addition, this area is likely visited by raptors to hunt prey consisting of small mammals and reptiles. This area is bordered by the Hardwood Forest community and thus, an "ecological edge" occurs which is also favored by birds and small mammals. Larger mammals, such as the Skunk and Raccoon may visit this area solely for food. Very little opportunities exist for shelter, or for nesting. During field surveys performed by ECSI as part of the Bio-diversity Assessment, White Tailed Deer were observed foraging within this area, as well as the Eastern Gray Squirrel and the Eastern Chipmunk.

Engangered, Threatened and Species of Special Concern

As part of gathering information contained within this document, COC contacted the New York State Natural Heritage Program to determine if

any rare, threatened, and/or endangered (or of special concern) habitats, or species, exist at or near the project site. COC received correspondence from the Heritage Program on September 30, 2010 indicating that no rare, threatened, and/or endangered (or species of special concern) species or habitats exist for the project area.

During surveys performed by ECSI as part of the Biodiversity Assessment, no threatened, and/or endangered species were observed within the vegetation communities inspected during April through late June. As part of completing the Biodiversity Assessment for the Croton Overlook property, ECSI compared potential and observed listed species to that of State and Federal listings; this comparison revealed that none of the species listed are either endangered, or threatened.

An Eastern Box Turtle was observed within the Wet Sedge Meadow (WSM) vegetation community. According to listings maintained by the NYSDEC, the Eastern Box Turtle is designated as a species of special concern, as defined in Section 182.2(i) of 6 NYCRR Part 182. Species of special concern warrant attention and consideration, but current information, collected by the Department, does not justify listing these species as either endangered or threatened.

In addition, a potential inhabitant listed by ECSI as part of completing the Biodiversity Assessment for the Croton Overlook property, the Marbled Salamander, is also regarded to be a species of special concern.

Development-associated/Development-sensitive Species

A "habitat generalist" species is regarded as one which can survive under a variety of habitat conditions, utilizing a large variety of food sources, whereas a "habitat specialist" species is one that survives on a more narrow range of habitat and food choices. Generalist species are know to exploit a wider range of resources, while specialists make more efficient use of resources and typically exist under more diverse habitat conditions.

In an effort to better determine how potential impacts the project may pose for observed and potential wildlife species listed for the project, the "Focal Species Approach" (FoSA) to evaluate species mix and its implications for ecosystem health was utilized. This approach has been developed jointly by the Wildlife Conservation Society (WCS) and the Metropolitan Conservation Alliance (MCA) and is described in the document entitled "Croton-to-Hudson Biodiversity Plan, Balancing Development and the Environment in the Hudson River Estuary Catchment" (MCA Technical Series Paper Series No. 7, 2004). Species listings developed under the

Biodiversity Assessment were compared to those within the WCS/MCA publication.

Specialists and Generalists

Under the Focal Species Approach, observed species are compared to listings of "developmental-associated focal species" (habitat generalist) and "development-sensitive focal species" (habitat specialist). Potential inhabitants listed for the Croton Overlook property were also considered. The approach provides lists of bird, reptile and amphibian species in each category to aid in evaluating ecosystem health.

Based on a review of the listings provided by WCS/MCA under Appendix A of their publication, some of the observed and potential bird, reptile and amphibian species listed for the Croton Overlook property match those noted under the development-associated and development-sensitive species categories. On-site species which match up under listed development-associated species include the Canada Goose, Blue Jay, American Crow, European Starling, Brown-headed Cowbird, Common Grackle and House Wren. The majority of these species were observed throughout the Croton Overlook property. One reptile, the Garter Snake and one amphibian, the Bull Frog, are also listed. These were also observed at the Croton Overlook property.

Potential and observed development-sensitive species listed for the Croton Overlook property include the Least Flycatcher, Black-and-white Warbler, Worm-eating Warbler, Eastern Bluebird, Indigo Bunting, Pileated Woodpecker, Blue-winged Warbler, Prairie Warbler, Ovenbird and the Veery. The majority of these species were observed at the Croton Overlook property. (The Indigo Bunting, Blue-winged Warbler and Prairie Warbler were observed from bird survey location b3 as being from 150 to 350 feet west of the Croton Overlook property along the nearby utility power line owned and maintain by ConEdison.) Reptile species include the Spotted Turtle, Eastern Box Turtle, Eastern Hognose Snake and the Northern Copperhead. The Eastern Box Turtle was observed at the Croton Overlook property; the other reptile species were listed as potential inhabitants. Amphibians include the Jefferson Salamander, Spotted Salamander, Marbled Salamander, Fowler's Toad, Gray Tree Frog and Wood Frog. Of these species, the Gray Tree Frog was observed at the Croton Overlook property, the remainder is listed as potential inhabitants. Table ___ presents these species with indication as to whether or not each were observed at the Croton Overlook property.

Habitat Fragmentation

Two natural resource areas located west of the proposed Croton Overlook Development were evaluated for potential habitat fragmentation with the development. The two areas evaluated were the Kitchawan Preserve, located approximately 600 to 700 feet from the proposed project area, and the Croton Point Park Critical Environmental Area (CEA), located more than 2.0 miles from the project area.

Kitchawan Preserve

As part of completing the Biodiversity Assessment for the Croton Overlook property, the Kitchawan Preserve was visited to observe vegetation communities within areas of the Preserve nearest the proposed project site. This was performed to confirm it's proximity to that of the proposed development, as well as evaluate habitat characteristics within a portion of this preserve. In particular, the eastern portions of the Preserve were walked and vegetation species were recorded to determine species habitat potentials. Observation of avian and mammalian species was also recorded to assist in confirming habitat potential.

The Kitchawan Preserve exists northwest of the proposed development and is mostly oriented in an east-west configuration. Observations of plants and animals at the Preserve revealed that this area contains rich and highly diverse habitats with respect to vegetation and animal habitation. The structure and distribution of vegetation species observed are indicative of habitat characteristics suitable for a large variety of mammals, birds, reptiles and amphibians, well beyond the populations of those observed within the vegetation communities of the Croton Overlook property.

In light of the closeness of this area to that of the Croton Overlook project site, both properties provide a green way corridor which may be utilized by a variety of avian species and larger mammals. This is because nearby NYS Routes 134 and 100 are connected in a perpendicular configuration, and a wide-swath utility right-of-way (owned and maintain by ConEdison) exists across a portion of the New Croton Reservoir. These features serve to disconnect these areas and can be obstacles to species mobility. As such, species of reptiles and amphibians, and some small mammals, may not benefit from the "greenway corridor" affect provided by these areas. On the other hand, birds and larger mammals have a greater opportunity to move between these areas, and during breeding and hibernation periods of the year.

It is important to note that the Kitchawan Preserve displays a great abundance of diverse habitat and overall natural resources, compared to

that of the Croton Overlook Development project site. In addition, other continuous greenway lands connect with the Preserve to the west. As noted, the area planned for development is 16.9 acres in size, a portion of which includes a sizable disturbed area (the Disturbed Area vegetation community) which lies within the limits of the Hardwood Forest community. Based on observations made during the biodiversity assessment completed for the Croton Overlook property, the Hardwood Forest vegetation community provides food and temporary shelter for a variety of small and large mammals, as well as avian species.

Croton Point Park Critical Environmental Area (CEA)

Based on a review of available aerial photographs and mapping compiled for the Croton Point Park Critical Environmental Area, this area is located more than 2.25 miles from the proposed development area. In addition, several irregularly shaped, but connecting green space corridors exist between Croton Point Park and the project site. Given that this area is located a considerable distance from the project site, it can be concluded that the removal of vegetation from within the development area will not likely pose a concern of habitat fragmentation for this CEA. In light of this, the proposed project is not expected to pose a significant habitat fragmentation issue for the Croton Point Park Critical Environmental Area.

2. Potential Impacts

Vegetation Communities

The proposed development will be located along the western boundaries of the property, primarily within the Hardwood Forest and Disturbed Area (DA) vegetation communities. Overall, the development will result in the loss of minimal vegetation cover. Table C-1 presents a breakdown of the number of affected acres within each of these vegetation communities; a total of approximately 16.9 acres, comprised mostly of the Hardwood Forest community, will be affected with the development. This loss represents 28 percent of total forested areas on site. Approximately 47.9 acres, consisting of a remaining 19.5 acres of Hardwood Forest and 28.4 acres of all other vegetation communities, will remain unaffected under the project.

Alteration of the Hardwood Forest and Disturbed Area will result in the removal of tree species of various diameters. During June 2011, a tree survey was completed within the proposed development area to confirm the number of existing mature trees (greater than 6 inch DBH) affected

under the project. A site plan depicted all trees equal to and greater than 6 inches in diameter, within the proposed development area, is contained in Appendix N. A tabulation of the number and types of tree species, as well as diamter-at-breast-height, is contained in Appendix N. Based on the results of the tree survey, 14 species of trees were encountered wihtin the project area; the species type, number and DBH range for each is as follows: Maple (990; 6 to 48 inches); Oak (492; 6 to 40 inches); Hickory (194; 6 to 28 inches); Birch (149; 6 to 24 inches); Ash (48; 8 to 26 inches); Tulip Poplar (42; 8 to 32 inches); Wild Cherry (22; 8 to 24 inches); Beech (13; 6 to 14 inches); Sasafras (11; 8 to 20 inches); Ailanthus (6; 8 to 14 inches); Cedar (7; 8 to 12 inches); Elm (5; 10 to 18 inches); Hemlock (3; 6 to 14 inches); Pine (2; 14 inches) and Walnut (1; 20 inches).

Wildlife Resources

The various vegetative cover types found on site provide habitat to a number of wildlife species. Development of the site would require the removal of existing vegetation which in turn will result in reduced habitat area for some wildlife species. Overall, the development will result in the loss of approximately 16.9 acres of vegetation cover. This loss represents 28 percent of total forested areas across the entire the property. Approximately 47.9 acres, consisting of a remaining 19.5 acres of Hardwood Forest and 28.4 acres of all other vegetation communities, will remain unaffected under the project. This area will be preserved and protected as Open Space. The majority of the remaining open space (slightly less than 41.7 acres) consists of second growth deciduous forests and productive wetlands located in the central and eastern portions of the property.

Removal of the 16.9 acres of vegetation has the potential to fragment a portion of the greenway corridor characteristics attributed by this area; however, given the existing obstacles posed by the utility right-of-way and NYS Routes 134/100 and that 47.9 acres of the property will remain as Open Space, removal of vegetation is not expected to propose impacts.

3. Proposed Mitigation

Vegetation Communities

Physical impacts associated with the removal of vegetation will be mitigated by implementing a Storm Water Management Plan. Disturbed areas will be stabilized with seed and mulch during and after construction, and state-of-the-art erosion and sediment control devices will be installed in predetermined design areas. Emphasis will be directed at providing cover across disturbed areas which are left idle for more than 2 weeks. A

combination of silt fencing and hay bales, and permanent controls, will be utilized to provide protection. Sediment and chemical applications generated by the development will be addressed (adsorbed) by directing runoff to vegetated storm water basins.

It is important to note that the proposed design layout of the Croton Overlook Development has been configured to provide safe and efficient access for residents, maintenance of existing drainage patterns for sustaining on-site freshwater wetland communities and incorporation of appropriate storm water management practices. The Applicant will ensure that as much of the Hardwood Forest community is maintained as practicable, as well as to reduce overall visual impacts. Existing natural vegetation will be preserved and protected to the fullest extent possible; trees equal to and greater than 6 ~~12~~ inches in diameter (with a minimum height of 25 feet) will be preserved, unless their removal is most necessary for construction purposes. Single trees, or groups of trees determined to be "trees of significance", (as defined under Chapter 270, Article 1, Preservation of Forested Environment), will be located in the field prior to construction in order to consider preservation of such trees. In this manner, as many trees as possible will be preserved. Each saved tree will be surrounded with orange plastic fencing (in a circular fashion), and along the "drip-line" of each species. This practice will alert construction worker of the location and spacing required to protect and preserve each saved tree.

Loss of habitat will be mitigated by preserving on-site wetlands and mature forests situated north, south and east of the development, as well as incorporating a landscape design that will provide visual screening and additional vegetation cover along the western portions of the development site. These areas will be protected as "open space" under a conservation agreement. Indigenous species will be planted along the western limits of the development in conjunction with construction of storm water management ponds. Approximately 12 acres of new vegetation will be added as part of removing Dell Avenue and restoring the area for passive recreation and storm water management. These measures will provide a passive recreation park for residents of the development with vegetation screening necessary to reduce expected viewshed impacts. This area will eventually become established as a forested storm water bio-retention area designed to provide a diverse vegetation community comprised of 12 acres of wetland, understory and upland vegetation.

The single plant species, Carex spp., observed in the FW-CC community, will not be impacted under the project, but rather it will be preserved and protected as this commujnity lies wihtin th Open Space area.

Wildlife Resources

Impacts due to habitat loss will be minimized by preserving as much of the natural Hardwood Forest community as possible, and as protected open space. The undeveloped portions of site consist of forested wetlands, forested uplands, intermittent and perennial streams and open water ponds. The majority of the remaining open space (slightly less than 41.7 acres) consists of second growth deciduous forests and productive wetlands located in the central and eastern portions of the property. This land will provide suitable habitat for those species displaced from the areas of the site under construction. Once construction is complete, a landscape plan will be implemented to maximize the creation of wildlife habitat. These landscaped areas would primarily serve species of mammals and birds adapted to suburban/semi-rural areas.

As noted, both development-associated and development-sensitive species exist at the Croton Overlook property. With the exception of the Indigo Bunting, Blue-winged Warbler and the Prairie Warbler, the majority of bird, reptile and amphibian species listed for the property were observed at the subject property. It is important to note that the Indigo Bunting, Blue-winged Warbler and the Prairie Warbler may on occasion visit within the nearby Hardwood Forest for food and temporary shelter. As implied above, the habitat characteristics preferred by the Indigo Bunting, Blue-winged Warbler and Prairie Warbler (pioneer grass, shrub and tree vegetation within the ConEdison utility right-of-way) are very different than those found in the Hardwood Forest community.

Development-associated species listed for the Croton Overlook property were mostly observed within each of the 8 vegetation community identified. In fact, the majority of these listed species were observed within the Hardwood Forest (HW) vegetation community. Listed development-sensitive species were observed in the Highland Hardwood Forest (HHF), Freshwater Wetland-Closed Canopy (FW-CC), Freshwater Wetland-Open Canopy (FW-OC) sand Wet Sedge Meadow (WSM) vegetation communities. These vegetation communities were observed to have the greatest biodiversity within the limits of the property, and thus, the types of development-sensitive species observed in these areas rely heavily on the natural resources contained in each. These communities lie within the 47.9 acre portion of the Croton Overlook property which will remain as protected and preserved Open Space.

1) Animal inhabitants at the Kitchawan Preserve are least likely to utilize the Hardwood Forest vegetation community at the Croton Overlook project site as a preferred habitat; a greater abundance of habitat characteristics are provided within the Preserve for breeding and rearing young. Birds and larger mammals have the opportunity to move between these areas despite the above noted obstacles. Movement between these areas serves to reduce inbreeding potentials common to isolated habitats, which in turn serves to enrich the gene pool of animals.

2) The more diverse habitats of the Croton Overlook property (i.e. FW-CC, FW-OC, and WSM) present a greater attraction for avian and mammalian species which may travel between these properties, compared to that of the Hardwood Forest and Disturbed Area communities.

3) The most productive and ideal types of corridors are those with the least amount of separation and/or obstacles for animal mobility. In light of this, the removal of vegetation within the Hardwood Forest community may very well affect on-site inhabitants as opposed to those existing within the Kitchawan Preserve and beyond.

It is important to note that during construction, removal of vegetation within the Hardwood Forest may serve to stress some varieties of on-site wildlife populations which seek food and temporary shelter within this community; however, it is expected that some of this population will be absorbed within the adjoining, more diverse areas of the site including the Highland Hardwood Forest community along the eastern limits of the site which displays similar habitat characteristics to that of the Hardwood Forest community. Further, potentially affected species inhabiting the Preserve and/or the Croton Overlook property will likely seek refuge in immediately adjoining lands which connected with other, surrounding greenway corridors (confirmed by aerial interpretation).

4) Preservation and protection of the remaining habitat communities at the Croton Overlook property as Open Space will ensure that displaced animals will have the opportunity to seek alternative habitat and maintain the most diverse habitats identified at the property.

Once construction is complete, a landscape plan will be implemented to maximize the creation of wildlife habitat. These

landscaped areas would primarily serve species of mammals and birds adapted to suburban/semi-rural areas; however, indigenous tree species remaining after construction will continue to provide food and shelter for various wildlife species.

In addition to the above, the following will be implemented to mitigate impacts, as well as and ensure the preservation for the remaining 47.9 acres as Open Space:

1) Vegetation removal will occur in a north-south direction to avoid greater habitat fragmentation that would occur with an east-west configured tree cut area. This will maximize habitat connectivity on-site and preserve the north-south corridor affect the property currently displays in relation to surrounding undeveloped and natural areas.

2) All wetland and waterway buffer lands (including those regulated by the Town of Yorktown and the New York City Department of Environmental Protection) be will preserved and protected under a legal binding agreement (such as a conservation easement) developed between the developer, the Home Owner's Association and the Town of Yorktown. These areas will be included with the overall remaining 41.9 acres of Open Space.

3) Removal of existing Maple/Oak/Birch trees within the proposed development area will be minimized to allow certain trees to remain in idle areas of the development. This will allow a continuation of resources favored by existing wildlife, as well as provide a shelter wood affect.

4) Tree saplings similar to those indigenous types of vegetation removed under the project, will be planted throughout the development area. This will be provided under the proposed project's landscape plan.

5) Appropriate storm water management planning will be implemented and all controls will be maintained properly during and after construction in order to protect the water resources found within the on-site vegetation communities favored by development-sensitive species.

6) Construction activities will not be performed during periods of the year when the mating and breeding life-cycles of development-sensitive species (avian and herpetofauna) are at a high.

These measures will serve to mitigate impacts for the observed and potential fauna inhabitants identified for the Croton Overlook property to the extent that no significant impacts will occur.

Table C-1 – Affected Vegetation Community Break Down

VEGETATION COMMUNITY	APPROXIMATE ACREAGE BEFORE DEVELOPMENT	APPROXIMATE ACREAGE AFTER DEVELOPMENT
Hardwood Forest	33.5	19.5
Hardwood Highland Forest	11.8	11.8
Forested Wetland - Closed Canopy	10.5	10.5
Freshwater Wetlands - Open Canopy	0.9	0.9
Wet Sedge Meadow	0.9	0.9
Forested Floodplain	3.8	3.8
Perennial Stream	0.5	0.5
Disturbed Area	0.8	0.0
TOTAL APPROXIMATE ACREAGE	**62.7**	**47.9**

Table C-2

POTENTIAL AND OBSERVED HERBACEOUS PLANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Wrinkled Rose	*Rosa rugosa*						✓	✓	
Foxtail	*Setaria spp.*	✓						✓	
Poa	*Poa spp.*	✓						✓	✓
Common Reed	*Phragmites australis*	O						O	O
Purple Loosestrife	*Lythrum salicaria*							✓	
Bushy aster	*Aster dumosus*		✓				✓		
Common Milkweed	*Asclepais syriaca*	✓					✓		
Queen Ann's Lace	*Daucus carota*	O					O		
Goldenrod	*Solidago spp.*	O	✓				✓	✓	
Tussock Sedge	*Cares stricta*	O						O	O
Pokeweed	*Phytolacca americana*	✓						✓	✓
Soft Rush	*Juncus effusus*	O						O	O
Ragweed	*Ambrosia psilostachya*	✓						✓	
Dandelion	*Taraxacum officinale*						✓		
Red Clover	*Trifolium pratense*						✓		
Rye Grass	*Secale cereale*						✓		
Chickory	*Cichorium intybus*						✓		
Japanese Barberry	*Berberis thunbergii*	O	O					O	O
Common Blue Violet	*Viola sororia*		O	O					O
Wild Onion	*Allium ascalonicum*		O	O					O
Devil's Beggertricks	*Bideus frondosa*	✓						✓	
Oxeye Daisy	*Leucanthemum vulgare*		✓				✓		
Common Burdock	*Arctium minus*	✓							
Lilly-of-the-Valley	*Maianthemum dilatatum*		O	O					
Pennsylvania Sedge	*Carex pennsylvania*		O	O					
Garlic Mustard	*Alliaria petiolata*		O	O					
Crab Grass	*Digitaria sanguinalis*		O				✓		
Solomon Seal	*Polygonatum communtatum*		O						

Table C-2 (cont.)

POTENTIAL AND OBSERVED HERBACEOUS PLANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Japanese Honeysuckle	*Lonicera japonica*		O				✓		
Common Mullein	*Verbascum thapsus*						✓		
Common Teasel	*Dipsacus fullonum*	✓							
Christmas Fern	*Polystichum acrostichoides*		O	O					
Poison Ivy	*Toxicondendron radicans*		O				✓		
Greenbrier	*Similax spp.*						✓	✓	✓
Cinnamon Fern	*Osumunda cinnamomea*	O	O						O
Blackberry	*Rubus spp.*		O				✓		
Wild Grape	*Vitis spp.*								✓
Multiflora Rose	*Rosa multiflora*	O						O	O
Virginia Creeper	*Parthenocissus quinquefolia*	O	O				✓		
New York Fern	*Thelypteris noveboracensis*		O	O					
Spicebush	*Lindera benzoin*				O	O			
Pussy Willow	*Salix cabrea*				O	O			
Skunk Cabbage	*Symplocarpus foetidus*	O			O	O		O	O
Spotted Jewelweed	*Impatiens capensis*				O	O			
False Hellebore	*Veratrum californicum*	O			O	O		O	O
Cattail	*Typha latifolia*	O						O	O
Star Sedge	*Carex echinata*	O							
Bladder Sedge	*Carex intermescens*	O							
Lurid Sedge	*Carex lurida*	O							
Fox Sedge	*Carex vulpinoidea*	O							
Umbrella Sedge	*Cyperus strigosus*	O							

Table C-2 (cont.)

POTENTIAL AND OBSERVED HERBACEOUS PLANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Sphagnum Moss	*Sphagnum spp.*	O							O
Hair Cap Moss	*Polytrichum commune*		O						
Sensitive Fern	*Onclea sensibilis*	O							
Sedge	*Carex spp.*								O
Stilt Grass	*Microstegium vimineum*	O							
Touch-me-not	*Impatiens spp.*	O							
Pennsylvanca			O	O					O

Notes:
WSM - Wet Meadow - Sedge Meadow
HF - Hardwood Forest
HHF - Hardwood Highland Forest
FFP - Forested Flood Plain
PS - Perennial Stream
DA - Disturbed Area
FW-OC - Freshwater Wetlands - Open Canopy
FW-CC - Forested Wetland - Closed Canopy

O - Observed; ✓ - Potential

Table C-3

OBSERVED WOODY PLANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
American Elm	*Ulmus Americana*		O		O	O			O
Slippery Elm	*Ulmus rubra*		O						
Red Maple	*Acer Rubrum*	O	O	O					O
Shagbark Hickory	*Carya ovata*		O	O	O	O			O
Bitternut Hickory	*Carya cordiformis*		O						
White Oak	*Querucs alba*		O	O					
Burr Oak	*Quercus macrocarpra*		O	O					
Scarlet Oak	*Quercus coccinea*		O	O					
Black Cherry	*Prunus serotina*			O					
Black Birch	*Betula lenta*		O	O					O
Rhododendron	*Rhododendron spp*			O					
American Beech	*Fragus grandifolia*		O	O					
American Hophornbeam	*Ostyra virginiana*								O
Green Ash	*Fraxinus pennsylvanica*		O		O	O			O
Spicebush	*Calycanthus occidentalis*				O	O			O
Gray Dogwood	*Cornus racemosa*								O
Alternate-Leaf Dogwood	*Cornus alternifolia*								O
Sweet Gum	*Liquidambar styraciflua*								O
White Ash	*Fraxinus americana*		O				O		
Sugar Maple	*Acer saccharum*		O	O					O
Northern Red Oak	*Quercus rubra*		O	O					
Northern Pin Oak	*Quercus Palustris*	O			O	O			O
Sycamore	*Ficus sycomorus*				O	O			
Black Willow	*Salix nigra*				O	O			
Eastern Cottonwood	*Populus deltoides*				O	O			
Eastern Hemlock	*Tsuga canadensis*				O	O			

OBSERVED WOODY PLANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Chesnut Oak	*Quercus prinus*			O					
Flowering Dogwood	*Cornus florida*								O
White Pine	*Pinus strobus*		O						

Notes:

WSM - Wet Meadow - Sedge Meadow
HF - Hardwood Forest
HHF - Hardwood Highland Forest
FFP - Forested Flood Plain
PS - Perennial Stream
DA - Disturbed Area
FW-OC - Freshwater Wetlands - Open Canopy
FW-CC - Forested Wetland - Closed Canopy

O - Observed

Table C-5

POTENTIAL AND OBSERVED AVIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Turkey Vulture	*Cathartes aura*	O		O			✓	O	
Red Tailed Hawk	*Buteo jamaicensis*		O	O			✓	✓	
Hairy Woodpecker	*Picoides villosus*		O	O				O	O
Downy Woodpecker	*Picoides pubescens*		O	O				O	O
Blue Jay	*Cyanocitta cristata*		O	O			✓		O
American Crow	*Corvus brachyrynchos*		O	O	✓		✓		
Black-Capped Chickadee	*Poecile atricapillus*		O	O				O	O
Tufted Titmouse	*Baeolophus bicolor*		O	O				O	O
Brown Creeper	*Certhia americana*		O	O					O
Eastern Bluebird	*Sialia sialis*	O						✓	✓
American Robin	*Turdus migratorius*		O		✓				O
American Redstart	*Setophaga ruticilla*							✓	✓
Purple Finch	*Carpodacus purpureus*		O	O			✓		
Baltimore Oriole	*Ictarus galbula*		O	✓					
Ovenbird	*Seiurus aurocapillus*		✓		✓				✓
Carolina Wren	*Thryothorus ludocicianus*				O		O	✓	✓
Rufous-Sided Towhee	*Pipilo erythrophthalmus*			✓					
Northern Oriole	*Icterus galbula*		✓					✓	✓
Brown-Headed Cowbird	*Molothrus ater*							✓	✓
Northern Harrier	*Circus cyaneus*			✓				✓	✓
Wild Turkey	*Meleagris gallopavo*		O	O					
Cooper's Hawk	*Accipiter cooperii*		✓	✓					
Tree Swallow	*Iridoprocne bicolor*							O	O
Gray Catbird	*Dumetella carolinensis*				O			✓	O
Empidonax Flycatchers	*Empidonax spp.*	✓						✓	
Great Crested Fly Catcher	*Myiarchus crinitus*			✓					
Red-eyed Vireo	*Vireo olivaceus*		O	O					O
Red-bellied Woodpecker	*Melanerpes carolinus*				✓			O	O
Blue-winged Warbler	*Vermivora pinus*		O				✓		

Table C-5 (cont.)

POTENTIAL AND OBSERVED AVIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Northern Mockingbird	*Mimus polyglottos*		✓				✓		
European Starling	*Sturnus vulgaris*		✓		✓				
Black and White Warbler	*Mniotilta varia*							✓	✓
Yellow Warbler	*Dendroica petechia*	O						✓	✓
Common Yellowthroat	*Geothlypis trichas*						✓	O	O
Field Sparrow	*Spizella pusilla*		✓					✓	✓
Chipping Sparrow	*Spizella passerina*		✓					✓	
Song Sparrow	*Melospiza melodia*		✓				✓	O	✓
Common Grackle	*Quiscalus quiscula*		✓					✓	
American Goldfinch	*Carduelis tristis*				✓			O	O
Northern Cardinal	*Cardinalis cardinalis*						✓	O	O
White Throated Sparrow	*Zonotrichia albiocollis*							✓	✓
Dark-Eyed Junco	*Junco hyemalis*		✓				✓	✓	✓
White Breasted Nuthatch	*Sitta carolinensis*		O		✓			O	O
Eastern Screech Owl	*Otus asio*		✓					✓	✓
Pileated Woodpecker	*Dryocopus pileatus*		✓		✓			✓	✓
House Wren	*Troglodytes aedon*						✓	✓	✓
Veery	*Catharus fuscescens*				✓				O
Eastern Wood-Peewee	*Contopus virens*				✓			O	O
Wilson's Warbler	*Wilsonia pusilla*							O	✓
Mallard Duck	*Anas platyrhynchos*				✓			O	
Canada Geese	*Branta canadensis*		O	O				O	
Blue-gray Gnatcatcher	*Polioptila caerulea*				✓				
Red-winged Blackbird	*Agelaius phoeniceus*							O	✓
Scarlet Tanager	*Piranga olivacea*		O	O					
Mourning Dove	*Zenaida macroura*		✓						
Least Flycatcher	*Empidonax minimus*			O				O	O
Worm-eating Warbler	*Helmitheros vermivorus*			✓				O	O

Table C-5 (cont.)

POTENTIAL AND OBSERVED AVIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Yellow-shafted Flicker	*Colaptes auratus*			O				O	O
Rose-breasted Grosbeak	*Pheucticus ludovicianus*								✓
Indigo Bunting	*Passerina cyanea*			✓					
Prairie Warbler	*Dendroica discolor*		✓						
Cedar Waxwing	*Bombycilla cedrorum*			O			✓	✓	✓
Fish Crow	*Corvus ossifragus*		✓	O		✓		O	O
Blue Winged Warbler	*Vermivora pinus*		✓						
Brown Creeper	*Certhia americana*		✓					O	O
Yellow-billed Cuckoo	*Coccyzus americanus*		✓	O					

Notes:

WSM - Wet Meadow - Sedge Meadow
HF - Hardwood Forest
HHF - Hardwood Highland Forest
FFP - Forested Flood Plain
PS - Perennial Stream
DA - Disturbed Area
FW-OC - Freshwater Wetlands - Open Canopy
FW-CC - Forested Wetland - Closed Canopy

O - Observed
✓ - Potential

Table C-6

POTENTIAL AND OBSERVED REPTILE AND AMPHIBIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Salamanders									
Jefferson Salamander	*Ambystoma jeffersonianum*							✓	✓
Spotted Salamander	*Ambystoma maculatum*							✓	✓
Northern Red-Backed Salamander	*Plethodon cinereus*	✓			✓			✓	✓
Marbled Salamander	*Ambystoma opacum*							✓	✓
Slimy Salamander	*Plethodon cinereus*							✓	✓
Red Newt	*Notophthalmus viridescens*	✓	✓	✓					
Four-Toed Salamander	*Henidactylium sctatum*							✓	✓
Two-lined Salamander	*Eurycea bislineata*				✓				
Toads and Frogs									
Eastern American Toad	*Bufo americanus*		✓	✓	✓				
Wood Frog	*Rana sylvatica*		✓		✓				
Fowler's Toad	*Bufo woodhousei fowleri*		✓	✓					
Northern Spring Peeper	*Hyla crucifer*	O			✓			O	✓
Gray Tree Frog	*Hyla versicolor*	✓						O	O
Green Frog	*Rana clamitans*							O	
Green Tree Frog	*Hyla cinerea*	✓						✓	✓
Pickerel Frog	*Rana palustris*	✓			✓				
Snakes									
Eastern Milk Snake	*Lampropeltis triangulum*		✓						
Eastern Garter Snake	*Thamnophis sirtalis*		O	✓	✓				
Northern Brown Snake	*Storeria dekayi*		✓	✓					
Northern Redbelly Snake	*Storeria occipitomaculata*		✓	✓					
Eastern Hognose Snake	*Heterodon platyrhinos*		✓	✓					
Northern Ringneck Snake	*Diadophis punctatus*		✓	✓					
Northern Black Racer	*Coluber constrictor*			✓					
Northern Copperhead	*Agkistrodon contortrix*							✓	✓

POTENTIAL AND OBSERVED REPTILE AND AMPHIBIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Turtles									
Eastern Box Turtle	*Terrapene carolina*	O	O					O	
Spotted Turtle	*Clemmys guttata*							✓	

Notes:

WSM - Wet Meadow/Sedge Meadow
HF - Hardwood Forest
HHF - Hardwood Highland Forest
FFP - Forested Flood Plain
PS - Perennial Stream
DA - Disturbed Area
FW-OC - Freshwater Wetlands - Open Canopy
FW-CC - Forested Wetland - Closed Canopy

O - Observed
✓ - Potential

Table C-8

POTENTIAL AND OBSERVED MAMMALIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Virginia Opossum	*Didelphis virginiana*		✓		✓				
Short-Tailed Shrew	*Blarina brevicauda*	✓	✓						
Least Shrew	*Cryptotis parva*	✓	✓						
Masked Shrew	*Sorex cinereus*	✓	✓						
Hairy-Tailed Mole	*Parascalops breweri*	✓	✓						
Eastern Mole	*Scalopus aquaticus*	✓	✓						
Star-Nosed Mole	*Condylura cristata*	✓	✓	O	✓				
Little Brown Bat	*Myotis lucifugus*		✓	✓	✓				✓
Red Fox	*Vulpes vulpes*	✓	✓						
Raccoon	*Procyon lotor*		✓	✓	✓		✓		
Striped Skunk	*Mephitis mephitis*	✓	✓		✓		✓		
White-Tailed Deer	*Odocoileus virginianus*	✓	O	O	✓		O	✓	O
Eastern Chipmunk	*Tamias striatus*		O	O	✓		O		✓
Woodchuck	*Marmota monax*						✓		
Eastern Gray Squirrel	*Sciurus carolinensis*		O	O			O		
Deer Mouse	*Peromyscus maniculatus*	✓	✓						
White-Footed Mouse	*Peromyscus leucopus*	✓	✓						
Meadow Vole	*Mictotus pennsylvanicus*	✓	✓						
House Mouse	*Mus musculus*	✓							
Meadow Jumping Mouse	*Zapu hudsonius*		✓	✓					
Woodland Jumping Mouse	*Napaeozapus insignis*	✓	✓	✓			✓		✓
Coyote	*Canis latrans*	✓		✓					
Eastern Cottontail	*Sylvilagus floridanus*	✓	✓						✓
Northern Myotis	*Myotis septentrionalis*		✓	✓	✓				

Notes:

WSM - Wet Meadow - Sedge Meadow
HF - Hardwood Forest
HHF - Hardwood Highland Forest
FFP - Forested Flood Plain
PS - Perennial Stream
DA - Disturbed Area
FW-OC - Freshwater Wetlands - Open Canopy
FW-CC - Forested Wetland - Closed Canopy

O - Observed ; ✓ - Potential

Table C-9

POTENTIAL AND OBSERVED MAMMALIAN INHABITANTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

Common Name	Scientific Name	Habitat Type							
		WSM	HF	HHF	FFP	PS	DA	FW-OC	FW-CC
Virginia Opossum	*Didelphis virginiana*		✓		✓				
Short-Tailed Shrew	*Blarina brevicauda*	✓	✓						
Least Shrew	*Cryptotis parva*	✓	✓						
Masked Shrew	*Sorex cinereus*	✓	✓						
Hairy-Tailed Mole	*Parascalops breweri*	✓	✓						
Eastern Mole	*Scalopus aquaticus*	✓	✓						
Star-Nosed Mole	*Condylura cristata*	✓	✓	O	✓				
Little Brown Bat	*Myotis lucifugus*		✓	✓	✓				✓
Red Fox	*Vulpes vulpes*	✓	✓						
Raccoon	*Procyon lotor*		✓	✓	✓		✓		
Striped Skunk	*Mephitis mephitis*	✓	✓		✓		✓		
White-Tailed Deer	*Odocoileus virginianus*	✓	O	O	✓		O	✓	O
Eastern Chipmunk	*Tamias striatus*		O	O	✓		O		✓
Woodchuck	*Marmota monax*						✓		
Eastern Gray Squirrel	*Sciurus carolinensis*		O	O			O		
Deer Mouse	*Peromyscus maniculatus*	✓	✓						
White-Footed Mouse	*Peromyscus leucopus*	✓	✓						
Meadow Vole	*Mictotus pennsylvanicus*	✓	✓						
House Mouse	*Mus musculus*	✓							
Meadow Jumping Mouse	*Zapu hudsonius*		✓	✓					
Woodland Jumping Mouse	*Napaeozapus insignis*	✓	✓	✓			✓		✓
Coyote	*Canis latrans*	✓		✓					
Eastern Cottontail	*Sylvilagus floridanus*	✓	✓						✓
Northern Myotis	*Myotis septentrionalis*		✓	✓	✓				

Notes:

WSM - Wet Meadow - Sedge Meadow | HF - Hardwood Forest | HHF - Hardwood Highland Forest | FFP - Forested Flood Plain

PS - Perennial Stream | DA - Disturbed Area | FW-OC - Freshwater Wetlands - Open Canopy | FW-CC - Forested Wetland - Closed Canopy

O - Observed ; ✓ - Potential

Table C-10

POTENTIAL AND OBSERVED INSECTS

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

COMMON NAME	SCIENTIFIC NAME	SIGHTINGS
Bald- faced Hornet	*Dolichovespula maculata*	O
Black Carpenter Ant	*Camponotus pennsylvanicus*	O
Brown Dog Tick	*Rhipicephalus sanguines*	O
Cabbage White Moth	*Pieris rapae*	O
Cattail Mosquito	*Coquilletidia perturbans*	O
Clouded Sulphur Moth	*Colias philodice*	O
Common Pillbug	*Armadillidium vulgare*	O
Deef Fly	*Chrysops spp.*	O
Deer Tick	*Ixodes spp.*	O
Eastern Subterranean Termite	*Reticulitermes flavipes*	O
Eastern Tiger Swallowtail	*Papilio glaucus*	✓
Elm Leaf Beetle	*Xanthogaleruca*	✓
European Mantid	*Mantis religiosa*	✓
Field Cricket	*Gryllus pennsylvanicus*	O
Firefly	*Photinus spp.*	O
Honey Bee	*Apis mellifera*	O
House Fly	*Fannia spp.*	O
Feaf-footed Bug	*Acanthocephala terminalis*	✓
Midge	*Chironomus plumosus*	O
Monarch Butterfly	*Danaus plexippus*	O
Spine-tailed Earwig	*Doru aculeatum*	O
Stealthy Ground Spider	*Cesonia bilineata*	✓
Yellow Bumble Bee	*Bombus fervidus*	O

NOTES: "O" is Observed, "✓" is Potential

Table C-11

DEVELOPMENT-ASSOCIATED AND DEVELOPMENT-SENSITIVE SPECIES

CROTON OVERLOOK DEVELOPMENT
TOWN OF YORKTOWN, WESTCHESTER COUNTY, NEW YORK

AVIAN SPECIES	DEVELOPMENT-ASSOCIATED (DA) AND DEVELOPMENT-SENSITIVE (DS)	OBSERVED (O) AND POTENTIAL (P)
Blue Jay	DA	O
American Crow	DA	O
Brown-headed Cowbird	DA	P
European Starling	DA	P
Common Grackle	DA	P
House Wren	DA	P
Canada Goose	DA	O
Eastern Bluebird	DS	O
Ovenbird	DS	P
Black and White Warbler	DS	P
Pileated Woodpecker	DS	P
Veery	DS	P
Least Flycatcher	DS	P
Worm-eating Warbler	DS	O
Indigo Bunting	DS	O*
Prairie Warbler	DS	O*
Blue Winged Warbler	DS	O*

NOTE: * - Observed off-site along ConEdison Utility Right-of-way, west of the Project site.

REPTILE-AMPHIBIAN SPECIES	DEVELOPMENT-ASSOCIATED (DA) AND DEVELOPMENT-SENSITIVE (DS)	OBSERVED (O) AND POTENTIAL (P)
Green Frog	DA	P
Eastern Garter Snake	DA	O
Jefferson Salamander	DS	P
Spotted Salamander	DS	P
Marbled Salamander	DS	P
Wood Frog	DS	P
Fowler's Frog	DS	P
Gray Tree Frog	DS	O
Eastern Box Turtle	DS	O
Spotted Turtle	DS	O

Table C-12 – Survey Info

Herbaceous Vegetation Survey (including Tree Survey) Periods & Conditions:

Date (2011)	Time (AM/PM Hours)	Weather
April 26	8:30 to 11:45	Partly Sunny; 62 Degrees; Wind Calm
April 29	7:45 to 11:55	Clear Sky; 48 Degrees; Wind Calm
May 24	8:30 to 12:35	Partly Sunny; 65 Degrees; Wind 5 mph
June 7	7:10 to 10:10	Partly Sunny; 52 Degrees; Wind Calm
June 21 (Transects)	8:45 to 1:15	Partly Cloudy; 68 Degrees; Wind 7 mph
June 23 (Transects)	5:10 To 12:10	Cloudy; 58 Degrees; Wind Calm

Woody Vegetation Survey (including Transects) Periods & Conditions:

Date (2011)	Time (AM/PM Hours)	Weather
April 26	8:30 to 11:45	Partly Sunny; 62 Degrees; Wind Calm
April 29	7:45 to 11:55	Clear Sky; 48 Degrees; Wind Calm
May 24	8:30 to 12:35	Partly Sunny; 65 Degrees; Wind 5 mph
June 7	7:10 to 10:10	Partly Sunny; 52 Degrees; Wind Calm
June 21 (Transects)	8:45 to 1:15	Partly Cloudy; 68 Degrees; Wind 7 mph
June 23 (Transects)	5:10 To 12:10	Cloudy; 58 Degrees; Wind Calm

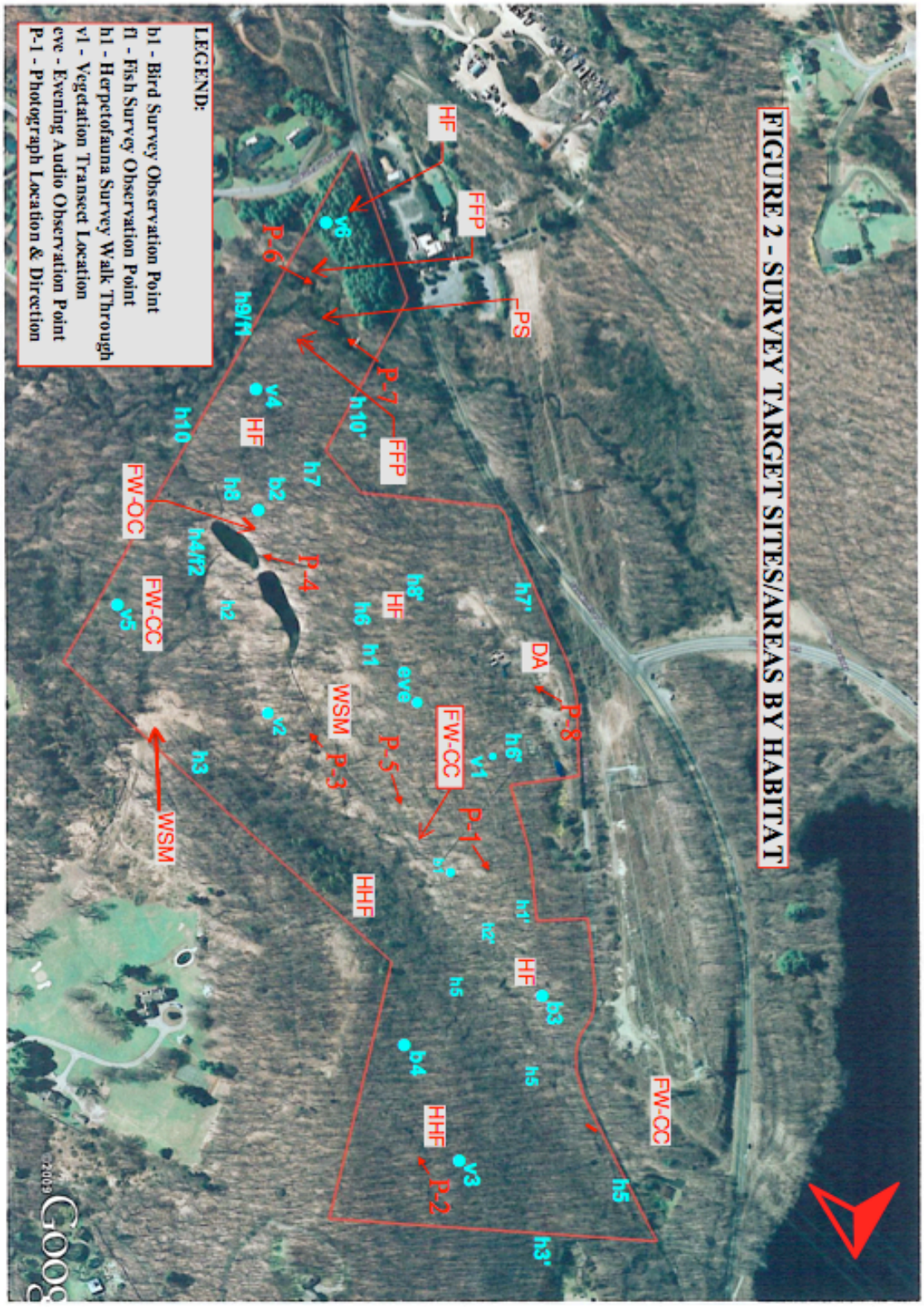
Reptile/Amphibian Survey (including Fish Surveys) Periods & Conditions:

Date (2011)	Time (AM Hours)	Weather
April 29	7:45 to 10:15	Clear Sky; 48 Degrees; Wind Calm
May 24	8:30 to 11:00	Partly Sunny; 65 Degrees; Wind 5 mph
June 7	7:10 to 9:30	Partly Sunny; 52 Degrees; Wind Calm
June 23	5:10 To 7:00	Cloudy; 58 Degrees; Wind Calm

Bird Survey Periods & Conditions:

Date (2011)	Time (AM Hours)	Weather
April 29	5:15 to 7:25	Clear Sky; 48 Degrees; Wind Calm
June 7	5:20 to 6:50	Partly Sunny; 52 Degrees; Wind Calm
June 23	5:10 To 7:00	Cloudy; 58 Degrees; Wind Calm

Figure C-1



D. Soils, Topography, Steep Slopes, and Geology

1. Existing Conditions

Soils

The soils of the entire project site, which consists of approximately 64 acres, consist primarily of Woodbridge-Loam, Charlton-Chatfield Complex, Hollis, Sun Loam, and Chatfield-Hollis soils. Other soils on-site include Charlton loam, Fluvaquents-Udifluvents complex, Ridgebury loam, Unadilla silt loam. Areas of soils are broken down by percentage in Figure D-1. Each of these soil types is well-drained, with the latter two representing the rockier sloped regions that are present on site.

The following Figure D-1: Soil Taxonomy Classification was obtained through the U.S. Department of Agriculture Natural Resource Conservation Services (NRCS) County Soil Survey. The map and the following Table D-1: Soil Taxonomy Classification, show the distribution of the specific soil types located within the entire project site, and further subdivides these types into regions based upon their respective slopes.

Soil sample locations and logs are displayed in the attached Test Pit Plan with Appendix G. and the Archeology Report attached in Appendix Q.

Soils are classified according to the unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004). The SCS also provides ratings for judging the severity of construction limitations due to varying soil types. These ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification of the soil, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. These ratings of construction limitations can be seen on Figure D-1, where green indicates slight or very little limitations are present, yellow indicates moderate limitations, and red indicates that construction will be more difficult or costly. The hydrologic capabilities of the soils onsite feature moderate to well draining soils. The engineering properties of the soils onsite are adequate to accommodate the proposed construction.

Figure D-1: Soil Taxonomy Classification

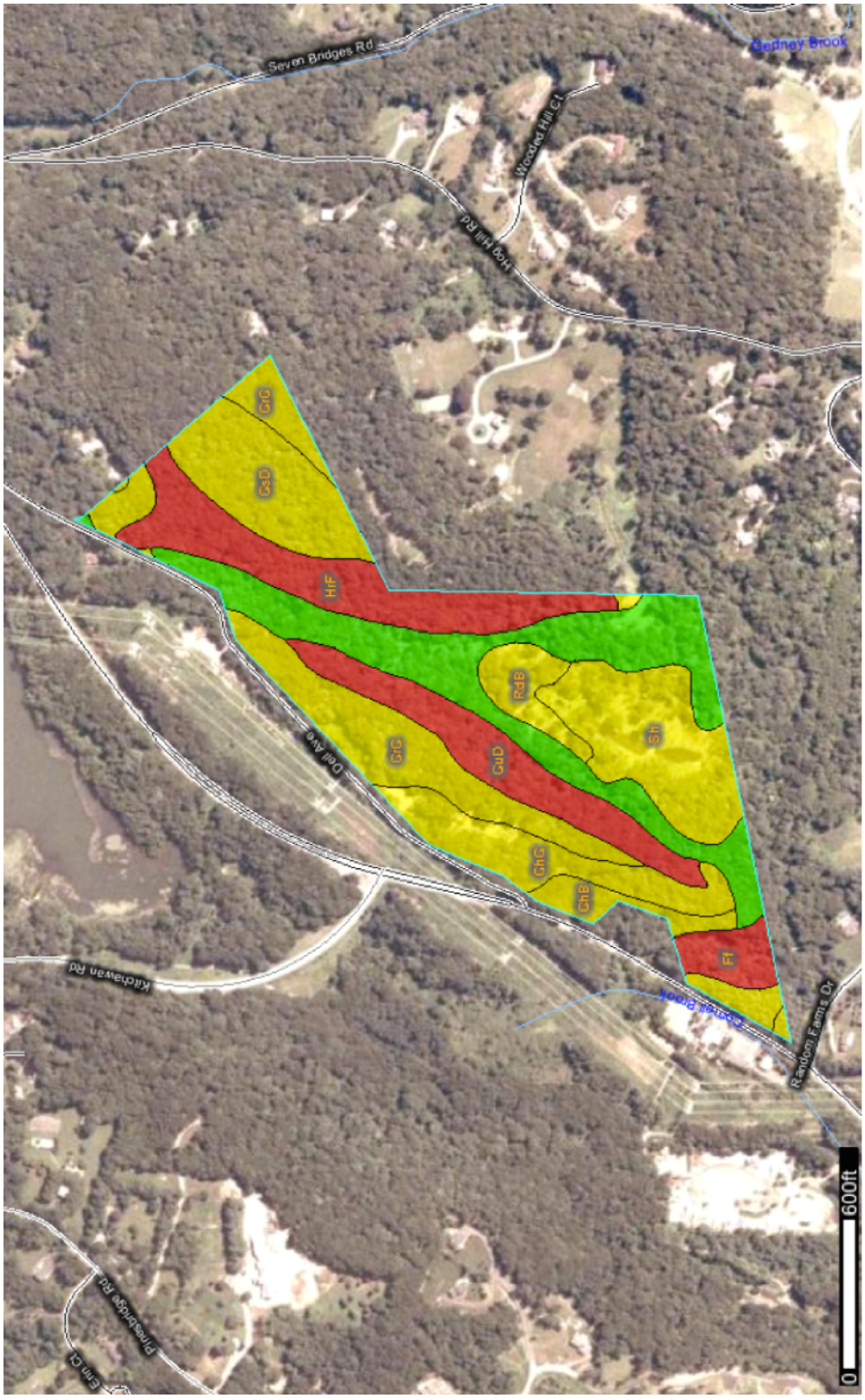


Table D-1: Soil Classification of Key of the Entire Project Site

Map unit symbol	Properties	Acres	Percent of Project Area

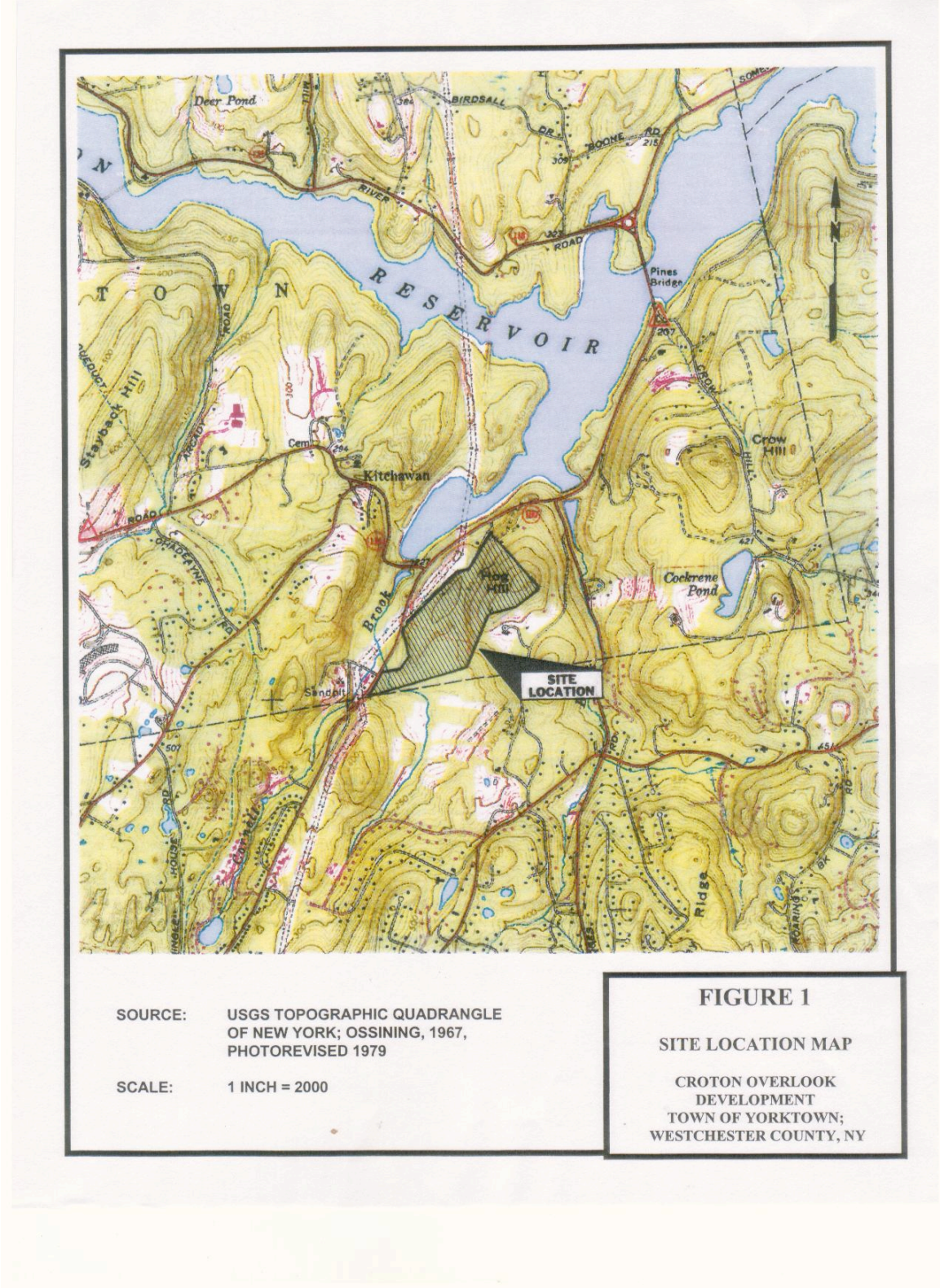
ChB	Charlton loam, 2 to 8 percent slopes	1.9	2.8%
ChC	Charlton loam, 8 to 15 percent slopes	5.4	8.4%
ChD	Charlton loam, 15 to 25 percent slopes	1.4	2.1%
CrC	Charlton-Chatfield complex, rolling, very rocky	8.8	13.8%
CsD	Chatfield-Charlton complex, hilly, very rocky	5.9	9.3%
CuD	Chatfield-Hollis-Rock outcrop complex, hilly	5.9	9.4%
Ff	Fluvaquents-Udifluvents complex, frequently flooded	1.8	2.7%
HrF	Hollis-Rock outcrop complex	8.5	13.3%
RdB	Ridgebury loam, 3 to 8 percent slopes	2.2	3.4%
Sh	Sun loam	7.9	12.2%
UdB	Unadilla silt loam, 2 to 6 percent slopes	0.9	1.5%
WdB	Woodbridge loam, 3 to 8 percent slopes	13.4	21.1%
	Total =	64	100%

Table D-1 summarizes the acreage of each specific soil types existing in the entire project site. Figure D-2 shows a topographic map of the surrounding area of the proposed development. The map in Figure D-2 is consistent with the slope classifications depicted in Figure D-1.

Slopes

The proposed 64-acre project site features woodlands with open vegetation, varied inclines, and some bedrock outcroppings. The total area of disturbance is just over 19 acres, located in the western portion of the project site. Forty seven and a half percent (47.5%) of the entire project area has slopes under 10%, thirty-one and 3 tenths percent (31.3%) of the entire project area has slopes ranging between 10-20%, and nineteen and a tenth percent (19.1%) of the entire project area has slopes greater than 20%. A Percent Slope Plan is attached in Appendix G, which depicts these slopes.

Figure D-2: Topography of the Development Region



A summary of the slopes as a percentage of the total entire project site is shown in Table D-2.

Table D-2: Slopes in Existing Project Site

Slope	Entire Project Site	Percent of Entire Project Site
Less than 10%	30.43 acres	48.6 %
10% – 20%	20.02 acres	32.3 %
Greater than 20%	12.25 acres	19.1 %

The proposed subsurface wastewater treatment discharge is located on the western portion of the development site adjacent to the existing Dell Ave. The soils for this section of the site consist primarily of Charlton loams with slopes of 2 to 15%. The subsurface wastewater treatment discharge system is described in more detail in the Utilities, Sewer Section of this DEIS, and the suitability of the soils for the proposed discharge is discussed in the Groundwater and Geology Section of this DEIS.

A map is provided in Appendix L. which depicts existing environmental constraints on the site, including the locations of any of any wetlands and floodplains.

2. Potential Impacts

Soils

The total area of disturbance consists of approximately 19 acres, or 30.11% of the entire project site. The following, Figure D-3: Total Area of Disturbance Soil Classification and Table D-3, were obtained through the U.S. Department of Agriculture Natural Resource Conservation Services (NRCS) county soil survey, and show the total area of disturbance for the proposed development project.

Figure D-3: Total Area of Disturbance - Soil Classification

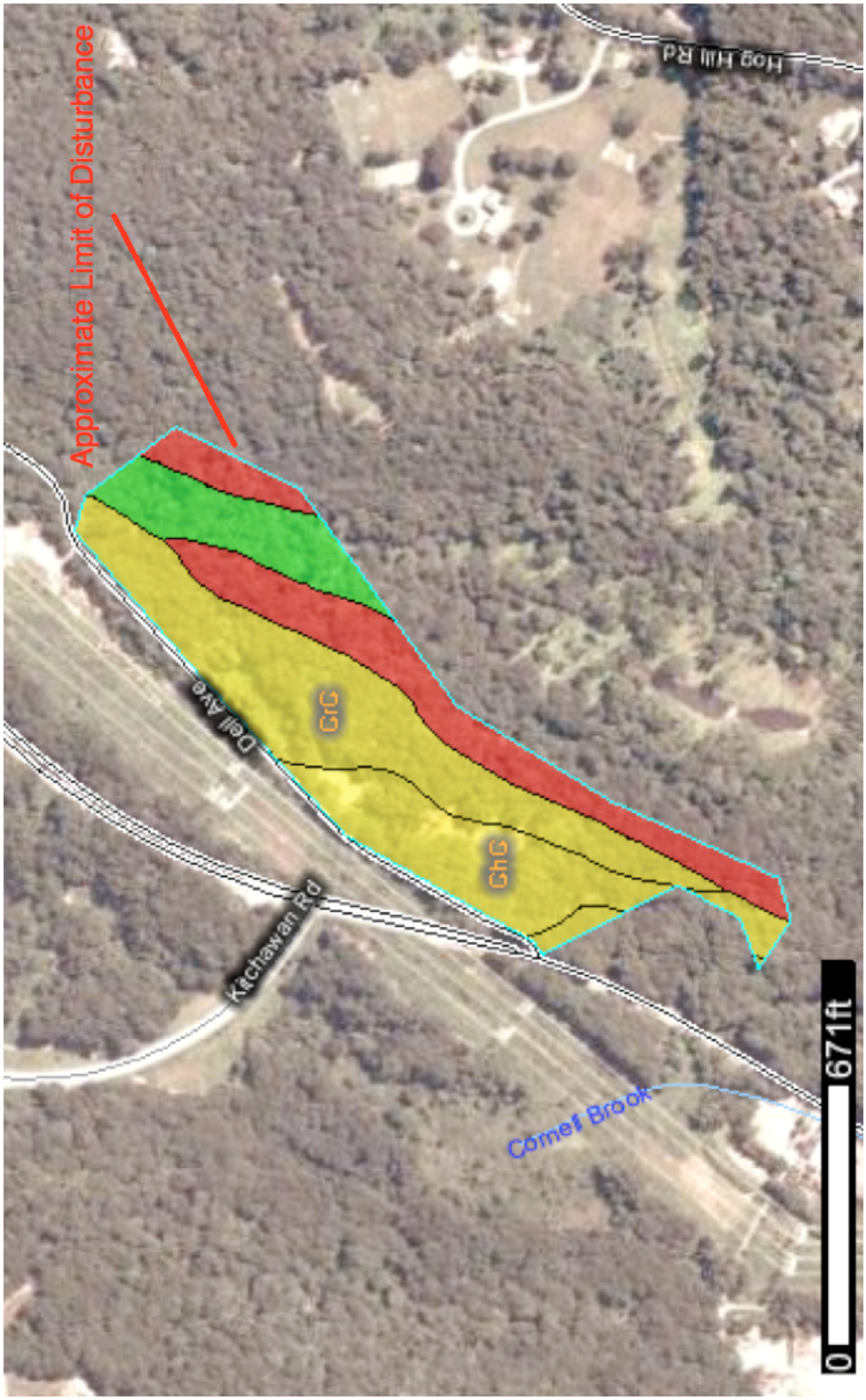

Approximate Limit of Disturbance
Hog Hill Rd
Dell Ave
CrG
ChG
Kitchawan Rd
Comet Brook
0
671ft

Table D-3: Total Area of Disturbance – Soil Classification Key

Map unit symbol	Map unit name	Component name (percent)	Acres	Percent of Total Area of Disturbance
ChB	Charlton loam, 2 to 8 percent slopes	Charlton (80%)	0.3	1.5%
ChC	Charlton loam, 8 to 15 percent slopes	Charlton (80%)	4.1	22.1%
CrC	Charlton-Chatfield complex, rolling, very rocky	Charlton (50%)	6.9	37.4%
		Chatfield (30%)		
CuD	Chatfield-Hollis- Rock outcrop complex, hilly	Hollis (30%)	1.2 (Hollis)	6.3% (Hollis)
		Rock outcrop (25%)	1 (Rock outcrop)	5.3% (Rock outcrop)
		Chatfield (45%)	1.8 (Chatfield)	9.5% (Chatfield)
HrF	Hollis- Rock outcrop complex, very steep	Hollis (60%)	0.48 (Hollis)	2.5% (Hollis)
		Rock outcrop (20%)	0.16 (Rock outcrop)	0.8% (Rock outcrop)
		Chatfield (20%)	0.16 (Chatfield)	0.8% (Chatfield)
WdB	Woodbridge loam, 3 to 8 percent slopes	Woodbridge (85%)	2.4	13.2%
	Total =		19	100%

Table D-4: Impact on Existing Soil Types

Soil Type	Acres in Entire Project Site	Percentage of Entire Project Soils to be Disturbed
Charlton Loam	8.3	53%
Charlton-Chatfield complex	8.7	79.3%
Chatfield-Charlton complex	5.9	0%
Chatfield-Hollis-Rock Outcrop	5.9	67.8%
Fluvaquents-Udifluvents	1.7	0%
Hollis-Rock Outcrop	8.4	9.5%
Ridgebury Loam	2.1	0%
Sun loam	7.8	0%
Unadilla silt Loam	0.9	0%
Woodbridge Loam	13.3	18%

The construction process requires excavation and grading of slopes to create a level area. Table D-4 summarizes the amounts of disturbance proposed for each range of slopes and rock outcroppings, and Table D-5 summarizes the acreage each soil type that will be disturbed. Cut and fill balancing refers to the process of utilizing the materials available at a site by matching the amount of material excavated (cut) with the amount of material needed as fill during the grading and construction process. For the proposed project site; total cut is expected to be 37,000 cubic yards and total fill is expected to be 37,000 cubic yards. As such, the cut and fill is balanced for the site. The excavated material will be used primarily for the proposed earthen berm along the western side of the site, discussed more in Section B Visual Resources, and the grading of the site for the proposed units. As the cut and fill will be balanced during the entire construction process, no extra traffic

will be created by needs for external fill resources, or exporting excess cut material. Due to the fact that excavated soils are not anticipated to be removed from the site, actions need to be taken to minimize erosion impacts on stockpiled soil. These actions are specifically addressed in the Erosion and Sediment Control Plan in Appendix E. The main actions include the installation of a silt fence around any temporary stockpile of soil, and seeding and mulching stockpiles that are not expected to be used within seven days of their excavation.

Additionally, the construction activity and proposed development is specifically located on-site to avoid steep slopes, unsuitable soils, and wetlands and their associated buffers. Tables D-4 and D-5 show that the unsuitable conditions for construction, such as slopes greater than 20%, occupy a very small percentage of the area of disturbance.

The entire construction process is expected to last 18 months, indicating that at least one winter season will occur during construction. Frozen soil conditions occur when frost has penetrated the depth of the boundary between topsoil and subsoil, these conditions affect the construction process in the following ways:

- Equipment slippage from operating on frozen ground
- Road crossings cannot be adequately compacted
- Topsoil is frozen and cannot be separated from sub-grade material
- Backfill material freezes to the extent that adequate compaction becomes difficult
- Topsoil stockpiles are frozen and cannot be uniformly redistributed across disturbed areas

To avoid potential problems encountered with frozen soils, steps will be taken to make sure that seasonally limited construction processes will be carried out at the appropriate time, described further in the Preliminary Erosion and Sediment Control Plan in Appendix E.

The suitability of soils in areas of storm water management is discussed in Section J. Stormwater Management. The suitability of soils in areas of wetlands mitigation is discussed in Section E. Wetlands and Surface Water Resources.

Slopes

The following, Figure D-6: Impact on Existing Slopes was obtained through the U.S. Department of Agriculture Natural Resource

Conservation Services (NRCS) county soil survey, and shows quantity of varying slopes that will be disturbed during the proposed project.

Table D-5: Impact on Existing Slopes

Slope	Entire Project Site	Percent of Entire Project Site	Area of Disturbance	Percent of Area of Disturbance
Less than 10%	30.43 acres	48.6 %	8.94 acres	48%
10% – 20%	20.02 acres	32.3 %	9.46 acres	50.8%
Greater than 20%	12.25 acres	19.1 %	0.22 acres	1.2%

Approximately 10,000 cubic yards of rock will be removed through the use of blasting. The Rock Outcrop map attached in Appendix L shows the approximate acreage and location of rock outcroppings on-site. Table D-6 below lists the estimated quantities of blasted material for its corresponding use on site. The blasting means and methods will be in accordance with all applicable regulatory agencies, including the Town of Yorktown Code Chapter 124. Along with blasting, hammering of oversize rock into a more practical size to be moved to its final location on site will occur. Crushing of blasted material will also occur, crushed rock will be used where needed on site as a base material for roads and in the subsurface infiltration field. Excavation of rock will occur primarily in the beginning of the project, when the site is being brought to plan grades through cutting and filling. Blasted rock will be stockpiled for reuse, and such stock piles will be properly stabilized in accordance with all governing agencies regulations. Blasting and other forms of rock removal and processing will occur where there are areas of exposed bedrock in the area of disturbance. These regions are labeled on Figure D-1 as CrC, CuD and HrF.

Table D-6 – Estimate of Proposed Uses for Blasted Material

Use	Quantity
Base Material for Roads	1,200 cubic yds
Infiltration Fields	670 cubic yds
Grading	3,000 cubic yrds
Berm	5,130 cubic yds

Total =	10,000 cubic yds
Note: All quantities are estimates and as such are subject to change during construction	

The majority of steep rock ledges are located at the North of the site, outside of the proposed limit of disturbance. The majority of the centerline of the proposed Dell Ave runs along the center of a ridge, approximately at grade with existing conditions. The existing topography in the area where the proposed Dell Ave will lay is sloped. As such, on one side of the proposed road centerline, material will be excavated, and the other side will be filled. The path of the proposed roadway eventually meets a hill, which will require cutting and excavation. The proposed cul-de-sac will require some filling. It is not anticipated that much rock blasting will be necessary for the middle of the path of the proposed roadway. The majority of blasting is anticipated to occur at the North and South ends of the project site.

The during and post-construction grading plan, shown in Appendix G, provides a detailed image of existing and proposed contour lines of the development site.

Proper storm water management practices will be employed, during and post-construction, to reduce erosion and control subsequent off-site sedimentation, these practices are detailed in Appendix E.

Potential impacts and mitigation techniques for construction and site grading with respect to soil erosion, slope stabilization and drainage patterns will also be found in the Erosion and Sediment Control Plan attached in Appendix E.

3. Proposed Mitigation

Multiple plans have been made to mitigate the impacts to soils, topography, steep slopes, geology, and surface drainage during and post-construction. A Soil Erosion and Sediment Control Plan has been prepared in accordance with the most recent editions of the New York State Guidelines for Erosion and Sediment Control, and the New York State Storm Water Design Manual, and is available in detail in Appendix E. A Blasting Mitigation Plan has also been prepared and can be found in detail in Appendix I. Additionally, the construction activity and area of disturbance is specifically located on-site to avoid steep slopes, unsuitable soils, and wetlands and their associated buffers. Other various steps to be carried out to reduce the impact on

soils and steep slopes include, but are not limited to: proper stockpiling methods for excavated materials, seeding and mulching of stockpiled materials that will be unused for more than seven days, balancing the cut and fill so as to reduce the number of vehicle trips to and from the site during construction, and installing a proper subsurface wastewater treatment discharge system which is discussed in more detail in Appendix M.

E. Wetlands and Surface Water Resources

1. Existing Conditions

During November 2009, ECSI on behalf of the Croton Overlook Corporation, delineated two on-site wetland areas within the boundaries of the project site. These areas were delineated in accordance with the Town of Yorktown Code, Chapter 178, and the "US Army Corps of Engineers 1989 Interagency Wetland Delineation Manual". ECSI performed field visits to obtain soils, vegetation and hydrology information, pursuant to the "USACE Interim Regional Supplement to the Corps Wetland Delineation Manual: Northcentral and Northeast Region".

A Wetland Delineation Report has been prepared for the project and is contained in Appendix B of this document. This report presents information about the types of vegetation, soils and hydrologic indicators recorded in the field as part of delineating the limits of each wetland. In addition, the report contains completed copies of Wetland Determination Data Forms and photographs which document field conditions.

Wetland A is the largest of the two on-site wetlands and is 12.69 acres in size and includes a small upland area within the southeast portion of this wetland; Wetland B is 0.07 acres in size. A nearby off-site wetland exists along the Con-Edison utility right-of-way west of Dell Avenue. This wetland is approximately 1,100 square feet in size.

On April 22, 2011, the town's Wetland Consultant, Bruce Barber, provided COC with e-mail correspondence indicating that the limits of each on-site wetland were verified in the field and that the Town's verification process is complete. A copy of this e-mail correspondence is also contained in Appendix B.

Wetlands A and B, and the off-site 1,100 square foot wetland located along the Con-Edison right-of-way, fall under Town of Yorktown jurisdiction (Chapter 178). As noted under Town Code, a 100 foot boundary setback must be established from all field delineated boundary lines. In addition, these wetlands meet the criteria for being Federal

Jurisdictional wetlands by the US Army Corps of Engineers (USACE). Work proposed within regulated wetland buffer areas will require a Wetlands Permit approval from the Town of Yorktown Planning Board. Work planned directly within either of the two on-site wetlands will require compliance with both Town and Federal USACE jurisdiction (Nationwide Permit) requirements.

It is important to note that representatives of the NYCDEP visited the project site during May 2011 and located "headwater" surface seep points in the vicinity of Wetlands A and B. These points are regarded as being intermittent and thus, a 50 foot NYCDEP regulated setback applies. The limits of each 50 foot NYCDEP regulated setback lies within the 100 foot Town regulated buffer area projected by Wetlands A and B. With respect to Wetland B, the 50 foot setback extends across a portion of Dell Avenue and thus, any planned improvements at this location will require NYCDEP approval. During the site visit, NYCDEP personnel observed that the northern portion of Dell Avenue and the project site lies within an 800 foot "reservoir stem" setback, originating from New Croton Reservoir located west of NYS Route 100. The 800 foot setback extends from the New Croton Reservoir and southeast, across Route 100 and Dell Avenue, and onto the northern portions of the project site. Based on aerial interpretation, the proposed development will not encroach within the limits of the 800 foot regulated setback. Planned improvements along Dell Avenue which lie within the 800 foot regulated setback area will also require approval by the NYCDEP. Appendix B. presents the limits of these wetlands (and waterways), as well as the 100 foot buffer and NYCDEP setback areas projected by Wetlands A and B.

The Wetland Delineation Report contained in Appendix B has been prepared to support arrangements for obtaining a Town of Yorktown Wetland Permit, which will be necessary for completing roadway and storm water drainage work proposed along portions of Dell Avenue. Proposed improvements along "fire roads/trails" which cross and/or lie directly within Wetland A must also be included under the Town Wetland permit. In addition, such activities must meet conditions of an applicable USACE Nationwide General Permit. These roads will be improved to provide community residents with safe access to natural areas as a form of passive recreational opportunity.

No NYSDEC designated wetlands exist on site; this finding has been confirmed in correspondence COC received from the NYSDEC on August 16, 2010 (Appendix B). ECSI also reviewed a National Wetlands Inventory (NWI) map which revealed that a portion of Wetland A is depicted on the Federal Map as being "Palustrine". Palustrine wetlands are those which are all non-tidal wetlands, substantially covered with

emergent vegetation, trees, shrubs, and moss. Most bogs, swamps, ponds, floodplains and freshwater marshes fall within this classification system.

Wetland Functional Capacity Analysis

As part of plans to obtain a Town Wetlands Permit for construction activities proposed under the development, the Croton Overlook Corporation retained ECSI to complete a functional analysis of Wetlands A and B. This analysis will be utilized to determine the extent of mitigation necessary to compensate for activities planned within, or in close proximity (100' buffer) of these wetlands. The "Rapid Procedure for Assessing Wetland Functional Capacity" was utilized for this purpose, which is based on first completing a hydrogeopmorphic (HGM) classification process. Once the HGM classification is determine for each wetland, then functional values and benefits can be concluded. Wetland Inventory Data sheets were completed for each wetland to determine HGM classification (Part 1 - Characterization of Wetland and Part 2 - Characterization of Model Variables). These sheets were then used to determine wetland functional capacity utilizing the eight model work sheets (conditions and variables) necessary to conclude Functional Capacity Index and Index Range. The Wetland Inventory Data sheets and the eight functional model work sheets completed for each of the two on-site wetlands are contained in Appendix E of the Wetland Delineation Report.

The Rapid Procedure for Assessing Wetland Functional Capacity method considers physical and chemical variables typically associated with wetlands in the northeast. Both the HGM classification and the model variables include four major parameters, which are; position in the landscape, hydrology, soils and vegetation. The eight functional models evaluated under the method are as follows:

1) Modification of Groundwater Discharge
2) Modification of Groundwater Recharge
3) Storm and Flood Water Storage
4) Modification of Stream Flow
5) Modification of Water Quality
6) Export of Detritus
7) Contribution to Abundance and Diversity of Wetland Vegetation
8) Contribution to Abundance and Diversity of Wetland Fauna

The HGM classification and Functional Indices and ranges determined for each wetland are discussed below.

Wetland A

This wetland is 12.69 in size and is surrounded by two elevated land areas east and west. The majority of this wetland is forested with two small open water ponds nestled within a Wet Sedge Meadow vegetation community (north and east of the ponds); a riverine/floodplain vegetated community (Forested Floodplain - FFP) connects south and southeast. Surface water drainage occurs from the north, east and southeast over approximate slopes of 3 to 5 percent from these directions. Essentially, the components of this wetland are comprised of connecting slope, depressional and riverine settings.

From the north, surface water is contributed by surface water runoff and seasonal groundwater seeps which flow parallel and perpendicular across a gently sloping grade, all of which feed into the two open water ponds. The ponds are mostly surrounded within the Wet Sedge Meadow vegetation community. This area is depressional in that features temporarily store moisture before discharging (via the surface) to a meandering perennial stream located at the southern reaches of the property, within the Forested Floodplain vegetation community. This perennial stream is tributary to the New Croton Reservoir located northwest of the project site. This stream is primarily fed by the Cornell Brook which lies within the Cornell Brook Basin sub-watershed of the New Croton Reservoir. This portion of Wetland A is considered as a "riverine" setting which receives surface water flows from the Wet Sedge Meadow and on-site ponds, as well as from off-site upgradient areas east, southeast and south of the property. This portion of the wetland is prone to seasonal low to moderate water level fluctuations and sedimentation deposits throughout the floodplain limits.

Soils within this wetland are predominantly Sun Loam (Sh), a State listed hydric soil, which lies above glacial till. Hydric soil conditions observed in the field include moist and saturated silty loam and clay near the surface. In addition, an hydrogen-sulfide odor was detected. Vegetation is comprised of diverse, well structured community species with an abundance of hydrophytic vegetation. These communities provide diverse habitat to support several varieties of observed (and potential) mammalian, avian, reptile and amphibian species. Information gathered in the field by ECSI as part of conducting an ongoing Bio-diversity Assessment for the property has served to document these findings, as well as contribute to the completion of the work sheets contained in the Wetland Delineation Report (Appendix E).

Based on the above and information presented on the completed Wetland Inventory Data sheets and the eight model work sheets, Wetland A is considered to be a highly functional wetland as its conditions and physical/chemical properties generate favorable Functional Indices which fall well within applicable Index Ranges. All but one of the eight functional models, Modification of Groundwater Recharge, are considered functional for this wetland. Modification of Groundwater Recharge does not apply as surface water flow and groundwater seeps predominate, which in turn discharge unrestricted through the wetland; no groundwater recharge flow component is expected.

Wetland B

This wetland is 0.07 acres in size and is downgradient of the two on-site elevated land areas situated east and south. This wetland is isolated from Wetland A and lies within a Forested Wetland-Closed Canopy vegetation community. Surface water drainage occurs predominantly from the south and east by surrounding elevated land areas. The primary components of this wetland are depressional with an unrestricted outlet; surface water flow travels from a small depressional "headwater" area and towards Dell Avenue (northeast), across a gentle 1 to 2 percent slope.

Soils within this wetland consist of the Charlton-Chatfield Complex, formed atop glacial till. This soil series is not considered hydric; however, small pockets of somewhat poorly drained soil conditions are found within, or adjoining this series. Hydric soil conditions observed in the field include moist and saturated silty loam and clay near the surface. Hydrophytic vegetation observed within this wetland is of low diversity and structure. Compared to Wetland A, this wetland displays much less diversity and overall provides less functional capacity benefits. The observed wetland vegetation community does support habitat for limited varieties of mammalian avian, reptile and amphibian species. Information gathered in the field by ECSI as part of conducting an ongoing Bio-diversity Assessment for the property has served to document these findings, as well as contribute to the completion of the work sheets contained in Appendix E of the Wetland Delineation Report.

Based on the above and information presented on the completed Wetland Inventory Data sheets and the eight functional model work sheets, Wetland B is considered to contribute low to moderate levels of functional benefits. The Functional Indices and Index Ranges for seven of the eight functional models evaluated are low, especially when compared to those of Wetland A. As with Wetland A, this wetland will not modify groundwater recharge; it routes surface water flow off-site to Dell Avenue

where a storm water collection system directs surface runoff towards the New Croton Reservoir.

Of the seven functional models, Modification of Water Quality and Export of Detritus results with a good indicies; the remaining functional models result in low to moderate indices with Modification of Stream Flow resulting with the lowest functional index.

On-site Drainage Relative To The New Croton Reservoir

No vernal pools exist within the boundaries of the project site. A drainage divide exists north of Wetland A, in close proximity to Wetland B. Essentially, surface and groundwater flows north at the northern most limits of the property; most of the site drains south towards the unnamed on-site perennial stream**.** Two unnamed intermittent streams, which originate from upgradient sources east and southeast of the property, feed into an on-site perennial stream at the southeastern and southern portions of the property.

The on-site perennial stream is tributary to the Cornell Brook which originates off-site, south of the site. This stream meanders from east to west and eventually discharges off-site to the New Croton Reservoir located approximately ½ mile northwest of the project site. All on-site streams lie within the delineated boundary limits of Wetland A and are considered as being regulated waterways by the Town of Yorktown and the USACE. In addition, the NYSDEC has designated the Cornell Brook (including the on-site section) as a Class B(ts) (ts-trout spawning) stream (NYSDEC Map designation H-31-P44-46). Figures in Appendix B depict these on-site intermittent and the perennial water course.

The Cornell Brook lies within a drainage basin (the Cornell Brook Basin) of the East New Croton Sub-watershed area. Watershed mapping maintained by the Westchester County Department of Planning (Map 12, Westchester County Croton Watershed Water Quality Conditions Report , March 2002) indicates that approximately half of the property site lies within this basin area. The northern portions of the property lie within the East New Croton Reservoir Basin. The depicted limits of the watershed approximate the above described on-site drainage divide. Figures in Appendix B depicts the approximate location of the project site within the East New Croton Sub-watershed area.

Floodplains

According to available floodplain mapping maintained by the Federal Emergency Management Administration (FEMA), none of the on-site

streams lie within a 100 or 500 year floodplain. Figures in Appendix B presents the approximate limits of FEMA designated floodplain areas in the vicinity of the project site.

Water Budget Analysis

The project engineer, Lawrence Paggi, P.E., performed a storm water "budget" analysis to determine the volume of runoff, under a 2-year, 24-hour storm event, that is contributed by the central/eastern limits of the development area under the post-construction scenario. Appendix contains this analysis and a proposed revision to the originally designed grading plan with storm water controls. This analysis was performed to determine the volume of surface and groundwater flow path potentials which would normally, under pre-construction conditions, discharge from the central/eastern limits of the development area and to Wetlands A and B. Based on this results of analysis, a considerable volume of storm water (and groundwater) potentials will be generated.

2. Potential Impacts

Proposed improvements along Dell Avenue will be performed within the limits of a Town 100 foot buffer and a 50 foot NYCDEP regulated setback area projected by Wetland B and a Town regulated 100 foot buffer projected of the approximate 1,100 square foot wetland located just west of Dell Avenue within the Con-Edison right-of-way. It is important to note that improvements to Dell Avenue will be reviewed by the NYCDEP after the SEQR process has been completed. The Applicant will seek necessary approvals from the NYCDEP once the final project design has been reviewed under SEQR. In this manner, the Department will be in a position to review and comment on a final design confirmed under SEQR and thus, avoid unnecessary design reiterations which will only waste time and money for the Applicant and the Department. All storm water generated by the improvements along Dell Avenue will be addressed under the project SWPPP. Storm water generated throughout the projects, both during and after construction, will be directed to proposed storm water control basins designed to handle appropriate storm events with bioretention and filtration.

Upgradient existing surface and groundwater flow paths originating from the central/eastern portions of the proposed development area, will potentially be interrupted and routed away from on-site Wetlands A and B under post-construction conditions. Elimination of these flow paths will remove important surface and groundwater flow paths which would normally discharge to on-site wetlands and waterways under pre-construction conditions.

3. Mitigation Measures

Storm water generated by the proposed development will be routed into permanent storm water basins designed to properly treat storm water runoff generated by the development. The proposed storm water movement system has been designed to conform to the guidelines established in the New York State Storm Water Management Design Manual, August 2010, and the guidelines established in the NYSDEC publication "Rules and Regulations for the Protection from Contamination, Degradation and Pollution of The New York City Water Supply and Its Sources", effective May 1, 1997, as Amended April 4, 2010.

To meet NYCDEP water quality treatment requirements, construction of two types of storm water management practices in series has been proposed at the north end of the project site. The first practice is identified as a Sand Filter (F-1), and the second is identified as a Micropool Extended Detention Pond (P-1) in the New York State Storm Water Design Manual. The Sand Filter and Micropool Extended Detention Pond will be located at the northwestern portion of the site and will provide a water quality treatment for the storm water runoff discharging toward these practices. An Infiltration Basin (I-2) will be located at the southwest corner of the site near the new proposed entrance to the development. An Infiltration Basin does not require an additional practice in series according to NYCDEP regulations and will provide both water quality treatment and quantity control.

All proposed structures are described in the New York State Storm Water Management Design Manual as standard storm water management practices that are acceptable for water quality treatment. The practices will achieve at least 80% TSS removal and 40% TP removal. The Proposed Micropool Extended Detention Pond (P-1) and Infiltration Basin (I-2) are identified as being capable of providing good pollutant removal for Nitrogen, Metals and Bacteria (>30% TN, >60% Metals, >70% Bacteria). The Sand Filter, which is installed in series with the Micropool Extended Detention Pond, will provide additional protection and is identified as being capable of providing good pollutant removal for Nitrogen and Metals, and fair pollutant removal for Bacteria (35 to 70%).

Planned improvements along Dell Avenue which encroach within the buffer of Wetland B and that of the approximate 1,100 square foot wetland within the nearby Con-Edison right-of-way, will be mitigated with the removal of pavement along a portion of Dell Avenue and the establishment of buffer vegetation plantings. These plantings will

surround storm water recharge basins to form a passive recreational park for community residents to enjoy. The storm water collection basins will incorporate bioretention, thereby providing unique wetland functions typical of such control measures. Further, this parkland and 42.7 acres of the remaining portions of the site after development will be managed as open space under a conservation easement agreement. The combined establishment of a park west of the development and the preservation of the remaining 42.7 acres (including Wetlands A and B and connecting waterways and contributory drainage areas) will be protected. Further, the planting of vegetation and the protection of these open space areas will serve to mitigate (offset) planned improvements along Dell Avenue. These measures significantly out-weight the area and types of existing wetland buffer functions for Wetland B and the off-site wetlands located within the ConEdison right-of-way.

Wastewater produced by the proposed development will be routed to an on-site wastewater treatment plant, which will provide secondary and tertiary treatment before being discharged to a subsurface infiltration disposal system. These systems will be designed to meet required wastewater discharge and treatment criteria mandated by the NYSDEC, NYCDEP and the Westchester County Health Department. Discharge quality will meet (or exceed) intermittent stream standards before treated wastewater is routed to the subsurface discharge system for microbial treatment. Overall, the quality of treated wastewater discharges will meet drinking water standards before leaving the site. The wastewater treatment plant will operate under the NYSDEC SPDES discharge permit. Periodic monitoring and testing will be performed to ensure that the treatment system is in compliance with applicable State, City and County discharge standards. The Applicant will seek necessary permits and approvals from the State, City and County, once the SEQR review process is complete and a final project design is developed. The Applicant understands that treatment system review and permitting processes will require that certain environmental safeguards be included for system design and operations. These will be issued by way of State, City and County processing.

As noted, the Applicant will seek NYCDEP approvals for planned improvements along Dell Avenue; these approvals will likely be subject to conditions specific to providing measures aimed at mitigating potential storm water quality and sedimentation impacts during and after construction. These provisions will be incorporated into the SWPPP, in accordance with NYCDEP regulations. As in the past, these measures will be reviewed and approved by the Department before construction commences. In addition, the Applicant will finalize its application for to obtain a Town of Yorktown Wetland Permit, once SEQR has been

addressed. As necessary, appropriate storm water quality and sedimentation control measures will be incorporated into the SWPPP, which in turn will b subject to Town Engineering review. Other than NYCDEP and Town of Yorktown jurisdiction, no other jurisdictions apply.

The proposed landscape plan for the development, will incorporate varieties of lawn grass and tree and shrub plantings which are least fertilizer demanding and which will quickly mobilize and uptake fertilizer nutrients (Nitrogen and Phosphorus) during the growing season. In addition, deer resistant varieties will be considered to reduce human interactions with wildlife. Residents within the Home Owners Association will be restricted to using 1.5 to 2.0 pounds of lawn fertilizer per 1,000 square feet, twice per growing season, during May through September. Only environmentally friendly and organic based fertilizers, such as compost, manure, peat and worm castings, will be considered for use. Phosphorous containing fertilizer will not be utilized as this ingredient is banned for use by the Westchester County Department of Health. Further, the Intergrated Pesticide Management Plan to be implemented under the project will reduce chemical runoff potentials and thus, provide an additional means to safeguard against such discharges to surrounding on-site wetlands and waterways. Vegetation plantings will be established within each storm water control basin to uptake seasonal nutrient potentials. As noted above, the filtration component of the proposed storm water basins will further ensure that water quality standards are met for storm water discharges. These practices and measures will serve to mitigate pollutant-loading potentials and thereby, eliminate poor water quality discharge potentials to surrounding water resources, including the New Croton Reservoir.

F. Cultural Resources

Section 14.09 of the New York State Historic Preservation Act of 1980 establishes 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 (OPRHP) prior to approving a project. The proposed project requires OPRHP's review due to the presence of a precontact (dating prior to European contact) archaeological site "in or adjacent to" the proposed project site, and thus must follow the criteria determined by OPRHP for cultural resource management, as set forth in the "Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State." These standards were developed by the New York Archaeological Council

and adopted by the OPRHP to ensure uniformity in the review of cultural material in New York State.

Cultural resources investigations are performed at three levels, referred to as Phase I, II and III investigations. A resources investigation may receive OPRHP approval after the completion of any of these phases by a qualified archaeologist, based on the agency's determination that the project site has undergone sufficient investigation to eliminate the probability of significant artifacts being recovered at that location.

Phase I is subdivided into two sub-phases: Phase IA, Literature Review and Sensitivity Assessment, and Phase IB, Field Investigation. The Phase IA study entails the following:

1) a review of published historic material pertaining to the development site and surrounding area
2) a search of the historical or archeological site files of the New York Museum and the New York Historic Preservation Office to identify documented cultural resources located on or adjacent to the property, and;
3) a study of the subject site to identify areas of greater and lesser potential for containing subsurface cultural remains, and to note areas where serious prior disturbance to upper soils may have eliminated such potential, and to photo document any potentially affected standing structures over 50 years of age.

For any area identified as potentially sensitive in the Phase IA study, a Phase IB field investigation is required. A Phase IB study involves a systematic, on-site field inspection to verify the presence or absence of archaeological or historic artifacts. The most common method for conducting a Phase IB is subsurface testing, which requires the excavation of small test pits at fixed intervals throughout the proposed area of disturbance. The soils from these pits are examined for cultural remains. Significant findings can result in the requirement of subsequent intense investigation via a Phase II or Phase III study. Mitigation, or avoidance, of the area of the development site where cultural remains are known or suspected may be accepted by OPRHP, enabling the modified project to continue.

1. Existing Conditions

The study area for historical and archaeological resources is defined as the 63.98-acre project site and adjacent properties. A Phase IA study of the proposed project's area of potential effect (APE) was

conducted to determine which areas would warrant a further Phase IB study.

Potential Resources

There are no previously recorded historical sites documented within the boundaries of the project site. The majority of sites recognized as precontact habitation sites in Westchester County have been found in sheltered, elevated sites close to wetland features, or other sources of fresh water. Sloping hillsides and areas of exposed bedrock within the project site likely prevented precontact habitation of the area. However, some of the linear terraced areas of the site may have been utilized as short term hunting stations or temporary encampments. Precontact sensitivity is also affected by the level of disturbance to the natural landform since European settlement. Some areas of the project APE experienced extensive disturbance as a result of stone quarrying. Therefore, only areas which are located within the APE and which have not experienced past subsurface disturbance are considered potentially sensitive for precontact resources. Ultimately, as much of the site is defined by steep hillsides, a large part of the project APE was not considered to have precontact sensitivity.

Research of prior buildings on the site APE identified one structure present during the late nineteenth century and two twentieth century structures that stood in approximately the same location. None of these structures are still standing.

Phase IA Assessment of Archaeological Sensitivity

A search of historical and archaeological site files maintained by the New York State Museum (NYSM) revealed one significant precontact site within ½ mile of the project site. In the year 1922, Arthur C. Parker recorded the discovery of a Native American Village with human burials near the Village of Kitchawan on the old Cheadange Farm. Historical maps and Parker's identification indicate that the former Cheadange Farm site is centered significantly to the west (approximately 1/8 mile west) of the project APE where topographic characteristics are more favorable to precontact settlement.

The project site is listed as a potentially archeological sensitive area by the New York State OPRHP due to the presence of a precontact archaeological site "in or adjacent to" the proposed project site. The Phase IA assessment of the archeological sensitivity of this area concluded that the potentially significant site would not be affected by the development of the proposed project.

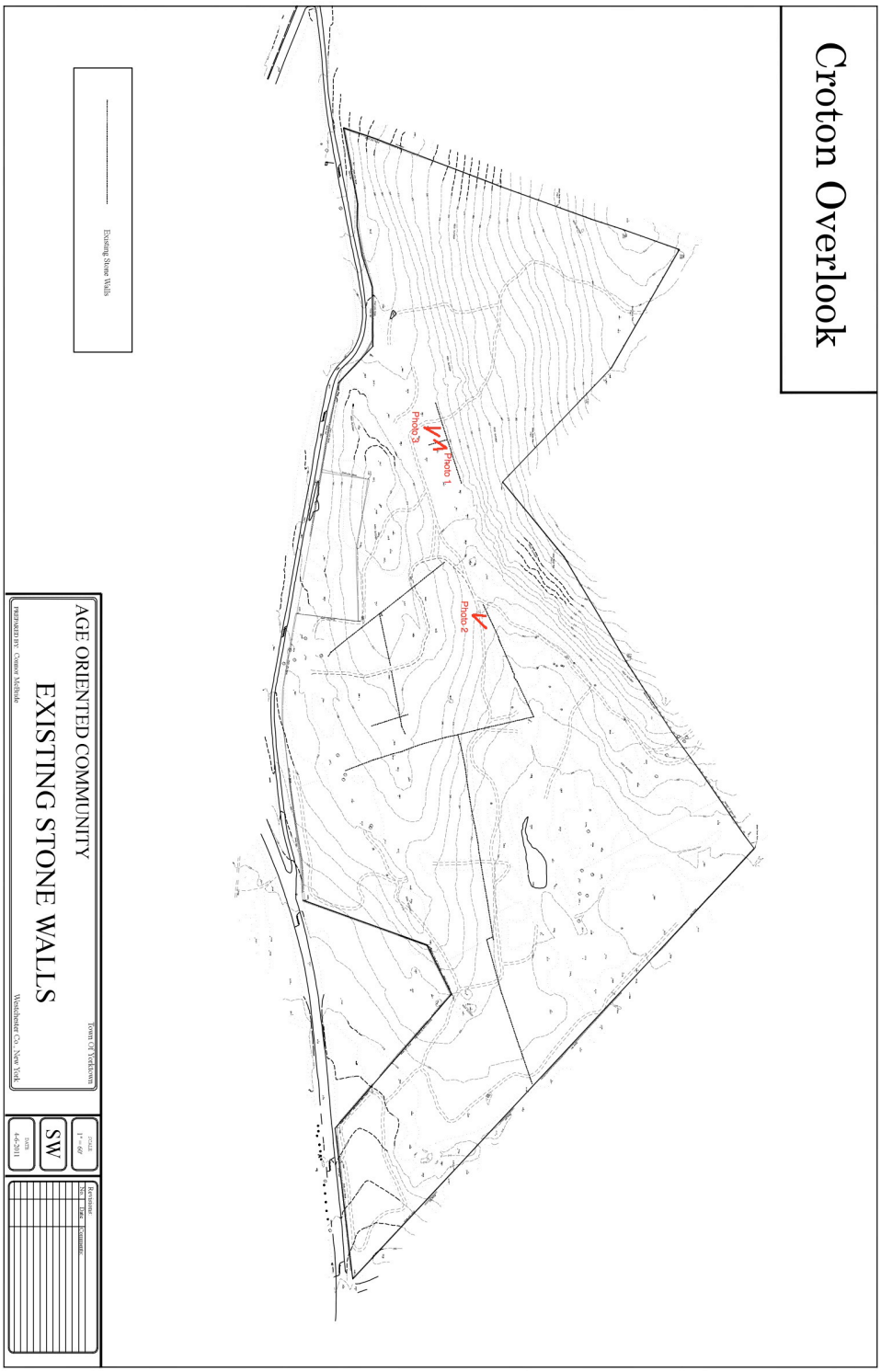
Several remnants of stone walls and rocky paths are located throughout the site. Photographs of the stone walls, as well as a site plan which clearly denotes the location of existing on-site stone walls and the location from which the photographs were taken, are provided below. It should be noted that the photographs below depict the stone walls that are in the best condition. Sections of stone walls on site are disturbed or missing.

Stone Walls - Photo 1

Stone Walls - Photo 2

Stone Walls - Photo 3

Figure F-1


Croton Overlook
Existing Stone Walls
Photo 1
Photo 2
Photo 3
AGE ORIENTED COMMUNITY
EXISTING STONE WALLS
Town Of Yorktown
Westchester Co. New York
SW

2. Potential Impacts

The project site does not propose any impacts to any documented on-site or adjacent State or National registered structures.

Phase IA Potential Impacts

As noted previously, the only potentially historical site is located approximately ½ mile from the proposed project site and will not be affected by the development of the site. Considerable disturbances associated with the demolition of the twentieth century structures eliminate the potential for significant historical archaeological deposits in the nearby surrounding area. The topography and terrain of the APE excluded a significant portion of the site from being considered potentially sensitive.

Phase IB Findings

The Phase IB archaeological survey was intended to determine the presence or absence of cultural resources. To accomplish this, the project APE was divided into six test areas, wherein shovel tests were excavated, as required by state standards, at 15-meter intervals where possible. A total of 134 shovel tests were hand excavated and analyzed for historical findings. No isolated precontact artifacts were recovered from any of the shovel tests. No precontact or early historical features were identified during the field investigation. Further, no evidence of nineteenth century occupation related to the structure noted on late nineteenth century maps was identified. Only a handful of tests units contained a few isolated modern artifacts which were determined to be insignificant. Modern refuse piles from the demolition of the two twentieth century structures were examined by the field team, with no observable evidence of significant historical artifacts.

3. Proposed Mitigation

Based on the Phase I archeological study on the proposed site APE, no further archeological testing or mitigations to the proposed site boundaries are necessary.

G. Noise, Air, and Construction Impacts

1. Existing Conditions

The proposed project site is located in Westchester County in the Town of Yorktown. Currently, the site is primarily woodlands with surrounding businesses and residential areas. As a result, the most significant source of noise is from traffic on NYS 100, which experiences

high volumes of traffic on a regular basis. Air quality at the proposed site is very good, because there are no sources of air pollutant loading on or in close proximity to the site.

Short term sound monitoring was conducted to determine existing ambient sound levels during different times of day and night. Measurements were taken at intervals along the property line. The highest measurements were found along the western property line, adjacent to Dell Ave. These measurements were found to be in the range of 60 – 65 dB during peak traffic hours, and 52 – 56 dB during non-peak traffic hours. As such, it is believed that traffic along Rt. 100 during peak hours serves as primary contributor to existing noise levels on-site. Nighttime measurements were found to be in the range of 50 – 54 dB.

The New York State Department of Environmental Conservation has ambient air quality monitoring stations located all over the state. Based on the most recent data, collected on the morning of April 23, 2011, from the monitoring stations nearest to the proposed project site (Rockland County, NY and Mt Ninham, Town of Kent, NY) the existing air quality is 27 and 26, respectively, on the Air Quality Index (AQI). The AQI is a method for rating the impact of local air quality on public health conditions, using a scale of 0-500, 0 being ideal air quality, 500 being extremely hazardous conditions. A rating of 27 and 26 is considered to be good air quality, and infers a low level of concern for public health conditions.

2. **Potential Impacts**

Air Quality

Possible impacts on local air quality conditions during the construction process of the proposed project include: fugitive dust (particulate) emissions from land clearing operations, and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions could occur during land clearing, excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and construction vehicle traffic over unpaved areas. Actual quantities of emissions will vary based on the extent and nature of the land clearing operations. Much of the fugitive dust generated during the construction phase consists of relatively large-sized particles, which generally settle within a short distance from the construction site and are not expected to significantly impact nearby buildings or people. All appropriate fugitive dust control measures will be implemented during the construction of the proposed development, including the watering of exposed areas and the use of dust covers for trucks.

Mobile source emissions generally will result from the operation of construction equipment, trucks traveling to and from the site, worker's private vehicles, and occasional disruptions in traffic near the construction site. Increases in local mobile source emissions would be minimized by following standard traffic maintenance requirements, such as:

- Construction requiring temporary street closings would be performed during off-peak hours wherever possible;
- The existing number of traffic lanes would be maintained to the maximum extent possible; and
- Idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times.

The overall mobile source emissions generated by the construction of the proposed development would not be significant enough to affect the surrounding area.

Noise

Potential impacts on noise levels during construction of the proposed development project would include noise and vibration from the operation of construction equipment. The severity of impacts from these sources would depend on the noise characteristics of the equipment used, the construction schedule, and the distance between the construction site and potentially sensitive noise receptors. Noise caused by construction activities would vary widely, depending on the phase of construction and the specific task being undertaken.

The proposed project site is located in a relatively rural area, thus there are no businesses or current residents in the immediate area surrounding the site to disturb by the increase in noise levels. All disrupting construction noises will be temporary in nature. Increases in noise levels caused by the traffic of construction vehicles would not be significant.

Construction noise is regulated by the 1975 Yorktown Town Code, Chapter 216: Peace and Good Order section 2-D and by the EPA noise emission standards for construction equipment. The local requirements mandate that construction activities may not occur between the hours of 11:00 p.m. and 7:00 a.m. on weekdays, or between the hours of 10:00 p.m. and 8:00 a.m. on weekends. Federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards. These regulations would be carefully followed, and in addition, appropriate low-noise emission level equipment and operational procedures would be used. Compliance with noise control measures would be ensured by directives to the construction contractor.

The Sediment and Erosion Control Plan, attached in Appendix E., discusses proposed mitigation techniques to prevent any contravention of water quality from the proposed construction processes.

The project schedule calls for grading and infrastructure to be completed at the beginning of the construction work. Once this is completed, should the project be stopped for any reason, the site would be stabilized thereby causing no impact to the surrounding area.

Approximately 10,000 cubic yards of rock will be removed through the use of blasting. The Rock Outcrop map attached in Appendix L shows the approximate acreage and location of rock outcroppings on-site. The blasting means and methods will be in accordance with all applicable regulatory agencies, including the Town of Yorktown Code Chapter 124. Along with blasting, hammering of oversize rock into a more practical size to be moved to its final location on site will occur. Crushing of blasted material will also occur, crushed rock will be used where needed on site as a base material for roads and in the subsurface infiltration field. Excavation of rock will occur primarily in the beginning of the project, when the site is being brought to plan grades through cutting and filling. Blasted rock will be stockpiled for reuse, and such stock piles will be properly stabilized in accordance with all governing agencies regulations. Blasting and other forms of rock removal and processing will occur where there are areas of exposed bedrock in the area of disturbance.

Prior to conducting any blasting, a permit will be obtained through the Town of Yorktown, notice of intent to blast will be served upon any owner of land adjacent to the project site and all other officials requiring notification as dictated in the Town Code Chapter 124. Blasting will not occur after the hour of 5:00 p.m. or before 8:00 a.m. on any day, and will not occur at any time on Sundays. Compliance with Town Code measures would be ensured by directives to the construction contractor.

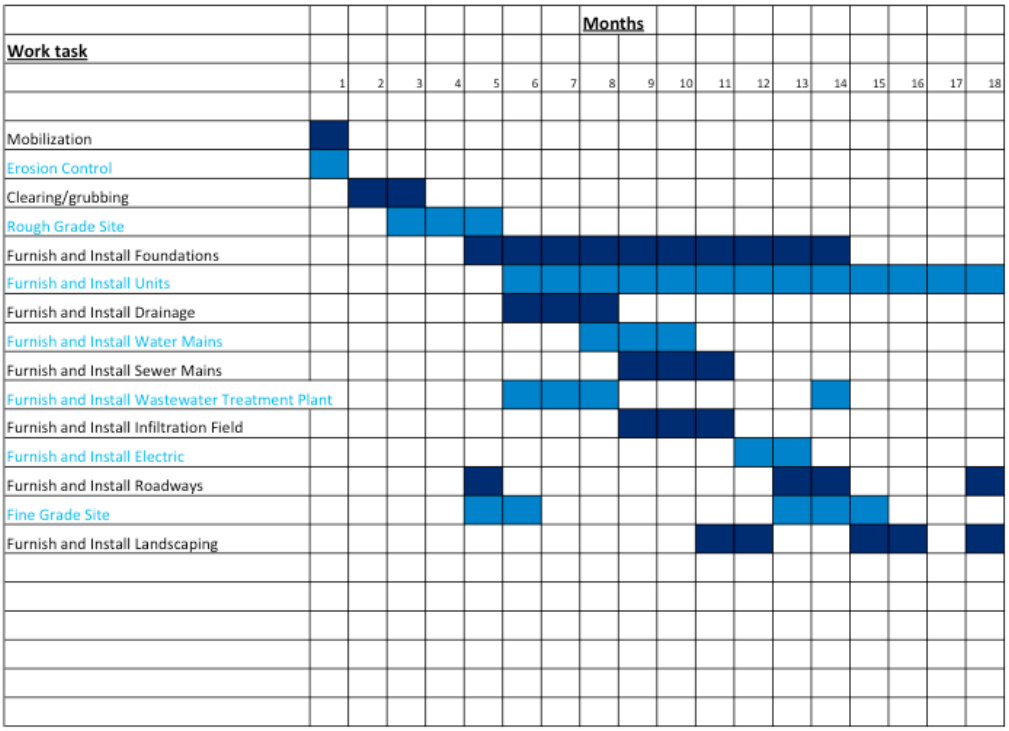
Hammering of oversize rock into a more practical size that can be moved to its final location on site will occur simultaneously with blasting. The crushing of rock will be relatively short in duration, as blasted rock will be crushed and reused on site as a base material under roads, and as a crushed stone product where needed as a septic infiltration field.

Excavating will occur primarily in the beginning of the construction phase, as the site is being brought to plan grades through cutting and filling. Stock piling of material for reuse is expected and as such, stock piles are shown on the Preliminary Erosion and Sediment Control Plan in Appendix E., and will be properly stabilized in accordance with all governing agency's regulations. Thus, there are no anticipated water

quality impacts associated with blasting, rock hammering, crushing, excavating, or stockpiling of excavated material.

The proposed Draft Construction Schedule is provided in Table G-1 below. All aspects of the construction process would be expected to occur in accordance with all applicable regulations and guidelines. All construction will be managed by professionals in their respective fields employed by either the contractor performing the work and/or the builder.

Table G-1, Draft Construction Schedule



Construction traffic to and from the proposed site will not have any significant impact on the condition of the surrounding infrastructure. Degradation to road surfaces due to local contractors is already considered during the design of the roadway, and thus will not be significant during the construction process.

3. **Proposed Mitigation**

Construction generated noise will not impact a significant amount of residents of the Town of Yorktown or the Town of New Castle, as the proposed site is relatively isolated, regardless all necessary actions will be taken to ensure proper mitigation of short term noise impacts. Air quality will be most significantly affected by the idling of construction vehicles, and fugitive dust released during various phases of the construction process. These processes affecting air quality will be monitored and limited as much as possible.

The proposed development is an age-restricted senior living community, and as such there are not expected to be any long-term noise or air quality impacts on the area.

Air quality control measures will include, as necessary, the following. All appropriate fugitive dust control measures will be implemented during the construction of the proposed development, including the watering of exposed areas and the use of dust covers for trucks. Proper use of construction material containing volatile organic compounds will be implemented. Mobile source emissions, though not expected to be at critical levels, will be limited by implementing the following: construction requiring temporary street closings would be performed during off-peak hours wherever possible, the existing number of traffic lanes would be maintained to the maximum extent possible, and idling of delivery trucks or other equipment would not be permitted during unloading or other inactive times.

Noise control measures will include, as necessary, the installation of mufflers or baffles on mobile and stationary engines and equipment, and a limitation to the hours during which certain noise-generating activities would take place in accordance with Yorktown Town Code Chapter 216.

The Preliminary Erosion and Sediment Control Plan will be in accordance with the Draft Construction Schedule listed in Table G-1 and will be performed in accordance with the SWPPP attached in Appendix D.

The blasting plan will be pursuant Yorktown Town Code Chapter 124, and the erosion and sediment control plan will be pursuant to all applicable regulations.

The residents of the proposed development will be age-restricted to adults aged 55 and over, as a result of this, there is expected to be very little noise and disturbances caused be the residents. Forecasted traffic entering and exiting development has been determined to be a maximum of approximately 19 vehicles per hour. This is not considered to have a significant noise impact on the surrounding community.

Post construction refuse will be collected and disposed of pursuant to Yorktown Town Code. The collection of post construction refuse is thoroughly discussed in Section K. Solid Waste.

H. Community Facilities and Services

1. Existing Conditions

As the property is currently undeveloped private property, the cost of community services to the property is nearly non-existent.

Police Protection

Police protection services are provided to the area by the Yorktown Police Department. The Department headquarters is located in Yorktown Heights, at 2281 Crompond Road. The number of Police Officers, Detectives, Sergeants, Lieutenants and Chief, budgeted for fiscal year 2009, are 58 sworn officers in total. Equipment includes 30 vehicles as well as dispatching facilities for police, fire and emergency medical services. The Yorktown Police Department has support personnel from the Town's Building & Grounds and Central Garage for building and vehicle maintenance.

The Patrol Division of the Yorktown Police Department provides uniformed officers for patrol duties, handles most initial calls for police service, and provides investigative services through its Detective Bureau. The Staff Service Division of the Yorktown Police Department provides police officers, civilian police dispatchers, and office assistants who provide support services such as communications and record keeping.

The jurisdiction of the Yorktown Police Department encompasses more than 40 square miles and includes the Yorktown Heights area, Shrub Oak, Mohegan Lake, Jefferson Valley, and the area of town south of the reservoir. The Department is roughly 4.5 miles from the project site.

As the project site is currently undeveloped, the present cost of police protection services to the property is minimal.

Fire Protection

Fire protection and ambulance service is provided to the project area by the Yorktown Heights Engine Company #1. There are two stations. Station 1 is located at 1916 Commerce St, and Station 2 is located at 744 Locksley Road. The Yorktown Heights Engine Company #1

Station 1 is closest to the site, located approximately 5 miles from the project site. Station 2 is located approximately 8 miles from the project site.

This department is a 100% volunteer company. Information provided by the Yorktown Heights Engine Company #1 website states that this company responds to 500-600 fire calls annually. The company responds to a variety of incidents, including but not limited to: structure fires, vehicle fires, fire alarms, inside/outside smoke investigations, gas leaks, motor vehicle accidents, hazardous materials incidents, vehicle extrications, and CO alarms. This department does not respond to EMS calls. The company's equipment includes 4 engines, 1 rescue, 1 tanker, and a Mini-Pumper out of two stations. According to a correspondence from Martin McGannon of the Yorktown Heights Fire Department, there are 60 interior and 120 exterior volunteer workers for the Yorktown Heights Engine Company #1.

As the project site is currently undeveloped, the present cost of fire protection services to the property is minimal.

Recreational Facilities

The Town of Yorktown Recreation and Parks Division of the Department of Environmental Services administers a number of active and passive recreational programs open to Town residents. Town owned park areas are listed below.

Downing Park: Located on Route 202 (Crompond Road) near the Route 132 intersection, the park features two sets of three tennis courts, a ball field, play apparatus, picnic areas, cooking grills, a pavilion, an outdoor concert area, and rest rooms.

Shrub Oak Park: Located on Sunnyside Street off of Route 6 in Shrub Oak, the park features a swimming pool with rest room facilities, ball fields, one set of three tennis courts and play apparatus.

Junior Lake Park: Located on Edgewater Street in Yorktown Heights, the park features a swimming pool with rest room facilities, ball fields one set of three tennis courts and play apparatus.

Sparkle Lake: Located on Granite Springs Road in Yorktown Heights, the park features a beach area, play apparatus, a picnic area, cooking grills, basketball courts, meeting rooms, rest rooms, outdoor ice skating, and a paved parking area.

Willow Park: Located on Curry Street in Yorktown Heights. The park features a ball field, play apparatus, and outdoor ice skating.

Yorktown Community and Cultural Center: Located on Commerce Street in the center of Yorktown Heights, this facility has outdoor recreational features including a ball field, play apparatus, a gazebo, and a walking/running track.

Crystal Lake: Located on Granite Springs Road in Yorktown heights, Crystal Lake features outdoor ice skating.

Hunterbook Field: Located on London Road off of Route 132 in Yorktown Heights, this park features a ball field.

Woodlands: Located on Strang Boulevard and Woodlands Drive in Yorktown Heights, this park features a ball field.

York Hill Park: Located on Hawthorne Drive in Yorktown Heights, this park features a ball field and play apparatus.

Walden Woods: Located on Curry Street in Yorktown Heights, in close proximity to the project site, this park features play apparatus.

Railroad Station Park: Located on Commerce Street in the center of Yorktown heights, this park features play apparatus, and basketball courts. The Westchester County Parks & Recreation Department North County Bike Trail passes through this park.

Turkey Mountain Nature Preserve: Located on Route 118 (Saw Mill River Road) in Yorktown Heights, across the street from Peter Pratt's Inn, this park features nature trails.

Ivy Knolls Park: Located on Ivy Road & Spring Street in Shrub Oak, Ivy Knolls Park features play apparatus and outdoor ice skating.

Chelsea Park: Located on Gomer Street in Yorktown Heights, Chelsea Park features a ball field and play apparatus.

Harrison Apar Field of Dreams (Formerly Pine Tree Park): Located on Benjamin Boulevard in Yorktown Heights, this park features a ball field.

Blackberry Woods: Located on Marcy Street in Shrub Oak, this park features one set of three tennis courts, and play apparatus.

Hanover East: Located on Wellington Road in Yorktown Heights, this park features play apparatus.

Sylvan Glen Park Preserve: Located off Grant Avenue between Mohegan Lake and Crompond, this park features hiking trails, wetlands, streams and an abandoned granite quarry.

Major facilities within the Town of Yorktown owned by the County and State include: Franklin D. Roosevelt State Park, Mohansic Park and Golf Course, Shrub Oak Memorial Park, and Briarcliff-Peekskill Trailway.

As the project site is currently undeveloped, the present fiscal impact on recreational facilities services from the property is non-existent.

Libraries

Public libraries in close proximity to the site include Mount Kisco Public Library, at a distance of 2.8 miles away, Chappaqua Library, at a distance of 4.1 miles away, and Ossining Public Library, at a distance of 5.5 miles away. Yorktown's public library, John C. Hart Memorial Library, is roughly 10 miles from the project site.

As the project site is currently undeveloped, the present fiscal impact on libraries from the property is non-existent.

Cultural Institutions and Senior Facilities

The Yorktown Community and Cultural Center provides services to enrich the quality of life for the residents of the local community. This not-for-profit organization provides a wide variety of tenants who provide education, arts and public service programs. This center also provides a daily nutrition program for the community's seniors, as well as full time space for various other senior clubs and organizations.

As stated on the Yorktown website, a building office manager handles the day-to-day operation of the building, schedules activities, and coordinates the use of the rooms in the facility.

As the project site is currently undeveloped, the present fiscal impact on cultural institutions and senior facilities from the property is non-existent.

2. Potential Impact

Police Protection

According to correspondence on April 28th, 2011 from Lieutenant Kevin Soravilla of Yorktown Police Department, the department received approximately 13,000 calls to service in 2010, or

approximately 0.03 calls per capita per month. As such, the projected additional 140 residents may increase the monthly services calls to the Yorktown Police Department by approximately 4 calls per month. The Development Impact Assessment Handbook by the Urban Land Institute states that an increase in population of 140 person would generate approximately a need for 0.3 additional police personnel and 0.1 police vehicles. As such, the proposed development will not have a significant impact on police protection provided to the Town of Yorktown.

Fire Protection

The 1994 "Development Impact Handbook" by the Urban Land Institute provides an estimated need for 0.2 additional fire personnel based on an increase in population of 123 persons. As the Croton Overlook development projects approximately 140 residents, it can be interpolated that the increased need for fire personnel is on the order of 0.3.

The proposed source of water for on-site fire hydrants is the New Castle Water District, which is also the proposed source of water for the on-site water utilities.

Recreational Facilities

The above listed recreational facilities should have adequate means to support the proposed additional 140 resident to the Town of Yorktown.

Libraries

There are a projected 140 residents as a result of the project. If, at most, one fourth (1/4th) of the residents attend the library on a given day, there would be approximately an additional 12 people per each of the three nearby libraries. Because the project is proposed as a subdivision, all taxes, including taxes which fund the library, would be paid at full tax rates for the units. As such, the project will not any have significant impacts on public libraries in the vicinity.

Cultural Institutions and Senior Facilities

There are a projected 140 residents as a result of the project. If, at most, one fourth (1/4th) of the residents attend a cultural institution or senior facility on a given day, there would be approximately an additional 36 people. Because the project is proposed as a subdivision, all taxes, including taxes which fund these facilities and institutions, would be paid at full tax rates for the units. As such, the project will

not any have significant impacts on public cultural institutions or senior facilities in the vicinity.

Transportation

Until January 2010, the Bee Line Bus Service ran the number 15 line North and South on Rt 100. The bus stop for this line was located at the corner of Dell Ave and Rt 100. Unfortunately, due to budget cutbacks, this line was discontinued. Although the number 15 line was discontinued, number 17 line runs along the Taconic approximately 2 miles west of the site, and number 19 line runs along Bedford Rd approximately 3 miles east of the site. Other public transportation in close proximity to the site includes the Hudson Rail Line and the Harlem Line. The Hudson Rail Line runs North and South along the Hudson River, and the nearest stop is located in Ossining NY. The Harlem Line runs for New York City to eastern Duchess County. These public transportation routes typically have commuter lots available for parking and are approximately 2.5 miles away from the site, one to the East and one to the West.

As for walkability of the project, the North County Trailway is adjacent to the property. A short walk along this scenic trail will bring you to the Hamlet of Millwood, which has a super market, a pharmacy, various restaurants, a hardware store, a delicatessen, and gas stations. Immediately across Rt 100 within walking distance is Traveler's Rest, a German restaurant.

School Children

If extenuating circumstances were to occur and the plan needed to be rezoned to a market rate zone, children would be permitted in the development. The projected number of children for this circumstance is 12 children. This projection is based on a "children multiplier" of 0.17 from the "Rutgers University, Center for Urban Policy Research. Residential Demographics Multipliers – New York (June 2006)", a method recommended by the Planning Board.

The recent Yorktown Farms development in the Town of Yorktown, projected 30 school age children, as they calculated per the Urban Land Institute's "Development Impact Assessment Handbook". Yorktown Farms residences are expected to be constructed and sold over a multi-year period. This allows for additional students to be introduced to the school system gradually. In additional, costs to the school district as a result of the development will be offset by projected additional annual school tax revenues from the project.

Both of these methods of mitigation are implemented in the Croton Overlook development.

Because the project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur, the plan was rezoned, and children were allowed in the community, the children's school taxes are being paid for; therefore, this would have no financial impact on the Town of Yorktown.

Furthermore, the town code does not allow for children in the proposed RSP-1 zoning. Croton Overlook is taking further steps to ensure that children will not reside in this development by placing covenants and restrictions within the homeowners associates bylaws and placing restrictions on the individual property's deed.

Utility Management

Town of Yorktown will be responsible to maintain roads, stormwater infrastructure, and water supply. These costs will be paid for through the taxes paid to the town annually by the landowners. The homeowners association, through a public transportation company, will own and manage the sewage treatment facility. These costs will be paid for through a homeowner's association fee, as shown below.

Figure H-1 - Sample Sewer Yearly Operational & Maintenance Expenditures

Yearly Operational & Maintenance Expenditures	
Daily operations ESTIMATE (**SPDES permit will determine staffing**)	$26,800.00
Chemicals	$2,000.00
Sludge Hauling	$3,900.00
Alarms	$500.00
Electric	$7,000.00
Telephone service	$400.00
Testing Fees	$2,100.00
Insurance	$2,000.00

Laboratory Chemicals	$200.00
Repair/Contingency	$1,500.00
Engineering Services	$1,000.00
Accounting services	$1,500.00
Legal Services	$1,000.00
SUB TOTAL	**$49,900.00**
Operation & Maintenance	$49,900.00
Capital Replacement	$13,100.00
Rate of Return for Rate Base of $200,000@8%	$16,000.00
Income Tax @ 27% on $45,000.00	$4,320.00
Depreciation @ 2% on $750K	$5,000.00
	$88,320.00
Total Revenue Required	**$88,320.00**
Rate per customer ($88,320.00 / 70 homes)	**$1,261.74**

3. Proposed Mitigation

No adverse impacts to community facilities and services are anticipated as a result of the proposed action. As previously stated, any possible impact to community facilities and services will be offset by the full tax rates paid by residents of Croton Overlook. As such, no mitigation measures are proposed.

I. Community Growth and Character

1. Existing Conditions

Westchester's population has shown slow growth over the last decade and Yorktown's population has mirrored the county's experience. Once a minimally populated agricultural community, over the passing years Yorktown has matured into a thriving residential community with five business hamlets and the research base of world renowned IBM, just a few miles away from the proposed site on Route 134. Its population growth, which boomed in the mid-20th century has slowed but continues to increase at a consistent rate as people look for safe, healthy environments in which to live, work and raise a family. Yorktown also supports several retirement communities, primarily in the more central and northern portions of the town where sewers have been available.

Croton Overlook borders the Town of New Castle, and is in close proximity to the Hamlet of Millwood as well as the neighborhoods in southern Yorktown of Crow Hill, Hog Hill, and Kitchawan. Once an area known for its lovely hotels bringing city residents to enjoy the tranquility of the wooded terrain and Croton River/reservoir system, the neighborhood of the proposed Croton Overlook development has supported mixed zoning uses for most of its history.

During the War for Independence, the Colonial line was generally along the property's perimeter and local troops used the nearby Crow Hill to post lookouts for British activity and oncoming raids. The protection of the nearby Pines Bridge crossing on the Croton River was a key element in the American troop strategy. Even today, the Battle of Pines Bridge and subsequent massacre of members of the First Rhode Island Regiment who were stationed nearby is being commemorated by a monument to be installed near the reservoir at Route 129/118, not too far from the proposed site. This project of the Yorktown Historical Society seeks to bring to life a sense of the area's involvement in our history, and to highlight the multi-cultural nature of the brave soldiers in the First Rhode Island Regiment, many of whom lost their lives in Yorktown in 1788.

As a northern Westchester Community, Yorktown with its 40 square miles is similarly sized to Manhattan. Yet, unlike Manhattan, it has chosen to protect more than a third of its acreage in permanent open space. By carefully placing the proposed housing on this site, Croton Overlook seeks to integrate an appreciation for open space, wooded hillsides and the marvelous opportunity to live near the Croton Reservoir in an historic setting. It works with the goals of keeping Yorktown's community character in this hamlet as low density residential while still providing an alternative housing form for its residents.

Improvements to the site will include a relocation of the Dell Avenue roadway to better integrate with the housing development and provide a safe ingress and egress for the residents. Native plants will be highlighted in a landscaping plan aimed at enhancing the natural beauty of the area, while preserving the eco-system. A sub-surface wastewater treatment plant will be constructed on the property to manage the waste products coming from the units. The developer will work closely with the NYC Department of Environmental Protection and the Westchester County Department of Health to ensure this plant protects both the groundwater and surface waters of the nearby reservoir. An application for public water will be made to the Town of New Castle to bring filtered water onto the site.

Over the past several years the development in the south end of Yorktown has included the conversion of a single family home into a child care center on Route 134; The Jehovah's Witness Church and Community Bible Churches have remodeled their facilities and there has been the establishment of a sustainable organic produce farm, and a separate retail nursery operation all also on Route 134. Nearby Traveler's Rest Restaurant on Route 100 has invested in and upgraded its infrastructure and amenities. The changes are largely ones that would fall into institutional, agricultural or commercial classifications rather than residential, which is endemic to this area of Yorktown.

The proposed rezoning of the lands that comprise Croton Overlook fits neatly into this quilt of mixed uses in the Southern End of Yorktown. Most of the uses have an emphasis on campus-like settings with open space components. Croton Overlook looks to provide housing stock that is currently unavailable in this area and has been shown to be in high demand, as indicated by the sales at Glassbury Court in the central portion of Town during a recession in the housing market. It supports housing that creates its own neighborhood and

surrounds it with open space. It lies separate from most of its surroundings by physical barriers, namely, the power lines, roads and topography. As a housing development it fits neatly into the pattern of eco-sensitive developments that define the area.

Population

As per information from the US, Census Bureau for the Town of Yorktown for 2005-2009, the town's population is approximately 37,538. Approximately 1,869, of these citizens are of 5 years of age and younger. Approximately 27,940 of these citizens are of 18 years of age and older. Approximately 5,082 of those citizens are of age 65 and older. The average household size is approximately 2.84 people living in a housing unit. Population demographics for the area are further discussed in Section N. Fiscal & Socioeconomic Impacts.

The table displayed below is from the Yorktown Comprehensive Plan – Adopted June 15, 2010. The summation of Yorktown and Westchester's populations of ages 55 and over shows that 25.6%, slightly more than 1/4th, of Yorktown's population and25.9%, again slightly more than 1/4th, of Westchester's population as of 2008 is of the age 55 or over.

Table 5-4: Population by Age Group in Yorktown, Westchester County and Putnam County, 2006-2008

	Yorktown	*Westchester County*	*Putnam County*
	Percent of Total	*Percent of Total*	*Percent of Total*
Under 5 years	5.1	6.3	5.4
5 — 14 years	15.6	13.5	13.6
15 — 24 years	12.4	13.2	13.6
15 — 19	*7.3*	*7.1*	*7.1*
20 — 24	*5.1*	*6.1*	*6.5*
25 — 34 years	5.6	10.5	9.8
35 — 44 years	16.4	14.8	15.6
45 — 54 years	19.0	15.8	18.0
55 — 64 years	11.4	11.7	13.1
65 — 74 years	6.7	7.0	6.5
75 — 84 years	5.3	5.0	3.3
85 years and over	2.5	2.2	1.0
Total	100.0	100.0	100.0

Sources: American Community Survey

Employment Conditions and Economic Development

Employment conditions for the area are similar to the difficult employment conditions for the nation. The economy is slowly recovering from a recession, and as such, unemployment rates are higher than average.

The proposed Croton Overlook Community will create jobs and stimulate the economy in a variety of ways. The construction of the project will create temporary jobs in the community. The landscaping maintenance and the operation and maintenance of the on-site WWTP will require labor, creating jobs. Possibly the most significant benefit is the 144 additional residents to the town who will live in the Croton Overlook Community, paying taxes annually and spending money at local stores and restaurants. Because the Croton Overlook project is proposed as a subdivision, all taxes, would be paid at full tax rates for the units. The proposed action is expected to generate $16,105 per unit and $1,127,350 annually. Additionally, the modifications and maintenance the homeowners make to the homes as they age will provide economic benefit to the town.

The objectives of economic development are the creation of jobs and wealth, the improvement of quality of life, and establishing a process that influences growth and restructuring of an economy to enhance the economic well being of a community. As previously stated, the Croton Overlook Community will create jobs and stimulate the economy, which benefit the economic development of the area.

Median Household Income

According to information provided by the County of Westchester "www.westchester.gov" website, the average median income for a household in Westchester is $83,750 for a family of 4 and $77,200 for a family of 2.

Comparison to nearby development

The Glassbury Court is an adult community, 55 and older, located in Cortlandt Manor, NY. This community provides a luxury townhouse condominium community with 64-carriage style homes. It should also be noted that Glassbury Court at Hunter Brook, has sold out almost all of its units. That a similar number of homes, marketed to the same population, in a similar area, could sell out, demonstrates a need for this type of housing in the community.

Community Character in Project Vicinity

The area is a varied collection of zones. The property is bounded on the east by a single estate. To the west the area is intersected by high-power transmission lines. Further westward from the site is Rt 100, a 55 mph major North-South highway carrying 8,100 vehicles per day. Rt 134 connects to Rt 100 at a perpendicular angle, adjacent to the property. Rt 134 is a 40 mph state roadway carrying approximately 4,500 vehicles per day. West of Rt 100 is a commercial zone including the restaurant Traveler's Rest. Southwest of Traveler's Rest is an industrial complex, Pogact Exacavating, that crushes rock and processes soil into landscape product, houses all manner of trucks and heavy equipment, and performs retail sales to the public. To the south of the site is residential housing. Adjacent to the project to the north is a multifamily house and general residential. The hamlet of Millwood in the Town of New Castle lies rough 1.3 miles to the south of the project site.

2. Potential Impacts

Impact on Surrounding Residences

There will be some short term impacts on surrounding residences from the construction of the proposed development. The primary potential impact will be on noise levels during construction of the proposed development project would include noise and vibration from the operation of construction equipment. The severity of impacts from these sources would depend on the noise characteristics of the equipment used, the construction schedule, and the distance between the construction site and potentially sensitive noise receptors. Noise caused by construction activities would vary widely, depending on the phase of construction and the specific task being undertaken.

All disrupting construction noises will be temporary in nature. Increases in noise levels caused by the traffic of construction vehicles would not be significant.

Construction noise is regulated by the 1975 Yorktown Town Code, Chapter 216: Peace and Good Order section 2-D and by the EPA noise emission standards for construction equipment. Federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards. These regulations would be carefully followed, and in addition, appropriate low-noise emission level equipment and operational procedures would be used. Compliance with noise control measures would be ensured by directives to the construction contractor.

Potential Noise, Air, and Construction impacts to surrounding residences are described further in Section G. of this DEIS. Other potential impacts to surrounding residences are described in Chapter VI. Significant Impacts that Cannot Be Avoided.

Compliance with the Yorktown Comprehensive Plan

Throughout the Town of Yorktown Comprehensive Plan – June 15th, 2010, there are many instances of objectives for the Town of Yorktown which are met or in-line with the objectives of the proposed Croton Overlook Community.

Goal 2-A under Chapter 2 – Land Use, reads "Provide for low-density development and preserve open space throughout Yorktown's residential neighborhoods, as discussed in Chapter 5, in a manner consistent with community character". The density of the proposed project would be about 1.15 dwelling units per acre, which falls well within the recommended density for Low Density Residential 0-2 designations in "Patterns". In addition, approximately 82% of the 64 acre project site will remain as deed restricted and undisturbed open space.

Goal 2-F under Chapter 2 – Land Use, reads "Promote housing for people in all stages of life, from young adults and couples, to families with children, to seniors". The Croton Overlook Community is a proposed 55 and over active adult community, and as such promotes housing for a specific demographic in the community of Yorktown. Surrounding areas of development accommodate the need for other demographics in the community of Yorktown. Specifically, the second paragraph from Section 5.3 – Overview of Housing & Quality of Life from Chapter – Housing & Neighborhood Quality of Life, reads "Yorktown currently has a wide range of housing types (single-family homes, apartments, condos, senior housing, accessory apartments, townhouses, etc."

Policy 2-4 from Chapter 2 – Land Use, reads "Monitor future development and population trends, and regularly update the Land Use and Plan and Comprehensive Plan. As new development occurs, portions of the Land Use Plan may no longer make sense, or new ideas may spring forth. The Town should regularly reevaluate and update the Plan, so that it remains current and relevant. The Town should establish a reasonable time horizon for a comprehensive update." The benefits to the town presented by this project are numerous, including but not limited to taxes to fund community facilities and schools. As such, a need for the Croton Overlook Community should be recognized by the Town of Yorktown.

Table 2-4 – Senior Independent Living (RSP-1) in Chapter 2 – Land Use, states the purpose of RSP-1 designations as "To provide opportunities for senior citizens to find appropriately sized housing units for their years as empty nesters and young retirees. This zone helps to meet the growing demand among retirees and seniors for age-restricted housing, where they can live in greater tranquility with other people of the same age and in an environment more tailored to their needs". This paragraph clearly states and recognizes the growing demand from retirees and seniors for age-restricted housing. As previous stated, over 1/4th of Yorktown's populations and over 1/4th of Westchester County's population is of the age 55 and over.

A paragraph in Section 5.3 – Overview of Housing & Quality of Life from Chapter – Housing & Neighborhood Quality of Life, reads, "Yorktown's "Quality of Life" consists of all of those characteristics that make it an attractive place to live: beautiful homes, streets, and trees; abundant parks and open space; the ability to have peace and quiet at home; good utilities and services; remnants of its rural heritage; etc". The applicant has shown copious effort in making sure the proposed Croton Overlook Community will be consistent with Yorktown's Quality of Life. The proposed relocation of Dell Avenue will be far more aesthetically pleasing than the existing washed out and poorly maintained Dell Avenue. The site will feature landscaping and plantings of indigenous species to preserve the natural beauty and health of the surrounding ecosystem. The homes will feature high-end finishes with beautiful architecture, subjected to ABACA review, consistent with surrounding community character. As previously mentioned, approximately 82% of the 64 acre site will remain as deed restricted open space, featuring various forms of passive recreation for citizens of Croton Overlook.

From the Observations of Realtors section of Chapter 5 – Housing & Neighborhood Quality of Life: "The supply of townhouse units, condos, apartments, and senior housing is limited. Some of the demand goes unmet. Empty-nesters often want to downsize, but have limited options for housing in town." The Croton Overlook Community is specifically marketed to "empty-nesters" as it is a active adult 55 and over community.

From the National Trends & Standards section of Chapter 9 – Parks & Recreation: "In order by participation level, the most popular forms of recreational activity (i.e., with the greatest number of participants) are: walking as exercise, swimming, exercise with equipment, bicycle riding, golf, camping, bowling, hiking, fishing (fresh water), basketball, and aerobic exercise." The proposed Croton Overlook Community will

feature over 1.8 miles of wooded trails for walking, jogging, bicycling, and hiking. Additionally, the project site is only a tenth of a mile from the Croton Reservoir, where residents could fish or boat.

From the Open Space Preservation & Sustainable Development section of Recommendations in the Executive Summary: "promote energy conservation and "green" buildings". The proposed Croton Overlook homes will be constructed with a variety of environmentally responsible and green features. These proposed features will include, wherever feasible: geothermal heating and cooling, using recycled building materials, natural ventilation, solar panels, renewable lumber, sustainable community design. Many green practices will also be utilized during the construction process, including, wherever feasible: recycled on-site materials, open water ponds and wetlands creation, community gardens, native tree and vegetation plantings, community composting, and storm water collection.

Potential Impacts to Gateway of Yorktown

As previous discussed, the community character of the project features a varied collection of land uses. These land uses include a restaurant, an excavating company, high-power tension lines on a utility easement, and residential housing. As such, the proposed action will not impact the surrounding land use. The roadway through the area termed the "Gateway of Yorktown" is Rt 100, a 55 mph road which experiences high volumes of traffic on a consistent basis. Additionally, the project will not be visible from Rt 100 due to the proposed viewshed mitigation strategies. As such, there are will be no impacts to the "Gateway of Yorktown" by the proposed action.

3. Proposed Mitigation

As previously stated, all impacts to surrounding residences from construction will be thoroughly mitigated as applicable and compliant with governing town code. All other potential impacts and proposed mitigation strategies are thoroughly discussed in Chapter IV of this document.

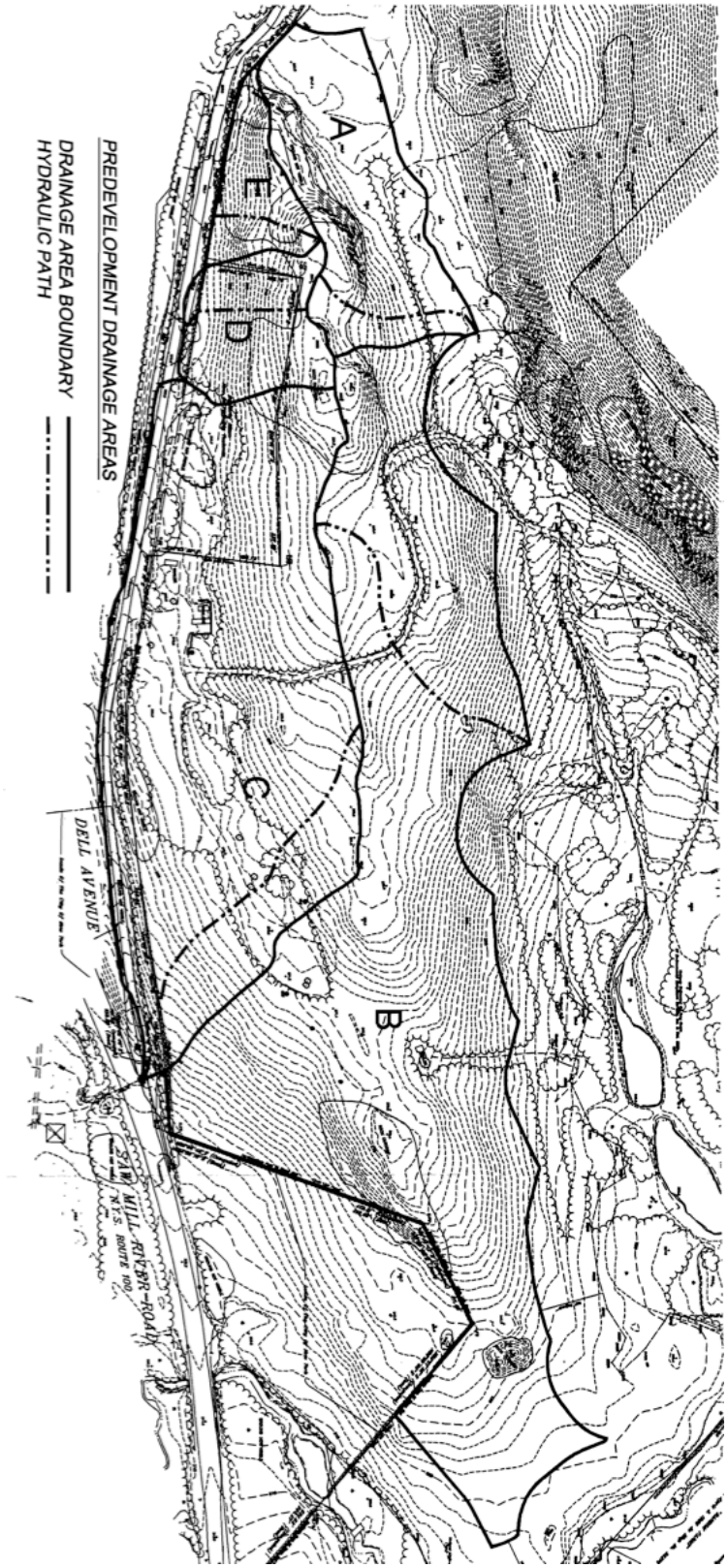
The architecture of the proposed units will be checked for conformity with the aesthetic character of the existing community during the Advisory Board on Architectural and Community Appearance (ABACA) review.

J. Stormwater Management

1. Exiting Conditions

The proposed improvements to the site will disturb approximately 21 acres, and only 11.98 acres will ultimately be disturbed after ground disturbing activities are completed. Since this area discharges radially outward with no upland contributing runoff, only this area was used to evaluate predevelopment drainage conditions. To analyze existing drainage conditions, these 21 acres were divided into 5 drainage areas. These sub-areas (A, B, C, D, and E) are displayed in Figure J-1 Predevelopment Drainage Areas below.

Figure J-1


PREDEVELOPMENT DRAINAGE AREAS
DRAINAGE AREA BOUNDARY
HYDRAULIC PATH
A
B
C
D
E
DELL AVENUE
MILL RIVER ROAD
N.Y.S. ROUTE 100

Drainage area A is located on the northern side of the property and consists of approximately 2.116 acres of primarily woods in good condition. Stormwater runoff from this basin is collected in an open swale and discharges in two directions toward a small wetland area located at the north end of the project site and toward a larger wetland located at the south end of the site.

Drainage area B is located in the middle to southern portion of the property and consists of approximately 10.585 acres of mostly woods in good condition. Stormwater runoff discharges easterly toward the wetlands located to the east of the ridgeline and southwesterly toward the stream that receives discharge from the wetland.

Drainage area C is located in the middle of the property and consists of approximately 7.279 acres of both woods in good condition and dirt (trail, unpaved parking). Stormwater runoff discharges toward Dell Avenue and then travels along Dell Avenue and ultimately discharges into the catch basin at the intersection of Dell Avenue and Saw Mill River Road.

Drainage area D is another basin located at the western side of the property , and consists of approximately 1.016 acres of both woods in good condition and rocky outcrop. Area D discharges overland toward a low area along Dell Avenue and then to the existing culvert that crosses Dell Avenue.

Drainage area E is a small area located at the northwesterly corner of the project area between the ridgeline and Dell Avenue, consisting of approximately 0.613 acres of woods in good condition and rocky outcrop. Stormwater runoff discharges toward Dell Avenue, and from Dell Avenue overland off site in a westerly direction.

Stormwater runoff quantities for the 2, 10, 25, and 100 year storms have been calculated as per local and NYSDEC regulations. All assumptions for land cover types, soil groups, slopes and curve number calculations are provided in Appendix D, Stormwater Pollution Prevention Plan. A summary of these runoff quantities is presented below in Table J-1.

Table J-1 – Summary of Existing Peak Runoff (CFS)

	A	B	C	D	E
2-year	2.87	5.76	5.83	1.14	1.4
10-year	5.43	15.16	13.08	2.31	2.21
25-year	7.24	22.39	18.47	3.15	2.76
100-year	10.02	34.15	27.04	4.46	3.57
Source: Lawrence J. Paggi, PE, PC 2010					

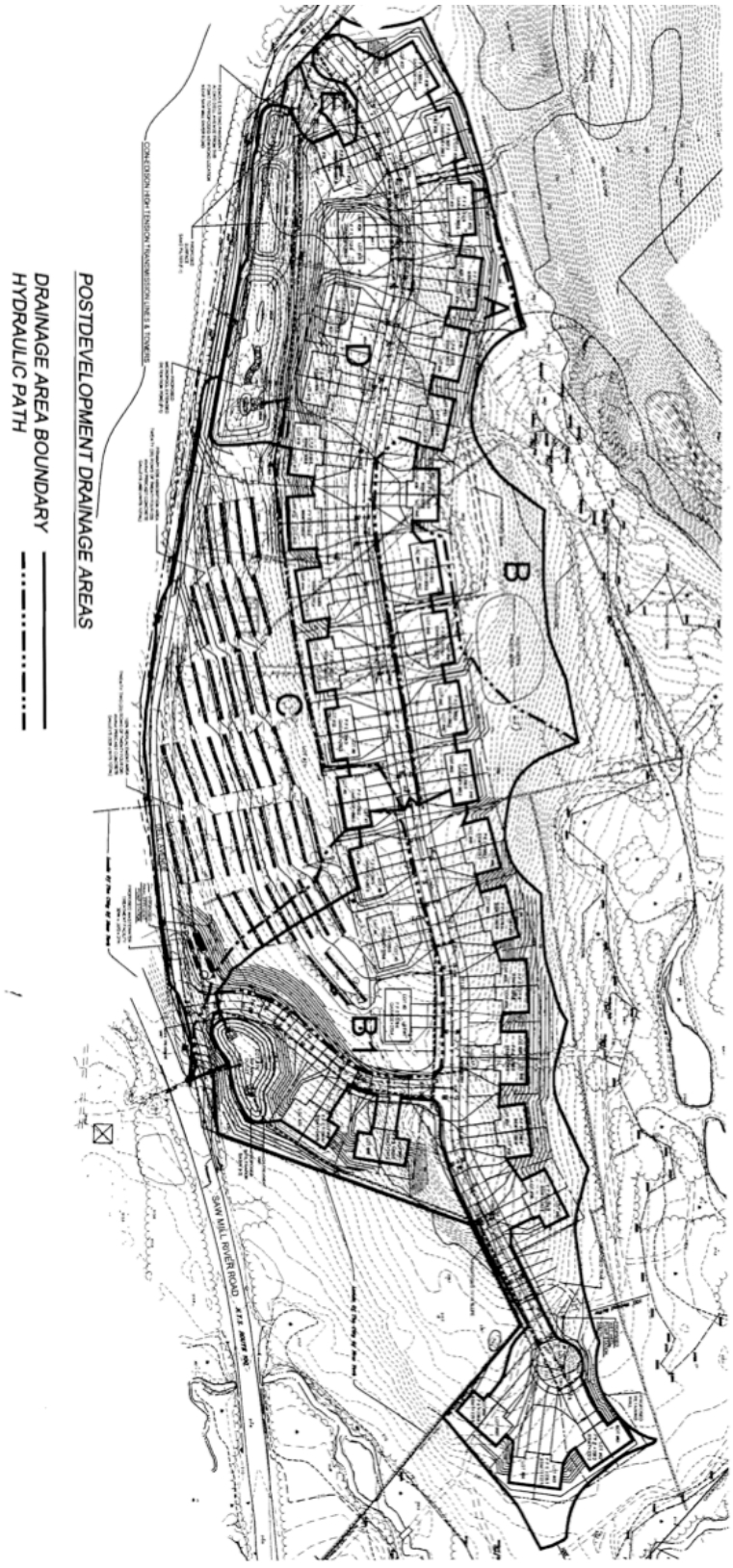
2. Potential Impacts

The proposed stormwater management system has been designed to conform to the guidelines established in the New York State Stormwater Design Manual, August 2010, and the guidelines established in the NYSDEC publication "Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources", effective May 1, 1997, as amended April 4th, 2010. Additionally, the proposed stormwater management system has been designed to comply with standards set forth in the SPDES General Permit for Stormwater Discharges from Construction Activity GP-0-10-001.

To sufficiently meet NYCDEP water quality treatment requirements, two types of stormwater management practices in series are proposed at the north end of the project site: Sand Filter and Micropool Extended Detention Pond. These two practices will be used to treat stormwater runoff from the postdevelopment drainage area D. Stormwater runoff from basin D will be collected by a series of catch basins and underground pipe, which will convey runoff to the Sand Filter and Micropool Extended Detention Pond. At the southwest corner of the site, near the new proposed entrance to the development, an Infiltration Basin is proposed. In accordance with NYCDEP regulations, the Infiltration Basin will provide both water quality treatment and quantity control without necessitating an additional practice in series. The Infiltration Basin will treat stormwater runoff from drainage area B1, which represents the developed portion of predevelopment drainage area B. Stormwater runoff from this basin will be collected by a series of catch basins and underground pipes, which will convey runoff to the Infiltration Basin.

Postdevelopment drainage conditions are displayed in Figure J-2 below.

Figure J-2


POSTDEVELOPMENT DRAINAGE AREAS
DRAINAGE AREA BOUNDARY
HYDRAULIC PATH
A
B
B1
C
D
SAW MILL RIVER ROAD

Drainage areas A and B are both smaller portions of predevelopment areas A and B, respectively, which will remain undeveloped in the postdevelopment conditions and continue to discharge toward the wetlands on site. Proposed grassed areas, such as lawns, will serve as a filter strip to treat the runoff from these areas, which include no impervious, prior to reaching any receiving waters.

Drainage area C is a portion of a predevelopment area C that in postdevelopment condition will be designated for installation of a subsurface sewage disposal system. Stormwater runoff will continue to discharge toward Dell Avenue and then travel along Dell Avenue and discharge into the existing catch basin at the intersection of Dell Avenue and Saw Mill River Road. Proposed grassed areas will serve as a filter strip to treat the runoff from this area, which includes only 0.146 acres of impervious associated with the small driveway and WWTP building. This 0.146 acre of impervious cover represents a reduction of 0.385 acre of impervious discharging toward Dell Avenue at this location as a result of the removal of the existing pavement in Dell Avenue within this drainage area.

Drainage area E is a portion of the predevelopment area E that will remain undeveloped by the proposed project in the postdevelopment condition. Stormwater runoff will continue to discharge toward Dell Avenue, and from Dell Avenue overland off site. Proposed grassed areas will serve as a filter strip to treat the runoff from this area, which includes no impervious cover, prior to reaching any receiving waters.

Stormwater runoff quantities for the 1, 2, 10, 25, and 100 year storms have been calculated as per local and NYSDEC regulations using the computer program “Hydro/Plus”, which is based upon the Soil Conservation Service (SCS) TR-20 model. All assumptions for land cover types, soil groups, slopes and curve number calculations are provided in Appendix D, Stormwater Pollution Prevention Plan. A summary of these runoff quantities is presented below in Table J-2. The change in Peak Runoff, from pre to post development conditions, is presented below in Table J-3. The table below represents a summary, and for additional information on peak runoff rates for 1 and 100 year storms please refer to Appendix D, Stormwater Pollution Prevention Plan.

Table J-2 – Summary of Proposed Peak Runoff (CFS)

	A	B	B1	C	D	E
2-year	0.65	3.23	5.24	2.37	5.66	0.11
10-year	1.28	7.38	7.98	6.38	8.57	0.29
25-year	1.74	10.49	14.32	9.49	15.27	0.45
100-year	2.45	15.43	18.71	14.55	19.91	0.71
Source: Lawrence J. Paggi, PE, PC 2010						

Table J-3 – Net Change in Peak Runoff (CFS)

	A	B	C + B1*	D	E
2-year	-2.2	-2.53	-3.46	-0.224	-1.29
10-year	-4.15	-7.78	-2.231	-0.097	-1.92
25-year	-5.5	-11.9	-1.494	-0.231	-2.31
100-year	-7.57	-18.72	-1.9	-0.675	-2.86
Source: Lawrence J. Paggi, PE, PC 2010 *B1 is routed to discharge via the same outlet as C					

The proposed stormwater management system will prevent any potential impacts on water quality and quantity to the New Croton Reservoir. As discussed in Appendix D, Stormwater Pollution Prevention Plan, the proposed stormwater management system was designed specifically with water quality and quantity in mind. As per applicable NYSDEC and NYSDEP regulations, the stormwater management system is designed to treat post development discharge to an appropriate required Water Quality Volume. The Water Quality Volume design methods also treat for enhanced phosphorous removal. In addition, Table J-3, above, shows that the net change in peak runoff for all drainage areas is negative. This means flow will actually be slightly reduced, and thus the quantity and quality of water received by the New Croton Reservoir by the proposed action is inconsequential.

The latest revision (August 2010) of the New York State Stormwater Management Design Manual was referenced in developing the stormwater pollution prevention plan (SWPPP) for the Croton Overlook Project. The practices depicted on the drainage plans have been designed to manage the post-construction runoff from the entire project site. Subsequent to the development of the SWPPP, the request was made to evaluate the pre- and post-construction runoff discharging toward the onsite wetland. In response, a "Water Budget Plan" was developed. This plan depicts additional stormwater

management practices that will direct treated runoff toward the wetland to maintain virtually no net change in discharge between the pre- and post-construction conditions. The water budget plan will ultimately be incorporated into the SWPPP and the drainage plans for the FEIS. The additional practices provided in the water budget plan may allow for a reduced size of one or more of the stormwater management practices depicted on the current drainage plan.

3. Proposed Mitigation

The proposed improvements will result in replacement of wooded area with lawn and impervious surfaces. The proposed stormwater management system has been designed to mitigate any increase in the peak rate of runoff generated by the increase in impervious surface.

The proposed Sand Filtration, Micropool Extended Detention Pond, and Infiltration Basin have been designed to mitigate contamination from the developed areas in conformance to the guidelines established in the New York State Stormwater Management Design Manual, August 2010, and the guidelines established in the NYSDEC publication "Rules and Regulations for the protection from Contamination, Degradation and Pollution of the new York City Water Supply and Its Sources", effective May 1, 1997, as Amended April 4th, 2010. Detailed design calculations are presented in Appendix D, Stormwater Pollution Prevention Plan.

Rain gardens are proposed as a Better Site Design feature to assist in reducing the total water quality volume by source control. Rain gardens will be located on each of the lots located within drainage area D. The rain gardens are designed to allow infiltration of runoff volume and decrease the flow to the Sand Filter and Micropool Extended Detention pond.

Sediment and erosion control measures to be implemented during construction include, but are not limited to, the use of silt fences along the downhill slopes of all areas to be disturbed on the site, construction sequencing and phasing, temporary diversion swales, and double net erosion control blanket, where applicable. The full Preliminary Erosion and Sediment Control Plan is attached in Appendix E.

K. Solid Waste

1. Existing Conditions

The Town of Yorktown Garbage and Refuse District provides municipal solid waste collection and disposal services through a private hauler for residence within the Town, including the project site.

Materials that are collected include kitchen trash, general household refuse, curbside recyclable materials, bulky items, and compostable materials. Kitchen trash is picked up curbside on a biweekly schedule. Recyclables are picked up once a week. Bulk trash, such as furniture, mattresses, appliances, rugs, lamps, curtains & blinds, bicycles and bags of small items, are picked up four (4) times per season. Leaf bags are picked up six (6) times per season.

2. Potential Impacts

According to information provided by the Yorktown Environmental Conservation Department, a standard of one ton per family per year is used to project future solid waste generated by proposed developments. As such, the residents of the Croton Overlook development would be expected to generate approximately 70 tons of solid waste annually. This anticipated 70 tons of solid waste is only 0.12 percent (12/100ths of a percent) of the domestic solid waste currently managed by the Town. The projected waste production of the Croton Overlook community shall have an insignificant impact on the receiving disposal sites.

The waste generation during construction will be minimal, as there are no existing structures to be removed and all on-site cut and fills are balanced. Some vegetation will be removed within the area of disturbance. Wherever possible, trees will be harvested and sent to lumber yards to be recycled for use as lumber. The approximate percentage of waste material by weight that will be diverted could be as high as 80%, as the majority of waste material will be trees and small vegetation.

3. Proposed Mitigation

Recyclables in Yorktown are collected one day per week by CRP Sanitation. One (1) green recycling bin is provided by the town, and additional bins can be purchased for an minimal fee. Items permitted for collection in these bins include: clear, green or brown glass jars and bottles; plastic containers coded 1 & 2; food and beverage cans, clean aluminum foil and trays, and empty aerosol cans. Up to four (4) brown paper bags containing paper and cardboard recyclables, set next to the green recycling bin, will be

collected. Acceptable paper and cardboard recyclables include: newspapers, magazines, catalog, junk mail, telephone books, brown corrugated cardboard and one-layered grey cardboard.

As no significant adverse impacts regarding solid waste collection are anticipated as a result of the proposed project, no mitigation measures are proposed.

L. Utilities, Water

1. Existing Conditions

No water utilities are currently provided to the site.

The New Castle/Stanwood Consolidated Water System's Year 2009 Annual Drinking Water Quality Report describes the water distribution system in the town of New Castle, adjacent to the site. The New Castle Water system serves an estimated 16,800 people. The distribution system consists of 120 miles of underground water mains varying in size from 4" to 24" in diameter, approximately 1,288 fire hydrants, 3 million gallons of ground level storage located in 4 storage tanks, and 5,306 metered customer connections.

The New Castle Water System depends upon the New York City Aqueduct and Reservoir system for its entire raw water supply. New Castle's primary source is the Catskill Aqueduct System fed by the Ashokan Reservoir, and its secondary source is the New Croton Aqueduct fed by the Croton Reservoir System. The Millwood Water Treatment plant provides New Castle with water utilities, and the plant has a 7.5 million gallon per day (MGD) capacity. During 2009, New Castle withdrew 3.1 million gallons per day (MGD). Additionally, the Millwood Water Treatment plant is located in close proximity to the project sight: approximately 2.5 miles driving distance.

The Yorktown Consolidated Water District's Annual Drinking Water Quality Report for 2009 describes the water distribution system in the Town of Yorktown. The system serves approximately 36,000 people and has approximately 9,960 service connections. During 2009, Yorktown's major water sources were the Amawalk Reservoir, located in the Town of Somers and the Catskill Aqueduct in the Town of Cortlandt. Water is treated at Amawalk Water Treatment Plant, and the plant has a capacity of 7 million gallons per day (GPD). Water was also purchased from the Town of New Castle and sold to IBM Corporation and the Kitchawan section of Yorktown. During 2009, Yorktown treated and delivered 2.98 million gallons per day (MGD) of water.

2. Potential Impacts

Water for domestic, mechanical, fire and miscellaneous uses would be supplied from the Town of New Castle water supply system and circulated throughout the project site by the proposed water distribution system. The connection to the New Castle water main will be at the corner of Random Farms Drive and Route 100, which is the Yorktown/New Castle border.

The Town of New Castle Department of Public Works would require that all new water mains be constructed of Class 54, double cement-lined ductile iron pipe to conform to Town standards. The proposed water supply system components would also have to meet the requirements and obtain the approval of the Westchester County Health Department.

All residential units would be metered independently to promote water conservation. All water meters can be read from the outside of all proposed structures.

It is estimated that the proposed action would create a daily water demand of approximately 18480 GPD or 12.8 GPM. The estimated water demand will be met by the approximate 4.4 MGD excess supply capacity of the Water Treatment Plant and represents the use of less than 0.4% (4/10ths of a percent) of the available excess system capacity. As such, there are no anticipated impacts to the New Castle water supply district or Millwood Wastewater Treatment Plant.

Table L-1 - Propose Water Demand

Use	Amount	Unit	Unit Flow	Unit Flow (10% Additional)	Average Daily Flow	Average Daily Flow (20% Water Savings)
Residential 2 Bedrooms	70	Units	300 gal/unit	330 gal/unit	23100 GPD	18480 GPD

Note: Unit flow values based on NYSDEC Design Standards for Wastewater Treatment Works pp. 10-12, 1988. 10% added to DYSDEC Design Standards for Wastewater Treatment Works unit flow rate to obtain water demand flow rate. 20% subtracted from daily flow for use of water savings plumbing per Section 15-0314 of

the Environmental Conservation Law, NYSDEC Design Standards for Wastewater Treatment Works, pp. 10, 1998.

Water for irrigation is not included in the above total estimate of average daily water demands, since water for irrigation will be provided by the stormwater collection system. In addition, the use of water for irrigation would be seasonal and limited to 4 to 5 months out of the year. Also, irrigation water demands would vary annually depending upon the seasonal rainfall for the year.

As the proposed action is not expected to have any impacts on existing water supply, water service pressure or Fire Protection in adjoining neighborhoods is not expected to be impacted.

Fire protection would be provided in strict accordance with the 2007 Fire Code and Property Maintenance Code of New York State, with new fire hydrants spaced approximately 500 feet apart.

A minimum water flow pressure, to be specified as per the request of the local Fire Official, would be maintained at all fire hydrants for the purpose of providing adequate fire protection.

3. Proposed Mitigation

If water becomes unavailable from the New Castle Water District, sufficient area is available onsite to provide water wells, with a treatment/pumping station for the use of the facility.

In an effort to remain environmentally responsible, proposed homes will be equipped with water conserving technology, including low flow shower heads and high efficiency clothes washers.

Because the proposed project is not expected to create a significant impact on water use from domestic, fire, and irrigation purposes on the New Castle Water District, no other mitigation techniques are proposed.

M. Utilities, Sewer

1. Existing Conditions

There is currently no municipal sewer adjacent to the project site. Piping to the nearest municipal sanitary sewer was evaluated. This process would require the construction of a pump station and force main. This method was determined to be cost prohibitive. Furthermore, no desire for municipal sanitary sewer plants to accommodate the project's additional flows was found from the

county. As such, Croton Overlook is proposing a wastewater treatment facility and subsurface discharge system to be constructed on-site.

Tying the Croton Overlook Community's sewer into the county sewer system was analyzed. Preliminary routes were analyzed which would tie into the county line at one of 2 locations. This would bring the sewage to the county plant in Ossining. The first location was near the IBM Facility, the TJ Watson Research Center, located on route 134 and old Kitchawan road in Yorktown. The cost of this option was approximately 5 million dollars. The second option was to follow Rt 100, then follow Rt 133 to Brookside Lane and tie into the line at Ryder Road. The cost associated with this option was approximately 7 to 10 million dollars. Both of these options are too expensive to be economically feasible. Members of Croton Overlook also met with the then county executive Andrew Spano's Chief of Staff and several of the department heads regarding the Route 100 county sewer line extension. Members of Croton Overlook were told that the Route 100 county sewer line extension would not be moving forward, as the project's cost estimate was approximately 40 million dollars, and this was not cost effective.

On site soils and soil tests are attached in a Groundwater Mounding Analysis in Appendix T.

2. Potential Impacts

The proposed wastewater treatment facility will consist of the following major components: equalization tank with pumps, fine screens, and a membrane bioreactor. The membrane bioreactor will include the following components: anoxic tank, aeration tank with membrane modules, recycle pumps, air blowers, chemical feed systems, control panel, alarm monitoring system. The treated effluent will be discharged subsurface to an infiltration area. The proposed wastewater treatment system is fully described in the attached Engineer's Report for the system in Appendix M.

Sanitary Sewer Demands

In accordance with the flow confirmation letter dated October 25, 2010 and attached in Appendix N., the sanitary sewer demands were calculated using 300 GPD per unit in accordance with NYSDEC standards. The development will consist of 70 2-bedroom units. After applying the 20% credit for water saving devices, the total average daily flow is 16,800 GPD.

The wastewater treatment plant will be sized to treat an average daily flow of 16,800 GPD, a maximum average daily flow of 21,000 GPD and a peak hourly flow of 1,400 GPH.

Treatment Standards

The proposed effluent limits are as follows:

$CBOD_5$:	5 mg/L
Total Suspended Solids:	10 mg/L
Settleable Solids	0.1 mg/L
Phosphorous:	1 mg/L
pH:	6.5 - 8.5
Total Nitrates/Nitrates:	20 mg/L

The wastewater treatment facility is designed to treat raw domestic sewage to the following effluent limits:

CBOD5:	5 mg/L
Total Suspended Solids:	10 mg/L
Settleable Solids	0.1 mg/L
Phosphorous:	1 mg/L
pH:	6.5 - 8.5
Total Nitrates/Nitrates:	20 mg/L

3. Proposed Mitigation

Risk Assessment

Any risk associated with mechanical failure will be addressed by providing redundancy for the following equipment: equalization tank pumps, fine screens, recycle pumps, membrane modules, air blowers, and permeate pumps. This built in level of redundancy means that if any of these components of the wastewater treatment facility fail, the WWTP will still be capable of treating the maximum design flow to required standards.

An alarm monitoring system for the WWTP will be provided. Alarms will monitor the following: overflow for each screen, equalization tank pump failure, low level and high level alarms in tanks, air blower system failure, transmembrane pressure alarm, permeate pump failure, pH alarm.

An alarm dialer will be provided to alert the operator in the even of a problem.

The proposed membrane bioreactor provides a physical barrier. This design minimizes the risk of a contaminant breakthrough that would cause a violation of the permit limits. The service life of each membrane module is anticipated to be approximately 10 years. The risk of rupture of one of the membranes is mitigated by providing fine screens at the head of the plant. It is anticipated that the SPDES permit will require that effluent samples bet taken daily. Should a membrane rupture occur, evidence of the rupture will be clearly visible in the effluent sample.

Croton Overlook will provide both a primary infiltration area and a secondary expansion area as required by Westchester County Department of Health. In the unlikely event that the primary infiltration area fails, the secondary expansion area would be prepared to receive the effluent. Concurrently, the primary infiltration area would be investigated and measures taken to rectify any problems. In the very unlikely event that both the primary infiltration area and the expansion area fail, an application would need to be submitted for a revised SPDES permit and a variance from DEP for surface discharge. As such, it is anticipated that the surface discharge limits would be the NYSDEC Intermittent Stream Limits, which include:

BOD5:	5 mg/L
Total Suspended Solids:	10 mg/L
Ammonia:	2.0 mg/L
Fecal Coliform:	200/100 ml
Dissolved Oxygen:	>7.0 mg/L
Phosphorous:	0.2 mg/L*
Turbidity:	<0.5 NTU

*The proposed wastewater treatment facility is capable of treating phosphorous levels in raw domestic sewage to effluent levels of less than 0.1 mg/L.

The current wastewater treatment plant design is capable of meeting NYSDEC Intermittent Stream Limits. The only modification required for surface discharge would be the addition of a disinfection system, in which case an ultraviolet disinfection system would most likely be used. The estimated total cost for modifications required for a surface discharge is $10,000-$15,000.

It is our understanding that wastewater treatment facilities within proximity the project site have experienced infiltration area failures. The soils for Croton Overlook's proposed primary infiltration area and

secondary expansion area have been evaluated and determined to meet the proper characteristics for an infiltration area application, shown in the attached Groundwater Mounding Analysis in Appendix T. As such, infiltration areas for the Croton Overlook project will not experience failures similar to the failures observed in infiltration areas in proximity to the site.

An Emergency Spill and Response Plan is attached in Appendix O. This plan describes the steps to be taken in the unlikely event of a Wastewater Leak/Spill so as to prevent any contravention of groundwater standards.

Permitting and approvals

Approval of the wastewater treatment facility and the infiltration area is required by the Westchester County Department of Health, NYCDEP and NYSDEC

Operations and Maintenance

The proposed public transportation company, a privately owned public utility company, will be owned by the Homeowners Association and will supply wastewater treatment for the project. The public transportation company's service will continue indefinitely as long as the sewer district requires servicing.

The public transportation company will employ a licensed wastewater treatment plant operator with all required licenses and certifications. The licensed operator will conduct all testing in accordance with the SPDES permit. If the licensed operator fails to operate the plant in accordance with the SPDES permit or if the plant receives any violation, then the public transportation company will have the right to remove the licensed operator and employ a new licensed operator.

Low Flow Conditions

The proposed membrane bioreactor is capable of treating wastewater during low flow periods. During a sustained period of low flow, the concern would be insufficient food for the microorganisms. In the event of low flow, the mixed liquor suspended solids concentration will be lowered in order to maintain the proper ratio of food to microorganisms.

For example, if the flow rate were 20% of the design flow rate, then the mixed liquor suspended solids (MLSS) concentration would be

lowered to approximately 4,000 mg/L (down from a typical concentration of 8,000 mg/L to 12,000 mg/L). The tank levels would also be adjusted. Tank levels are controlled using an analog signal from a level sensor in each tank. Even at 20% of the design flow rate, the membrane bioreactor is capable of meeting the anticipated effluent requirements as well as New York State Intermittent Stream Limits.

Capital Fund

The proposed capital fund will be legally restricted to be used only for replacement of capital items. Procedures will be put in place to ensure that these funds will not be used for any other purpose, thereby ensuring that the appropriate amount of money is always available for any necessary upgrades.

Below is a preliminary operational budget for the proposed sanitary sewer system. The costs for each homeowner are broken down into line items.

Figure M - Sample Sewer Yearly Operational & Maintenance Expenditures

Yearly Operational & Maintenance Expenditures	
Daily operations ESTIMATE (**SPDES permit will determine staffing**)	$26,800.00
Chemicals*	$2,000.00
Sludge Hauling **(2 – 4 times per year)**	$3,900.00
Alarms **(alarms for: overflow for each screen, equalization tank pump failure, low level and high level alarms in tanks, air blower system failure, transmembrane pressure alarm, permeate pump failure, pH alarm)**	$500.00
Electric	$7,000.00
Telephone service	$400.00
Testing Fees	$2,100.00
Insurance	$2,000.00
Laboratory Chemicals	$200.00
Repair/Contingency	$1,500.00
Engineering Services	$1,000.00

Accounting services	$1,500.00
Legal Services	$1,000.00
SUB TOTAL	**$49,900.00**
Operation & Maintenance	$49,900.00
Capital Replacement	$13,100.00
Income Tax @ 27% on $45,000.00	$4,320.00
Depreciation @ 2% on $750K	$5,000.00
	$88,320.00
Total Revenue Required	**$88,320.00**
Rate per customer ($88,320.00 / 70 homes)	**$1,261.74**

*The specific required chemicals are discussed in detail in the Engineer's Report for the system attached in Appendix X. Generally, the following chemicals will be used: sodium hypochlorite (citric acid), a membrane cleaning solution used no more than twice a year; sodium hydroxide, used daily for pH adjustments as need; alum, used for phosphorous precipitation daily as needed.

The Engineer's Report attached in Appendix M will discuss how the proposed treatment plant and discharge will be designed and maintained to prevent any contravention of water quality.

N. Fiscal Conditions

1. Existing Conditions

As per information from the US, Census Bureau for the Town of Yorktown for 2005-2009, the town's population is approximately 37,538. Approximately 1,869, of these citizens are of 5 years of age and younger. Approximately 27,940 of these citizens are of 18 years of age and older. Approximately 5,082 of those citizens are of age 65 and older. The average household size is approximately 2.84 people living in a housing unit.

As per information from the US, Census Bureau for the County of Westchester for 2005-2009, the county's population is approximately 949,050. Approximately 60,742, of these citizens are of 5 years of age and younger. Approximately 716,361 of these citizens are of 18 years of age and older. Approximately 132,911 of those citizens are of age 65 and older. The average household size is approximately 2.72 people living in a housing unit.

This information has been summarized in Table N-1 below.

Table N-1 – Existing Demographics of Yorktown and Westchester County, NY

	Yorktown	Westchester
Population	37,538	949,050
Age 5 and under	1,869	60,742
Age 18 and over	27,940	716,361
Age 65 and over	5,082	132,911

All info from US Census Bureau 2005-2009

The table displayed below is from the Yorktown Comprehensive Plan – Adopted June 15, 2010. The summation of Yorktown's population of ages 55 and over shows that 25.6%, slightly more than 1/4th, of Yorktown's population as of 2008 is of the age 55 or over.

Table 5-4: Population by Age Group in Yorktown, Westchester County and Putnam County, 2006-2008

	Yorktown	*Westchester County*	*Putnam County*
	Percent of Total	*Percent of Total*	*Percent of Total*
Under 5 years	5.1	6.3	5.4
5 — 14 years	15.6	13.5	13.6
15 — 24 years	12.4	13.2	13.6
15 — 19	*7.3*	*7.1*	*7.1*
20 — 24	*5.1*	*6.1*	*6.5*
25 — 34 years	5.6	10.5	9.8
35 — 44 years	16.4	14.8	15.6
45 — 54 years	19.0	15.8	18.0
55 — 64 years	11.4	11.7	13.1
65 — 74 years	6.7	7.0	6.5
75 — 84 years	5.3	5.0	3.3
85 years and over	2.5	2.2	1.0
Total	100.0	100.0	100.0

Sources: American Community Survey

The property is currently providing the following annual taxes to the corresponding Town, County, and School District:

Table N-2 – Current Taxes Provided by Property

Taxing Jurisdiction	Tax Rate (per $1000)	Tax Amount (2010)
County Tax	139.89	$1007.18
Yorktown Heights FD	14.11	$101.61
Westchester Ref Dist	13.29	$95.67
Open Space & Conservation	30.00	$60
Adv Life Support	3.64	$26.19
Town Tax	132.13	$951.32
School Tax	0.0	$0
Total =	333.06	$2241.97

As the existing Dell Ave is not up to town specifications, including the absence of road base, the costs of town services for maintenance are approximately $280,000 to $320,000, including drainage work. Plowing services cost the town approximately $18,000 to $25,000 per season.

2. Potential Impacts

Market Rate Units

As previously stated, the project site currently falls into the R1-160 zone, single family residential with roughly a 4 acre minimum lot size. The applicant is seeking a Zoning Map change for the property to an RSP-1 district, an Age Oriented Community restricted to citizens 55 years of age or older. This zone change is necessary to accommodate the type of housing community and amenities proposed in the Croton Overlook Development Conceptual Subdivision Site Plan.

If the Croton Overlook development was forced to sell as market rate units, impacts to fiscal and socioeconomic conditions would be

minimal. Because the Croton Overlook project is proposed as a subdivision, all taxes, would be paid at full tax rates for the units. The proposed action is expected to generate $16,105 per unit and $1,127,350 annually.

Any potential fiscal and socioeconomic impacts are anticipated to be mitigated by the project tax generation of the project.

The applicant was asked to determine what the impact of school children would be for a development of a similar size and type as the Croton Overlook development. To calculate the projected number of children for this circumstance, the number of proposed units, 70, was multiplied by the "children multiplier", 0.17. This "children multiplier" correlates the number of children to housing types in the "Rutger's University, Center for Urban Policy Research, Residential Demographic Multipliers – New York (June 2006)", a method recommended by the Planning Board. The projected number of children for this circumstance is 12 children.

In the event of extenuating circumstances, the surrounding school districts should be able to accommodate the 12 additional school age children due to the taxes generated by the project.

Dell Avenue

Dell Avenue is currently in a state of disrepair. Before the construction of Rt 100, Dell Ave was used as a major roadway in the area. Currently, Dell Avenue is seldom used and poorly maintained. The road is washed out and requires frequent maintenance by the town, including filling in potholes and mowing the grass on the sides of the road. The road is also frequently used for illegal dumping, which creates cleaning costs for the town. All of these maintenance and repair activities create costs for the town.

The Croton Overlook project is prosing the relocation of Dell Avenue, along with extensive infrastructure improvements. The re-aligned and improved Dell Avenue will be dedicated to Yorktown. After the completion of the Croton Overlook project, the improved Dell Avenue will require far less maintenance then its present state, such as the absence of pothole repair. Some maintenance activities, such as mowing, will be handled by the Homeowner's Association. In addition, the road will no longer be a source of illegal dumping. The road will require storm and winter maintenance, including plowing. These services are currently provided to the road, and the proposed improvement should not increase the costs of these services.

Additionally, these costs are included in the estimated annual taxes, from Croton Overlook, directly to the Town of Yorktown, of $119,575.

As such, the costs of town services to maintain the proposed Dell Avenue and the associated project infrastructure should be significantly lower than the costs of town services currently provided to maintain the existing Dell Avenue.

Additionally, the proposed development is not anticipated to create any impact on affordability of housing in the town, specifically for senior citizens.

3. Proposed Mitigation

The proposed action is expected to generate $16,105 per unit and $1,127,350 annually. School taxes for the Croton Overlook Community are projected at $821,418 annually. This is a substantial economic benefit to the town, as there are no additional children being added to the school system. Trash pickup will be provided by Yorktown. The estimated annual tax collected for trash pickup is $27,390. This tax is totally separate from the Town of Yorktown annual tax of $119,575. Life and Fire Services will be provided by Yorktown. The cost for the Police is included in the estimated annual Yorktown tax of $119,575.

Croton Overlook recognizes an obligation to support the variety of needs throughout Yorktown. It was with this in mind that Croton Overlook made the decision to develop the site as a sub-division, not a site plan. Croton Overlook's estimated annual taxes, generated under fee simple ownership, are expected to be $1,127,400. If the project was submitted for approval as a condominium, site plan, the estimated annual taxes would be $532,000.

Croton Overlook's single largest economic benefit to Yorktown is the estimated annual school taxes of $821,418. The development is a 55+ Active Adult Community. These taxes will be paid, annually, with no additional children being added to the school system.

In addition, Croton Overlook is making a one time, $650,000 contribution to Yorktown for uses in areas such as senior services, recreation, safety, etc.

Other economic benefits resulting from the development and sales of these homes are many; percentage of Real Estate Transfer Taxes, Mortgage Taxes and Sales Taxes generated by shopping and the use of vendor services in Yorktown.

O. Traffic Conditions, Safety, and Flow

1. Existing Conditions

Local Roadway Network

The subject site is in the Town of Yorktown, Westchester County, New York. Local roadways in the vicinity of the site include Dell Avenue, NY Rt. 100 (Saw Mill River Road), and NY Rt. 134 (Pinesbridge Road). The site lies to the east of NY Rt. 100. The access points to the subject site are at the intersections of Dell Ave. and NY Rt. 100, which are located at the extreme ends of Dell Ave. to the north and south of the site.

There are no sidewalks at either of the studied intersections or along any of the roadways. There are currently stop signs on Dell Avenue at both of its intersections with NY Rt. 100, as well as on Pinesbridge Road at its intersection with NY Rt. 100. There are no stop signs or traffic signals currently on the section of NY Rt. 100 being analyzed.

Lane widths, road lengths, and roadway types are shown in table O-1.

Table O-1 – Existing Local Roadways

Roadway	Width of Road	Length of Road	Number of Lanes in Each Direction	Type of Roadway
Dell Avenue	12 ft	3,000 ft.	1 lane for both directions	Collector
NY Rt 100	30 ft	33.27 miles	1	Arterial
NY Rt 134	42 ft	6.35 miles	1	Arterial

NY Rt. 100 has a posted speed limit of 55 miles per hour, along with multiple curve warning signs recommending safe travel speeds of 50 miles per hour, and other intersection warning signs.

NY Rt. 134 has a speed limit of 35 miles per hour. There are also bicycle traffic warning signs implying that it is a shared use roadway. The North County Trailway crosses NY Rt. 134 approximately 650 feet before the intersection of NY Rt. 134 and NY Rt. 100, implying pedestrian crossing traffic as well as a wider shoulder along a short segment of NY Rt. 134 allowing parking at the entrance to the trailhead. On street parking on NY Rt. 134 does not impede flow through the intersection.

Dell Avenue is a 25 mile per hour rural collector street with no lane markings. The existing Dell Ave. is in very poor condition, with multiple pot holes, poor drainage which has led to road surface rutting over time, and a very narrow road width causing multiple conflict areas for traffic traveling in opposing directions. There is also currently an S-turn, which allows a very short sight distance for drivers traveling on Dell Ave in both directions.

Key Intersections

The following existing intersections will be utilized by the residents of the proposed subdivision.

1. Dell Avenue and Saw Mill River Road (NY Rt. 100) intersections.
2. Saw Mill River Road (NY RT 100) and Pinesbridge Road (NY Rt. 134).

Table O-2 provides the existing average annual daily traffic (AADT) counts for NY Rt. 100 and NY Rt. 134. This data is collected over the course of a year, and an average is found to provide an understanding of the current usage of existing roads.

Table O-2 - Existing Average Annual Daily Traffic

Roadway	Average Annual Daily Traffic (AADT)
NY Rt. 100 North of Rt. 134	10,666 vehicles per day
NY Rt. 100 South of Rt. 134	8,046 vehicles per day
NY Rt. 134	4,483 vehicles per day

Above data from Traffic Data Viewer from New York State Department of Transportation.

The existing data forms the basis of the 2011 No Build Condition (projected future traffic without the proposed development) and the 2011 Build Condition (projected future traffic with the proposed development).

2. Potential Impacts

Trip Generation

The Proposed Action is the development of a 70 unit, age-restricted, residential development. Trip generation determines the quantity of

traffic expected to travel to and from a given site. The Institute of Transportation Engineers' (ITE) *Trip Generation,* 8th Edition, is the industry standard used for estimating trip generation for proposed land uses. ITE land use code (LUC) 251 for Senior Adult Housing was used to estimate the number of trips that will be generated at the site with all seventy units developed. The project trip generation is summarized in table O-3, Trip Generation Summary.

Table O-3 Trip Generation Summary

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Age-Restricted Homes – 70 Units	5	10	15	12	7	19

Table O-3 shows that the seventy lot subdivision will generate approximately 15 vehicle trips during the AM peak hour and 19 vehicle trips during the PM peak hour. During non-peak periods of the day, trips to and from the site will be less, and insignificant when considering the traffic impact of the proposed site. It should be noted that age restricted developments generally generate approximately three to four times less traffic than traditional single family housing developments, as a percentage of the residents are retired and typically do not have children living at these types of developments.

The intersections of NY Rt. 100 with Dell Avenue and NY Rt. 134 are considered the critical intersections that will be utilized by residents of the subdivision when traveling to and from the site. Based on a review of available traffic volume data published by the New York State Department of Transportation (NYSDOT), it is anticipated that approximately 60% of the site generated trips will enter and exit the site via NY Rt. 100 from the south, and the remaining 40% will enter the site from the north. The summary of resulting maximum increase in traffic volumes on each single intersection approach is shown in table O-4.

Table O-4 Maximum Increase in Traffic Volumes on Intersection Approaches

Intersection	AM Peak Hour	PM Peak Hour
NY Rt. 100/Dell Ave.	10	7

NY Rt. 100/NY Rt. 134	3	4

Comparing the maximum increase in traffic volumes on intersection approaches (Table O-4) with the existing average annual daily traffic (Table O-3) shows that the peak hour traffic generated from the site represents less than one percent of the daily traffic volumes on these roadways. An increase in traffic volumes of the magnitude expected with the development will easily accommodated by the existing roadway network. It is also noted that the NYSDOT threshold for requiring a detailed traffic impact study is 100 peak hour trips, confirming that the development of the site will not have a measurable impact on the surrounding network. This 100 vehicle per hour trip threshold is also consistent with the methodologies presented by ITE in *Transportation Impact Analysis for Site Development*. Therefore, based on NYSDOT and ITE guidelines, the increase of traffic generated by this site will not cause any noticeable impact on the surrounding transportation network.

Construction Traffic

During the construction period, construction and worker vehicles would be entering the site between the hours of 7:00 a.m. and 4:00 p.m. Monday through Friday, and between 9:00 a.m. and 5:00 p.m. on Saturday, excluding legal holidays. These times are in accordance with the Yorktown Town Code, Chapter 216 in regards to noise concerning construction vehicles and work. Typically, construction activities would be expected to end prior to workers leaving the site. Construction and associated traffic would not take place on Sunday.

Truck traffic would be generated initially during the activities necessary to clear the site and install roads and infrastructure, and later as buildings are being built, to bring in supplies including concrete, steel, framing materials and related building materials. Construction truck traffic would access Dell Avenue from NY Rt. 100 at either the north or south entrance to the site. The number of truck trips generated per day during construction would vary depending upon the phase and pace of construction.

Local contractors are expected to use local highways. These contractors currently use these same local routes to get to and from their place of business and job sites, and as a result their travel is already included in the estimated average annual daily traffic on NY Rt. 100 and NY Rt. 134. Thus, their travel to and from the proposed

site is expected to have little impact on the roadways and traffic volumes in the area.

Construction traffic would use stabilized construction entrances on the site at both ends of Dell Avenue. Once construction machinery reaches the site, it is likely to remain on site until the necessary excavation and construction is completed, thereby minimizing construction related traffic to and from the site.

Site construction activities would comply with all applicable Yorktown Town ordinances. The highest volume of construction traffic is expected to occur at the beginning of each construction phase, and during the months that concrete and building materials are transported to the site. Concrete and other material deliveries are expected to be sporadic throughout the construction process.

No-Build and Build Conditions

A project's traffic impact is typically determined by comparing future traffic conditions without the project's traffic (No-Build Condition) to the traffic conditions with project-generated traffic (Build Condition).

The No-Build Condition is a forecasted scenario that establishes a future baseline condition. No-Build Conditions are developed based on a number of factors: (1) improvements in the local road network that are planned or underway; (2) traffic from general population growth in the local area; and (3) traffic from identified development projects in the project site vicinity.

Upon reviewing NYSDOT historical data of the area it was found that volumes on NY Route 100 and NY Route 134 adjacent to the project site have remained relatively constant over the last several years. In addition, the Town of Yorktown planning department has indicated that there are no known development projects in the vicinity of the site that would add traffic to the study area. Therefore, it is expected that the most recent traffic volumes obtained from April 2008 and May 2009 collected by NYSDOT, and shown in Table O-5, are a good representation of the traffic volumes expected through the design and construction of the proposed project. Further, these volumes can be considered as the No-Build conditions for NY Rt. 100.

Table O-5 – Current and No-Build Traffic Volumes

Roadway	AM Peak Hour	PM Peak Hour

	NB	SB	Total	NB	SB	Total
NY Rt 100 south of NY Rt 134	275	550	825	470	270	740
NY Rt 100 north of NY Rt 134	470	660	1,130	680	430	1,110

NB=Northbound, SB=Southbound

Level of Service Criteria

The Highway Capacity Manual documents the methodology used for modeling average vehicle delay and levels of service (LOS) at an intersection. LOS is a measure of the operational quality of an intersection; ranging from a LOS A as the highest, most efficient level, to LOS F, the lowest level. The operational quality of an intersection is based on the average amount of time a vehicle is delayed. LOS is examined for each lane group, which is defined as the set of lanes allowing common movements at an approach.

Average vehicle delay accounts for all delay types, including those related to perception reaction time, queue length, deceleration and acceleration. The New York State Department of Transportation prefers the methodologies depicted in the Highway Capacity Manual over other traffic capacity methodologies.

Table O-6, Unsignalized Intersections Level of Service Criteria, presents the LOS criteria at unsignalized intersections from the Highway Capacity Manual.

Table O-6 – Unsignalized Intersections Level of Service Criteria

Level of Service	Average Control Delay (Seconds Per Vehicle)
A	Less than or equal to 10
B	Greater than 10 and less than or equal to 15
C	Greater than 15 and less than or equal to 25
D	Greater than 25 and less than or equal to 35
E	Greater than 35 and less than or equal to 50
F	Greater than 50

An intersection analysis was performed for the two unsignalized intersections of Dell Avenue and NY Rt. 100 during the peak hour to determine the forecasted average vehicle delay and level of service; the results are summarized in Table O-7. Each of the lane groups has a level of service of either A or B, which is considered to be suitable for an unsignalized intersection. Vehicles making a right turn into the development are not expected to experience any delay at an unsignalized intersection as they will always have the right of way.

Table O-7 – Build Condition Level of Service for Critical Intersections

Intersection	Turn Movements	AM Peak Hour	PM Peak Hour
NY Rt 100/Dell Ave (south)			
Rt. 100 SB	L	A (7.9 seconds)	A (8.4 seconds)
Dell Ave (south) WB	L+R	B (14.4 seconds)	B (14.4 seconds)
NY Rt 100/ Dell Ave (north)			
Rt 100 SB	L	A (8.4 seconds)	A (9.2 seconds)
Dell Ave (north) WB	L+R	B (11.7 seconds)	B (13.8 seconds)

SB, WB = Southbound and Westbound Intersection approaches
L, R = Left or Right-turn movements
X(Y.Y) = Level of service (average delay in seconds per vehicle)

Proposed Relocation of Dell Avenue

The relocation and improvement of Dell Avenue is not only necessary for the Croton Overlook project, but it is also a great benefit to the town of Yorktown. The proposed relocation, as shown on the site plan attached in Appendix G, improves driver sight distance, safety, and flow for traffic on Dell Ave. Stopping sight distance is a very important aspect to roadway designs, especially on sharp turns such as the S-curve currently existing on Dell Ave. By eliminating a hazardous S-curve, drivers are able to see any oncoming traffic, thus greatly improving safety conditions for all motorists and pedestrians on Dell Ave. By completely reconstructing the roadway, many deep and hazardous pot-holes and ruts will also be eliminated. An improved road surface enables drivers to travel in their designated lane and prevents swerving to avoid hazardous conditions. All

improvements to the roadway will be carried out in compliance with state and local regulations.

The proposed relocated Dell Avenue will be deeded over to the town as a road easement when completed. The road easement from the existing Dell Avenue will be deeded over to Croton Overlook.

3. Proposed Mitigations

The proposed relocation of Dell Avenue creates a safer and more efficient roadway, and also provides a convenient access road to the Croton Overlook Development. All appropriate signage will be implemented in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) as required by the New York State Department of Transportation. The existing traffic network will not be significantly impacted by the traffic generated at the proposed development, therefore no improvements are necessary. The future build scenario has no predictable negative consequences on the roadway network, and only provides improvements on the existing Dell Avenue. The future no-build scenario would leave Dell Ave as a hazardous narrow roadway needing improvement.

P. Electromagnetic Fields (EMF)

1. Existing Conditions

Due to the Con-Edison high tension power lines running adjacent to the property near Dell Ave, an Electromagnetic Field Study was conducted to determine the existing conditions of EMF levels on site and determine any potential impacts these conditions could have on health and safety of the residents.

Electromagnetic fields (EMF) are created by differences in voltage and exist wherever a positive or negative electrical charge is present. EMFs can be generated by human-made sources that carry electrical charge and/or current, such as the high-power transmission lines, lightbulbs, televisions, and computers. The strength of an EMF will decrease as the distance from the source increases.

While there are no official standards or guidelines, this analysis compares measured electromagnetic field data to the general guidelines of the International Radiation Protection Association (IRPA) general public limit and the New York State Right-of-way (NYSROW) maximum guidelines for electric and magnetic fields.

In order to properly evaluate EMF on-site, measurements were taken along the perimeter of the site that runs closest to the nearby high

tension power lines, the proposed houseline closest to the power lines, and at several locations on-site furthest from the source power lines. The sampling locations are denoted in Figure P-1 displayed below.

Figure P-1

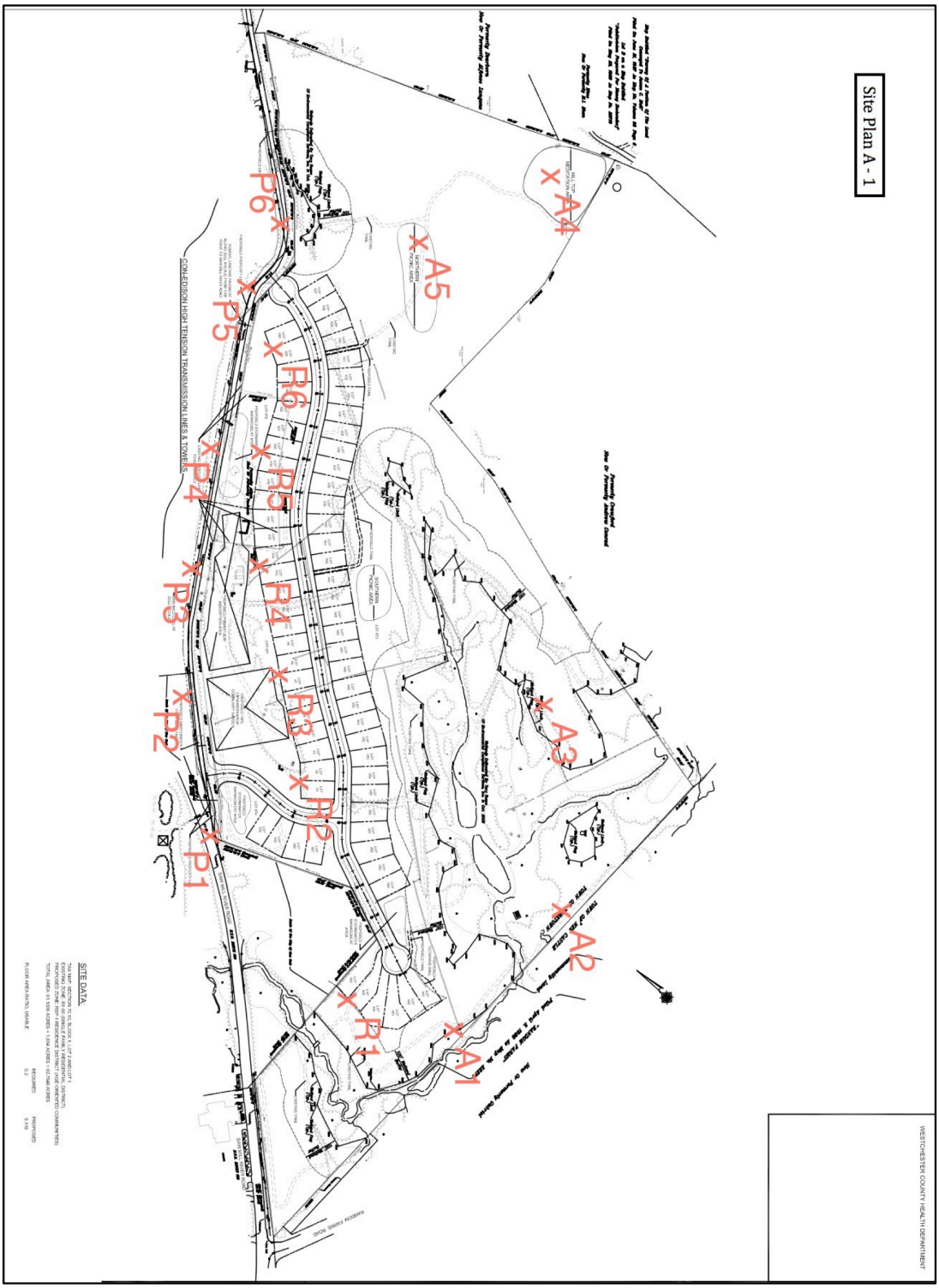

Site Plan A - 1
A1
A2
A3
A4
A5
R1
R2
R3
R4
R5
R6
P1
P2
P3
P4
P5
P6
CON-EDISON HIGH TENSION TRANSMISSION LINES & TOWERS
SITE DATA
WESTCHESTER COUNTY HEALTH DEPARTMENT

Table P-1 – EMF Field Data Results

Sample Location	EMF milliGauss
Ambient Readings:	
A1	1.0
A2	0.6
A3	0.4
A4	0.4
A5	0.6
Houseline Readings:	
R1	0.8
R2	0.9
R3	1.5
R4	2.1
R5	2.1
R6	2.5
Property Line Readings:	
P1	7.4
P2	17.0
P3	22.6
P4	12.1
P5	8.0
P6	2.0

The EMF field was measured using an EMF/ELF Meter (model number 480823) manufactured by EXTECH Instruments. This meter measures a single axis, with a range of 0 to 199.9 milliGauss (0 to 19.99 microTesla) and a frequency bandwidth of 30 to 300 Hertz. This meter comes calibrated to NIST standards.

EMF measurement results can vary during the course of a day. EMF measurements will be higher during peak electricity consumption hours and lower when less people use the network. Monitoring EMF variability has shown it is possible to see a change in field readings by a factor of two or three. To compensate for variance in the power transferred over the line, the final calculated readings were multiplied by a factor of 3. These readings with an incorporated factor of safety are displayed below in Table P-2.

Table P-2 – EMF Field Data Results with Factor of Safety

Sample Location	EMF milliGauss
Ambient Readings:	
A1	3.1
A2	1.7

A3	1.3
A4	1.1
A5	1.8
Houseline Readings:	
R1	2.4
R2	2.6
R3	4.6
R4	6.2
R5	6.4
R6	7.4
Property Line Readings:	
P1	22.1
P2	50.9
P3	67.8
P4	36.3
P5	24.1
P6	6.0

2. Potential Impacts

All EMF readings, as displayed in Table P-2, are well below the RIPA general public limit of 1000 milliGauss and the NYSROW maximum guidelines for magnetic field strength of 200 milliGauss.

The highest EMF readings occurred at the property line running adjacent to the power lines. As previously mentioned, EMF levels decrease significantly with increase decrease from the EMF source. Additional readings were recorded to observe how these "higher" EMF readings decreased with distance from the source. It was determined that these higher levels decreased to approximately 4.9 to 6.6 milliGauss at just 50 feet from the property line.

Additionally, the proposed homes are located greater than 150 feet from the nearest high transmission power line. As a general rule of thumb, most homes that are located beyond 150 feet from a transmission experience a lower level of EMF exposure than 3 mGauss. In fact, the level of EMF exposure in the front yard of a home that is 150 feet or more from a transmission line is less than the level inside the home in a room with lights on.

There are no anticipated detrimental impacts by electro-magnetic fields on health or safety for the Croton Overlook development. All EMF measurements were several orders of magnitude less than the IRPA general public limit, and significantly lower than the NYSROW maximum guidelines for magnetic field strength. Houseline and

ambient EMF measurements, after incorporating a factor of safety, were all in the range of 1.1 to 7.4 milliGauss. For comparison purposes, the EMF of a fluorescent light bulb at a distance of 1 meter can be measured at 0.2 to 2.5 milliGauss.

3. Proposed Mitigation

As previously discussed, there is no supporting evidence of any potentially hazardous impact on health or safety by EMF on the Croton Overlook development. As such, there are no proposed mitigation measures. An EMF Study has been attached in Appendix F. The EMF study will be made available to the prospective buyers to answer any questions or concerns they may have.

Q. Use and Conservation of Energy – Green Technology

1. Existing Conditions

Introduction

This section presents existing conditions and analyzes the potential greenhouse gas emissions that would result from construction of the Croton Overlook Development.

As discussed in the NYSDEC 2009 "Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements", global climate change is emerging as one of the most important environmental challenges of our time. There is scientific consensus that human activity is increasing the concentration of GHGs in the atmosphere and that this, in turn is leading to serious climate changes. Climate change will continue to adversely affect the environment and natural resources of New York State, the nation, and the world. There are six main green house gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydroflourocarbons (HFCs), perflourocarbons (PFCs), and sulfur hexafluoride (SF_6). Emissions of carbon dioxide account for an estimated 89% of the total annual GHG emissions in New York State.

All calculations and methodology used in this section conform to the NYSDEC 2009 Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements.

No green technology, energy, or energy conservation practice is currently being used on-site.

2. Potential Impact

Based on the Environmental Protection Agency's Household emissions calculator, which incorporates variables such as: average number of occupants, number of vehicles, miles driven by each vehicle, sources/volume of power, waste produced/recycled, green energy use/purchase, to determine the approximate lbs of CO_2 produced. The estimated annual CO_2 emissions for a single family home in the vicinity of the project area, in Westchester County, NY is approximately 40,550 pounds of CO_2 per year. This includes the CO_2 produced from heating, cooling, lighting, and fuel for trips to and from the homes.

Based on the Environmental Protection Agency's Household emissions calculator, the estimated annual CO_2 emissions for a home in the finished development, would be approximately 24,554 pounds of CO_2 per year. Due to the projects green initiative, this emission number is significantly lower than the average CO_2 emissions for a home in proximity to the project area.

According to a study conducted at Harvard University in 1993, a temperate zone forest, similar to the type of forest located on the project site, can absorb approximately 3,500 pounds of Carbon per acre per year. The net loss of canopied forest area on site is approximately 11.986 acres. This corresponds to a loss of the adsorption of 41,951 pounds of Carbon per year by the removed forested area.

Table Q-1 Below Displays a Carbon Dioxide GHG balance for the project.

As summarized in the table, despite the loss of 11.986 acres of tree canopy, the Croton Overlook project will still save an estimated 1,158,951 lbs of carbon dioxide emissions per year, as compared to if the community were constructed as average single family homes in the project area. This savings is due largely to the fact that the Croton Overlook homes will be heated using geothermal energy, and the average single-family homes in the project vicinity are heated using conventional “fossil fuel” dependent methods. It should be noted that these calculation do not incorporate the minimum of two (2) trees which will be planter per lot. These 144 trees, along with any trees or vegetation planted by homeowners, will grow to become another significant source of carbon sequestration. As such, the actual reduction in carbon dioxide emissions will be higher than is estimate below.

Table Q-1 – Carbon Dioxide CO2 Balance

Description	Calculation	Sum Total
An average single family home in the project area heated by fossil fuels	40,550 lbs CO2 per year x 70 units	2,835,500 lbs CO2 per year
A Croton Overlook single family home with geothermal heating	24,550 lbs CO2 per year x 70 units	1,718,500 lbs CO2 per year
Tree canopy GHG sequestration loss	- 3,500 lbs of CO2 x 11.986 acres	- 41,951 lbs of CO2 per year
Net Difference in CO2 production	=	1,158,951 lbs CO2 per year

Table Q-2 – Projected Carbon Dioxide Emissions during Construction

Carbon Dioxide (CO_2) is the most common greenhouse gas from human activities. In vehicles, it is a byproduct of fuel combustion. Nitrous oxide (N_2O) is 310 times more powerful than CO2. Methane (CH_4) is 21 times more powerful than CO2. Hydrofluorocarbons (HFCs) are used as refrigerants in air conditioning and cooling systems.

Results displayed in CO_2 equivalent metric tons	**CO_2[i]**	**N_2O[i]**	**CH_4[i]**	**HFCs[i]**	**Totals**
Source Breakdown					
Passenger Cars	17.62	0.39	0.02	0.7	18.73
Light Duty Trucks, Vans and SUVs	9.21	0.2	0.01	0.49	9.91
Medium and Heavy Duty Vehicles	127.67	0.34	0.03	0.69	128.73
Fuel Breakdown					
Motor Gasoline (gallons)	23.79	0.52	0.03	1.03	25.37
Diesel Fuel (gallons)	576.52	3.94	5.51	0.79	586.76
Electricity (KWH)	10.94	0.03	--	0.06	11.03
Total (Metric Tons)	611.25	4.48	5.54	1.88	**623.15**
Percent	98.09%	0.72%	0.89%	0.30%	100%

Based on the current scope of construction work for the project, an estimated 625 metric tons of Green House Gasses will be produced via construction activities. This data was attained by determining the amount of each fuel type needed for the construction phase, as well as the amount of GHG produced by that fuel. Based on values obtained from the green house protocol website,(www.ghgprotocal.org), the values in Table Q-2 were compiled.

3. Proposed Mitigation

In an effort to remain environmentally responsible, Croton Overlook homes will be constructed with a variety of green features. Geothermal heating and cooling, for example, will be installed in all homes. This method of heating and cooling is completely sustainable, using an exchange of natural renewable heat within the ground and the homes above. This will considerably reduce energy costs to the homeowner, while providing reliable HVAC. In addition, by implementing geothermal technology the overall carbon footprint of each home will be greatly reduced.

Recycled building materials will be used in home construction whenever possible. By recycling building materials, the amount of landfill materials will be cutback, reducing the GHG emission and at the same time reducing the number of trees being harvested for new building materials. Natural ventilation will be implemented wherever possible in the homes. Unlike conventional fan forced, and Green House Gas Producing, ventilation, natural ventilation uses the natural force of wind to deliver fresh air into buildings. Homes will be designed to promote optimal airflow and circulation.

Solar panels will be placed on top of any maintenance buildings as well as the on-site sewage treatment facility. This sustainable energy will offset energy costs to the community. Solar panels are a simple and low maintenance renewable energy source, as well as a good way to cut back on GHG emissions. Trees that are being cut down on site will be mulched and used as topping for recreational trails and in community gardens. This will reduce the amount of $C0_2$ released into the atmosphere. Allowing the harvested wood to decompose will allow the carbon dioxide to be sequestered in the soil horizon, thus enriching the overall soil nutrition.

Recycled on-site materials will ensure that rock or vegetation that must be removed from the site is reused in an environmentally

responsible manner. For example removed rock material can be used as fill, which is required in various locations on-site, for sub base under asphalt roads, surface for maintenance roads, and surrounding wastewater discharge infiltrators. By recycling rock and other blasting material the GHG's will be reduced due to a reduced number of loads to and from the site.

Increasing the acreage of open water pond and wetlands area will benefit natural on-site ecosystems. Open water ponds serve to increase biodiversity by providing habitats for local plant and animal species. Wetlands act as a buffer for storm events by providing excellent rainwater absorption. Wetlands also naturally purify storm water runoff. When all of these factors are taken into account, we see an increase in the abilities of the environment itself to act as a sponge and retain higher amounts of GHG.

Native trees and vegetation will be planted wherever feasible in areas of the site where vegetation removal was necessary. These native species will blend with existing vegetation to create a healthy and balanced ecosystem. As such, the natural beauty and viewscape of the on-site and surrounding environment will be preserved. The healthier an ecosystem is, the stronger of a carbon sink it can be.

A community composting program along with organic waste, such as leaves and brush, collected by maintenance crews, will reduce the amount of material going into the landfill, while increase the amount of minerals being returned to the soil. The compost will increase vital organic matter in the soil, creating ideal fertile conditions, for the community gardens. By significantly reducing the amount of landfill material and increasing the health of the soil the development will be seeing substantial reduction in GHG emissions as well as an increase in the soils ability to sequester said emissions.

Storm water collection will capture almost all of the storm water on-site using ponds and infiltration basins. This water will be used to irrigate the community garden and homeowner's lawns. Collecting storm water, as opposed to pumping from groundwater, is a sustainable method of irrigation, which reduces off-site runoff and the community's environmental impact on the groundwater aquifer. This method of irrigation is also a lower impact to the environment since comparably little energy is used, seeing as all of the water is being supply via ponds directly onsite. Thus, lowering the overall green house gas emissions for the development, and at the same time

additional wetlands and buffer are being created, which will help naturally scrub GHG(s) from the environment.

Green Certification Systems

Energy used in homes often comes from the burning of fossil fuels at power plants, which contributes to detrimental environmental impacts such as global warming. Certification systems have been set in place by government and other professional agencies to quantify the energy efficiency of homes. The most well known and leading certification systems are described below.

Energy Star Certification

In order for homes to be Energy Star Certified, they must meet strict guidelines for energy efficiency set by the US EPA. These homes are at least 15% more energy efficient than homes built to the 2004 International Residential Code (IRC), a comprehensive, stand-alone residential code that creates minimum regulations for one- and two-family dwellings of three stories or less. Energy star certified homes also include additional energy-saving features that typically make them 20-30% more efficient than standard homes, as stated on the Energy Star website.

Energy star qualified homes can include a variety of energy-efficient features that contribute to improved home quality and homeowner comfort, and to lower energy demand and reduce air pollution. These features can include effective insulation, high-performance windows, tight construction and ducts, efficient heating and cooling equipment, efficient product.

The homes in the proposed Croton Overlook development are anticipated to be Energy Star Certified, meeting all applicable Energy Star requirements set forth by the US EPA guidelines.

Leadership in Energy and Environmental Design (LEED) Certification

In order for homes to be LEED Certified, they must conform to guidelines for practical and measurable green building design as set for the by US Green Building Council. LEED utilizes a suite of rating systems to promote sustainable building practices. The LEED rating systems are developed through an open, consensus-based process led by LEED committees, diverse groups of volunteers representing a cross-section of the building and construction industry.

The LEED for homes rating system measures the overall performance of a home in eight categories: innovation and design process, location and linkages, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, awareness and education. The LEED for homes rating system assigns a point value to the level of adequacy to which each of these eight categories is addressed. The number of points earned dictates the level of performance achieved by the home. The level of performance is indicated by four performance tiers: Certified, Silver, Gold, and Platinum.

The homes in the proposed Croton Overlook development will attempt to reach Silver LEED Certification.

Lighting

Dark Sky Compliance

The objective of Dark Sky Compliance is the reduction of light pollution by unnatural lighting on the environment. This, in turn, provides better night sky aesthetics, cuts down on energy usage, and protects nocturnal wildlife. The primary mitigation technique for light pollution is lighting fixtures that cast little or no light upward.

At this time, street lighting is not proposed for the project. All lights from homes will be required by the rules set forth by the Homeowner's Association to be pointed in a downward direction as to not illuminate past the homeowner's property, thereby preserving the view of the night sky.

R. Hazardous Material and Waste

1. Existing Conditions

During May 2011, ECSI, on behalf of the COC, conducted a Phase I Environmental Site Assessment (ESA) of the 62.7 acre property site. The objective of the ESA was to determine, to the extent feasible and practicable, if any suspect or questionable environmental conditions exist for the site, or in the immediately surrounding vicinity, that could result in environmental risk and liability, or negatively impact the development potential of the site. The scope of services completed for the Phase I ESA included the following:

Performance of a site inspection to visually assess the presence of actual or potential sources of toxic contamination and/or related contaminant pathways. As part of the inspection, ECSI conducted an interview with the current land owner who is most familiar with past and present property uses.

Review of site-specific information, such as available historical topographic maps, aerial photographs, Sanborn mapping and Federal and State solid and hazardous waste records of storage and disposal facilities/sites, including at a minimum records maintained under such programs as RCRA, CERCLA/CERCLIC, CORRACTS and LUST. Emphasis was placed on gathering information suitable to describe the site and immediately surrounding conditions.

Review of available Federal and State records of spills and releases for the site and immediately surrounding properties. This included records of any toxic releases/spills related to adjacent business (land use) operations. Available spills/release files maintained by the NYSDEC and the USEPA sources have been reviewed.

Retention of a qualified ASTM file search firm to perform a records review and obtain documentation in accordance with ASTM standards noted under E 1527- 05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (July 2005).

Review of available Chain of Title records researched for the site and reported to the property owner by the Historical Perspectives, Inc., as well as performance of an Environmental Lien Search by a qualified ASTM file search firm.

Prepare a Phase I Environmental Site Assessment (ESA) report; this report is contained in Appendix K of this DEIS.

Methodology

The Phase I ESA completed for the site was performed in accordance with recognized industry standards published by the American Society for Testing Methods (ASTM). ASTM is a private, not-for-profit, standards-writing organization that publishes specifications, test methods, guides, and practices concerning engineering materials, manufactured products, and the environment. Standards are written by voluntary members who hail from commercial organizations, government bodies, and academic

institutions to ensure that all interests have a voice and consensus on developed standards.

ECSI reviewed historical topographic, aerial photographs and Sanborn mapping to determine if the site's landscape configuration has changed over time and to assess potential constraints for development. As noted, an ASTM search was also completed to aid in the evaluation of potential spills and releases associated with leaking underground storage tanks, or other negative environmental potentials, on or in the vicinity of the subject property site. Minimum and maximum search radii of 1/8 mile and 1 mile, respectively, were selected so that potential impacts near the site, and immediately surrounding the site, could be evaluated to the fullest extent possible. The above noted record searches and site inspection conducted under the Phase I Assessment process were performed in accordance with the procedures defined under ASTM E 1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".

2. Potential Impacts

Historical Topographic Map, Aerial Photograph and Sanborn Map Reviews

Historical topographic maps are a valuable resource when documenting the prior use of a property and its surrounding area. Environmental Data Resources, Inc. (EDR) conducted a search of available historical topographic map collections and identified maps depicting the site for the following years: 1902 (Scale 1:62,500), 1943 (Scale 1:31,680), 1967 (1:24,000) and 1979 (1:24,000). Copies of these topographic maps are provided in the Phase I ESA report (Appendix ___). Over time, residences appear along the north end of Dell Avenue and south and east, within the Random Farms residential development. In addition, a symbol denoting that an on-site structure once fronted along Dell Avenue is also depicted on the 19902 and 1943. Dell Avenue appears for the first time, along with a nearby power line right-of-way, are depicted on the 1943 map. A review of these maps did not result in any findings of visible suspect conditions for the site and surrounding area and thus, no suspect environmental risks or liabilities are visible.

Aerial Photography Review

Available aerial photographs obtained from EDR, Inc. for the site have been identified for the years 1965 (Scale 1" = 500'), 1974 (Scale 1" = 750'), 1985 (Scale 1" = 1,000'), 1989 (Scale 1" = 750'), 1994 (Scale 1" =

750') and 2006 (Scale 1" = 605'). Copies of these photographs are provided in the Phase I ESA report (Appendix K).

Similarly to the above topographic map review findings, over time residences appear along Dell Avenue and south and east within the Random Farms residential development. Two on-site structures (a residence and out-building) appear on the 1953 and 1965 aerial image. In addition, the nearby Con-Edison power line is depicted on the 1965 photograph. The two on-site ponds appear only in the 2006 photograph. A review of these photographs did not result in any findings of visible suspect conditions for the site and surrounding area and thus, no suspect environmental risks or liabilities are visible.

Sanborn Mapping

Available Sanborn map sections were obtained by EDR, Inc. and have been identified for the site (1942, Volume 4, Sheets 33 and 34). Copies of these map sheets are provided in the Phase I ESA report (Appendix K). The map sections depict two structures on the site along which approximates the current day boundaries of the site. This map depicts structures on the site along Dell Avenue (west), and the name "Gabriel Preston" and "60a" is depicted within the property area which approximates the current day boundaries of the site. This information matches the Chain of Title summary research by Historical Perspectives, Inc.

Also, the name "E.F. Dearbourne" is denoted on a parcel which adjoins the subject site along its northern property line.
Westchester Lighting Company is denoted across three parcels situated west of the site which front along Dell Avenue; connected, these parcels approximate the limits of the current day power line right-of-way. An additional parcel is depicted near the junction of Dell Avenue and Route 100 (northwest). A review of these maps did not result in any findings of visible suspect conditions for the site and surrounding area and thus, no suspect environmental risks or liabilities are visible.

Records Search

In order to further evaluate the potential for environmental risk and liability for the site, ECSI retained EDR to conduct a search of available environmental records in accordance with the government records search requirements of ASTM E1527-05, ("Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process"). The

complete findings of EDR's record search are contained in the Phase I ESA report (Appendix K) and are summarized below.

EDR Radius Map With Geocheck^{R}

EDR prepared a Radius Map with Geocheck^{R} Report for the site and surrounding area. Available reports of spills/releases located within one-quarter (1/4) to one (1) mile of the site were reviewed to ensure that adequate coverage was achieved under the search. EDR searched Federal, State and local records, which included the LTANKS database [Leaking Storage Tank Incident Reports (LSTIR)] and the HIST LTANKS (historical) database.

The LTANKS database includes an inventory of reported leaking underground and aboveground storage tanks. The HIST LTANKS database provides information regarding leaking underground and aboveground storage tanks from its original Spills Information Database (NY Spills). It should be noted that all leaking storage tank (LST) reports within the LTANKS database also are documented in the HIST LTANKS database.

The Executive Summary prepared by EDR also included findings from searching the NY Spills database; EDR'sd search revealed only one LTANK incident located east of the project site, a residence in the Random Farms residential community. The reported incident involved a failure of a tank test which was performed on a residential #2 fuel oil tank in December 2003. The release was reported to the NYSDEC and the responsible party responded to the release. Further, proper corrective actions were taken and that minimal potential for fire or hazard was reported. During April 2006, the case was closed. Other than the single LTANK record, no other records exist for the site and immediately surrounding area.

EDR obtained available information on local wells; their report indicates that no public water supply well heads exist in close poximity to the site. Two private wells exist ¼ to ½ mile east of the site, within the Random Farms community. These wells likely lie within deep bedrock, ranging from 404 to 535 feet in depth. EDR also reported that most radon levels across Westchester County are below the regulatory level of 4 pCi/L. The average level within living space is 0.93 pCi/L (representing 97% of all reported tests); the average level for basement space is 1.73 pCi/L (representing 84% of all reported tests).

EDR Environmental Lien Search

EDR's Environmental Lien Search Report "is intended to assist in the search for environmental liens filed in land title records." According to EDR's Search Report, no environmental liens were found to be recorded for the parcel which comprises the limits of the site. In addition, ECSI reviewed a Chain of Title prepared by Historical Perspectives, Inc. an archeological firm retained by the property owner. The listed property owners dating back to the year 1810, do not present any suspect involvement with negative land use practices for the site. Also, information presented on historical topographic maps, aerial photographs and Sanborn mapping obtained for the subject property, do not depict any visible evidence of suspect environmental conditions, risks or liabilities.

Site Inspection Findings

During May 2011, ECSI performed a site inspection to determine whether or not any environmental risks or liabilities exist as a result of past and more recent land use. In addition, a visual inspection of immediately surrounding properties was conducted.

The majority of the project site consists of vacant land. Two construction trailers exist near a fenced entrance leading to the site along Dell Avenue. These trailers contain hand tools and construction materials, none of which appear to be hazardous. No visual evidence of illegal disposal practices were observed, nor were any form of liquid or solid waste materials stored, or stockpiled on the property.

An underground power line exists south of the trailers which at one time serviced a RV-trailer. Within the remaining area of the 62.7 acre property site, no evidence of waste disposal practices was observed, such as irregular terrain or unusually elevated land forms which may contradict conditions depicted on the historical aerial photographs and topographic maps obtained and reviewed for the site. Further, no evidence of stressed vegetated, or growth of pioneer tree species (such as poplar, Tree-of-Heavan or Sumac) exists, which are reminiscent of past waste disposal practices. All on-site land areas match the contours and conditions depicted on the historical aerial photographs and topographic maps reviewed for the site.

As noted above, two small ponds exist at the south central portion of the site, along with a small wooden structure which contains a submerged pump system. According to the current property owner, the ponds and pump system were installed to provide irrigation potentials for the former

on-site residence. No evidence of any spills, releases or disposal practices exist around the ponds, or the wooden storage structure.

An inspection of the Con-Edison right-of-way west of the site, and the two residential parcels located just beyond the northern limits of the subject property site, did not reveal any visual evidence of illegal disposal practices, nor were any form of liquid or solid waste materials stored, or stockpiled on or in close proximity to these parcels.

Potential Hazardous Materials During and After Construction

A limited amount of necessary hazardous materials will be present during and after construction. During construction, hazardous materials will include fuels, petroleum products, and other materials necessary for the proposed construction activity. After construction, hazardous materials will include primarily pesticides and petroleum products. It is anticipated that each new home will have a 100 gallon propane storage tank for stove and other miscellaneous uses. All of these materials will be used in strict accordance with OSHA and other applicable methods.

3. Proposed Mitigation

Recommendations and Conclusions

Based on the information gathered under the Phase I Environmental Site Assessment, no evidence of any environmental conditions, risk, or liability exists for the site, and none exists within immediately surrounding land areas. As such, it is recommended that no further investigations be performed for the subject site and thus, no form of mitigation or remediation is necessary for the site and none appears to be necessary for immediately surrounding land areas.

In an effort to reduce risks of contamination within the residential community, it is recommended that an effective Integrated Pest Management (IPM) Plan be developed and implemented as an effective and environmentally sensitive approach to pest management that relies on a combination of common sense practices. Such a Plan involves knowing information on the life cycles of pests and their interaction with the environment. This combined with available pest control methods, is used to manage pests in the most economical means, as well as with the least possible hazard to people, property, and the environment. The Home Owners Association (HOA) will retain a qualified firm to develop an IPM Plan to include a series of pest management evaluations, decisions

and controls. Typically, four steps are implemented under a IPM Plan. These steps are:

- **Set Action Thresholds Under the Plan**

  Pest control actions must first meet a set of action thresholds contained within the IPM Plan. These thresholds set the point at which pest populations, or environmental conditions, indicate that pest control action must be taken. It is important to note that sighting a single pest does not always mean control is necessary. The level at which pests will either become an economic, or an environmental threat, is critical for making pest control decisions.

- **Monitor and Identify Community Pests**

  Not all unfavorable insects, weeds, and other living organisms require control. Many organisms are innocuous, and some are even beneficial. The IPM Plan will incorporate measures to monitor for pests and identify them accurately, so that appropriate control decisions and measures can be made in conjunction with action thresholds contained within the Plan. Monitoring and identification of pests removes the possibility that pesticides will be used immediately when they are not really needed, or that the wrong kind of pesticide is utilized.

- **Pest Prevention**

  The IMP Plan will incorporate, as a first line of pest control defense, a community action/education program to help manage lawn, landscape areas or indoor spaces, to prevent pests from becoming a problem. This in turn will prove to be effective and cost-efficient, as well as present little to no risks to people, or the community's environment.

- **Pest Control**

  Once monitoring, identification, and action thresholds indicate that pest control is required, the IPM Plan will explain how to evaluate proper control methods in order to achieve effective control and at a low risk. Essentially, effective, less risky pest controls will be chosen first, such as mechanical traps. If further monitoring, identifications and action thresholds indicate that less risky controls are not working, then additional pest control methods will be utilized. Such controls will include targeted spraying of pesticides; broadcast spraying of nonspecific pesticides will be performed as a last resort.

The IPM Plan should also highlight safety measures and practices to safeguard against site contamination and to ensure the safety of individuals employed to apply pesticides. Appropriate safeguards and practices must be implemented in accordance with applicable State and Federal regulations.

S. Groundwater and Geology

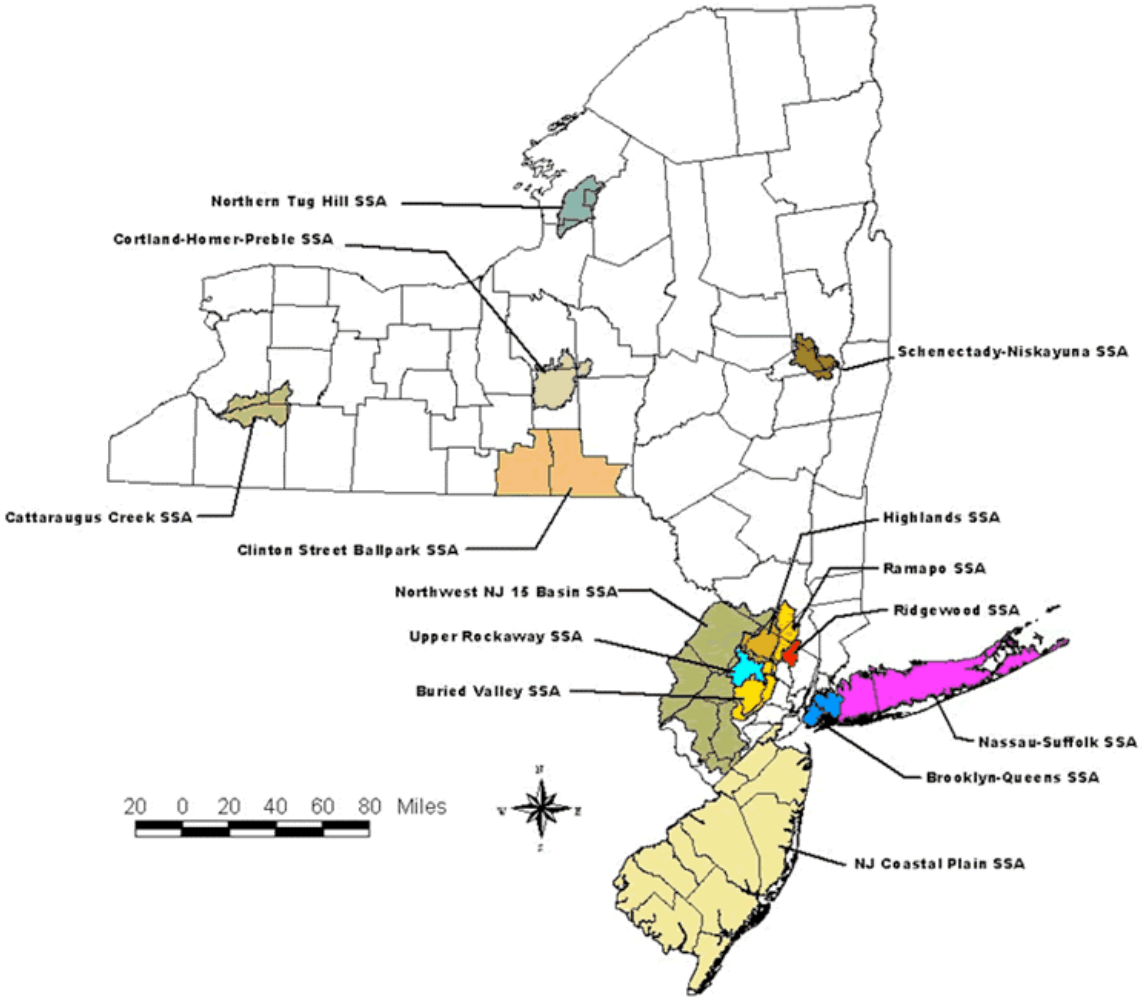
1. Existing Conditions

A Groundwater Modeling Report for On-Site Subsurface Wastewater Disposal System has been prepared by HydroEnvironmental Solutions, Inc. This report is attached in Appendix T, and summarized below.

Groundwater Conditions

Sole Source Aquifer designation is a tool used by the US EPA to protect drinking water supplies in areas with few or no alternative sources to the ground water resource, and where if contamination occurred, using an alternative source would be extremely expensive. EPA defines a sole or principal source aquifer as one which supplies at least fifty percent (50%) of the drinking water consumed in the area overlying the aquifer. After review of the EPA's list of Sole Source Aquifers, it is clear that project site does not lie over or in close proximity to a Sole Source Aquifer.

Figure S-1 - EPA Designated Sole Source Aquifers



During observation well gauging activities, the depth of groundwater was measured to be approximately 15 ftbg. The direction of groundwater flow is to the west at a hydraulic gradient of 0.17 ft/ft. During tests, the depth to groundwater was encountered at depths ranging from 9.30 to 17.13 ftbg.

Groundwater Mounding Analysis

A site model was prepared utilizing known site specific information to predict the results of water from the two proposed septic system disposal scenarios. The MODFLOW groundwater modeling program was used to solve the equations for groundwater flow within the model. This program is widely accepted industry standard for simulating groundwater flow through porous media. The modeling

effort resulted in a simulation that appears to accurately represent groundwater and wastewater flow across the subject site.

On-site Geology

The proposed Croton Overlook property is located along the east side of Route 100 in Yorktown Heights, New York (Figure 1), within the watershed of the Croton Reservoir, located to the north. The onsite geology features some rock outcropping. The approximate acreage and location of the rock outcropping is shown in the Rock Outcropping Plan attached in Appendix L. The general topography of the property ranges from gentle to steep with grades ranging from less than 5 percent to greater than 15 percent. Elevations at the site range from approximately 230 feet above mean sea level (ftamsl) to 335 ftamsl.

Review of the geological logs from the observation well installation and soils data contained in the United States Department of Agricultural Westchester County Soils Survey (USDA WCSS) (April 1994) indicates that primary soil on-site and in the surrounding area is sandy loam. In the proposed septic and nearby area the soil consists of a brown sandy loam to a depth of approximately 10 to 30 ftbg.

Review of the USDA WCSS indicates the subject site in the proposed subsurface disposal area is underlain by soils that consist of the Charlton Chatfield Complex series, moderately deep to excessively deep well drained loam to sandy loam soils. These soils typically contain a groundwater table at a depth of greater than 6 ftbg throughout the year.

Groundwater was noted during drilling activities to be located above the granitic gneiss bedrock at a depth of 10 ftbg.

2. Potential Impacts

Proposed Blasting

Blasting will occur during the early phases of construction, as some rock outcrops will be excavated for use as crushed stone in other areas of the proposed development. The use of blasting does not significantly impact the underlying geology or soils as only a small percentage of the rock outcroppings on the project site will be in the area of potential effect, thus requiring blasting.

A detailed discussion of the blasting activities for the site is included in Section D. Soils, Topography, and Steep Slopes.

Subsurface Discharge of Proposed Wastewater Treatment Plant

The groundwater head results indicate that for all trials no breakout of the water table at the surface will occur, as there is an adequate layer of unsaturated soils between the steady-state head and the site surface. This aeration zone between the slightly mounded water table and the septic area meets the appropriate requirements for the Westchester County Department of Health (WCDOH) and New York City Department of Environmental Protection (NYCDEP). For the simulated mound occurring within the proposed disposal area (approximately 174,240 sq ft) it has been calculated that only 6.5% (11,325 sq ft) of the mound makes up the mound crest which ranges at a depth of 7-8 ftbg.

Based on these results, it is clear that the hydrogeology in the area of the proposed septic system can accommodate the discharge of 144 in/yr at an application rate of 16,320 gpd.

Proposed Geothermal Heating and Cooling Units

The principal heating and cooling system offered in the proposed homes is Geothermal Heating and Cooling. This system utilizes the energy exchange between the air within the building being heated and the ground. During the summer months, ambient temperatures of the building exceed that of the ground. Heat pumps are then used to pump heat from the building into a transfer medium, and then through narrow pipes into the ground so that the heat can dissipate in the earth. During the cold winter months, the process works in reverse: heat pumps extract heat from the ground and use it to heat the building.

The transfer medium used in the system will be formulated with ingredients which are generally recognized as safe (GRAS) by the FDA for use as an aqueous heat transfer medium for heating and cooling systems. The transfer fluid will be readily biodegradable and safe for use in proximity to water supplies in the rare event that the natural environment is exposed to a fluid leak.

As such there are no potential impacts to groundwater from the proposed Geothermal Heating and Cooling units.

3. Proposed Mitigation

Through tests described above, the groundwater levels were found to be significantly below the elevations of proposed construction. As such, dewatering will not be necessary and no dewatering plan is currently proposed. The geothermal heating and cooling units will

also be implemented at elevations much higher than the groundwater levels, thereby not significantly affecting the groundwater or geology of the project site. There are no anticipated impacts to groundwater and no mitigation is proposed.

V. ALTERNATIVES

The New York State Environmental Quality Review Act (SEQRA) calls for a description and evaluation of reasonable alternatives to the proposed action that are feasible, considering the objectives and capabilities of the project sponsor. The proposed project is presented in detail in the project description of this document and assessed in detail in the various sections of this document. Following is an assessment of alternatives to the proposed action that were included in the Lead Agency's adopted Scope.

The adopted scoping document includes 3 alternatives and 1 discussion, as provided below:

1. No Action Alternative

2. R1-160 Zoning Compliant Conventional Development

3. R1-160 Zoning Compliant Cluster Development

4. Age-Restricted versus Market Rate Comparison

These alternatives were identified as reasonable for consideration and evaluation because: no action is an alternative evaluated for any project, and R1-160 zoning is the current zoning for the project.

No Action Alternative

The No Action Alternative is the scenario that would occur if no development were to take place on the project site. This is effectively an open space preservation alternative. The site would remain in its current undeveloped and underutilized condition. A summary of impacts of this alternative, as compared to the proposed action, is presented below.

Zoning and Land Use: With no improvements to the site under the No Action Alternative and no construction associated with the proposed project, the project site would remain vacant, with no resulting land use impacts. The creation of housing in an area where there is a demand for such housing would not be realized.

Visual Resources: There would be no change to the visual environment as a result of this alternative. The site would remain vacant and largely unchanged.

Flora and Fauna: Under the No Action Alternative, the disturbance or removal of on-site vegetation and available wildlife habitat, with the introduction of buildings and associated infrastructure on the site would not occur The site would provide more habitat and cover for local wildlife than under conditions with the proposed action.

Soils, Topography, Steep Slopes, and Geology: There would be no disturbance to soils or topography under the No Build alternative. No grading of soils would occur on the project site under the No Build alternative.

Wetlands and Surface Water Resources: No disturbance of wetlands or their regulated areas would occur under the No Action alternative.

Cultural Resources: No impact to existing cultural resources will occur in the No Action alternative.

Noise, Air, and Construction Impacts: No construction impacts will occur in the No Action alternative.

Community Facilities and Services: With the project site remaining vacant, there would be no impacts to community services, and no significant increases in municipal property tax revenues generated by the project site to fund community services.

Community Growth and Character: No impact to existing community growth and character will occur in the No Action alternative.

Stormwater Management: No impact to stormwater flows will occur in the No Action alternative.

Solid Waste: No impact to solid waste collection in the town will occur in the No Action alternative.

Utilities, Water: No impact to existing utilities will occur in the No Action alternative.

Utilities, Sewer: No impact to existing utilities will occur in the No Action alternative.

Fiscal & Socioeconomic Impacts: In the No Action alternative, the Town of Yorktown will not benefit from the anticipated $1,127,400 taxes to be generated by the project annually. Additionally, in the No Action alternative, the Town of Yorktown will not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: The No Action alternative would not alter the traffic patterns that occur presently in the site area. No additional traffic would be generated by the site and no impacts to traffic would result.

Electromagnetic Fields (EMF): No impact from electromagnetic fields will occur in the No Action alternative.

Use and Conservation of Energy, Green Technology and Infrastructure: No impacts to the environment regarding energy use or conservation, green technology, and infrastructure will occur in the No Action alternative.

Hazardous Material and Waste: No impact from hazardous material and waste will occur in the No Action alternative.

Groundwater and Geology: There would be no interaction with groundwater under the no action alternative, and therefore existing residential groundwater use, in the vicinity of the site would remain unchanged.

Given the benefits to the town and surrounding community by the construction of this project, the No Action alternative, or the continuation of the vacant state of the project site, is not a likely alternative. It should be noted that with the proposed development plan, the majority of the property would remain as undeveloped open space.

R1-160 Zoning Compliant Conventional Development

The project site is presently zoned as R1-160, which allows for single family residential lots with a minimum lot size of 160,000 square feet (approximately 4 acres). Appendix U shows a site plan that was prepared for the project in compliance with R1-160 zoning.

Table V-1

Item for comparison	**70 Active Adult Units** **Zone - RSP-1**	**15 Single Family Units** **Market Rate Units** **Zone- R1-160**
Unit size	**2400 to 3200 Square Feet**	**3200 - 6000 Square Feet**
Wastewater Treatment	Combined Wastewater Fields and treatment Facility	Individual Septic
Disturbed Area	22 Acres	24.7 Acres
Impervious Coverage	6.06 Acres	3.6 Acres
Square Feet of Driveway	70,776 SF	37,500 SF
Linear Feet of Road	2,615 LF	2,725 LF
Deed Restricted Open Space	40 Acres	None
Contribution	$650,000	None
Recreation Fee	None	$150,000

Sales prices	$600,000	$850,000
Taxes	$16,105 per unit	$22,825 per unit
	$1,127,350 annual	$342,369 annual
School Children	None	.71 children x 5, 3 bedroom units = 3.55
Children multiplier comes from the "Rutgers University, Center for Urban Policy Research. Residential Demographics Multipliers - New York (June 2006)"		1.16 children x 10, 4 bedroon units = 11.6
		Total projected children = 15.15
Traffic	Minimal impact	Minimal impact
Police	Minimal impact	Minimal impact
Fire	Minimal impact	Minimal impact
Emergency	Minimal impact	Minimal impact

Zoning and Land Use: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in no deed restricted open space.

Visual Resources: Building the project compliant to conventional R1-160 zoning would result in a units with large properties sprawled across the project site. This would create a large visual impact to the surrounding viewshed and prove difficult, if not impossible, to fully mitigate.

Flora and Fauna: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in no deed restricted open space. As such, impact to flora and fauna would also increase.

Soils, Topography, Steep Slopes, and Geology: Building the project compliant to conventional R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning. As such, impacts to existing soils, topography, steep slopes, and geology would increase.

Wetlands and Surface Water Resources: Building the project compliant to conventional R1-160 zoning would result in lots that covered the entirety of the site, including all existing onsite wetlands and surface waters.

Cultural Resources: Building the project compliant to conventional R1-160 zoning would not result in any impacts to cultural resources.

Noise, Air, and Construction Impacts: Building the project compliant to conventional R1-160 zoning would not result in a significant increase in impacts to noise, air, and construction as compared to RSP-1 zoning.

Community Facilities and Services: Building the project compliant to conventional R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. As such, building the project compliant to conventional R1-160 will not benefit community facilities to the extent which building the development under RSP-1 zoning will.

Community Growth and Character: As the land use around the project exhibits widely varied uses, building the project compliant to conventional R1-160 zoning would result in impacts to community growth and character similar to that resulting from building the project under RSP-1 zoning.

Stormwater Management: Building the project compliant to conventional R1-160 zoning would result in a decrease in the creation of impervious areas. As such, impacts on stormwater management would be decreased.

Solid Waste: Building the project compliant to conventional R1-160 zoning would result in larger families, which would generate more solid wastes.

Utilities, Water: Building the project compliant to conventional R1-160 zoning would result in larger families, which would require a greater quantity of water and put a greater strain on the local water district.

Utilities, Sewer: Building the project compliant to conventional R1-160 zoning would require the construction of individual septic systems.

Fiscal & Socioeconomic Impacts: Building the project compliant to conventional R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. Additionally, the Town of Yorktown will

not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: Building the project compliant to conventional R1-160 zoning would result in larger families, including younger citizens. As such, the traffic from the project would most likely increase as a result.

Electromagnetic Fields (EMF): Building the project compliant to conventional R1-160 zoning would result in no significant impact from the EMF created by the nearby high tension power-lines.

Use and Conservation of Energy, Green Technology and Infrastructure: Building the project compliant to conventional R1-160 zoning is inherently less environmentally responsible and "green" due to the lack of deed restricted open space, septic sewers, and larger home size.

Hazardous Material and Waste: Building the project compliant to conventional R1-160 zoning would result in no significant impacts from hazardous material and waste.

Groundwater and Geology: Building the project compliant to conventional R1-160 zoning would result in the use of individual septic systems, which would invariably adversely affect the groundwater to a certain extent.

Given the impacts from the R1-160 Zoning Compliant Conventional Development alternative, this is not a practical alternative. As confirmed in a letter from the Yorktown Conservation Board, the proposed RSP-1 zone represents a more desirable use of this property than R1-160 zoning. R1-160 zoning would allow big houses with big lawns, more fertilizer and septic systems spread across the entire area. RSP-1 zoning would concentrate potential environmental impacts in such a way as to preserve more of the sensitive environmental features of the site.

R1-160 Zoning Compliant Cluster Development

The purpose of clustering is to encourage flexibility of design and development of land to promote the most appropriate use of land, to facilitate the adequate and economical provision of streets and utilities, and to preserve the natural and scenic qualities of open land. Figure V-2 below shows a clustered site plan that was prepared for the project in compliance with R1-160 zoning.

Zoning and Land Use: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in less deed restricted open space.

Visual Resources: Building the project compliant to cluster R1-160 zoning would result in a units with larger properties across more of the project site. This would create a large visual impact to the surrounding viewshed and prove difficult, if not impossible, to fully mitigate.

Flora and Fauna: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning, and would result in no deed restricted open space. As such, impact to flora and fauna would also increase.

Soils, Topography, Steep Slopes, and Geology: Building the project compliant to cluster R1-160 zoning would result in a larger disturbed area than building the project in RSP-1 zoning. As such, impacts to existing soils, topography, steep slopes, and geology would increase.

Wetlands and Surface Water Resources: Building the project compliant to cluster R1-160 zoning would result in lots that covered the more of the site, including some existing wetlands and surface waters.

Cultural Resources: Building the project compliant to cluster R1-160 zoning would not result in any impacts to cultural resources.

Noise, Air, and Construction Impacts: Building the project compliant to cluster R1-160 zoning would not result in a significant increase in impacts to noise, air, and construction as compared to RSP-1 zoning.

Community Facilities and Services: Building the project compliant to cluster R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. As such, building the project compliant to cluster R1-160 will not benefit community facilities to the extent which building the development under RSP-1 zoning will.

Community Growth and Character: As the land use around the project exhibits widely varied uses, building the project compliant to cluster R1-160 zoning would result in impacts to community growth and character similar to that resulting from building the project under RSP-1 zoning.

Stormwater Management: Building the project compliant to cluster R1-160 zoning would result in a decrease in the creation of impervious areas. As such, impacts on stormwater management would be decreased.

Solid Waste: Building the project compliant to conventional R1-160 zoning would result in larger families, which would generate more solid wastes.

Utilities, Water: Building the project compliant to cluster R1-160 zoning would result in larger families, which would require a greater quantity of water and put a greater strain on the local water district.

Utilities, Sewer: Building the project compliant to cluster R1-160 zoning would require the construction of individual septic systems.

Fiscal & Socioeconomic Impacts: Building the project compliant to cluster R1-160 zoning would result in only $342,369 annual tax generation, as opposed to the $1,127,350 annual tax generated by the development under RSP-1 zoning. Additionally, the Town of Yorktown will not benefit from the one time $650,000 contribution to Yorktown by Croton Overlook.

Traffic Conditions, Safety and Flow: Building the project compliant to cluster R1-160 zoning would result in larger families, including younger citizens. As such, the traffic from the project would most likely increase as a result.

Electromagnetic Fields (EMF): Building the project compliant to cluster R1-160 zoning would result in no significant impact from the EMF created by the nearby high tension power-lines.

Use and Conservation of Energy, Green Technology and Infrastructure: Building the project compliant to conventional R1-160 zoning is inherently less environmentally responsible and "green" due to the lack of deed restricted open space, septic sewers, and larger home size.

Hazardous Material and Waste: Building the project compliant to cluster R1-160 zoning would result in no significant impacts from hazardous material and waste.

Groundwater and Geology: Building the project compliant to cluster R1-160 zoning would result in the use of individual septic systems, which would invariably adversely affect the groundwater to a certain extent.

Given the impacts from the R1-160 Zoning Compliant Clustered Development alternative, this is not a practical alternative. As previously stated and as confirmed in a letter from the Yorktown Conservation Board, the proposed RSP-1 zone represents a more desirable use of this property than R1-160 zoning. R1-160 zoning would allow big houses with big lawns, more fertilizer and septic systems spread across the entire area. RSP-1 zoning would concentrate potential environmental impacts in such a way as to preserve more of the sensitive environmental features of the site.

Age-Restricted versus Market Rate Comparison

As previously stated, the project site currently falls into the R1-160 zone, single family residential with roughly a 4 acre minimum lot size. The applicant is seeking a Zoning Map change for the property to an RSP-1 district, an Age Oriented Community restricted to citizens 55 years of age or older. This zone change is necessary to accommodate the type of housing community and amenities proposed in the Croton Overlook Development Conceptual Subdivision Site Plan. As the County's population ages, individuals and couples aged 55 and over choose to down-size and thus, a demand for this type of housing exists within the Town and County.

Recent developments in the vicinity of the project, which were originally zoned as RSP-1, have sold units as market rate. As opposed to the 55 and older age restricted units in RSP-1 zoning, market rate homes allow for families with children. Adding a significant number of children to the town will increase the attendance at local schools, and has the potential for undesirable tax implications.

Because the Croton Overlook project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur, the plan was rezoned, and children were allowed in the community, the children's school taxes are being paid for; therefore, this would have no financial impact on the Town of Yorktown.

Furthermore, the town code does not allow for children in the proposed RSP-1 zoning. Croton Overlook is taking further steps to ensure that children will not reside in this development by placing covenants and restrictions within the homeowners associates bylaws and placing restrictions on the individual property's deed.

Furthermore, the Croton Overlook units are not appealing to families with children. The units will have 2 bedrooms, which is not conducive to any family other than empty nesters, to which the units are marketed, or possibly young newly married couples. These young newly married couples may potentially have 1 child, who would most likely be below the age where they would enter public school. Therefore, the families these units are conducive to will not have any impact on school taxes.

It should also be noted that a project similar in location and scope, Glassbury Court at Hunter Brook, has sold out almost all of its units. The Glassbury Court is an adult community, 55 and older, located in Cortlandt Manor, NY. This community provides

a luxury townhouse condominium community with 64-carriage style homes. That a similar number of homes, marketed to the same population, in a similar area, could sell out, demonstrates a need for this type of housing in the community.

If extenuating circumstances were to occur and the plan needed to be rezoned to a market rate zone, children would be permitted in the development. The projected number of children for this circumstance is 12 children. This projection is based on a "children multiplier" of 0.17 from the "Rutgers University, Center for Urban Policy Research. Residential Demographics Multipliers – New York (June 2006)", a method recommended by the Planning Board.

The recent Yorktown Farms development in the Town of Yorktown, projected 30 school age children, as they calculated per the Urban Land Institute's "Development Impact Assessment Handbook". Yorktown Farms residences are expected to be constructed and sold over a multi-year period. This allows for additional students to be introduced to the school system gradually. In additional, costs to the school district as a result of the development will be offset by projected additional annual school tax revenues from the project. Both of these methods of mitigation are implemented in the Croton Overlook development.

Because the project is proposed as a subdivision, all taxes, including school taxes, would be paid at full tax rates for the units. If extenuating circumstances were to occur, the plan was rezoned, and children were allowed in the community, the children's school taxes are being paid for; therefore, this would have no financial impact on the Town of Yorktown.

VI. SIGNIFICANT IMPACTS THAT CANNOT BE AVOIDED

The development of the Croton Overlook community is not expected to result in significant adverse environmental impacts which cannot be avoided. Potential adverse impacts which may occur as a result of the proposed action are discussed in Section 3.0 of this DEIS. The implementation of various mitigation measures also discussed in Section 3.0, however, will limit the extent of the impacts which prove unavoidable. Some of these impacts will be temporary or short term impacts associated with the construction of the project, while others will be long term impacts associated with occupation and use of the site.

Short Term Impacts

- Soil disturbance, steep slope disturbance, and potential erosion

- Increase in construction job opportunities
- Increased local noise from construction

Long Term Impacts

- Increase in impervious surfaces with concomitant decrease in vegetation land cover
- Increase in tax revenues to Town, County, School District and other taxing jurisdictions
- Increase in solid waste generation
- Increase in water demand

The proposed action incorporates a variety of environmentally responsible design and maintenance practices to offset any identified short- or long0term adverse impacts to the maximum extent practicable. As described in the chapters of this DEIS, significant, unavoidable, adverse impacts would not result from the development of the proposed action.

VII. OTHER SEQR REQUIRED CHAPTERS

A. Growth Inducing and Cumulative Impacts

As discussed throughout previous sections of the EIS, the proposed project will add a project 144 persons to the population of Yorktown.

As discussed in the Utilities, Sewer Section, the project is located in an area currently not served by public sewer. The proposed on-site wastewater treatment and subsurface discharge will not result in any impacts to surrounding sewer districts. As discussed in the Utilities, Water Section, the water district to provided utilities to the site has excess supply which will more than meet the demands of the proposed community. As such, there will be no impacts from the project on the surrounding water districts.

The project will promote increased construction employment and, on a cumulative basis, an increased long term demand for goods and services that will have a steady multiplier effect in the project area. However, the increase in population of 144 persons anticipated as a result of the proposed project is not expected to induce further development to support its population. Increased demand for goods and services would likely be met by existing shops and services that are available locally.

No significant adverse effects on the area's utilities, community services, or facilities are expected. No adverse effects on area commercial services are

expected as a result of the proposed development. The project is not expected to induce further growth in Yorktown once the project is completed and fully occupied.

B. Irreversible and Irretrievable Commitment of Resources

Implementation of the proposed project will require use of materials, commitment of manpower and conservation of vacant land to residential development, with associated loss of some natural resources. Once committed to this use, the site will be unavailable for other uses for the foreseeable future. Development of the project will result in the loss of approximately 11.98 acres of existing open space. Over 82% of the site will not be disturbed by the proposed project and will be protected from future development through a deed restriction.

The finite resources that will be irretrievable committed by implementation of the proposed action are the materials and energy required for construction and for maintenance of the development afterward. Construction will include, but not necessarily be limited to, the commitment of the following natural resource: concrete, asphalt, steel, lumber, paint products, and other building materials. However it should be noted that many of the materials accumulated for construction may at some time be recycled or reused. The operation of construction equipment will result in consumption of fossil fuels and other finite energy sources. When completed, the new residences will require electricity and the use of fossil fuels indirectly for electricity. There will also be solid waste disposal requirements associated with the project.

The proposed residences are projected to have a total market value of approximately $43,750,000. Construction of the project will require a commitment of person hours of labor, which can be viewed as beneficial to the community, the local economy, and the construction industry with respect to the generation of jobs.

It is anticipated that a portion of the construction-related workers at the site will come from Yorktown, New Castle, and the immediately surrounding Westchester County areas. The majority of construction workers are likely to come from nearby counties. These workers are expected to have a positive impact on existing local businesses providing such services as food convenience shopping, gasoline, etc.

Other manpower commitments, which would be incidental if required for an emergency, would include the services of the police, fire department, or ambulance corps.

VIII. APPENDICIES

A. Draft Scope

B. Adopted Scope and Resolution

C. Draft Scope, Meeting Transcript, and Written Comments

D. Wetlands Survey Delineation Report and Confirmation Letter

E. Visual Impact Assessment

F. Stormwater Pollution Prevention Plan

G. Preliminary Erosion Control Plans and Notes

H. Electromagnetic Field Study

I. Site Plans

J. Biodiversity Study

K. Blasting Plan

L. Preliminary Integrated pesticide Management Plan

M. Environmental Phase 1 report

N. Environmental Plans

O. Engineer's Report and Plans for Proposed Wastewater Treatment Facility

P. Plans and Specifications for Pump Stations

Q. Flow Confirmation Letter

R. Wastewater Emergency Response Plan

S. Construction Schedule

T. Archeology Report

U. Traffic Analysis Information

V. Water Budget and Plan

W. Groundwater Mounding Analysis

X. Alternate Plans