DRAFT
ENVIRONMENTAL IMPACT STATEMENT

RESIDENCES AT MILL COURT CROSSING

Lexington Avenue and Mill Court
TOWN OF CORTLANDT, WESTCHESTER COUNTY, NEW YORK
Tax Map Number: Section 13.18, Block 2, Lot 2

Project Applicant: KIRQUEL DEVELOPMENT LTD.
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Attention: Mr. Michael Sheber
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Lead Agency: TOWN OF CORTLANDT PLANNING BOARD
Town Hall, 1 Heady Street, Cortlandt Manor, NY 10566-1249
Attention: Steven Kessler, Chairman
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Lead Agency Acceptance Date: *May 1, 2007*

Date of Public Hearing: *June 5, 2007*

Written Comments Will be Accepted by the Lead Agency for Ten Days
After the Close of the Public Hearing.

May 2, 2007
Previously submitted March 29, 2007, February 13, 2007, November 28, 2006, June 30, 2006

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Town of Cortlandt, New York

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1.0 EXECUTIVE SUMMARY

1.1 Brief Description of the Proposed Action

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration adopted by the Town of Cortlandt Planning Board. The applicant, Kirquel Development LTD, proposes the development of a residential subdivision called "Residences at Mill Court Crossing" located on Lexington Avenue and Mill Court in the Town of Cortlandt, Westchester County, New York. The concept for development of the site would include 27 single family homes on an approximately 52.76-acre property. The Town of Cortlandt's density standards, Zoning Code, Section 307-18, for subdividing this parcel, permit the applicant to establish 34 building lots.[1] The applicant's project proposal reduces the project's maximum permitted density by more than 20 percent. The project site is zoned R-40 (Single-Family Residential District). The subject property is comprised of one tax parcel: Section 13.18, Block 2, Lot 2 as shown on the Town of Cortlandt tax maps. Based on a review of deeds for the property, there are no easement or other restrictions encumbering the site.

This DEIS has been prepared to evaluate the potential environmental impacts associated with development of the proposed residential subdivision and has been prepared in accordance with Part 617 regulations implementing the New York State Environmental Quality Review Act (SEQRA). The contents and format of this DEIS follow the outline of the Final Scoping Document adopted by the Town of Cortlandt on November 1, 2005 (DEIS Appendix A).

Kirquel Development LTD proposes to develop a portion of the property it owns while preserving more than two-thirds of the site in its natural state. The subject property consists almost entirely of wooded land located in the R-40 Single-Family Residential zoning district. A small portion of the property along Lexington Avenue adjacent to existing residences is maintained as open lawn. The existing 3-unit apartment building and parking lot situated at the southeastern corner of the property at Lexington Avenue will be maintained on the site until a determination has been made by the applicant to remove the structure and build a new single family house. (The analyses herein have assumed the impacts of construction and use of a new house on this lot and no credit has been taken herein for maintenance of the existing use.)

In the current proposed plan that accompanies this document, approximately 35.4 acres, or 67.1 percent of the 52.76-acre parcel, will be left undisturbed by the Applicant's project. Only 2.99 acres, 17% of the land proposed to be disturbed, are located in areas requiring steep slopes permits. After restoration of temporarily disturbed areas, such as the grounds over sewer lines and graded areas next to pavement, less than 5 acres of the site will remain as permanent impervious surfaces.

The project site is located west of Lexington Avenue and south of Red Mill Road, in the northeastern corner of the Town of Cortlandt. The property has approximately 770 feet of road frontage on Lexington Avenue, a local road. The south end of the Mill Court, also a local road, ends at a temporary Town turn around established by a 50-foot diameter circular easement. Amherst Road, a private road, ends at the western property line near the southwestern corner of the site. Lexington Avenue forms the boundary line between the Town of Cortlandt and the Town of Yorktown.

[1] The calculation of maximum density, based on the Town Code, was updated by the Applicant following recalculation of steep slope areas in accordance with the Code.

Approximately 11.18 acres or 21 percent of the project site consists of slopes 15 percent or greater. There are regulated wetlands located in the central and eastern portions of the project site. The combined acreage of the wetlands (including water surfaces) is 8.56 acres.

The project site lies in an area of existing predominantly residential as well as some institutional uses within the Town of Cortlandt. Residential development and institutional uses are also located to the east of the project site within the Town of Yorktown. The institutional uses east of Lexington Avenue include the George Washington Elementary School, the former Franciscan High School and TreeTops at Mohegan Lake nursing home. There is significant commercial development along US Route 6 which is located one half mile south of the project. Additionally, vacant land exists between the project site and US Route 6 to the south. Nearby commercial development along US Route 6 includes such retail stores as Home Depot, Old Navy, Linens and Things, Pier One, Best Buy and Barnes and Noble.

A full-size site/subdivision plan prepared by Cronin Engineering P.E., P.C. ("project engineer") accompanies the DEIS.

Zoning

The R-40 Single-Family Residential zoning district encompasses the entire site. The project proposes single-family detached dwellings on fee-simple lots, which will be a minimum of 40,000 square feet.

Proposed Dwellings

Residences at Mill Court Crossing would include a subdivision of 27 single family, four-bedroom, homes. The buildings would be such that they do not dominate views from any publicly accessible location. The design of the single-family dwellings would be customized to the preferences of the individual buyer. The proposed homes are planned to average 3,500 square feet of gross floor area and will not exceed 35 feet in height. Footprints shown on the project plans average about 2,000 square feet in size. This house size is comparable to the newer existing single family houses in the immediate vicinity.

The Applicant is working with Independence Energy Homes Incorporated (IEH), a company formed by members of the Cornell University's 2005 award winning Solar Decathlon Team, in developing a prototype energy-neutral structure. The applicant has entered into an agreement of understanding with IEH to construct Zero Net Energy Cost residences as an option to new home buyers. IEH designed homes accomplish this goal by integrating solar based heating, cooling and water heating with grid based energy. Zero Energy homes are those that supply more energy than they need during peak demand, typically using one or more solar energy strategies, energy storage and/or net metering. Like most homes, the Zero-Net-Energy design uses electricity from the electric utility grid. However unlike most homes, the Zero Energy Homes puts electrical energy back into the grid. Ideally, the amount of electricity put back into the grid equals the amount used from the grid, on an annual basis. The goal is that at the end of a year, the electricity taken from the utility grid is offset by the solar electricity put back onto the grid. The IEH system integrates photovoltaic panels and solar thermal panels to produce the electric and hot water needs of the residence. In addition, IEH designs the homes to create a structure that will take advantage of construction techniques and passive solar features to reduce the energy load of the home. The Applicant is anticipating offering the IEH homes as an option.

Recreation

The Applicant proposes to pay a recreation fee of $6,000 per approved lot (over and above the first unit) to the Town for the purpose of funding community recreation programs and facilities that would be available to the future residents of this project. No active recreation facilities are proposed in this subdivision. The Applicant has discussed with the Cortlandt Land Trust the possibility of providing a hiking trail that could allow for public access within the confines of an open space conservation easement, although the present proposed project plan does not include such an easement (refer to a letter to the Applicant from the Land Trust dated February 21, 2007 in Appendix B). In its letter dated January 12, 2006, the Town of Cortlandt Department of Environmental Services, Recreation Division, recommended that the Town accept money in lieu of land "due to the nature of the above project" (DEIS Appendix B).

Access

Primary access to Mill Court Crossing subdivision would be provided from lengthening the existing Mill Court. This is a road extension that was clearly contemplated by the Town in 1989 in it's approval of the Mill Court Subdivision. Twenty-two residences will have access off of a 1,910-foot long looping access road in the center of the property. The central access road will be 30 feet in width within a 50 foot right-of-way. The five other lots are proposed to gain access via four driveways off of Lexington Avenue. The proposed subdivision road will actually be a lengthening of Mill Court.

Amherst Road, a private road, is located in the adjacent Wild Birch Farms Condominium development. The existing Amherst Road ends abruptly at the property line. The Mill Court Crossing project applicant has been granted the right, by the Board of Managers of Wild Birch Farms Condominium, to connect it's proposed 30-foot wide utility and emergency access easement from the Mill Court internal loop to Amherst Road near the southwest corner of the site. An easement agreement is in place between the Board of Managers and Kirquel Development to facilitate this emergency access and utility connections (see Appendix L). This additional emergency access addresses the Town's regulation regarding the length of dead end roads: and, will also provide a benefit to existing residences on both Mill Court and Amherst Road.

The proposed new access road that would serve the site has been designed to meet Town of Cortlandt road specifications, and would be offered for dedication to the Town of Cortlandt.

Utilities

Wastewater

The project would generate 9,500 gallons per day of wastewater. The proposed project will require reinstatement by the County to include the project site in the Peekskill Sanitary Sewer District and extension of the district or establishment of a new sewer district by the Town, thereby allowing sewage generated by the project to be treated at the Peekskill Wastewater Treatment Plant. Mill Court Crossing development will convey sewage flow to the Peekskill Sewage Treatment Plant via an 8" gravity sewer main extension from Stonefield Court east to Red Mill Road and south through Mill Court. The Peekskill Wastewater Treatment Plant will continue operations within its existing SPDES permit conditions with the addition of Mill Court Crossing. The project plan includes use of individual sewer pumps and a low pressure force main to serve several lots in the project. All the proposed sewer infrastructure to connect this

development to the existing system will be furnished and constructed by the developer and conveyed to the Town of Cortlandt at no expense to the Town upon completion and acceptance of the facilities by the Town.

The project proposal also includes sewer hookups for several existing residences, located outside the project area, on Lexington Avenue that will allow abandonment of existing subsurface septic systems. At the present time, the applicant is discussing with the Town Department of Technical Services whether tees should also be provided in the new sewer line that will traverse Mill Court, a small portion of Red Mill Road, and Stonefield Court to facilitate further sewer connections by existing residences on these roads.

Water Supply

Mill Court Crossing Subdivision would generate demand for 9,500 gallons per day of potable water. The water supply to the project site is provided by the Cortlandt Consolidated Water District (CCWD) No. 1. The Town of Cortlandt owns and operates two water storage tanks located in the vicinity of Croton Avenue and NYS Route 202 within the Croton Park Colony. The two storage tanks hold 550,000 gallons and 750,000 gallons, respectively. The project site will connect to an existing water main located within Mill Court. The water main will be extended from this existing water main located on Mill Court, through a proposed street right of way to be dedicated to the Town of Cortlandt, with a loop through Amherst Road to an existing water main on the adjacent property. The water main extension will involve the construction of approximately 3,850 linear feet of 8-inch diameter ductile iron class 54 cement lined pipe, fire hydrants and all necessary appurtenances to service the proposed single family residences. The project proposal includes ten new fire hydrants including one off-site on Amherst Road. The extension which loops back into itself prevents a “dead end” water main.

Drainage

A Stormwater Pollution Prevention Plan (SWPPP), which includes stormwater management plans for both water quality and quantity, has been prepared to assess potential drainage impacts and provide a design for stormwater management (DEIS Appendix C). Stormwater control structures proposed in this project design include a stormwater detention systems east of the Mill Court extension to detain stormwater runoff from the project site. A series of catch basins in the subdivision road will collect and direct stormwater detention facilities.

1.2 Purpose, Need and Public Benefit

The objective of the Kirquel Development LTD, is to construct quality market-rate single-family detached dwellings and a limited number of affordable housing units. This project is being proposed consistent with the Town of Cortlandt Master Plan adopted on July 9, 2004, for low density housing in a location that is accessible to major transportation routes in the region. The project will also support the following Residential Uses goals and objectives stated in the Town’s Master Plan: to "Preserve the Town’s essential residential character"; to "Provide diversified housing opportunities to ensure that the Town maintains an adequate supply and range of housing stock", and to "Promote Affordable Housing opportunities in the Town of Cortlandt".

The project applicant proposes to construct 24 units of market rate single family housing and 3 units of affordable single family housing on land zoned for this use. To meet the need for

diversified housing, simultaneously, the Applicant intends to create a lifestyle community of single family homes with access from a single road and a limited number of affordable housing units consistent with the Lexington Avenue environment. The project responds to a continued need and demand for 3-, 4- and 5-bedroom housing in the Town of Cortlandt and Northern Westchester County. This particular project is of a low density (approximately 0.5 unit per acre) and is expected to support housing developed in conformance with the Town's Zoning Ordinance and Master Plan which designate this area for one-acre single family residential use. The Westchester County Housing Opportunity Commission has provided recommended allocations of affordable housing goals for each of the 43 municipalities in Westchester. These allocations are based upon the following criteria:

- Land Area
- Job Growth
- Overcrowded housing
- Adjusted Aggregate Household Income
- Availability of Mass Transit (Miles of Bee-Line Bus Service)

The County's goal for the Town of Cortlandt, for the period 2000 to 2015, is a total of 403 additional units of affordable housing. According to the Affordable Housing Allocation Plan, dated November 9, 2005, contained in DEIS Appendix K, there were 119 units of affordable housing completed or under construction in the Town of Cortlandt, leaving a balance in the total allocation to be met of 284 units. As recommended by the Housing Action Council, the project sponsor proposes to construct 10% of the proposed project, or 3 units, of affordable housing.

According to the Housing Action Council[2], the formula for determining the affordability of a 3 bedroom dwelling unit to house a family of four in Cortlandt (two and half times eighty percent of the median income, adjusted for inflation) indicates that affordable units would need to be priced at approximately $225,000.

Development of new housing in Cortlandt will provide social benefits to the local area and the region by increasing its workforce and the available pool of civic minded residents, some who may be volunteers in local social services. Additionally, new homeowners who will reside at Mill Court Crossing will utilize area retail, personal service, and other commercial services. It is estimated that this development would generate some $2.0M annually to businesses on retail goods and services[3]. A portion of these expenditures would be made at local area restaurants, supermarkets, convenience stores, apparel and household goods stores, and service businesses.

[2] Phone conversation with Rosemarie Noonan, May 16, 2006.

[3] DEIS Section 8.0 provides the calculations for this estimate.

1.3 Potential Impacts and Proposed Mitigation Measures

This section of the Executive Summary summarizes the potential impacts identified in the environmental review of the proposed project and outlines proposed mitigation measures by major subject category.

1.3.1 Geology, Soils and Topography

Potential Impacts

Geology

Soil borings were conducted on the site on August 22 and August 23, 2006, to determine the extent of blasting needed for this project. Based on the on-site investigations, a very limited area of blasting may be required to install the loop road. Should this rock removal require blasting, a blasting plan to be approved by the Town of Cortlandt will be submitted prior to the final site plan approval. The potential blasting area is shown on Figure 3.1-6 and a blasting program is outlined in DEIS Section 3.1.2.

Based upon rock type, on-site bedrock does not contain extractable mineral resources, however removed bedrock would be a particularly useful source of fill material for construction. A number of metamorphic rock outcrops of low profile have been observed on the property and much of the site soils are extremely rocky.

Slopes

The majority of grading (82.73 percent) for the Mill Court Crossing Subdivision project will occur in areas with slopes of less than 15 percent. Only approximately 2.99 acres of the development will occur in areas with slopes of 15 percent or greater, i.e. Town regulated steep slopes. Impacts to steep slopes of 15 percent or greater are mostly limited to the site entrance roadway, the storm water detention basins along the eastern edge of the site, and grading for proposed homes along the eastern edge of the site. The Applicant acknowledges that it has the burden to demonstrate compliance with the Town's steep slopes permitting criteria to obtain the required permit. Exposing soils on steep slopes during construction increases the potential for soil erosion in the short term and necessitates a comprehensive soil erosion control program as part of the approved project plans. No proposed houses will encroach upon wetlands, wetland buffer areas, or steep slopes areas exceeding 30 percent. However, impacts to over 30% slopes are necessary to access Lots 26 and 27 and provide sewer service to the building sites off Lexington Avenue (Lots 23 - 27); and, to a smaller extent, the access to Lots 20 - 22. No reasonable use of these building sites is possible without the over 30% disturbance. The total over 30% disturbance is less than one fifth of an acre.

Soils

Soils will be graded and recontoured to construct roads, individual home sites, driveways and the storm water detention basins. Areas of proposed grade changes for the project development are shown in the full sized grading plan in the rear pocket of this document and in Figure 3.1-5. The project engineer estimates that approximately 17.36 acres or 32.90 percent of the site would be disturbed or graded. Approximately 35.4 acres, or 67.11 percent of the site, would remain undisturbed. Grading activities introduce the potential for soil erosion that is proposed to be mitigated by a site specific erosion control program.

The project engineer estimates that the total earthwork would involve approximately 40,000 cubic yards (cy) of earth movement. While the preliminary estimates indicate that there may be an excess cut of up to 4,000 cy over the entire site, efforts will be made to utilize as much of this excess material on-site as possible. The balance of an excess of material is primarily the result of cuts required for the construction of the foundations, and the requirement to maintain a road grade of 8 percent or less

Mitigation Measures

Erosion and Sediment Control

Soil erosion and sedimentation will be controlled during the construction as set forth in the Storm Water Management Plan prepared by the project engineer. The erosion control plan will conform to guidelines established by the NYS DEC as required to obtain coverage under a SPDES General Permit for Stormwater Discharges for Construction Activities (Permit No. GP-02-01).

The principle objectives of an Erosion and Sediment Control Plan are as follows:

1) divert clean surface water before it reaches the construction area;
2) control erosion at its source with temporary and permanent soil protection measures;
3) capture sediment-laden runoff from areas of disturbance and filter the runoff prior to discharge; and,
4) decelerate and distribute storm water runoff through natural vegetative buffers or structural means before discharge to off-site areas.

These objectives can be achieved by utilizing best management practices (BMPs) including, but not limited to:

- Divert clean runoff
- Time grading and construction to minimize soil exposure
- Retain existing vegetation wherever feasible
- Stabilize disturbed areas as soon as possible
- Minimize the length and steepness of slopes
- Maintain low runoff velocities
- Trap sediment on-site and prior to reaching critical areas such as wetlands
- Establish a thorough maintenance and repair program
- Assign responsibility for the maintenance program

These measures are described in detail in Sections 3.1 and 3.2 of the DEIS. Construction-related site inspections and assessments are required per the SPDES permit and would be conducted under supervision of a qualified professional at least every 7 days and within 24 hours of the end of a storm event of 0.5 inches or more.

Blasting may be encountered during site grading. Where bedrock is encountered, methods other than blasting will be evaluated first, such as cutting, ripping or chipping. Blasting will conform to applicable New York State Law which requires that a blasting contractor be licensed by the State under NYS Labor Department Regulations. Should blasting be required, a blasting plan, detailed in Section 3.1, would be prepared for review and approval by the Town Building

Inspector and Town Engineer which would include methods, schedule, pre-blast surveys, test blast information and contractors liability insurance.

1.3.2 Surface Water, Wetlands and Groundwater Resources

Potential Impacts

Wetlands

Three wetland areas were field delineated during the project field investigations, encompassing a total of 8.56 acres of the site. The project as proposed will result in very little activity within and adjacent to regulated wetlands. The project site plan avoids disturbance of wetland areas to the maximum extent practicable, however it is expected that a total of 0.03 acres (1,500 square feet) of wetland, or less than 7% of wetland B, will be affected by the installation of the access road from Mill Court. In the scoping process for the DEIS, the Applicant advised the Town Planning Board that some disturbance to wetlands, wetland buffer, and steep slopes was unavoidable to facilitate a road access into the site. During the meetings that preceded adoption of the DEIS scope, the Applicant's engineer demonstrated that it was impossible to access the site without some disturbance of the wetland, wetland buffer and steep slope that exist at the south end of Mill Court and in light of this fact, the Planning Board changed the language of the "no disturbance" alternative.

Floodplains

There are no FEMA floodplains located on or adjacent to the property, and no on-site or downstream flooding impacts are anticipated to result from the proposed project.

Ponds and Streams

The site lies within the drainage basin of Peekskill Hollow Creek above a tributary to Gregory Pond (NYSDEC ID # H--55-6-2, pp. 2662 of Title 6). Surface runoff from the majority of the site flows toward the depressional area that drains in a southerly direction, as shown in Figure 3.2-5. A small, semi-permanent pond exists behind an earthen berm on the eastern side of the property. A narrow channel through the berm connects this small, 0.10-acre man-made pond during overflow conditions with the downstream wetlands. There are no perennial streams on the property, but most water deposited on the property flows overland through two stream courses in the low-lying areas of Leicester loam within the wetlands. These wetlands are contributory to Gregory Pond, a 70-acre subwatershed of Peekskill Hollow Creek. Most overland water flow from the project site travels some 3.2 miles downstream to Peekskill Hollow Creek. The northwestern corner of the project site drains approximately 0.9 miles to Peekskill Hollow Creek via overland flow through the Trolley Road area.

The project would minimally alter the existing flow patterns on or off the site thus there would be no adverse impact to the flow characteristics of surface water features in the area. There are no permanent pond features on the property, and thus, no impacts to such features.

Storm Water

Land clearing for the project would convert 4.71 acres of wooded land to impervious roads, buildings, and driveways. If uncontrolled, vegetative clearing could result in temporary increases

in soil erosion during construction activities. If uncontrolled, sedimentation from storm water erosion could impact wetlands.

The development could increase short-term and long-term pollutant loadings found in the storm water runoff, if not properly mitigated. During construction activities, potential short-term impacts from regrading and stockpiling of soils could impact surface water quality both on site and downstream. Long-term impacts to surface water quality could include increased pollutant levels associated with stormwater runoff from residential land uses if this runoff is left untreated.

Groundwater

The project will utilize municipal water. On-site wells will not be installed to serve the project. Groundwater is not utilized as a source of drinking water for the abutting properties as all have active water accounts with the Water District[4]. As all of the nearby properties receive public water, as will the proposed project, groundwater supply is not a significant issue for this application.

Mitigation Measures

Erosion and Sediment Control Plan

A preliminary Erosion and Sediment Control (ESC) Plan with construction sequencing and scheduling -- which in part is being implemented to protect on site wetlands during construction -- is included with this DEIS. All soil erosion and sediment controls will be installed in accordance with best management practices as set forth in the NYSDEC Standards and Specifications for Erosion and Sediment Control manual and the Town of Cortlandt municipal code.

The proposed ESC plan minimizes the area of soil exposure to the greatest extent practicable in accordance with the conditions of the NYSDEC SPDES General Permit (GP-02-01) for Stormwater Discharges from Construction Activities. Erosion and sedimentation measures specified in the Erosion Control Plan are developed specifically for this project to provide both temporary controls during the construction period and permanent controls to be in place and functioning at the completion of construction.

To mitigate for increased surface runoff from within the site, stormwater facilities have been engineered to prevent impacts of this increase in runoff to on-site wetlands and downstream areas. Water detention basins are designed to reduce post-development peak flow rates to levels below existing rates.

Storm Water Pollution Prevention Plan

To address impacts to surface water quality, the stormwater facilities have been engineered in accordance with NYSDEC water treatment requirements. The designs will incorporate the standards presented in the NYSDEC Stormwater Management Design Manual[5]. The proposed storm water runoff will discharge in approximately the same directions as the existing drainage. The development will have a detention pond that will capture and attenuate the peak storm water runoff into NYSDEC wetland A-50. The peak rate of storm water discharge from the site

[4] Conversation with Mr. Robert Foster, Water District Supervisor, Town of Cortlandt. 8 March, 2006.

[5] NYSDEC. August, 2003. *New York State Stormwater Management Design Manual.*

under proposed developed conditions will be the same as, or reduced from, the peak flows under existing conditions.

The Town recently installed additional drainage piping facilities along Red Mill Road that reduce stormwater flows down Trolley Road. The improvements divert approximately 79 acres of watershed away from Trolley Road to drain toward the intersection of Red Mill Road and Oregon Road. Prior to these betterments, about 194 acres were directed down Red Mill Road to Trolley Road. The new diversion reduces the size of the drainage basin by over 40%, and will produce a sizable reduction in stormwater flows into the Trolley Road drainage system thereby helping to alleviate flooding.

Notwithstanding the Applicant's position that no mitigation measures are required, negotiations are in progress with the Town staff to determine if additional water flow needs diversion. Three areas of concern are being looked at: 1) diverting additional runoff down Red Mill Road; 2) improvement of water flow down Trolley Road; and 3) diverting runoff behind proposed houses on the northwest side of the site. The diversion would be into the existing Mountain View Road system.

The Stormwater Pollution Prevention Plan (SWPPP) for the project will include the latest Best Management Practices (BMPs) for control of pollution during and after storm events. Grass-lined swales, grass channels, catch basin traps, infiltration galleys and micropool detention basins with controlled release outlets will all be used in a combination that will remove pollutants from storm water runoff. All systems will be designed to conform to the rules, regulations, specifications, and requirements of the NYSDEC and the Town of Cortlandt.

The construction of a vegetated water quality basin, while recognized as a site disturbance, will serve to enhance the water quality functions of the wetland buffer prior to discharge to the watercourses and will be appropriately landscaped to blend into the landscape through the use of low maintenance, native vegetation. Water quality basins are required to comply with NYSDEC and Town of Cortlandt (by reference to state standards) regulatory requirements and any basin should be placed to make best use of site topography for the treatment of the greatest percentage of water from impervious surfaces.

Additionally, stormwater treatment facilities shall be located on individual lots in the Mill Court Crossing subdivision These facilities will consist of 8 foot diameter by 6 foot deep dry wells surrounded by a one foot ring of gravel. Between one and five dry wells will be provided on each parcel where individual lot stormwater treatment is provided. The applicant will develop, in conjunction with the Town's Department of Technical Services, a site management manual to be provided to the homeowners that will outline maintenance responsibilities of the stormwater management features on the individual lots.

1.3.3 Air Resources

An air quality screening analysis was performed to determine if additional detailed microscale modeling was required. This used three screening criteria including an intersection level of service screen, a capture criteria screen, and a minimum volume screen. Using the information provided in the traffic analysis, it was determined that the three criteria were not exceeded by the study area intersections, thus, a micro scale analysis was not warranted.

Efforts to Reduce Ground Level Ozone Concentrations

Construction-related air emissions will result primarily from the use of diesel fuel as a source of energy for construction vehicles and equipment. Some of the construction equipment may utilize gasoline as a source of fuel, but use of this equipment will be relatively low in comparison to equipment and vehicles using diesel fuel. The applicant will conform to emission reduction measures during construction through routine vehicle inspection and maintenance, application of diesel emission controls, use of clean diesel gasoline and efficient operations.

Dust Control Measures During Construction Activities

Construction activities on the project site would have a potential impact on the local air quality through generation of fugitive or airborne dust. Fugitive dust is generated during blasting, ground clearing and excavation activities. Throughout the construction period, earth moving and the passage of vehicles over temporary dirt roads and other exposed soil surfaces also generates fugitive dust, particularly during dry and windy conditions. On-site mitigation measures are proposed as part of the project during construction to limit the dispersal of fugitive dust. With minimal site maintenance and careful attention to construction activities, impacts from fugitive dust can be maintained below the State or Federal AAQS at off-site properties. Although exhaust emissions from construction equipment is not as significant as fugitive dust generation, particulate matter from diesel exhaust emission will also be controlled through proper tuning of the engine and maintenance of the vehicle air pollution controls. This will minimize additional contribution to site generated particulate emissions during construction.

Measures to control emissions from home heating systems

The applicant has also entered into an agreement of understanding with Independence Energy Homes (IEH), to construct Zero Net Energy Cost residences as an option to new home buyers. IEH designed homes accomplish this goal by integrating solar based heating, cooling and water heating with grid based energy. The IEH homes eliminate the unfavorable emissions from home heating systems.

1.3.4 Terrestrial and Aquatic Ecology

Potential Impacts

Vegetation and Wildlife Habitat

There are no threatened and/or endangered plants or animals listed, identified or observed on this site. The project site is characterized by mature second and third growth deciduous forest of lowland and wetland species. The project would disturb approximately 16.47 acres of woodlands and retain approximately 25.19 acres of woodlands on individual lots throughout the property. The undisturbed areas would continue to serve as wildlife habitat for those species occurring on the site. Since the project site is close to major road networks and residential developments, there is a relatively low species diversity.

As the project site is developed the wildlife habitat will be altered. The breeding of interior bird species may be changed; and it is possible that the revised habitat will favor adaptable wildlife species over less adaptable sensitive species. In addition, the composition of the wildlife at the property may be modified somewhat following development, with increases in the populations of species with greater tolerance for human activity. The woodlands that would remain would

continue to provide habitat for many typical woodland species, as few species that are solely dependent on large, dense woodlands currently utilize this site. The portions of the project site where disturbance to existing woodland is proposed is shown by the boundary of construction activities on Figure 3.1-7. The areas of disturbance shown on this figure include areas that would be impacted by the construction activities, but would be landscaped and replanted with native and ornamental species.

The project site does not currently function as a wildlife corridor to off-site habitat areas, due to the surrounding roadways and developments. Therefore, fragmentation of habitat areas is not anticipated to be a significant impact.

The tree survey prepared for the project site was used to develop the proposed project plan. The project is expected to result in the loss of approximately 16.47 acres of woodlands, impacting a total of 417 trees greater than 12 inches dbh. Specimen trees are rare and will be protected as described below. Tree protection measures will be implemented to save individual trees near proposed development activity where practicable. Trees located outside the proposed limits of disturbance would be preserved. It is anticipated that many of the surveyed trees within the limits of disturbance can also be preserved during construction.

Mitigation Measures

In response to the September 22, 2006, letter from the Cortlandt Land Trust (Land Trust) to the Planning Board (see Appendix B), the Applicant contacted it's Co-Chair and initiated discussions to address the Land Trust's concerns. Subsequently, at the request of the Land Trust, the Applicant's proposed site plan was sent to the Westchester Land Trust. On November 17, 2006, representatives of both Land Trusts, a member of Cortlandt Watch, and the Applicant met at the site. After a long conversation it was agreed that the participants would work together on a plan to set aside, in the form of conservation easements or otherwise, open spaces which would produce as much as possible a protected, unfragmented and undeveloped continuous broad strip of land.

Tree Preservation

The site tree survey was used to assess the project impacts to the existing vegetation and as an aid in identifying individual trees on the project site that could be preserved during project development. Some of the largest of the trees in the survey, those measuring 36 inches dbh or larger, exist in areas of the site where their protection can be considered, including the frontage with Lexington Avenue, within the wetland boundaries or along existing stone walls that may be preserved where feasible and practical during site development.

Tree preservation on the site will take several forms.

- Using the Tree Survey as a guide, the limits of disturbance will be established in the field. No trees beyond these limits will be disturbed. These limits will be marked with erosion control fencing as noted in Westchester County's *Best Management Practices* handbook.
- Trees that will definitely be removed will be marked. No large trees that are not marked will be removed unless during the construction it is determined that those trees cannot be saved.

- Large trees will be saved through the use of tree wells, where practicable. These wells will typically be constructed with excess rock from on site excavation activities. The walls of the wells will be dry laid, with provision for positive drainage out of the wells.
- Specimen trees, as defined by the Town Code, are rare, and if encountered will be protected.

Additionally, erosion and sedimentation control would be utilized throughout the construction phase of the project until all disturbed area are fully developed or soils have been stabilized through vegetation plantings or other means. Also, existing stones walls will be preserved, especially along the property boundaries. Where walls are disturbed, the wall stone will be reused where possible for low retaining walls, tree wells or other decorative features on the lots. Through the creation of stormwater quality and detention basins, the quantity and quality of the stormwater released from the site would meet the criteria of the New York State General Permit for stormwater discharges.

Landscape and Stormwater Basin Plantings

The project includes over 14 acres of lawn and landscape plantings. The landscape plantings would consist of a mixture of native and ornamental species. The lawns and landscaped areas created by the proposed development will still be available as forage by deer and other plant eating wildlife, and many species of trees and shrubs commonly chosen for home landscaping will provide both food and nesting sites for squirrels, songbirds and other avian species. The applicant proposes to install street trees along the internal roads, ornamental and erosion control plantings in common areas such as at the stormwater facilities, and screening in perimeter buffer areas. The berms and basin of the proposed stormwater detention basin will be planted with regionally hardy shrubs and emergent vegetation that will provide both stormwater treatment benefits as well as wildlife habitat. The 8,445 square feet (0.194 acres) of created habitat within the stormwater basin will effectively mitigate the impacted wetland in a greater than 5.6:1.0 replacement ratio. Vegetation in wetland buffer areas will be restored to allow continuation of the wetland functions.

1.3.5 Traffic and Transportation

Potential Impacts

Internal Road System

The access to 22 of homes in the Mill Court Crossing Subdivision will be provided via an extension of Mill Court. Access to the remaining five homes will be provided by four driveways along Lexington Avenue; Lots 26 and 27 share a common driveway to Lexington Avenue. Regional transportation access is provided via US Route 6 and its connection to the Taconic State Parkway to the east and the Bear Mountain Parkway, Route 202/35 to the West.

Traffic Analysis

The traffic analysis prepared by TRC Raymond Keyes, included as Appendix I, evaluates existing and future traffic conditions at the site access and adjacent intersections along Red Mill Road and Lexington Avenue. Figure 3.5-1 of the DEIS shows the locations of the following intersections which were evaluated in the Traffic Impact Study:

1. Route 6 and Lexington Avenue
2. West Road and Lexington Avenue
3. Strawberry Road and Lexington Avenue
4. Red Mill Road and MacArthur Boulevard
5. Red Mill Road and Mill Court
6. Red Mill Road and Mountain View Boulevard
7. Red Mill Road and Trolley Road
8. Red Mill Road and Old Oregon Road
9. Red Mill Road and South Hill Road
10. Red Mill Road and Oregon Road/Westbrook Drive

Traffic volumes and levels of service were measured for the Existing condition. These conditions were compared with the No-Build condition which represents the traffic condition expected in the year that the proposed development is projected to be fully occupied, but without project-generated traffic added to the network. The projected build year is 2007.

To account for other potential background developments in the area, the 2005 existing traffic volumes were increased by a factor of 2 percent per year to project traffic volumes to 2007. In addition, peak hour traffic volumes from other specific proposed developments, including developments in the Towns of Cortlandt, Yorktown and Putnam Valley were considered. For analysis purposes, it was conservatively assumed that each of these developments will be approved and completed by the Year 2007 and thus, the full traffic generation for each of these developments was included in the analysis, where appropriate.

Based upon field observations and the detailed analysis undertaken during the preparation of this Traffic Impact Study, the following findings are presented:

- The site is provided good local access via Lexington Avenue, Red Mill Road, Strawberry Road, West Road, and Route 6.

- Based upon conservative projections, it is anticipated that the Project will generate approximately 7 entering vehicles and 21 exiting vehicles during the Peak AM Highway Hour. During the Peak PM Highway Hour, there will conservatively be approximately 21 entering vehicles and 12 exiting vehicles.

- Traffic from 28 adjacent developments was considered in the analysis. In addition, a conservative growth factor of 2% compounded annually was added to the existing traffic data, to account for traffic associated with background growth and some of the potential developments in the area.

- Capacity analyses were performed for the study locations for the Existing, 2007 No-Build (without the Project) and 2007 Build conditions (with the Project). These analyses indicate that the traffic generated by the proposed Project will be adequately accommodated on the adjacent roadway system.

- Table No. 3.5-3 summarizes the results of the capacity analyses conducted for each intersection included in this study. Average delay, expressed in seconds per vehicle, is listed below each Level of Service.

- As described in Section 3.5, the proposed project will not have a significant impact on the traffic operating conditions in the area. Modeling results set forth in the Town's traffic consultant's report conclude that the traffic generated by the site would have minimal impacts on traffic operations on the surrounding roadway network, which is to be expected with the level of trip generation (see Edwards and Kelcey Traffic Review dated August 31, 2006). All intersections will operate at essentially the same Levels of Service with or without the Project. The intersection of Strawberry Road and Lexington Avenue, with or without the project, for vehicles turning left from Strawberry Road, will experience some delays in the PM peak hour. Recent modifications to this intersection by the Town have increased the PM Peak Hour Delays. As the analysis for an unsignalized intersection delay increases beyond 50 seconds, the delay formulas in the HCS tend to break down and the numbers lose their validity. The project represents only 2% of the traffic at the intersection during the PM Peak Hour, and traffic along Lexington Avenue will continue to travel under free-flow conditions.

  The intersection of Lexington Avenue and US Route 6 will continue to experience some delays, with or without the project, during the PM Peak Hour. However, there is no change to the operating levels of service as a result of Mill Court Crossing, and the increase in delays as a result of this project will be negligible.

- The intersection of Red Mill Road and Mill Court was, based upon comments made by local residents, the subject of a sight distance analysis. The study concluded there are some current sight distance restrictions, which could be remedied. The removal of some existing trees, vegetation and rock outcroppings would increase the sight distance close to the recommended intersection sight distance and in excess of the minimum stopping sight distance. The applicant, in coordination with the Town of Cortlandt, is willing to improve the sight distance at this location. The Town's traffic consultant has opined (See August 31, 2006 Traffic Review, last paragraph of page 8, included in Appendix M) that the increased site distance will help improve safety at this particular intersection, and is reasonably related to the increased traffic volumes on Mill Court associated with this development.

Existing, No-Build and Build traffic volumes for the roadway network are shown in Figures 2,4, and 10 respectively, of the Traffic Impact Study. A summary of the capacity analyses for the area intersections under Existing Conditions, No-Build and Build conditions is provided in the Level of Service Summary Table 3.5-3. A detailed description of the level of service operating characteristics for each intersection is provided in the full Traffic Impact Study, contained in Appendix I.

It is the considered professional opinion of TRC Raymond Keyes, traffic engineers for the project, that the traffic associated with the Mill Court Crossing will not have a significant impact on the operating conditions of the adjacent roadways and intersections. Accordingly, safe and efficient operating conditions will be provided for through traffic as well as for traffic destined to the site.

1.3.6 Land Use and Zoning

Potential Impacts

Compatibility with Surrounding Land Use

The project site lies in an area of existing predominantly residential uses within the Town of Cortlandt. The Town of Cortlandt boundary with the neighboring Town of Yorktown runs along the center line of Lexington Avenue. Residential development and institutional uses, including the George Washington Elementary School, the former Franciscan High School, Strawberry Early Childhood Development Center, and TreeTops at Mohegan Lake nursing home, are located to the east of the project site within the Town of Yorktown. Additionally, vacant land exists between the project site and US Route 6 to the south. There is significant commercial development, including such retail stores as Home Depot, Old Navy Linens and Things, Pier One, Best Buy and Barnes and Nobles, along US Route 6 which is located one half mile south of the project site.

This area of the Town of Cortlandt is generally developed into residential development with lot areas of one acre or greater interspersed with undeveloped wooded land while this residential area of the Town of Yorktown contains more density and consists of lot areas of one acre or less.

Conformity with the Town of Cortlandt Zoning

The Applicant proposes to subdivide the undeveloped 52.756-acre parcel into 27 single-family residential lots. The proposed single family residences, a minimum of 40,000 square feet in size, are a permitted use within the R-40 district, as identified within the Town zoning regulations. The proposed number of lots is less than the maximum number of 34 lots permitted on the property, based on the site capacity calculation contained in zoning code. Lot count calculations and mapping have been submitted to the Town Engineering Division for verification. According to the project engineer, each of the proposed residential lots will comply with the dimensional requirements stipulated in the zoning code.

Compatibility with Town of Cortlandt Comprehensive Master Plan

The overall disturbance to the project site to develop the Mill Court Crossing project will involve approximately 32.9 percent of the total property. The majority of the disturbed area will be returned to landscaped condition. At completion of the proposed project, 4.71 acres or 8.9 percent of the total property will have impervious coverage. The project has also been designed to avoid wetland and steep slope disturbance to the greatest extent practicable and preserves large portions of the perimeter in natural woodland cover. The proposed residential subdivision would thereby be compatible with the land use objectives articulated in the Town Comprehensive Master Plan for the site. To wit, that no more than 50 percent of the property can be consumed by lots, streets, and designated active recreation areas.

Compatibility with Town Subdivision Regulations

The Residences at Mill Court Crossing has been designed by the project engineer to comply with all the provisions of the Town Subdivision Regulations (§265 of the Town Code).

Compatibility with Westchester County Patterns

The proposed subdivision has a gross density of one home for each 1.95 acres which would be at the lower end of the density recommended by Patterns. The project site also lies within existing low to medium-density residential neighborhoods, with existing infrastructure and community facilities. Therefore the subject development complies with the Westchester County Patterns to channel development near centers where infrastructure can support growth.

Mitigation Measures

It is noted that the proposed number of lots in the development represents the maximum number of viable lots that the applicant could establish on the project site given the existing environmental constraints, and thus no further subdivision could take place in conformance with the existing Town regulations. No other impacts are anticipated to land use or zoning, therefore, no mitigation measures are proposed.

1.3.7 Community Facilities and Services

This section of the DEIS addresses police protection, fire protection, ambulance service, educational facilities, utilities and recreation and open space. The Mill Court Crossing Subdivision would add 98 persons to the Town's population, including 24 school-age children.

Potential Impacts

Police Protection

Police services in the project vicinity are provided by the New York State Police and the Westchester County Police Department. The Town of Cortlandt has contracted with the Westchester County Police Department to provide certain protective and law enforcement services to its residents. Lieutenant Frank J. Donovan from the Westchester County Department of Public Safety has indicated that there are no plans to expand the facility or staffing at the police precinct in Cortlandt.

Development of 27 single-family homes will create a potential demand for additional police services. Using planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), the projected increase of 98 persons has the potential to increase police staffing needs by less than a quarter of a staff person. Additionally, revenue provided via property taxes from the developed project to the Town could be used to aid in funding the police services.

Educational Facilities

The Mill Court Crossing site is located in the Lakeland Central School District. Students from the subject site are likely to attend George Washington Elementary School located on Lexington Avenue directly across Lexington Avenue in the Town of Yorktown, Van Cortlandtville Elementary School, Lakeland Copper Beech Middle School and Walter Panas High School in close vicinity to the project site.

As per the planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994) the number of students projected to enroll at the Lakeland Central School District from the proposed development would be 24 or 0.38 percent of

the total number of students (6,382) projected by the District in the 2007-2008 school year. The projected student population from the proposed residences will be introduced into the School District over a multi-year period (2007-2010) while the homes are being built and occupied. The introduction of students into various grade levels over a multi-year period would ameliorate the effect of the increase in school district enrollment associated with this project.

Kenneth J. Connolly, Superintendent of Schools for the Lakeland Central School District has indicated that if the additional 24 students are spread across all 13 grade levels, there would be no impact on staff facilities or equipment.

Additionally, revenue provided via property taxes from the developed project would be available to increase school staff, facilities/equipment or bus trips, if necessary, to offset the potential increase in educational services resulting from this project.

Fire Protection

The Mohegan Volunteer Fire Association provides fire protection services within the project vicinity and is located in the Town of Cortlandt, New York. The Mohegan Volunteer Fire Association has a station located on 1130 Oregon Road in Cortlandt Manor and a station near the intersection of Route 6 and Lexington Avenue, both nearby the project site. The distance of the fire department from the project site. Response time is around 3 to 5 minutes depending on traffic conditions.

The development of 27 single-family homes will create a potential demand for additional fire protection services in the Town of Cortlandt. Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), the projected increase of 98 persons has the potential to increase fire protection staff by less than a fifth of a staff person.

Fire Chief Raymond J. Street indicated that the current staffing levels of the Fire Department would be sufficient to cover the increased call volume of the Fire Department after the homes are built. The Residences at Mill Court Crossing would also generate property tax revenues to the Mohegan Volunteer Fire Association of approximately $26,212 annually. This additional revenue could be used to augment the company's capabilities as necessary.

Water Supply

The project site is located in the Cortlandt Consolidated Water District (CCWD) No. 1. The proposed Mill Court Crossing development will create an additional need of 9,500 gallons of water per day. The water supply to the proposed Mill Court development represents approximately 0.5 percent of the 2.0 million gallons per day currently supplied by CCWD No. 1 to its service area. According to the project engineer’s report on water and sewer use (DEIS Appendix G), the Town’s system will be able to supply the additional water demand and pressure.

The project site will connect to an existing water main located within Mill Court by extending this existing water main located on Mill Court, through a proposed street right of way to be dedicated to the Town of Cortlandt, with a loop through Amherst Road to an existing water main on the adjacent property. The water main extension will involve the construction of approximately 3,850 linear feet of 8-inch diameter ductile iron class 54 cement lined pipe, nine fire hydrants and all necessary appurtenances to service the 27 proposed single family residences.

Additional revenue of $7,672 provided through property taxes from the developed project can be expected to offset the potential increases in services resulting from this project.

Sewer Services

The proposed project will require the reinstatement by the County to include the project site in extension of the Peekskill Sanitary Sewer District and extension of the district or establishment of a new sewer district by the Town, to include the project site, thereby allowing sewage generated by the project to be treated at the Peekskill Wastewater Treatment Plant.

The Mill Court Crossing development will result in increased sewage flow to the Peekskill Sewage Treatment Plant. According to the project engineer's Sanitary Sewer Engineering Report (DEIS Appendix H), the estimated average daily sewage flow from the proposed development is 9,500 gallons per day[6]. Mill Court Crossing development will convey sewage flow to the Peekskill Sewage Treatment Plant via an 8" gravity sewer main extension from Stonefield Court east to Red Mill Road and south through Mill Court.

All the proposed sewer infrastructure to connect this development to the existing system will be furnished and constructed by the developer and conveyed to the Town of Cortlandt at no expense to the Town upon completion and acceptance of the facilities by the Town. Anticipated annual taxes generated by the proposed Mill Court Crossing development and payable to the town sewer district would be $6,260. This additional revenue can be used to augment the district's capabilities as necessary.

Solid Waste

The Town of Cortlandt's Department of Environmental Services, Highway Division located at 167 Roa Hook Road in Cortlandt Manor, manages solid waste disposal for the town. The waste to energy facility located at Charles Point, known as Westchester RESCO, is the nearest solid waste disposal site to the project. RESCO incinerates municipally collected and some privately collected waste.

It is estimated that the proposed development of 27 single family homes would create at least 27 additional curbside garbage stops once a week on Mondays. According to Kathleen Burleson from the Department of Environmental Services, the development would also create 27 potential curbside commingle and newspaper/cardboard stops each per week and would generate an additional 2 tons of solid waste per week (104 tons per year), excluding any recycling or bulk pick up items.

Additional revenue of $9,507 through property taxes from the Mill Court Crossing development would offset the potential increases in services resulting from this project.

Hospitals, Health Care and Ambulance Services

The nearest full service hospital to the residents of the proposed Mill Court Crossing development is the Hudson Valley Hospital Center located on Crompond Road in Cortlandt. Other medical institutions in and around the Town include the 220-bed Phelps Memorial Hospital in North Tarrytown, the 800-bed Franklin Delano Roosevelt Memorial Veterans Hospital in

[6] Cronin Engineering, PE, PC (2006), DEIS Appendix H.

Crugers, and the 250-bed Northern Westchester Hospital Center in Mount Kisco. The project site is served by the Cortlandt Community Volunteer Ambulance Corps.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), four (4.0) hospital beds should be provided per 1,000 persons. Based on this standard, the projected increase of 98 persons has the potential to increase hospital beds serving the area by less than 0.4 beds.

As indicated by Mark Webster, from Hudson Valley Hospital Center (DEIS Appendix B), additional manpower, equipment, or facilities would not be required at the Hudson Valley Hospital Center to provide medical services to the residents at the proposed Mill Court Crossing Residences.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), the addition of 98 persons from the Mill Court Crossing development would generate an increase of approximately 3 emergency medical service calls per year.

Additional revenue provided through property taxes from the developed project could be used to help increase Corps staff, hours of operation, or facilities/equipment, if necessary, to offset the potential increases in hospitals, health care, or ambulance services.

Social Services

Out of the total 98 persons projected to reside at the proposed project, there would be expected to be 12 elderly, 10 disabled, and 17 children requiring day care based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994).

Most day care facilities in the vicinity are private, while some are public, supplemented through revenues received from the federal, state or local government depending on income and a variety of other qualification requirements. Private facilities are typically funded through service fees paid by participating attendees. Additional tax revenues from this proposed project available to the publicly funded services could be used to offset the potential increases in social services resulting from this project.

Utilities

Electric and gas service in the project area is provided by the Consolidated Edison Company of New York (Con Edison) while local telephone service is provided by Cablevision Lightpath Inc. and Verizon. According to telephone conversations with each of the utility providers, service would be readily provided to the proposed Residences at Mill Court Crossing without adverse impacts to existing supply systems. All utility lines installed to serve the proposed Mill Court Crossing development would be placed underground, as required by the Town of Cortlandt Code. The use of Zero-Net Energy use construction will also reduce or in some cases, eliminate, any potential adverse impacts.

Recreation Facilities

With approximately 1,990 acres of publicly owned recreation and open space land, Cortlandt has more than 68 acres of recreational land available for each 1,000 of its residents. Based on

the Westchester County Planning Department's standards, Cortlandt residents are well-served in terms of the overall quantity of recreation and open space resources available within the Town. However, as noted in the Cortlandt Master Plan, the distribution of recreation and open space resources remains uneven throughout the Town.

The proposed project will add a projected 98 persons to Cortlandt's population and increase the local demand for recreation facilities and open space. The impact of the development would be offset by the Town requirement for land or fee-in-lieu for new subdivisions. Simultaneously, the Mill Court Crossing site will provide on-site passive recreation for the residents from the more than 25 acres of undeveloped woodlands. The development would allow continuation of this open space system and is not expected to impact parkland resources of the Towns or County.

Further, the applicant proposes to pay a recreation fee of $6,000 per newly-subdivided lot. These fees, in combination with tax revenues generated to Cortlandt by the proposed development, can be expected to be used toward the continued provision of recreation services to Town residents.

Mitigation Measures

Police Protection

As no significant adverse impacts have been identified, no specific mitigation measures relating to police protection services are proposed.

Education Facilities

As no significant adverse impacts have been identified, no mitigation measures are proposed. A letter received from the Lakeland School District on March 14, 2006 (DEIS Appendix B) describes the current student enrollment in the school district and the average class size of all grades. As mentioned in the letter, since the ages and the grade levels of the students entering the school district from this project are unknown at this time, it is difficult to evaluate the long range school capacity and possible mitigation measures. However, this project will contribute its fair share of tax revenues to the school district that will offset expenses of the district.

Fire Protection

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Water Supply

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Wastewater

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Solid Waste

As no significant adverse impacts have been identified, no mitigation measures are proposed.

*Hospitals, Health Care and Ambulance Service*s

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Social Services

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Utilities

As no significant adverse impacts have been identified, no mitigation measures are proposed.

Recreation Facilities

No significant demand is anticipated to be placed on Town of Cortlandt recreation facilities, therefore no mitigation measures are proposed.

1.3.8 Socioeconomics

Potential Impacts

Demography

The population projection for the Residences at Mill Court Crossing is based on demographic information for the "single-family" housing type in the northeastern United States derived from the 1987 American Housing Survey and reported in the Development Impact Assessment Handbook published by the Urban Land Institute in 1994. The demographic multipliers provided in the Handbook for total household size, and total school-age population, for four bedroom single family homes in the Northeast region are 3.6248 and 0.8738 persons, respectively. Because population and school-age children multipliers derived from 2000 Census data have not been published, data contained in the Handbook are the most currently available at this time, and are considered the planning standard for analyses such as these. 2000 Census data indicate an Average Family size of 3.22 persons in the Town of Cortlandt. The higher ULI multipliers are used in the DEIS analysis to represent a maximum impact scenario.

Assuming an average of four bedrooms in each of the 27 single family homes, a per household multiplier of 3.6248 and a school age children multiplier of 0.8738 were used. The proposed residential subdivision is therefore projected to add 98 persons to the Town's population, including 24 school age children. The remainder of the population is projected to be composed of a mixture of age groups of persons 18 years and older, and younger than five.

The addition of 98 people to the Town's population represents a 0.34 percent increase over the Year 2000 recorded population. The New York State Economic Development Department projects that the Town will experience a continued growth trend with an estimated increase between 2000 and 2010 of about 0.4 percent. The addition of the residents from the Mill Court Crossing project is not anticipated to produce any potentially adverse demographic effects.

Fiscal Analysis

The project site has a 2005 total assessed value of $15,075. According to tax bill records, the project site paid approximately $22,901 in property taxes in 2005 (for the school district, the bill is for the 2005-2006 school year).

The total market value of the property is estimated to be $27,000,000 based on an average selling price for each home (with land) of $1,000,000. The total assessed value of Mill Court Crossing would be $434,700. As presented in the Table 3.8-5 of the DEIS, the total project-generated tax revenues is estimated to be $666,639 annually. The Lakeland Central School District would benefit from the largest increase in revenues, approximately $465,746 annually. The Town of Cortlandt would receive $10,263 annually. Westchester County would receive approximately $75,999 annually. Annual property tax revenues that would accrue to the Town Highway would be $61,262 and the Town of Cortlandt Public Library would receive $2,765 annually. Mohegan Fire District would receive approximately $26,212 in annual revenues, and Cortlandt Consolidated Water and Peekskill Sewer District would receive $7,672 and $6,260 annually, respectively.

Costs Associated with the Project - Town of Cortlandt

The total municipal budget adopted for the Town of Cortlandt (including Town-wide services, highway bridges, highway maintenance and the General Fund) amounts to $9,931,703. The portion of this which may be assigned to residential land uses is 60 percent or $5,959,022. Dividing this amount by the 2004 projected population of Cortlandt, (39,665), provides an estimate of per capita municipal costs of $150. The Town of Cortlandt (Town and Highway) is going to receive $71,525 in property tax revenues from the project site. The Residences at Mill Court are projected to increase the population of Cortlandt by 98 persons. Therefore, approximately $730 per person would be raised in property tax by the proposed project.

Based on this analysis, $580 per person in property tax revenues would accrue to the Town of Cortlandt in excess of the projected costs of the Town. Total taxes generated to the Town are projected to be $71,525 of which $10,263 are paid in general Town of Cortlandt taxes and $61,262 of which are paid in Town Highway taxes. On balance, the proposed project is projected to generate annual revenues to the Town of Cortlandt that exceed its cost to the Town by $56,825.

Costs Associated with the Project - Lakeland Central District

Based on information published by the New York State Education Department (NYSED)[7], the budget for the 2005-2006 school year for the Lakeland Central School District totaled $116,652,633. Of this total, $82,288,187 was raised by the school tax levy; the remainder of the costs are paid through state aid and other revenue sources. According to the NYSED, the school district's public school enrollment was 6,321 students. Thus, the per capita student cost to be raised through the property tax levy is approximately $13,018 per student.

The total number of 24 school age children are estimated to be generated by the proposed Mill Court Crossing development. The additional 24 students introduced to the Lakeland Central School District would increase the total costs to the District by $312,432 annually. The

[7] Property Tax Report Card for Lakeland (662401) 2005-2006 School Year.

residences at Mill Court Crossing would generate $465,746 in annual school tax revenues. Based on this analysis a surplus of $153,314 in property tax revenues would accrue to the school district annually.

Approval of projects of this nature can span several budget years to complete the approval process. It is assumed that the ratio of projected revenues to the town and school district compared to their respective costs will remain similar from year to year, although the specific budget numbers and tax rates vary annually. (Staff #59). A phone conversation with the Town Comptroller indicated that there was minimal change to the Town's General Fund/Highway portion of the budget from 2005 to 2006.

Potential Impacts on Surrounding Property Values

The proposed use of the site for a single-family residential community is compatible with surrounding residential uses and the high market value for the proposed homes would be expected to have a positive effect on the property values of the nearby residential properties.

There is a high demand for single family homes in Westchester County and a limited inventory. The real estate market is expected to readily absorb the proposed Residences at Mill Court Crossing. Thus, the proposed use of the site for a single-family residential community, a use considered compatible with surrounding residential and institutional uses, would be expected to have a positive effect on the property values of neighboring and nearby residential properties.

Mitigation Measures

No mitigation measures are proposed.

1.3.9 Cultural Resources

Potential Impacts

Visual Resources

The Town of Cortlandt Comprehensive Master Plan, dated July 9, 2004, identifies specific areas of particular visual importance throughout the Town. The area of this project is not included in, or adjacent to, any of the designated visually important areas.

The proposed project would convert approximately 16.47 acres of vacant wooded property to residential use. Grading activities to prepare the site would result in minor topographic alterations which may alter views of the site. Construction of residential dwellings and lawns may likewise alter views.

Given the position of the site in relation to locations of potential public views from the surrounding area, no significant visual change has been identified from any location or critical vantage point in the site vicinity. The proposed project is well suited for its environment within the general topographic setting of the site and its location within a suburban residential landscape. While views of portions of the project development will be created through the existing tree cover around the perimeter of the site, the siting of new houses proposed in the development such that significant portions of existing woods can be preserved will mitigate the changes in existing views. No off-site vantage point was identified from which more than a small portion of the project site could be viewed. The project may be partially visible from portions of

area roads including Lexington Avenue, Mill Court, Amherst Road and Helena Avenue. Therefore, the project will have no significant adverse visual impact.

Since the stone walls on the property were built by farmers to delineate rectangular agricultural fields and appear to bear little relation to the site topography or other features, disturbed stone walls will be relocated on lots for use as low retaining walls, tree walls, and lot boundary markers where feasible. The existing stone walls on the perimeter property line for the project site, however, will be preserved

Historic 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. If a project requires any permits or is receiving funding/grants or any other approvals from State agencies, review by OPRHP is required. This project is subject to New York State Department of Environmental Conservation review and approval 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".

The Mill Court Crossing development is proposed to take access from Mill Court, which is located off Red Mill Road. Since the project site will not create a new access point along, nor will the project be visible from, Red Mill Road, it is not expected to have an impact on the Town's historic designation of Red Mill Road.

Archaeological Resources

The Phase IA Literature Review and Sensitivity Analysis was conducted on the project parcel in January 2006 (A full copy is included in the DEIS Appendix J). The project site is characterized as relatively open woodland, with some on-site wetlands occurring in the eastern portion of the site, as well as a narrow stream that meanders through the center of the site. Stone walls were observed throughout the property, which likely marked the property boundary or the edges of former farm fields. A number of bedrock outcroppings were observed.

No historic structures are located on the project site, however some mid-20th century concrete structure remains were observed on the project site, which would not be seen as having historical significance. A complex of 20th century structures is located along Strawberry Road in close proximity to the project area. Due to the topography of the project area, it is unclear if the proposed Mill Court Crossing project will be visible from the former Franciscan High School property.

Based on the foregoing, a Phase lB Archaeological Field Reconnaissance Survey was recommended for the undisturbed areas within the Area of Potential Effect to rule out the presence of prehistoric and/or historic cultural resources. The Phase 1B investigations are underway as of the date of this document and will not be available to include in this document but will be submitted as part of the Final EIS for this project.

Mitigation Measures

Visual Resources

As no significant impacts to the visual conditions are anticipated as a result of the proposed Mill Court Crossing development, no mitigation measures are currently proposed.

Historic Resources

As no impacts to historical resources are anticipated, no mitigation measures are currently proposed.

Archaeological Resources

A Phase 1A archaeology survey was undertaken at the project site, which recommended further investigation known as a Phase 1B. While the results from the Phase lB archaeology survey are not available as of the date of this document, the Applicant acknowledges that no approvals nor any construction activities that are part of this project, other than investigative activities, will proceed on this property until it is determined that there will be no adverse effect on *archaeological resources*. The Applicant anticipates that due to the rocky soil and limited previous development on the project site, a finding that the project will have "No Effect" on archaeological and historic resources will be obtained from the NYS Office of Parks, Recreation and Historic Preservation (OPRHP). Should significant cultural remains be discovered in the area of potential effect on this property, State and Federal regulations require that either mitigation or avoidance of that portion of the site will be needed as part of the project proposal in order to gain final acceptance by OPRHP, thereby allowing the modified project to proceed.

1.4 Summary of Project Alternatives

The DEIS examines five plan alternatives and affordable housing scenarios, as follows:

1) No Action Alternative
2) Alternative Subdivision Plans
   i. Minimal Wetland/Steep Slope Disturbance - *Layout B*
   ii. Cluster Alternative - Amherst Road Connection - *Layout C*
   iii. Combination of Cluster and Conventional Lots - *Layout D*
   iv. Affordable Housing Impacts
   v. Alternative Road Connections - Right of Way for Route 6 By-Pass - *Layout E1*
   vi. Alternative Road Connections - West Road Extension - *Layout E2*

These alternatives are described below. An analysis of alternatives is provided in Section 4.0 of the DEIS. SEQRA requires a description and evaluation of the range of reasonable alternatives to the proposed action considering the objectives and capabilities of the project sponsor. Regarding Alternatives C, D, E1 and E2 (Cluster Plans), as of the date of this document, no cluster authorization has been granted by the Town Board, although requested by the Applicant on October 20, 2005.

1.4.1 No Action Alternative

In accordance with SEQRA regulations, the No Action alternative must evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future in the

absence of the proposed action. In this instance, the No Action alternative would result in the project site remaining vacant. This alternative is not consistent with the objectives of the applicant to develop a 27 lot plan and the allowable uses permitted under local zoning. In order for the site to remain permanently vacant, the Town or a conservation organization would need to acquire the property for open space purposes and compensate the property owner accordingly. Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

1.4.2 Alternative Subdivision Plans

As per the Scoping Outline adopted for this DEIS, four alternative layouts have been prepared and are compared to the proposed action's impacts. An analysis of the impact of affordable housing has also been prepared. A summary of the quantitative impacts associated with the proposed subdivision plan and the various alternative layouts is provided in Table 4-8. It should be noted that the "cluster" alternatives (Layout C and Layout D) require the elimination of the loop road. Thus, the ability to drive school buses up Mill Court and through the proposed development would be excluded. Also, ease of turnaround for municipal vehicles, such as snow plows, would be problematic. Additionally, as of the date of this document, no cluster authorization has been granted, although requested by the Applicant on October 20, 2005, by the Town Board.

1.4.2.1 Minimal Wetland/Steep Slope Disturbance - *Layout B*

This alternative, shown in figure 4-1 and labeled Layout B, provides a Conventional Subdivision with only minimal disturbance to wetland or steep slope areas. The minimal disturbance to the environmentally constrained areas is necessary to accommodate the lengthening of Mill Court to provide access. Layout B depicts a road extension of approximately 990 feet from existing Mill Court (which is approximately 735 feet long).

This alternative, with the required minimum impacts, reduces the proposed 27 lot conventional subdivision to a 7 lot conventional layout (6 market rate, 1 affordable). The applicant expressed its considered opinion in a letter to the Planning Board that a subdivision plan that would be produced in accordance with "Alternative B" would not be reasonable in light of the applicant's objective to develop a plan of 27 lots. .

1.4.2.2 Cluster Alternative - Amherst Road Connection - *Layout C*

This alternative produces a 27 lot cluster plan, with minimum lot sizes of 20,000 square feet, that eliminates residences off of Lexington Avenue, and provides for the ingress and egress of 15 units via Mill Court and 12 units via Amherst Road, as shown in Figure 4-2 and labeled Layout C. Although the total number of units under this alternative would remain the same as in Mill Court Crossing, this alternative would result in smaller lots located on three compact cul-de-sacs as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. Layout C depicts a road extension of approximately 840 feet from existing Mill Court (which is approximately 735 feet long). Table 4-8 summarizes impacts with this alternative.

1.4.2.3 Combination of Cluster and Conventional Lots - *Layout D*

This alternative creates a 24 lot cluster, with minimum lot sizes of 20,000 square feet, on the west end of the site, and 3 conventional 1-acre lots off of Lexington Avenue. Similar to Mill Court

Crossing, this alternative also has three driveways from Lexington Avenue, the remaining lots are located on two cul-de-sacs, as shown in Figure 4-3 and labeled Layout D. Layout D depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long). This alternative would result in smaller lots, as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. Table 4-8 summarizes impacts with this alternative.

Similar to the project proposal this alternative provides a large portion of land in the central portion of the site to be dedicated to the Town of Cortlandt as a conservation easement. However, there would be no development in the northeast portion of the site, along Lexington Avenue.

1.4.2.4 Affordable Housing Impacts

The project scope calls for an analysis of the Cluster Alternative and the Combination Cluster/ Conventional Alternatives, with and without a minimum of ten percent of affordable housing being provided. Since the impact of affordable housing is primarily socio-economic, and the site plan layouts are similar in all other aspects to the Cluster Alternative and the Combination Cluster/Conventional Alternative, the socio-economic impacts of affordable housing are discussed in the Section 3.8 of the DEIS.

The current assessed valuation of the project site totals $15,075 which is based on its present status as a primarily vacant parcel. The net annual property taxes currently generated by the project site are $22,901, based on the 2005 tax bills.

The projected assessed or taxable value of 27-units at Residences at Mill Court Crossing without affordable units is $434,700, and with affordable units is $397,268 or a reduction in assessed value of $37,432. While meeting the objectives set forth in the Westchester County Affordable Housing Goals, the introduction of 10% affordable housing would reduce total tax revenues of the Mill Court Crossing project from $666,639 to $609,234, resulting in a reduction in tax revenue of $6,009 to the Town of Cortlandt and a reduction of $27,088 to the Lakeland School District.

1.4.2.5 Alternative Road Connections, ROW for Route 6 By-Pass - *Layout E1*

This alternative is the same as the Combination of Cluster and Conventional Lots, Layout D, however, this alternative, shown in figure 4-4, and labeled Layout E1, shows how the potential Route 6 By-Pass could be accommodated by this alternative. Construction of the Route 6 By-Pass is not part of this project proposal. However, the purpose of including this alternative is to demonstrate what the disturbance related impacts of the Route 6 By-Pass would be. The disturbance calculations provided in this assessment occur as a result of construction of the Route 6 By-Pass by the New York State Department of Transportation, Westchester County and the Towns of Cortlandt and Yorktown..

This alternative would result in smaller lots, as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. Layout E1 depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long). Table 4-8 summarizes impacts with this alternative. Similar to the project proposal this alternative provides a large portion of land in the central portion of the site to be dedicated to the Town of Cortlandt.

According to a NYSDOT liaison, the Town of Yorktown and the Town of Cortlandt, as of June 2006 there has been no significant movement with regard to the rerouting of Route 6 or the by-pass. A joint committee recently met to discuss feasibility of the by-pass, including a current budget number of $50 million dollars. While discussion is continuing between these parties, there is no projected timetable for implementation of the rerouting of Route 6 or the by-pass.

1.4.2.6 Alternative Road Connections - West Road Extension - *Layout E2*

This alternative is similar to the Combination of Cluster and Conventional Lots, (Layout D) however, this alternative, shown in Figure 4-5, labeled Layout E2, shows the driveway, which extends to the east at the end of Mill Court, would instead be a dedicated Town Road, continued through to Lexington Avenue and would continue as an extension of West Road. Construction of the West Road extension has been considered as part of the project under this alternative, thus, impacts from construction of the West Road extension have been included, as shown in Table 4-8. This plan would require cluster authorization from the Town Board.

The West Road extension would provide an alternate means to access US Route 6, reducing the site generated traffic on Strawberry Road. This alternative would provide an increased number of access points to the project site as compared to the project proposal. Layout E2 depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long).

1.5 Permits and Approvals

As the Lead Agency, the Town of Cortlandt Planning Board has primary responsibility for review of this application and for determining its conformity with the Town's zoning and subdivision regulations. The proposed action would require the following approvals or referrals:

Federal

U.S. Army Corps of Engineers
- Jurisdictional Determination
- Notification for Coverage under Nationwide Permit - Wetlands

New York State

New York State Department of Environmental Conservation
- SPDES General Permit for Stormwater Discharges from Construction Activities
- Wetland Permit for Activities proposed within the 100-foot regulated area

Westchester County

Westchester County Department of Health
- Sewer/Water Connections
- Realty Subdivision

Westchester County Board of Legislators
- Reinstatement in Peekskill Hollow Sewer District

Westchester County Department of Environmental Facilities

- Reinstatement in Peekskill Hollow Sewer District

Municipal

Town of Cortlandt - Town Board
- Extension or Creation of Sewer District

Town of Cortlandt - Planning Board
- Subdivision Approval (Chapter 265)
- Freshwater Wetlands Permit (Chapter 179)
- Steep Slopes Permit (Chapter 259)
- Tree Cutting Permit (Chapter 283)

Town of Cortlandt Department of Technical Services - Engineering Division
- Sewer/Water Connections

Town of Cortlandt Department of Environmental Services - Highway Division
- Road Opening Permit

Town of Cortlandt - Director of Code Enforcement
- Blasting Permit (Chapter 161)

1.6 List of Involved Agencies and Interested Parties

As of the date of this document, the following are known to be involved agencies and interested parties (agencies and persons) to this action. Addresses for these parties are provided below.

Involved Agencies:

Town Planning Board
Town Board
Town of Cortlandt Engineering Division
Town of Cortlandt Highway Division
Town of Cortlandt Director of Code Enforcement
Westchester County Department of Health
Westchester County Board of Legislators
Westchester County Department of Environmental Facilities
NYS Dept. of Environmental Conservation (Region 3)
NYS Office of Parks, Recreation & Historic Preservation
US Army Corps of Engineers

Interested Parties (Agencies and Persons):

Town Conservation Advisory Council
Hart Memorial Library
Lakeland Central School District
Mohegan Volunteer Fire Association / Lake Mohegan Fire District
Mohegan Volunteer Ambulance Corps
Northern Westchester Joint Water Works
Westchester County Planning Board
NYS Dept. of Environmental Conservation (Albany)
NYS Dept. of Transportation (Region 8)

Town of Yorktown (Planning)
City of Peekskill (Planning)
NEQ Homeowners Association
Red Mill Road Neighborhood Group
Woodland/Lockwood Homeowners
Mt. View Homeowners
Stonefield Homeowners

Addresses:

Cortlandt Planning Board
Town Hall, 1 Heady Street
Cortlandt Manor NY 10566-1249

Cortlandt Town Board
Town Hall, 1 Heady Street
Cortlandt Manor NY 10566-1249

Department of Technical Services,
Engineering Division
Town Hall, 1 Heady Street
Cortlandt Manor NY 10566-1249

Department of Environmental Services,
Highway Division
Town Hall, 1 Heady Street
Cortlandt Manor NY 10566-1249

Westchester County Department of Health
Attn: Ms. Louise Carosi Doyle, PE
145 Huguenot Street, 8th Floor
New Rochelle, NY 10801

Westchester County Board of Legislators
800 Michaelian Office Bldg., 148 Martine Avenue,
White Plains, NY 10601

Westchester County Department of Environmental Facilities
270 North Avenue
New Rochelle, NY 10801

NYS Department of Environmental Conservation
Attn: Alexander Ciesluk, Regional Permit Admin.
Region 3, Division of Environmental Permits
21 South Putt Corners Road
New Paltz, NY 12561-1696

NYS Office of Parks, Recreation and Historic Preservation
Attn: Ruth L. Pierpont, Director
Historic Preservation Field Services Bureau
Peebles Island, P.O. Box 189
Waterford NY 12188-0189

Department of the Army
New York District, Corps of Engineers
26 Federal Plaza, Rm. 1937
New York, NY 10278-0090

Cortlandt Conservation Advisory Council
Town Hall, 1 Heady Street
Cortlandt Manor NY 10566-1249

John C. Hart Memorial Library
Attn: Patricia Barresi, Director
1130 Main St.
Shrub Oak, NY 10588

Lakeland Central School District
1086 East Main Street
Shrub Oak, NY 10588

Mohegan Volunteer Fire Association
Attn: Chief Ray Stretz
1975 East Main Street, PO Box 162
Lake Mohegan, NY 10547

Mohegan Volunteer Ambulance Corps
Captain Matt Hager
1975 East Main Street, PO Box 517
Lake Mohegan, NY 10547

Northern Westchester Joint Water Works
7 Locust Avenue
Cortlandt Manor, NY 10567

Westchester County Planning Board
Attn: Mr. Edward Buroughs
Michaelian Office Building
148 Martine Avenue, Rm 432
White Plains, New York 10601

Denise M. Sheehan, Commissioner
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-3508

NYS Department of Transportation,
Region 8, Traffic Engineering & Safety Group
Attn: Akhter Shareef
4 Burnett Boulevard
Poughkeepsie, NY 12603

Town of Yorktown Planning Department
Attn: John A. Tegeder, RA
1974 Commerce Street
Yorktown Heights, NY 10598

City of Peekskill Planning Department
Attn: Anthony J. Ruggiero, Asst. City Planner
840 Main Street
Peekskill, NY 10566

NEQ Homeowners Association
c/o Nicole Curreri
68 Trolley Road
Cortlandt Manor, NY 10567

Red Mill Road Neighborhood Group
c/o Stacey Reynolds
250 Red Mill Road
Cortlandt Manor, NY 10567

Woodland/Lockwood Homeowners
c/o Dawn Boyle
29 Woodland Boulevard
Cortlandt Manor, NY 10567

Mt. View Homeowners
c/o Alison & Peter Olsen
8 Mt. View Road
Cortlandt Manor, NY 10567

Stonefield Homeowners
c/o Joe & MaryJo Daley
9 Stonefield Court
Cortlandt Manor, NY 10567

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Introduction

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration adopted by the Town of Cortlandt Planning Board on July 6, 2005, in connection with an application of Kirquel Development LTD for approval of a residential subdivision on a 52.76-acre property located on Lexington Avenue and Mill Court in the Town of Cortlandt, Westchester County, New York. The Positive Declaration and the SEQRA Full Environmental Assessment Form, upon which the Planning Board's determination of significance was based, are included in Appendix A.

This Draft Environmental Impact Statement examines the potential environmental effects that may result from a proposes 27-lot residential development, known as the "Residences at Mill Court Crossing". The Town of Cortlandt's density standards, Zoning Code, Section 307-18, for subdividing this parcel, permit the applicant to establish 34 building lots. The Applicant's proposal reduces the project density by more than 20%. The reduction in density from the maximum permitted is the result of the Applicant's environmentally sensitive proposal that utilizes only 14% (before restoration) of the wetland buffer area, and less than 6% of the steep slopes greater than 15%. The DEIS has been prepared in accordance with the State Environmental Quality Review Act (SEQRA) and Part 617 of the implementing regulations. The scope of the DEIS was established by a scoping outline developed by the Town Planning Board, acting as the SEQRA lead agency, in cooperation with all other involved agencies. The Planning Board adopted the Scope for a DEIS at a public scoping meeting on November 1, 2005. This Scope is included in this document in Appendix A.

2.2 Project Purpose, Public Need and Benefits

History of Project Site

There is very little historical information available that references the project site in particular. Although earlier maps exist of the project area, Sidney and Neff's 1851 *Map of Westchester County, New York* shows the village of Cortlandtville with scattered residences identified along Main Street/NYS Route 6 (referred to as Five Mile Turnpike), Lexington Avenue (referred to as Hog Lane), Red Mill Road (unnamed on the map but likely an extension of Lexington Avenue), and Strawberry Road (also unnamed). (This map and other later dated maps are presented in DEIS Appendix J.) No buildings appear to have been located on the project site through the 1940's. A 1954 aerial photograph shows buildings along the Lexington Avenue frontage of the property, and vegetative cover indicative of past clearing for agricultural use over much of the site (Figure 3.4-2). Stone walls are clearly evident in early aerial photographs, and the vegetative cover and stoniness of its soils suggest its past use as pastureland and woodlot. The project site remains undeveloped to this day.

Prior Projects of the Applicant

The project applicant has experience in the management and operations of residential rental housing in the local area. The managing partners of Kirquel presently manage some 120-130 housing units in the region. The applicant has owned the subject site since 1998 and had applied to the Town for approval of a Planned Village Development plan in 2000, which was subsequently abandoned. The applicant's experience in residential land management will be

applied to the proposed development of upscale housing at Mill Court Crossing, with the goal to develop the subject site in its best use following modern best management practices for development of sensitive sites.

Principals of Kirquel have constructed several buildings in the New York City metropolitan area, most recently including:

- 16 New Street, Hewlett, NY, 18 unit 13,500 sq. foot building - 2000
- 182 Norfolk Street, NY, NY, 8,500 sq. foot building - 2002
- 1230 Broadway, Hewlett, NY 9,300+ sq. foot building - 2003
- 51 East Houston Street, NY, NY 6,000+ sq. foot building - 2004
- 303 East Houston Street, NY, NY 8,700+ sq. foot loft conversion - 2006
- 1086 Lynn Place, Woodmere, NY 7,600+ sq. foot building - 2006

Public Need and Community Objectives

This project is being proposed consistent with the Town of Cortlandt Master Plan to address the need for low density housing in a location that is accessible to major transportation routes in the region. As indicated in the Town Code, land development should provide flexibility in design in such a way as to promote the most appropriate use of land to facilitate the adequate and economical provisions of streets, and utilities, and to preserve the natural and scenic qualities of open space.

The Applicant's project will support the Residential Uses Goal set forth in the Town's Master Plan adopted on July 9, 2004; to wit: "Provide diversified housing opportunities to ensure that the Town maintains an adequate supply and range of housing stock". Additionally, the project reinforces Master Plan objectives and policies by accomplishing the following:

- Increase the Town's housing stock and help satisfy the high demand for single family residences in the Town and in Northern Westchester County;
- Create a financially viable project that is compatible with the character of the community and the long range plans by the community for the area;
- Achieve a balance between development that will house new community members and the cost of community services to support that development;
- Preserve existing wooded wetland areas as dedicated conservation areas and integrate buffer zones to protect potentially sensitive habitat and minimize the fragmentation of wildlife habitat.

Objectives of the Applicant

The Applicant intends to create a lifestyle community of single family homes with limited access (one road in and the same road out) and a limited number of affordable housing units consistent with the Lexington Avenue environment. The Mill Court Extension will not be gated. The project responds to a continued need and demand for 3-, 4- and 5-bedroom housing in the Town of Cortlandt and Northern Westchester County. This particular project is of a low density (approximately 0.5 unit per acre) and is expected to support housing developed in conformance

with the Town's Zoning Ordinance and Master Plan which designate this area for one-acre single family residential use.

An overview of the proposed project is summarized in the following list:

- 24 market rate units -- 24 single-family homes, averaging 3,500 square feet (gross floor area) with three, four and five bedrooms (four bedrooms on average). These market rate home sites are anticipated to sell for $1,000,000 each, on average.[1]
- 3 affordable units -- ten percent (10%) or 3 units will be constructed as affordable units, averaging 2,000 square feet with three bedrooms. According to the Housing Action Council[2], the formula for determining the affordability of a 3-bedroom dwelling unit to house a family of four in Cortlandt (two and half times eighty percent of median income, adjusted for inflation) indicates the unit would be priced at approximately $225,000.
- A total of 1,910 linear feet of roadway is proposed to be offered for dedication to the Town (no proposed private roads), 30 feet in pavement width, constructed with 6 inches asphaltic concrete and 8 inches gravel subbase within a 50-foot right-of-way, per Town of Cortlandt roadway regulations.
- Access to twenty-two residences will be off of the internal access road, and five lots will gain access via four driveways off of Lexington Avenue. Ten houses will share four common driveways.
- The Applicant proposes to pay a recreation fee of $6,000 per approved lot (over and above the first unit) to the Town for the purpose of funding community recreation programs and facilities that would be available to the future residents of this project. No active recreation facilities are proposed in this subdivision.
- Approximately 35.4 acres of land (67.1 percent of the site) will remain natural, wooded open space in the ownership of individual residents for their passive recreational use.
- Projected population in this new development is 98 persons, consisting of 24 school aged children and a mixture of persons 18 years and older and younger than five.
- Municipal water and sewer service will be provided to the project. A water service connection will connect the project to existing services located in the Wild Birch development through an existing right-of-way and utility easement off the southwest corner of the site. An extension to the existing sewer system from a manhole in Stonefield Court east to Red Mill Road and south to Mill Court Extension will provide connection to the municipal sewer system by gravity feed.
- The applicant is working with the Westchester County Environmental Energy Committee to offer an option to the future home buyers for the construction of Zero-Net Energy solar collection systems that could reduce or eliminate emissions associated with home

[1] The Applicant has analyzed comparable single family home sales for houses constructed and sold in 2005-2006. The Applicant's conclusion is that the Residences At Mill Court Crossing will sell in the $1,000,000 range. Massey Knakal Reality Services produced a similar study for the Applicant that concluded that the sales price should be in the $916,000 range. However, it should be noted that the Massey Knakal study includes resales and excluded the most recent high end development of Cortlandt Ridge. Therefore, the Applicant believes that new construction of 3,500 square foot houses will sell in the $1,000,000 range. The Applicant acknowledges that there has been a correction in the real estate market. Thus, sales today might be 5% to 10% less than what the Applicant expects. Therefore, DEIS Section 3.8 includes economic analysis of the proposal using both the 1,000,000 and $900,000 sales prices.

[2] Phone conversation with Rosemarie Noonan, May 16, 2006.

heating oil and cooling. Potential yearly oil savings for the development could exceed 700 barrels.

The proposed project will provide a modern residential neighborhood for persons seeking to live in the Town of Cortlandt, and would produce a modest, sustainable use of land that is currently underutilized.

Benefits of the Project

Development of new housing in Cortlandt will provide social benefits to the local area and the region by increasing its workforce and the available pool of civic minded residents, some who may be volunteers in local social services. Additionally, new homeowners who will reside at Mill Court Crossing will utilize area retail, personal service, and other commercial services. It is estimated that this development would generate some $2.1M annually to businesses on retail goods and services[3]. A portion of these expenditures would be made at local area restaurants, supermarkets, convenience stores, apparel and household goods stores, and service businesses.

Some of the benefits of the proposed project are the following:

- Provides new housing stock to meet the continuing demand and ownership opportunities for housing in the Town of Cortlandt and North Westchester County.
- Provides low density residential area, one home per 0.5 acres, consistent with the Town's long range development objectives.
- Helps to meet the Town of Cortlandt's goals with regard to affordable housing by providing 3 units of affordable single family housing.
- Provides an estimated 53 person-years of short-term employment for construction, including secondary employment resulting from the construction,.
- Projected annual revenue to the Town of Cortlandt and municipal services that exceeds the cost to the Town would be $50,816.
- Projected annual revenue to the Lakeland School District that exceeds the cost to the District would be $126,226.
- Improve sight line looking east (right) for vehicles exiting Mill Court onto Red Mill Road.
- Preserve approximately 35.4 acres of land (67.1 percent of the site) as open space and undisturbed natural habitat. Preserves 8.53 acres (99.996 percent) of existing wetland habitat.

2.3 Site Location and Vicinity

The project site is located west and south of Lexington Avenue and Red Mill Road, respectively, in the northeastern corner of the Town of Cortlandt. The property has approximately 770 feet of road frontage on Lexington Avenue, a local road. The south end of Mill Court, also a local road, ends at a temporary Town turn around established by a 50 foot circular easement. The Amherst Road ending is at the western property line near the southwestern corner of the site. The regional and local settings of the site are shown in DEIS Figures 2-1 and 2-2. Lexington Avenue forms the boundary line between the Town of Cortlandt and the Town of Yorktown.

[3] DEIS Section 8.0 provides the calculations for this estimate.

The project site is comprised of one tax parcel: Section 13.18, Block 2, Lot 2. The lot is 52.756 acres in size. The subject property consists almost entirely of wooded land located in the R-40 Single-Family Residential zoning district. A small portion of the property along Lexington Avenue adjacent to existing residences is maintained as open lawn. The existing 3-unit apartment building and parking lot situated at the southwestern corner of the property at Lexington Avenue will be maintained on the site until a determination has been made by the applicant to remove the structure and build a new single family house. (The analyses herein have assumed the impacts of construction and use of a new house on this lot and no credit has been taken herein for maintenance of the existing use.)

The property is irregularly shaped, with its widest dimension more than three times its narrowest dimension. Single family development is located directly to the north and west of the property, and multi-family residences directly to the east and southwest of the property. A portion of the southerly property boundary is bordered by single family residences, with most of the adjoining land to the south in natural woodland cover. DEIS Figure 2-3 shows the project site delineated on a 2004 aerial photograph. Locations of existing structures on adjacent properties are illustrated in Figure 2-3.

Access

In the Mill Court Crossing subdivision, twenty-two (22) residences will have access off of a 1,910-foot long looping access road in the center of the property. The central access road will be 30 feet in width within a 50-foot right-of-way. The new access road will be built to Town road specifications and will be offered for dedication to the Town. The five (5) other lots are proposed to gain access via four driveways off of Lexington Avenue.

As contemplated by the Town Board, the proposed access road to the subdivision is in actuality a lengthening of Mill Court. On June 28, 1989, in accordance with Planning Board resolution 35-89 approving the Mill Court Subdivision, the applicant entered into a Declaration of Covenants with the Town of Cortlandt. Said Declaration states in subparagraph 2A the following: "Until such time as the Town Board of the Town of Cortlandt shall, by resolution, accept for dedication both Mill Court and the extension of Mill Court over properties to the south, and until such time as deeds for Mill Court and such extension shall have been recorded, Declarant hereby grants to the Town of Cortlandt a temporary turnaround easement as shown on the said map" (See copy of Declaration in Appendix L.) Applicant's property lies to the south of the Mill Court subdivision and it's access road is the extension of Mill Court contemplated by the Planning Board in 1989. It should also be noted that the contemplated extension of Mill Court is not conditioned upon any other road connections.

Amherst Road is a private road running through the Wild Birch Farms Condominium (referred to as Wild Birch) development and ending at the Applicant's property line. The roads included in Wild Birch's subdivision application approved by the Planning Board on November 14, 1985, namely the Amherst Road and Armstrong Street extensions, were not accepted for dedication. Subsequently, on September 26, 1989, the Town Board accepted Wild Birch's Irrevocable Offer of Cession (Resolution #254-89). The Offer covered the extension of Armstrong Street and Amherst Road. The Town Board has never formally acted on the Cession, and the roads remain in private ownership. It should be noted that the Town's traffic consultant performed a modeling scenario connecting Mill Court to Amherst Road (Edward's and Kelcey report, August

31, 2006, page 8 in Appendix M). Said modeling concluded that such a connection would not materially effect traffic flows in the areas of concern.

The existing Amherst Road ends abruptly at the property line. The Mill Court project applicant has been granted the right, by the Board of Managers of Wild Birch Farms Condominium, to connect it's proposed 30-foot wide utility and emergency access easement from the internal loop to Amherst Road near the southwest corner of the site. An easement agreement is in place between the Board of Managers and Kirquel Development to facilitate this emergency access and utility connections (see Appendix L).

The proposed lengthening of Mill Court will extend the existing 750-foot long road to approximately 1,150 feet, where the roadway will split to form a loop that provides two means of access for the houses on the loop road. The proposed road will include nine fire hydrants[4] served by public water, and the proposed lots are of sufficient size to allow for visitor parking off the street, thus access for emergency vehicles anywhere in the project is anticipated to be adequate. While the lengthened road will exceed 500 feet in length as cited as a maximum in Town Code §265-17(F) (as does the existing Mill Court), the Applicant believes that the road extension that was contemplated by the Town in 1989 demonstrates the Town's vision to allow the proposed road extension.

To address the Town's regulation regarding length of dead end roads, the project plan includes provision of an emergency access road connecting the proposed subdivision road to Amherst Road through the aforementioned easement. The access road will be designed as a hard surface (concrete grass pavers), one-lane access that will accommodate the weight and grade requirements of emergency vehicles, including the local Fire Department's largest truck. This access will be gated. This emergency access will also provide a benefit to existing residences on both Mill Court and Amherst Road by connecting these dead end roads for emergency access.

Land Use and Zoning

The site vicinity is predominantly zoned for residential uses of various densities. The project site is currently zoned as R-40 Single-Family Residential District as is contiguous land to the north and south of the project site. The Town's 2004 Master Plan continues the R-40 designation. R-20 Single Family Residential Zoning Districts are located to the north and west of the project site in the Town of Cortlandt. R-10 Single Family Residential Zoning designation is located to the southwest of the project site. Highway Commercial District, HC, designed to accommodate automobile-oriented commercial facilities along Route 6, is located south and southeast of the site also in the Town of Cortlandt.

R1-40 and R1-20 Single Family Residential Zoning Districts are located to the east of the project site in the Town of Yorktown. The George Washington Elementary School, the former Franciscan High School and TreeTops at Mohegan Lake nursing home, are located on Lexington Avenue, directly across from the project site. The business hamlet of Mohegan Lake, which is zoned commercial along Route 6, is located east of the intersection or Route 6 and Lexington Avenue, in the neighboring Town of Yorktown. The municipal boundary between the Town of Cortlandt and the Town of Yorktown in the vicinity of the site follows Lexington Avenue.

[4] One additional fire hydrant will be installed off-site on Amherst Road.

Present R-40 zoning allows single family dwellings and customary accessory uses such as garages; studios, barns, sheds, and stables; and tennis courts, swimming pools and cabanas as-of-right.

Wetlands and Natural Features

The site contains three areas of wetlands with a total area of approximately 8.56 acres. Wetland areas on the western and central portions of the property are regulated under Federal, State and Town laws. This is part of a larger State wetland that extends to the south (designated #A-50 by New York State Department of Environmental Conservation or NYSDEC. A small wetland pocket (some 0.46 acres) also exists in the central area of the site near the end of Mill Court, which is regulated by the Town. The wetland areas on the property generally follow the depressions of the lower elevations located at the southeastern portion of the site, except for the wetland pocket that is surrounded by upland.

The portions of the State wetland on the site were delineated by NYSDEC in July 2004. Wetlands were delineated for the Town of Cortlandt by its wetland consultant in November 2004. The outermost wetland boundary of the two delineations (most conservative) provides the basis for the wetland discussion in this report and the 100-foot wide regulated wetland buffer depicted on the project plans.

2.4 Project Design and Layout

Environmental Characteristics

The proposed project was designed around the physical constraints of the property and attempts to minimize impacts to areas of steep slopes, wetlands, large trees and the watercourse that crosses the east side of the property. Approximately 11.18 acres or 21 percent of the project site consists of slopes 15 percent or greater. There are regulated wetlands located in the central and eastern portions of the project site. The combined acreage of the wetlands (including water surfaces) is 8.56 acres. In order to minimize effects to the areas of wetland, the proposed roads and residential lots have been located to circumnavigate these sensitive areas of the property to the greatest extent practicable.

The Town Master Plan establishes, by example, that no more than 50 percent of the property may be consumed by lots, streets and any designed active recreation area. The project acreage to be disturbed by construction of the proposed plan is approximately 17.4 acres, or less than one-third of the site. There will be approximately 35.4 acres of land within the project that will be contiguous to adjacent woodlands and will remain undeveloped.

Approximately 16.4 acres of woodland vegetation will be removed during construction. There is no mature forest cover on this site. The tree removals include areas of second growth woods that are typical for this section of Westchester County. The site plan set includes a Tree Survey Plan that shows the size, location and type of all trees on the property. It is estimated that with few exceptions the older trees within the proposed removal areas are approximately 40 to 50 years of age. The proposed limit of disturbance line distinguishes the trees proposed to remain and trees proposed to be removed. There are 718 surveyed trees identified to be removed. The project as planned will necessitate removal of some 417 trees greater than 12 inches caliper (trunk diameter measured at 4½‘ off the ground -- breast height or “dbh”). To implement the proposed plan the following 13-inch to 35-inch dbh trees will be removed: 3 ash, 6 black birch,

20 hickory, 4 locust, 21 maple, 336 oak, 2 pine, 8 poplar, 8 tulip, and 4 cherry trees. The following larger trees will be removed: 3 36-inch oak, 1 40-inch tulip, and 1 42-inch tulip tree. (Section 3.4 includes further description by tree type and size.) Approximately 0.03 acres (1,502 square feet) of designated wetland, and 1.66 acres of wetland buffer (area within 100 feet of the regulated wetland), will be disturbed by project construction. After construction, 1.36 acres of the buffer disturbance will be restored to vegetated cover. All incursions into the buffer, except for the access road, are in areas farthest from the protected wetlands. Approximately 2.99 acres of slopes of 15% or greater will be disturbed.

Wetland and wetland buffer disturbance is necessary for the construction of the access road from Mill Court due to its location at the edge of the existing right-of-way. Access into the property from Mill Court, with a road built to Town road specifications, is not possible without a small area of fill in the wetland and construction of pavement within the buffer. Additionally, the proposed plan necessitates crossing the wetland buffer for driveway access in two locations near the central wetland. No proposed houses will encroach upon wetlands, wetland buffer areas, or steep slopes in excess of 30 percent.

The wetland impacts are proposed to be mitigated by measures identified in the Wetland Report contained in Appendix D.

A summary of project site disturbance is provided in the table below.

Table 2-1
Changes in Surface Cover (Acres)
Mill Court Crossing

Cover Type	Existing	Disturbed	Post-Dev't.
Meadow	0.12	0.00	0.12
Woods (upland)	41.66	16.47	25.19
Wetlands and Water	8.56	0.03	8.72*
Impervious Pav't. & Bldgs.	0.29	0.29	4.71
Lawns & Landscaping	2.13	0.57	14.02
Totals	*52.76*	*17.36*	*52.76*

Source: Cronin Engineering PE, PC; Tim Miller Associates, Inc.
NOTES:
Post-dev't. lawn areas include stormwater basins and utility easements maintained largely as meadow.
Numbers may not total due to rounding.
*0.19 acres of wetland habitat created as wetland mitigation

Upon completion, impervious surfaces will cover approximately 4.71 acres (8.9 percent) of the project site. Disturbed areas that are not paved or otherwise built upon will be restored with lawns and landscaping, covering some 14.02 acres (26.6 percent) of the site.

Subdivision Plan

The subdivision will have 27 lots ranging in size from 0.92 acres (40,000 square feet) to 7.62 acres. All of the proposed home sites will meet the zoning requirements of the R-40 District, which allows one-family dwellings on 40,000 square foot lots. The table below lists the various bulk requirements applicable to the project.

Table 2-2
Compliance with Bulk Requirements*
R-40 District

Required Minimum						
Lot Area (Square feet)	**Lot Width** (Feet)	**Front Yard** (Feet)	**Side Yard** (Feet)	**Rear Yard** (Feet)	**Landscape Coverage**	**Off-Street Parking Spaces**
40,000	150	50	20% of lot width up to 30 feet	30	60%	2 per unit
All proposed lots comply	All proposed lots comply	All proposed lots comply	All proposed lots comply	All proposed lots comply	All proposed lots comply	All proposed lots comply
Required Maximum						
Building Height			**Building Coverage**			
$2^1/_2$ stories or 35 feet			15%			
All proposed lots comply			All proposed lots comply			
Refer to Table 2-3 for lot by lot listing of zoning conformance.						

The table below lists zoning conformance with regard to lot size, lot width, and front, side and rear yard setbacks for each lot.[5]

[5] Telephone conversation on February 5, 2007, with Frederick Wells of Tim Miller Associates and Evren Ulker-Kacar of Frederick P. Clark Associates confirmed that Table 2-2 includes all requested zoning information.

Table 2-3
Lot by Lot Zoning Conformance
R-40 District

Lot #	Lot Area (Square feet)	Lot Width (Feet)	Front Yard (Feet)	Side Yard (Feet)	Rear Yard (Feet)	Landscape Coverage	Off-Street Parking Spaces	Building Height	Building Coverage
Required	*40,000*	*150*	*50*	*30*	*30*	*Min. 60%*	*Min. 2 per unit*	*Max. 2½ stories or 35 feet*	*Max. 15%*
Lot 1	40,032	>150	50.3	103.6	31.4	>60%	2	Buildings on all lots: Not exceeding 2½ stories or 35 feet	<15%
Lot 2	40,010	158.4	57.2	38.5	140.2	>60%	2		<15%
Lot 3	40,013	195.3	57.7	38.8	107.7	>60%	2		<15%
Lot 4	40,028	184.1	50.5	30.0	119.9	>60%	2		<15%
Lot 5	46,977	150.0	113.0	31.2	104.1	>60%	2		<15%
Lot 6	62,483	150.8	130.2	30.0	187.3	>60%	2		<15%
Lot 7	48,779	150.1	134.3	31.9	150.6	>60%	2		<15%
Lot 8	51,639	150.5	144.9	33.3	144.7	>60%	2		<15%
Lot 9	64,442	150.1	141.0	32.8	145.1	>60%	2		<15%
Lot 10	40,066	160.9	76.4	31.8	104.5	>60%	2		<15%
Lot 11	40,005	>150	64.2	45.6	104.3	>60%	2		<15%
Lot 12	40,042	169.7	69.7	38.7	114.6	>60%	2		<15%
Lot 13	48,880	150.1	50.2	30.2	186.0	>60%	2		<15%
Lot 14	176,454	151.6	451.4	31.5	692.6	>60%	2		<15%
Lot 15	175,762	150.9	370.1	30.1	718.7	>60%	2		<15%
Lot 16	66,486	209.5	220.0	31.0	30.2	>60%	2		<15%
Lot 17	40,057	>150	65.2	60.9	43.0	>60%	2		<15%
Lot 18	40,143	>150	65.6	51.9	42.9	>60%	2		<15%
Lot 19	40,259	>150	66.0	NA	53.9	>60%	2		<15%
Lot 20	206,419	303.5	550.4	101.7	33.1	>60%	2		<15%
Lot 21	144,827	151.9	791.8	45.8	69.3	>60%	2		<15%
Lot 22	331,748	226.2	1016.9	30.2	273.9	>60%	2		<15%
Lot 23	80,804	200.5	120.0	57.3	245.6	>60%	2		<15%
Lot 24	80,804	200.5	81.2	52.3	285.6	>60%	2		<15%
Lot 25	40,085	150.1	52.8	36.7	181.7	>60%	2		<15%
Lot 26	89,637	150.5	428.0	49.4	117.2	>60%	2		<15%
Lot 27	85,757	150.0	465.7	58.9	66.0	>60%	2		<15%
TOTAL LOTS = 2,202,638 S.F = 50.57 AC.									
TOTAL ROW = 2.19 AC.									
TOTAL PARCEL = 52.76 AC.									
Source: Cronin Engineering									

The 24 proposed market rate homes are planned to average 3,500 square feet of gross floor area with three, four and five bedrooms. The proposed affordable homes will average 2,000 square feet (gross floor area) with three bedrooms. The building height of all the homes will not exceed 35 feet. Footprints shown on the project plans average about 2,000 square feet in size. This house size is comparable to the newer existing single family houses in the immediate vicinity. The proposed market rate homes are planned to have an average of four bedrooms, and are anticipated to sell for approximately $1,000,000 on average. The three affordable homes are planned to sell for approximately $225,000. The anticipated project population is 98 persons, including 24 school age children. The planned period of construction is approximately 3 to 3½ years, with construction scheduled to start in early 2007 and the project to be completed in 2010.

The development has been designed to comply with the provisions of the Town Subdivision Regulations (§265 of the Town Code). The overall proposed subdivision plan is shown in DEIS Figure 2-4 and in the full size engineering drawing included in the rear of this document. The proposed plan provides for new single family homes on upland areas of the site to preserve site wetlands, wetland buffers, areas of steep slope, and open space to the greatest extent practicable. Approximately 35.4 acres of the site is proposed to remain undisturbed woodland. The open space areas will total about 67.1 percent of the property. Sizable areas of undisturbed open space are anticipated on Lots 14, 15, 20 and 22.

Four lots (Lots 14, 15, 21 and 22) are proposed as "flag lots" -- that is, having a "flag" configuration with very narrow street frontage -- for which the Planning Board has the following criteria for approval:

1. Special site conditions exist such as extreme irregularity in the shape of the parcel or extreme physical characteristics of the land,
2. The flag lots result in a better utilization of land and a lot layout superior to what could otherwise be accomplished,
3. The average width requirement of the Zoning Ordinance will be met, and,
4. No more than one flag lot shall be approved for every ten regular lots in a large subdivision (of more than 10 lots).

This site contains special conditions; namely, extensive wetlands, wetland buffers, and steep slopes. These physical characteristics prevent direct access, by Town road, to the environmentally attractive building sites. Applicant's use of flag lots is the least intrusive configuration that provides a means of reaching the prime building sites. Applicant has been advised by it's engineer that a lot layout, without flag lots, would require the elimination of the loop road and the creation of several cul-de-sacs. This type of design would have a severe impact on wetlands, wetland buffers, and steep slopes. Also, the change to cul-de-sacs from loop road would have adverse safety implications. The proposed plan results in lots that conform to the lot width requirements of the Zoning Ordinance. The Planning Board established it's flag lot principle by a 1982 policy statement. The custom created is not statutory in nature and the Applicant believes modifications, where warranted, should be permitted. It is Applicant's opinion that it's proposal establishes the conditions that will permit the Board to revise its practice of permitting only one in ten lots as flag lots.

While the Applicant believes that none of the proposed lots could be further subdivided into lots conforming to the current Town zoning regulations, a note will be placed on the filed subdivision plat prohibiting further subdivision of Lots 1 to 22. Lots 23 to 27 that have access from Lexington Avenue will be restricted from further development; unless, however, future zoning changes alter the designation of these areas and/or increase their permitted density.

As there is no active recreation lot proposed in this subdivision, the Applicant proposes to pay the Town's recreation fee of $6,000 per newly-subdivided lot. The Applicant has discussed with the Cortlandt Land Trust the possibility of providing a hiking trail that could allow for public access within the confines of an open space conservation easement, although the present proposed project plan does not include such an easement (refer to a letter to the Applicant from the Land Trust dated February 21, 2007 in Appendix B).

The Existing Conditions plan in the accompanying engineer's plan set shows all stone walls on the site, as surveyed. The walls on the property are typical of low, informal, hand built, dry laid stone fences made by a farmer from the field stone found on the site as he worked the land for pastures or woodlots. Portions of some of the walls have fallen apart or been removed, while the walls still roughly outline rectangular areas that appear to bear little relation to the site topography or other natural features. The walls are shown in DEIS Figure 3.1-2, Existing Site Topography, and many of the walls are also evident in the recent aerial photograph, DEIS Figure 2-3.

Access

The subdivision is proposed to have one primary access roadway created from lengthening the existing Mill Court. Twenty-two residences will have access off of the primary access road, Mill Court extension, while five residences located on the eastern side of the site would have driveways from Lexington Avenue.

Seventeen of the lots will be accessed by individual driveways. House site driveways will be 12 feet wide, will have a turnaround area next to the house, and will conform with the provisions of Town Code §265-25, Paved Driveways. The proposed plan includes four common driveways serving ten houses, with individual access to each new house site, in order to access developable portions of the property with minimal disturbance to sensitive areas. Access to Lots 6 and 7, Lots 14, 15 and 16, Lots 20, 21 and 22, and Lots 26 and 27 are proposed in this manner.

Engineering Plans

The full size engineering drawings included in the rear of this document depict proposed layout of the road and lots and grading for road and house sites in the project. The plan set includes road profiles. The maximum depth of cut to achieve the designed road grades is approximately seven feet; maximum depth of fill is approximately nine feet. The project is designed to balance earth cuts and fills so that no import or export of material is anticipated to construct the project. Disturbance of areas of wetland, wetland buffer, steep slopes and woods are shown on the full size project plans and figures in later sections of this document.

Materials stockpile areas requiring protection during construction are depicted on the full size Erosion Control plans included in the engineer's plan set. Temporary soil stockpile areas are shown in several locations around the site where they will serve the area of development in their immediate vicinity. These stockpiles are shown to be protected by sedimentation controls (silt fence and/or staked haybales).

For fire protection, there are nine fire hydrants proposed in this subdivision to be spaced approximately 500 feet apart along the road right-of-way, and one off-site hydrant on Amherst Road. Utility plans included in the plan set in the rear of this document show the proposed water and sewer lines and related fixtures to accommodate the project development. In addition, drainage and sanitary sewer profiles accompany this document.

Landscape Plan

Proposed landscaping will consist of planting of street trees, seeding of the proposed stormwater basin with wetland vegetation, buffer planting between the proposed stormwater

basin and the adjacent residential property and stabilization of all other exposed soils by seeded lawns. Individual house sites will be landscaped with ornamental foundation plantings.

There is no street lighting or signage proposed.

The proposed plan necessitates removal of approximately 2,378 linear feet of existing stone walls. The character and condition of these old farm walls varies on the site, however, stones from these walls are proposed to be stockpiled and reused to construct approximately 2,910 linear feet of new, decorative stone walls. New walls will be installed primarily in three locations (shown in Figure 3.6-3): along the Mill Court Extension, along the wetland buffer line on Lots 14, 15, and 16, and along the wetland buffer line on Lots 20, 21 and 22.

Site Utilities

The project site is located within the Cortlandt Consolidated Water District (CCWD) No. 1. The Town of Cortlandt owns and operates two water storage tanks located in the vicinity of Croton Avenue and NYS Route 202 within the Croton Park Colony. The two storage tanks hold 550,000 gallons and 750,000 gallons, respectively. The proposed project site will be connected to the Town's water supply system through an existing water main located on Mill Court. An additional connection to the water main in Amherst Road is being investigated with regard to water pressure.

The proposed Mill Court Crossing development will create an additional need for 9,500 gallons of water per day. The water supply to the proposed Mill Court development represents approximately 0.5 percent of the 2.0 million gallons per day currently supplied by CCWD No. 1 to its service area. According to the project engineer's report on water and sewer use (DEIS Appendix H), the Town's system will be able to supply the additional water demand and pressure.

The project site will connect to an existing water main located within Mill Court. The water main will be extended from this existing water main located on Mill Court, through a proposed street right of way to be dedicated to the Town of Cortlandt, with a loop through Amherst Road to an existing water main on the adjacent property. The water main extension will involve the construction of approximately 3,850 linear feet of 8-inch diameter ductile iron class 54 cement lined pipe, fire hydrants and all necessary appurtenances to service the 27 proposed single family residences. The project proposal includes ten new fire hydrants including one off-site on Amherst Road. The extension which loops back into itself prevents a "dead end" water main.

The proposed project will require reinstatement by the County to include the project site in extension of the Peekskill Sanitary Sewer District and extension of the district or establishment of a new sewer district by the Town, to include the project site, thereby allowing sewage generated by the project to be treated at the Peekskill Wastewater Treatment Plant.

The project proposal also includes sewer hookups for several existing residences, located outside the project site on Lexington Avenue, that will allow abandonment of existing subsurface septic systems located upgradient of the on-site wetlands. At the present time, the applicant is discussing with the Town Department of Technical Services whether tees should also be provided in the new sewer line that will traverse Mill Court, a small portion of Red Mill Road, and Stonefield Court to facilitate further sewer connections by existing residences on these roads.

Electric and natural gas services in the project area are provided by the Consolidated Edison Company of New York (Con Edison). Con Edison has electric service available from its facilities located along Lexington Avenue and the existing facilities are adequate to provide service to the proposed project.[6] An existing gas main, located in East Main Street (Route 6), would be adequate to provide service to the proposed project. At this time, no gas service is proposed on the project site. Local telephone service is provided by Cablevision Lightpath Inc. and Verizon. Cable service is also provided by Cablevision in the project area.

Stormwater Pollution Prevention Plan

A Stormwater Pollution Prevention Plan (SWPPP), which includes stormwater management plans for both water quality and quantity, has been prepared to assess potential drainage impacts and provide a design for stormwater management (see DEIS Appendix C). Stormwater control structures proposed in this project design include a stormwater detention systems east of the Mill Court extension to detain stormwater runoff from the project site. A series of catch basins in the subdivision road will collect and direct stormwater to detention/treatment facilities. The on-site wetlands presently provide stormwater runoff improvements by providing stormwater storage and infiltration, and the plan incorporates features of the NYSDEC Design Manual in the micropool extended detention basin proposed in the project. In addition, runoff from the impervious areas that will be created will be treated in drywells and the landscaped areas will be provided with yard drains or otherwise graded to provide swale and overland flow patterns through vegetated areas similar to the flows within the existing watersheds.

A drainage district will be established to facilitate continued maintenance of the stormwater facilities that are located within the road right-of-way and easements in this project. Monitoring and cleaning of drywells on the individual lots will be the responsibility of individual homeowners.

Construction and Subsequent Maintenance

The developer intends to subdivide the parcel and construct and install all roads, utilities, and homes on the 27 lots. It is anticipated that construction of the roads and utilities will start upon Town approval, with the completion of all 27 homes within three years of project approval. This project will be developed in one continuous phase. The following schedule of construction is anticipated:

- Clearing and grubbing, establish erosion controls, establish construction access and staging areas: bridge installation: month one
- Excavate roads, mass grading, blasting: months two to three
- Install utilities and stormwater systems, months four to five
- Pave road base course, stabilize graded areas: month six
- Residential lot and house construction: months six to thirty six

[6] As per telephone conversation with Mr. Robert Sullivan (Con Edison District Manager for Cortlandt) on September 25, 2006, there are existing lines to support gas and electric services for the project. A letter was sent to Mr. Bill Kuck (DEIS Appendix B) requesting more detailed information regarding gas and electric services. A response to the letter has not been received to date.

Construction traffic will consist primarily of construction equipment arriving at the beginning of the construction period, trucks periodically delivering materials, and daily trips of construction workers. Construction workers typically arrive and depart the work site prior to peak hours of traffic as will the initial construction equipment. As earthwork is expected to be balanced on this project, there will be no trucks importing or exporting earth materials. It is estimated that one to two trucks delivering construction materials can be expected to arrive and leave the site during each day of the construction period.

Soil erosion and sedimentation control plans have been prepared for proposed construction as recommended by the *New York Standards and Specifications for Erosion and Sediment Control* (April 2005)[7]. The applicant will post construction performance bonds with the Town of Cortlandt, per the requirements of the Town of Cortlandt Planning Board, as part of its land development approvals. These performance bonds will ensure that the sediment and erosion control measures are adequately installed and maintained during construction.

Monitoring and maintenance of the proposed stormwater management facilities during construction and after construction prior to acceptance by the Town will be the responsibility of the project developer. Funding and enforcement of monitoring and maintenance activities, during construction, will be the responsibility of the developer as a part of the cost of construction. Actual costs to be incurred by the Town of Cortlandt in maintaining the proposed roads, water mains and stormwater features after acceptance are not known, however, any such costs will be offset to a degree by property tax revenues generated by the future homeowners at the subject site. The NYSDEC, pursuant to the SPDES permit, has jurisdiction to enforce stormwater maintenance activities on the subject site after project completion.

The project roads, water supply infrastructure, and stormwater management facilities located within the road right-of-way and associated easements will be offered for dedication to the Town. Ownership and responsibility for year-round maintenance of the proposed roads and infrastructure (including snow and ice control, sewer and water lines, and stormwater facilities) will remain the project developer's until these facilities are accepted by the Town. Thereafter, operation and maintenance of the project road system, water supply infrastructure, and stormwater management facilities located within the road right-of-way and associated easements will be the responsibility of the Town of Cortlandt Highway Division of the Department of Environmental Facilities. The project plans show the right-of-way lines and easement lines within which these facilities are located to allow Town access and control. As stated above, a drainage district will be established to facilitate continued maintenance of the stormwater facilities in this project that are located within the road right-of-way and easements.

Maintenance of additional stormwater treatment facilities (dry wells) located on lots will be the responsibility of individual homeowners after they take possession of their lot. The stormwater treatment facilities used on the individual lots in the Mill Court Crossing subdivision will consist of 8 foot diameter by 6 foot deep dry wells surrounded by a one foot ring of gravel. Between one and five dry wells will be provided on each parcel where individual lot stormwater treatment is provided. Individual lot stormwater treatment facilities will be located on the following parcels:

Lot 4	Lot 20
Lot 5	Lot 21

[7] The Westchester County Soil and Water Conservation District's *Best Management Practices Manual for Erosion and Sediment Control* and the New York State *Guidelines for Urban Erosion and Sediment Control,* cited in Town of Cortlandt Code §259.6 H.(15), have been superseded by the *New York Standards and Specifications for Erosion and Sediment Control*, April 2005.

Lot 6	Lot 22
Lot 7	Lot 23
Lot 8	Lot 24
Lot 9	Lot 25
Lot 14	Lot 26
Lot 15	Lot 27

Maintenance of the dry wells will consist of an initial cleaning following construction and site stabilization to be performed by the developer, and subsequent inspection and cleaning by the developer, if needed, just prior to the sale of each lot. Homeowners will then be responsible to perform a semi-annual inspection, with cleaning as necessary for the first three years following construction. Thereafter, annual inspections, with cleaning if needed, will be necessary. Cleaning would consist of removal of sediments from the dry wells when the sediment depth in the bottom of the dry wells is found to be greater than one foot. The applicant will develop, in conjunction with the Town's Department of Technical Services, a site management manual to be provided to the homeowners that will outline maintenance responsibilities of the drywells on the individual lots.

2.5 Approvals Required

The proposed action will require approvals from the following agencies. Mailing addresses for these involved agencies are provided at the end of DEIS Section 1.0.

♦ Town Planning Board	Subdivision Approval (Chapter 265) Freshwater Wetlands Permit (Chapter 179) Steep Slopes Permit (Chapter 259) Tree Cutting Permit (Chapter 283)
♦ Town Board	Extension or Creation of Sewer District
• Town Department of Technical Services - Engineering Division	Water and Sewer Service Connections
• Town Department of Environmental Services - Highway Division	Road Opening Permit
• Town Director of Code Enforcement	Blasting Permit (if determined to be needed)
• Westchester County Board of Legislators	Reinstatement in Peekskill Hollow Sewer District
• Westchester County Department of Health	Sanitary System Approval Water Service Connection Realty Subdivision
• Westchester County Department of Environmental Facilities	Reinstatement in Peekskill Hollow Sewer District
• NYS Department of Environmental Conservation	NYS DEC Article 24 Permit for activity within a 100' Wetland Buffer area.
• NYS Department of Environmental Conservation	Coverage under SPDES General Permit # GP-02-01 for Construction Activities
• US Army Corps of Engineers	Notification for Coverage under Nationwide Permit - Wetlands

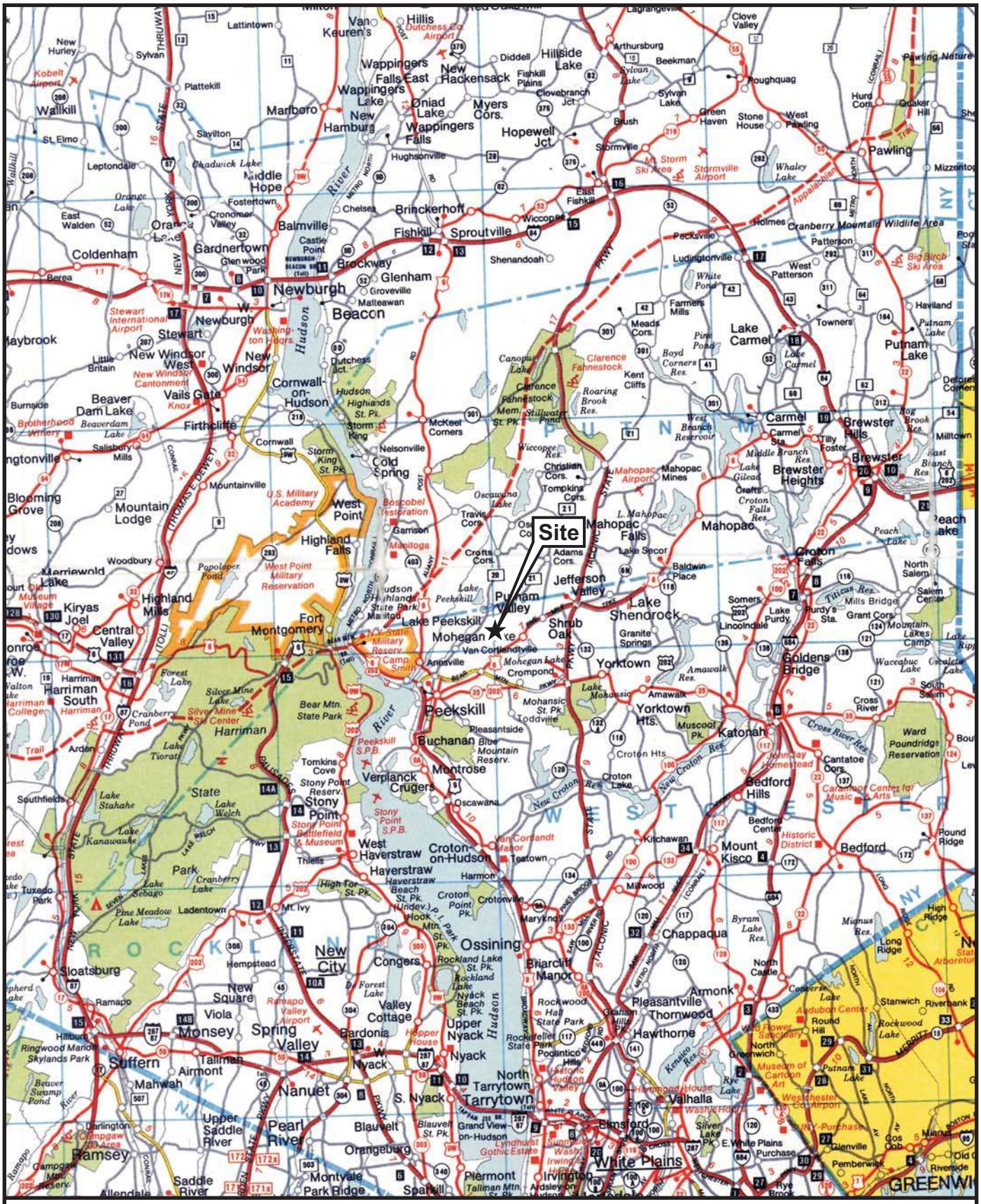


Figure 2-1: Regional Location Map

Mill Court Crossing

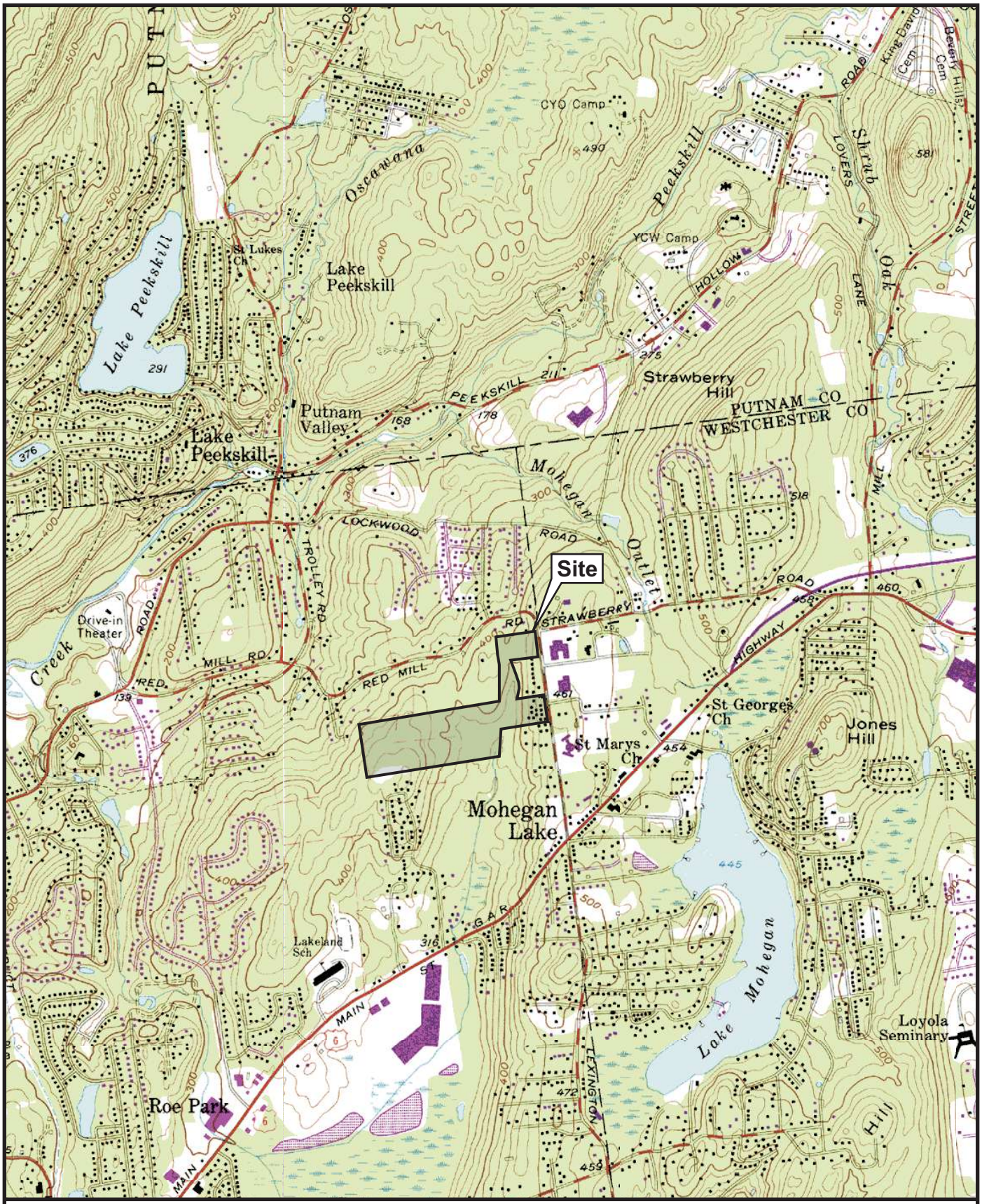
Town of Cortlandt, Westchester County, New York

Base Map: Hagstrom

Scale: 1 inch = 5 mi.

File 05077 05/04/06
JS:\05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



N
W E
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Figure 2-2: Location Map

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Base Map: USGS 7.5-minute Topographic Map, Mohegan Lake Quad

Scale: 1 inch = 2,000 feet

File 05077 05/04/06
JS:\05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 2-3: Site on 2004 Aerial Photo
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: NYS GIS Clearinghouse
Scale: 1" = 290'

File 05077 08/23/06
JS/05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

North

Figure 2-4: Proposed Subdivision Layout

Mill Court Crossing

Village of Cortlandt, Westchester County, New York

Source: Cronin Engineering P.E., P.C.

Date: 11/28/2006

Scale: 1" = 250'

File: 05077 11/28/06
TMAWP/MillCourt/Drawings

3.0 EXISTING SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

3.1 Geology, Topography and Soils

3.1.1 Existing Setting

Geology

The site is geologically at the interface between the Manhattan Prong, extending from just south of the City of Peekskill to New York City and north and east into Fairfield County, and the Hudson Highlands, which is part of the New England Uplands. The site is itself associated with the Taconic orogeny, in which material from the east was thrust up over the local bedrock. The basic rock groups found in the area are granite and schist, although numerous quartzite cobbles are present on the property, probably deposited during glacial retreats. Much of Westchester County falls within the Hudson Highlands physiographic province, which is characterized by complexly folded and faulted metamorphic and igneous rocks that create a basic pattern of hills and valleys. The Cortlandt area is an exception to this ridge and valley topography and is characterized by short streams and an irregular topographic pattern. The bedrock geology of the area includes a variety of rocks and formations, ranging in relative age from the Precambrian to the Mesozoic ages. The area has been described in large scale mapping by the New York State Museum - Geologic Survey, and published as the "Geologic Map of New York, Lower Hudson Sheet" (1995). Specifically, the project site lies on one of several bands of biotite granitic gneiss that extend from the northern central portion of Westchester County into the middle of Putnam County. These formations consist of Precambrian age metamorphic rocks that can vary greatly in composition and metamorphic grade depending on the location. Limited areas of bedrock outcrops were observed on the property.

Based upon rock type, on-site bedrock does not contain extractable mineral resources however removed bedrock would be a particularly useful source of fill material for construction. A number of metamorphic rock outcrops of low profile have been observed on the property and much of the site soils are rocky.

Topography

The basic patterns of hills and valleys in the region reflect the structure and variation of the composition of the underlying rock. Ridgelines in the majority of this physiographic province trend northeast to southwest and have strongly influenced the large scale topography and drainage patterns in the region. Other landforms on or around the property are representative of a glacial till plain. Topographic features typical of landforms which are found near the margin of a former continental ice sheet include areas of erosional landforms, exposed bedrock and depositions of till that are characterized by the formation of heterogenous and generally unstratified soils. In general, the hills and drainage patterns affected by these glaciated landforms trend north to south, reflecting the ancient advance of glaciers from higher latitudes.

The local topography is characterized by gentle to steeply sloping lands and low rolling hills. No prominent ridges or mountains exist in the vicinity of the property, as shown on the USGS topographic map (Mohegan Lake Quad) that includes the property boundaries, Figure 3.1-1 Existing Area Topography. Typographic features on the property are reflective of the wider area geology.

In a review of historic maps dating from 1851 and available at the State Museum in Albany (reproduced herein in Appendix J), the site is shown to have existed as forest or undeveloped pastureland. The property today is fully re-forested and undeveloped with the exception of several settled single-family homes that are located along Lexington Avenue and appear in aerial photographs of the region as early as from the 1950's.

On-site topography and slopes are shown in Figure 3.1-2, Existing Site Topography. The highest elevations on-site are found in the western portion of the site on a hilltop with an elevation of approximately 458 above mean sea level (MSL). The lowest elevation on the site is found in the wetlands along the southern boundary of the site at approximately 371 above MSL. Broad, gently sloping wetlands occupy the center of the site. These areas slope towards the south. The steepest slopes are found along the eastern edge of the property.

Slopes on the site have been mapped in the following range classes: 0 to 15 percent, 15 to 20 percent, 20 to 30 percent and 30 percent and greater, and are shown in Figure 3.1-3, Existing Slopes Map. Table 3.1-1 presents the acreages and the relative percent that each slope class occupies at this site. The majority of the site (41.68 acres or 79 percent of the site) has slopes less than 15%. Slopes of greater than 15 percent (defined as steep slopes in the Cortlandt Town Code) occupy 11.08 acres or 21 percent of the site. The Town Master Plan's only steep slope proscription effects slopes greater than 30 percent. Steep slope areas on the site are mostly located near the eastern edge of the site and in the northwest corner of the site. Smaller scattered areas of steep slope are found elsewhere along rocky hillsides on the property.

Table 3.1-1
Existing Slopes on Mill Court Crossing Site

Slope Class	Area (acres)	Percent of Site
0 - 15%	41.68	79.0
15 - 20%	5.28	10.0
20 - 30%	4.48	8.5
>30%	1.32	2.5
All	*52.76*	*100.0*

Source: Cronin Engineering, PE, PC, 2006

To provide a basis for consideration of site specific concerns during the planning for development of the project, areas of potential geological or topographical limitations on infrastructure and structures, such as steep slopes and exposed bedrock, have been identified and mapped. These limitations do not preclude development in all of the areas identified.

Soils

The soils on the property were identified using Westchester County soil survey maps[1]. The site is dominated by soils developed from remnants of glacial till that had been deposited on uplands. These soils have predominantly medium to moderately coarse textures. Post-glacial deposition of alluvial deposits and organic material on lowlands and along streams allows for the formation of loamy soils.

[1] United States Department of Agriculture. *Soil Survey of Putnam and Westchester Counties, New York*. USDA Soil Conservation Service, 1994.

Seventy-seven percent of the acreage of Westchester and Putnam counties is characterized by upland glacial till deposits, similar to those of this site, that underlie many of the residential and commercial urban developments in the two counties.

The property includes a complex of ten soil types, from coarse textured and rocky soils to sandy and loamy soils. Charlton-Chatfield and Paxton series soils are located throughout the majority of the site in the areas that are planned to be developed. These are moderately to very deep, well drained and very rocky soils that formed on the sides and tops of broad ridges and hills following periods of glaciation and now border the low-lying drainage courses on the site. Leicester and Sutton series loams, consisting of moderately to poorly drained soils in glacial till, extend across the lower slopes and drainageways of the site.

The distribution of the soil types on the property is shown on Figure 3.1-4, Site Soils Map. The characteristics of each of the soil series identified on this property are described below generally in the order of their predominance on the site.

Charlton-Chatfield (CrC)

This soil unit consists of gently to steeply sloping, very rocky, moderately to very deep, and well drained soils. It can be found on hilltops and parts of hillsides and is formed by glacial till derived from granite, schist and gneiss in areas where up to 10 percent of the surface may have exposed rock outcrop. Slopes range from 2 to 15 percent. The water table exists at a depth of more than 6 feet throughout the year. Permeability is moderate or moderately rapid throughout the profile. The depth to buried bedrock may be from 20 inches to more than 60 inches below the ground surface.

Charlton-Chatfield soils are mapped within most of the western portion of the site and along some portions of the northern boundary of the site.

Paxton fine sandy loam (PnB)

The Paxton series consists of very deep, well-drained soils on uplands. These soils were formed in glacial till derived mainly from schist, gneiss and granite in areas that may include rock outcrops. Slopes of Paxton soils range from 2 to 8 percent. Permeability is moderate in the surface layer and subsoil and slow or very slow in the substratum. A perched water table may exist over the dense substratum at a depth of 1.5 to 2.5 feet. These water tables form above densely packed glacial till that has created impermeable layers called fragipans. The depth to bedrock is more than 60 inches.

Paxton soils on this site are mapped on the eastern boundary of the property.

Leicester loam (LeB)

These soils are nearly level and are very deep and somewhat poorly drained. The soils are located along small drainageways in bedrock-controlled areas. Slopes range from 2 to 8 percent. The water table is within a depth of 1.5 feet below the ground surface from November through May. Permeability is moderate or moderately rapid in the surface layer and sub soil and moderate to rapid in the substratum. The depth to bedrock is more than 60 inches below the ground surface.

Leicester soils are mapped on large areas of the wetlands sections of this site.

Charlton loam (ChB)

These soils are gently sloping and are very deep and well drained. They can be found on hillsides and are formed in glacial till derived from granite, schist and gneiss. Slopes range from 2 to 8 percent. The water table can be found at a depth of more than 6 feet throughout the year. Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

Small sections of Charlton loam (ChB) are mapped along the southern boundary of the property.

Charlton loam (ChC)

These soils are on steep slopes and are very deep and well drained. They are formed in glacial till derived from granite, gneiss and schist located on hillsides. Slopes range from 8 to 15 percent. The water table can be found at a depth of more than 6 feet throughout the year. Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

A small section of Charlton loam (ChC) occupies an area on the northwestern portion of the property.

Charlton loam (ChE)

These soils are on steep slopes and are very deep and well drained. They are formed in glacial till derived from granite, schist and gneiss located on hilltops or hillsides. Slopes range from 25 to 35 percent. The water table can be found at a depth of more than 6 feet throughout the year. Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

A section of Charlton loam (ChE) occupies a north-south band near the eastern portion of the property.

Charlton (ClD)

These very stony soils are on steep slopes and are very deep and well drained. They are formed in glacial till derived from granite, schist and gneiss located on hilltops. Slopes range from 15 to 25 percent. The water table can be found at a depth of more than 6 feet throughout the year. Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

A small section of Charlton loam (ClD) is present near the northwest corner of the property.

Chatfield-Charlton (CsD)

These soils are on steep slopes and are very deep and well drained. They are formed in glacial till derived from granite, schist and gneiss located on hilltops. Slopes range from 15 to 35 percent. The water table can be found at a depth of more than 6 feet throughout the year.

Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is from 20 inches to more than 60 inches below the ground surface.

Two sections of Chatfield-Charlton are present within the central portions of the property.

Sutton loam (SuB)

These soils are on gentle slopes and are very deep and moderately well drained. They are formed at the foot of slopes along drainageways. Slopes range from 3 to 8 percent. The water table can be found as shallow as 1.5 to 2.5 feet from November through April. Permeability is considered moderate to moderately rapid throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

Three small sections of Sutton loam are present within the central portions of the property in the vicinity of the wetlands.

Woodbridge loam (WdB)

These soils are on gentle slopes and are very deep and moderately well drained. They are formed at the lower parts of hillsides, in uplands. Slopes range from 3 to 8 percent. The water table can be found as shallow as 1.5 to 2.5 feet from November through May. Permeability varies from moderate to very slow throughout the profile. Depth to bedrock is more than 60 inches below the ground surface.

A small section of Woodbridge loam is present within the northeast portion of the property.

Suitability of Soils for Development

Soil characteristics for individual soils mapped on the site are provided in Table 3.1-2, Soil Characteristics and Limitations. This information has been compiled from data in the US Department of Agriculture Soil Conservation Service (SCS) *Soil Survey of Putnam and Westchester Counties.* Also tabulated are the degree and kinds of limitations associated with each soil type that may affect building site development. The *Soil Survey* identifies potential limitations for development of roads, buildings, excavations, and landscaped areas due to the physical characteristics of soils. The presence of these constraints does not mean the land is undevelopable, nor are they a rating of construction potential. The ratings reflect the difficulty and relative costs of corrective measures that may be necessary (e.g. erosion controls, footing drains or other drainage improvements) for development. The limiting characteristics of soils may be overcome by careful project planning, design and management. Development limitations are considered *slight* where soil properties are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties are less favorable for the indicated use and special planning, design or maintenance may be needed to overcome or minimize the limitations; and *severe* if soil properties require special design and will necessitate increased costs to construct and possibly increased maintenance.

Table 3.1-2
Soil Characteristics and Limitations

Soil Series	Hydrologic Group[1]	Approx. Area (Ac.)	Depth to Water Table (feet)	Depth to Bedrock (inches)	Erosion Factor	Potential Limitations for:		
					K[2]	Local Roads and Streets	Dwellings w/ basements	Shallow excavations
Charlton (ClD)	B	0.3	> 6	> 60	0.20 - 0.24	Severe: slope	Severe: slope	Severe: slope
Charlton loam (ChB)	B	6.0	> 6	> 60	0.24	Slight	Slight.	Slight
Charlton loam (ChC)	B	0.1	> 6	> 60	0.24	Moderate: slope	Moderate: slope	Moderate: slope
Charlton loam (ChE)	B	1.6	> 6	> 60	0.24	Severe: slope	Severe: slope	Severe: slope
Charlton-Chatfield (CrC)	B	17.7	> 6	20 to > 60	0.24	Moderate: slope	Moderate: slope	Moderate: slope
Chatfield-Charlton (CsD)	B	4.6	> 6	20 to > 60	0.20 - 0.24	Severe: slope	Severe: slope, depth to rock	Severe: slope, depth to rock
Leicester loam (LeB)	C	16.1	< 1.5 Nov-May	> 60	0.24	Severe: wetness, frost action	Severe: wetness	Severe: wetness
Paxton (PnB)	C	3.1	1.5 - 2.5 Feb-Apr	> 60	0.24 - 0.32	Moderate: wetness, frost action	Moderate: wetness	Moderate: wetness, dense layer
Sutton loam (SuB)	B	1.7	1.5 - 2.5 Nov-Apr	> 60	0.24 - 0.28	Severe: wetness, frost action	Severe: wetness	Severe: wetness
Woodbridge loam (WdB)	C	1.6	1.5 - 2.5 Nov-May	> 60	0.24 - 0.32	Severe: wetness, frost action	Severe: wetness	Severe: wetness

[1] Hydrologic groups are used to estimate runoff from precipitation; they range from high infiltration (A) to low infiltration (D).
[2] K-Factor erosion values indicate susceptibility to sheet and rill erosion. K-Factor values range from 0.05 to 0.69, reflecting increasing susceptibility to erosion.
Source: *Soil Survey of Putnam and Westchester Counties, New York*, USDA SCS. 1994.

Approximately 22 acres on the west side of the site consists of Charlton and Chatfield soils. Additionally, some 6 acres on the east side of the site consists of Charlton, Chatfield and Paxton (PnB) soils. The other soil types identified in the table are located primarily within and adjacent to the wetland areas in the central areas of the site (covering approximately 25 acres). All of the soil types on the property are either well drained and/or are medium textured soils, such as silt loam soils. These soils have moderate K-factor erosion values of 0.20 to 0.32 because they are either moderately susceptible to displacement by erosion or they produce moderate runoff due to their higher permeability rates.

Charlton-Chatfield soils present moderate limitation to development due to slope; Paxton soils present moderate limitations due to a dense subsurface layer that restricts water infiltration. These soils, however, are widely developed in the region.

Leicester, Sutton and Woodbridge soils are listed in the County Soil Survey as presenting severe limitations for the construction of pavements and buildings, and for excavations for utilities, due to wetness in the soil profile. This limitation for "hard" construction is the result of a seasonally high water table which may rise to 18 inches or less below the surface. Construction in these soils requires provisions to remove subsurface water from in and around excavations, foundations and subpavements to eliminate potential water and frost damage, thus adding to engineering requirements and construction costs. These soils are typical in the area and are part and parcel of developments authorized by the Town.

3.1.2 Potential Impacts

Slopes Impacts

Construction activities which require disturbances of steep slopes are regulated by the Town's Local Law 3 of 2003 (hereinafter referred to as Sec 259 or the Steep Slope ordinance); and require the issuance of a permit. Sec 259 has been enacted, in part, to prevent soil erosion during site development.

Slopes of greater than 15 percent are defined and regulated as steep slopes in the Cortlandt Town Code. The proposed project has limited the disturbances on regulated slopes to 2.99 acres out of a total of 11.08 acres. The specific areas of impact are divided into the following categories: Access road construction - 0.56 acres; sewer and utility construction - 0.19 acres; stormwater management 0.03 acres; access driveways to building sites - 0.71 acres; and 1.5 acres for construction on lots. The majority of these disturbances (50.5% of the disturbed acres on steep slopes) take place in the steep slope range of 15-20%. (See Table 3.1-3)

The Applicant acknowledges that it has the burden to demonstrate compliance with the Town's steep slopes criteria to obtain the required permit. Notwithstanding this presumption, throughout it's provisions the Steep Slope Ordinance recognizes the necessity, in some cases, to disturb defined steep slopes; and to balance rights of the property owner with that of the Town's general population (See Section One; Section Two, Paragraph F and H of Code Section 259). Reasonable use of one's property is protected; so long as a significant loss or degradation of steep slopes does not occur (Section 259 subparagraph Two F and G). The Applicant's project preserves almost 80% of the steep slopes on the site.

Section Six of the Steep Slope Ordinance sets forth the Standards For Approval. The proposed Residences at Mill Court subdivision, as presented, complies with all of the eight standards set forth in the Town of Cortlandt Steep Slope regulations. Each standard is addressed as follows:

A) Disturbance or alterations of trees and forests and topographical disturbances or alterations on steep slopes shall be in conformance with all provisions of the steep slopes ordinance and all other applicable ordinances and regulations of the Town of Cortlandt: Applicant will meet the standards for and obtain any other permits required in order to meet the provisions of this paragraph; as an example, a tree removal permit.

B) Proposed activities in wetlands shall be in conformance with Chapter 179, Freshwater Wetlands, Water Bodies and Watercourses: Applicant will obtain a wetland permit. However, it is noted that only 0.03 acres or less than 0.4% of wetlands are to be disturbed.

C) Proposed activity will not result in creep, sudden slope failure, or additional erosion: Proposed regrading will result in a maximum slope of 1 vertical to 2 horizontal, or less. This is generally considered to be a stable slope that would not result in creep, sudden slope failure, or additional erosion. The proposed grades are shown on the project Overall Site Grading and Utility plan, sheet SP-1.1. Suitable erosion controls for the site are shown on the Erosion Control Plan, sheet ER-2.1.

D) Proposed activity will not adversely affect existing or proposed wells or sewage disposal systems: The project proposes to connect to the Town's municipal water supply system, which also services the surrounding properties. As such, there will be no impact on any existing or proposed wells in the vicinity of the project. The project also proposes to connect to an existing municipal sewage disposal system. As such, there should also be no effect on any nearby sewage disposal systems. The project will require the approval of, and follow all the guidelines of, the Westchester County Department of Health, which have been established to provide for safe drinking water supplies and sewage disposal methods.

E) Proposed activity will not adversely affect any endangered or threatened species of flora or fauna: There are no endangered or threatened species of flora or fauna on the site.

F) Proposed activity is in accordance with the Town Master Plan: Master Plan continues the designation of Applicant's property for residential use; with, a density of one home per one acre.

G) Proposed activity constitutes the minimum disturbance necessary to allow the property owner a reasonable use of the property: Applicants proposal seeks approval of 27 lots in an area that would permit, under the Town's lot count formula, 34 lots. Approximately 67.10% of the site will require no disturbance; and after restoration of temporarily disturbed areas, such as the grounds over sewer lines, less than 5 acres of the site will remain as permanent impervious surfaces. Steep slopes account for less than 22% of the site; and 80% of which will be left undisturbed. The impacts to the steep slopes, as outlined above, are required in order to access the least environmentally sensitive areas for the construction of residences and their required utilities and driveways. In addition, the impacts to over 30% slopes are essential to access Lots 26 and 27 and provide sewer service to the building sites off Lexington Avenue (Lots 23 - 27); and, to a smaller extent, the access to Lots 20 - 22. No reasonable use of these building sites is possible without the over 30% disturbance. The total over 30% disturbance is less than one fifth of an acre. Approximately 78% of the total over 30% slopes remain untouched.

H) Disturbance or alteration of areas with steep slopes shall conform to 19 additional items: Grading in areas of steep slopes will conform to the provisions of Town of Cortlandt permit requirements for disturbance to steep slopes as listed below for the 19 specific items.

	Disturbance or alteration of areas with steep slopes provisions:	**Residences at Mill Court Crossing Proposal**
1)	The planning, design and development of buildings shall provide the maximum in structural safety, slope stability and human enjoyment while adapting the affected site to, and taking advantage of, the best use of the natural terrain and aesthetic character.	Complies, site designed to provide safe access and use of site while conforming to existing landscape and reducing the amount of site excavation to the greatest extent practicable. See

	Overall Site Grading and Utility plan, sheet SP-1.1.
2) The terracing of building sites, including the mounding of septic tile fields, shall be kept to an absolute minimum.	Complies, terracing of site is minimized to the greatest extent practicable. See Overall Site Grading and Utility plan, sheet SP-1.1.
3) Roads and driveways follow the natural topography to the greatest extent possible in order to minimize the potential for erosion and shall be consistent with all other applicable ordinances and regulations of the Town of Cortlandt and current engineering practices.	Complies, roads and drive-ways designed to minimize cut and fill while conforming with Town standards. See Overall Site Grading and Utility plan, sheet SP-1.1, and profiles on sheet PR-3.1.
4) Replanting shall consist of indigenous vegetation and shall replicate the original vegetation on the site as much as possible.	Complies, noted in steep slope note 11, sheet SP-1.1.
5) The natural elevations and vegetative cover of ridgelines shall be disturbed only if the crest of a ridge and the tree line at the ridge remains uninterrupted. This may be accomplished either by positioning buildings and areas of disturbance below a ridgeline or by positioning buildings and areas of disturbance at a ridgeline so that the elevation of the roofline of the building is no greater than the elevation of the natural tree line. However, under no circumstances shall more than 100 feet along the ridgeline, to a width of 100 feet generally centered on the ridgeline, is disturbed.	N.A., no ridgelines located on site.
6) Any regrading shall blend in with the natural contours and undulations of the land.	Complies, grading follows existing contours to the greatest extent practicable. See Overall Site Grading and Utility plan, sheet SP-1.1.
7) Cuts and fills shall be rounded off to eliminate sharp angles at the top, bottom and sides of regraded slopes. Visible construction cuts and permanent scarring should be minimized.	Complies, see Overall Site Grading and Utility plan, sheet SP-1.1. Also noted in steep slope note 10, sheet SP-1.1.
8) The angle of cut and fill slopes shall not exceed a slope of one vertical to two horizontal except where retaining walls, structural stabilization, or other methods acceptable to the Director of Technical Services are used.	Complies, no slopes greater than one vertical on two horizontal proposed except where retaining walls are employed. All graded cuts and fills rounded to adjoin existing contours. See Overall Site Grading and Utility plan, sheet SP-1.1.
9) Tops and bottoms of cut and fill slopes shall be set back	Complies, structures built

from structures an adequate distance to ensure the safety of the structure in the event of the collapse of the cut or fill slopes. Generally, such distance shall be considered six feet plus 1/2 the height of the cut or fill. Nevertheless, a structure built on a slope or at the toe of a slope is permitted if it is properly designed to retain the slope and withstand the forces on it by the retained slope.	into slopes with appropriate setbacks from cut and fill slopes. See Overall Site Grading and Utility plan, sheet SP-1.1.
10) Disturbance of rock outcrops shall be by means of explosive only if labor and machines are not effective and only if rock blasting is conducted in accordance with all applicable regulations of the Town of Cortlandt, County of Westchester, and the State of New York.	Complies, noted in steep slope note 1, Sheet SP-1.1.
11) Disturbance of steep slopes shall be undertaken in workable units in which the disturbance can be completed and stabilized in one construction season so that areas are not left bare and exposed during the winter and spring thaw periods (December 15 through April 15).	Complies, noted in steep slope note 2, sheet SP-1.1.
12) Disturbance of existing vegetative ground cover shall not take place more than 15 days prior to grading and construction.	Complies, noted in steep slope note 3, sheet SP-1.1.
13) Temporary soil stabilization, including, if appropriate, temporary stabilization measures such as netting or mulching to secure soil during the grow-in period, must be applied to an area of disturbance within two days of establishing the final grade, and permanent stabilization must be applied within 15 days of establishing the final grade.	Complies, noted in steep slope note 4, sheet SP-1.1.
14) Soil stabilization must be applied within two days of disturbance if the final grade is not expected to be established within 60 days.	Complies, noted in steep slope note 5, sheet SP-1.1.
15) Measures for the control of erosion and sedimentation shall be undertaken consistent with the Westchester County Soil and Water Conservation District's Best Management Practices manual for Erosion and Sediment Control and New York State Guidelines for Urban Erosion and Sediment Control, as amended, or their equivalents satisfactory to the approval authority.	Complies, noted in steep slope note 6, sheet SP-1.1.
16) All proposed disturbance of steep slopes shall be undertaken with consideration of the soils limitations characteristics contained in the Identification Legend, Westchester County Soils Survey, 1989, as prepared by the Westchester County Soil and Water Conservation District, in terms of recognition of limitation of soils on steep slopes for development and application of all mitigating measures and as deemed necessary by the approval authority.	Complies, noted in steep slope note 7, sheet SP-1.1.
17) Topsoil shall be stripped from all areas of disturbance, stockpiled and stabilized in a manner to minimize erosion and sedimentation and replaced elsewhere on the site at	Complies, noted in steep slope note 8, sheet SP-1.1.

	the time of final grading. Stockpiling shall not be permitted on slopes of greater than 10%.	
18)	No organic material or rock which is a size that will not allow appropriate compaction or cover by topsoil shall be used as fill material. Fill material shall be no less granular than the soil upon which it is placed and shall drain readily.	Complies, noted in steep slope note 9, sheet SP-1.1.
19)	Compaction of fill materials in fill areas shall be such to ensure support of proposed structures and stabilization for intended uses.	Complies, fill material will be compacted to ensure support and stabilization.

Table 3.1-3 provides a comparison of the area to be disturbed by the project within different slope categories within the total site disturbance of 17.36 acres. Most of the land to be developed on the property will be in areas of slopes that are less than 15 percent.

Table 3.1-3
Site Disturbance by Slope Category

Slope Category	Approximate Area Disturbed
Less than 15%	14.37 acres
15% to 20%	1.51 acres
20% to 30%	1.18 acres
30% and steeper	0.30 acres
Total Site Disturbance	17.36 acres

Note: Total Site Acreage: 52.76 acres
Source: Cronin Engineering, PE, PC. 2006

Exposing soils on steep slopes during construction increases the potential for erosion in the short term. This potential impact will be mitigated by adherence to soil erosion and sedimentation control practices described below. Following construction, soil erosion from the property is expected to be minimal since developed areas will be stabilized with lawn and landscaping, and storm water management features will be fully functional.

Table 3.1-4 below lists areas of disturbance lot by lot for land with slopes between 15 and 30 percent and land with over 30 percent slopes. As shown, no disturbance to slopes over 30 percent is proposed for the development of individual house sites. Nine house sites would necessitate disturbance on slopes between 15 percent and 30 percent, in addition to disturbance for two common driveways that would provide access to five building sites on less than 15 percent slope areas.

Table 3.1-4 Steep Slopes Disturbance by Lot		
Lot Number	**Area of Disturbance on 15-30% Slopes (Acres)**	**Area of Disturbance on Slopes Over 30% (Acres)**
1	0.00	0.00
2	0.00	0.00
3	0.01	0.00
4	0.11	0.00
5	0.36	0.00
6	0.12	0.00
7	0.08	0.00
8	0.19	0.00
9	0.00	0.00
10	0.03	0.00
11	0.00	0.00
12	0.00	0.00
13	0.24	0.00
14	0.08	0.00
15	0.05	0.00
16	0.03	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	0.17	0.00
21	0.00	0.00
22	0.01	0.00
23	0.00	0.00
24	0.00	0.00
25	0.02	0.00
26	0.00	0.00
27	0.00	0.00
Road Construction	0.49	0.07
Stormwater Basin	0.03	0.00
Common Drive (Lots 6 & 7)	0.11	0.00
Common Drive (Lots 14,15,16)	0.13	0.00
Common Drive (Lots 20,21,22)	0.12	0.01
Common Drive (Lots 26 & 67)	0.15	0.14
Emergency Access	0.04	0.00
Sewer Construction	0.12	0.08
TOTAL	2.69	0.30
Source: Cronin Engineering Areas listed for lot disturbance exclude areas of disturbance for road construction, stormwater management, common driveways, the emergency access and sewer construction.		

Soils Impacts

Grading and recontouring of soils is required for the construction of roads, individual home sites and driveways, and the storm water detention basins. Areas of proposed grade changes for the project development are shown in the full sized grading plan in the rear pocket of this document and in Figure 3.1-5. The total area of grading or site disturbance is estimated to be 17.36 acres, or 32.9 percent of the site. In the proposed plan, 67.1 percent of the site, will remain undisturbed.

The initial impacts to soils associated with this work are temporary in nature, relating to erosion hazards. Soils that will be covered with impervious surfaces (totaling 4.71 acres or 8.9 percent of the site) will be permanently stabilized. Virtually all of the disturbed area that does not become impervious will be graded, seeded and landscaped, including the storm water management basins.

Based on the characteristics of the on-site soil types, the potential for sheet and rill erosion during site construction activities is moderate. The potential impact of soil disturbance can be directly related to slopes, since all soils on-site have similar K-factor range relative to erosion potential. As shown in Table 3.1-3, above, more than 82.73 at percent of the area of disturbance for project construction occurs on slopes of less than 15 percent.

A site specific erosion control plan has been developed for the project and is shown in the full sized plan set. Erosion control and slope protection will be undertaken in accordance with NYSDEC *New York Standards and Specifications for Erosion and Sediment Control* (April 2005)[2] as guidelines described in the section, Mitigation Measures, below. It is anticipated that the proper design and implementation of these measures, along with frequent inspections of the site and site controls, will result in minimal soil erosion impacts.

Total earthwork is estimated to involve approximately 40,000 cubic yards (cy) of earth movement. While the preliminary estimates indicate that there would be an excess cut of 4,000 cy over the entire site, efforts will be made to utilize as much of this excess material on-site as possible. The balance of an excess of material is primarily the result of cuts required for the construction of the foundations, and the requirement to maintain a road grade of 8 percent or less (see Drawing No. 1 and Figure 2.4 Proposed Subdivison Layout). The establishment of the majority of the roadway and residential developments does not require extensive grading activity.

Geology Impacts

On August 22 and August 23, 2006, soil boring testing was performed on the site. Fifteen test holes were dug with depths ranging from 5 to 8 feet. After analysis, it has been concluded that it is unlikely that any significant blasting will be required. However, there is one 75 by 25 foot outcrop in the area of the loop road that may require removal using blasting. The spot where this action might take place is over 300 feet from the nearest residence. When bedrock is encountered, methods other than blasting will be evaluated first, such as cutting, ripping, or chipping. Should blasting be required, a blasting protocol, as detailed below, to be approved by

[2] The Westchester County Soil and Water Conservation District's *Best Management Practices Manual for Erosion and Sediment Control* and the New York State *Guidelines for Urban Erosion and Sediment Control,* cited in Town of Cortlandt Code §259.6 H.(15), have been superseded by the *New York Standards and Specifications for Erosion and Sediment Control*, April 2005.

the Town of Cortlandt will be submitted prior to final site plan approval. Potential Blasting areas are shown on Figure 3.1-6.

Blasting Protocol

Blasting will conform to applicable New York State law which requires that a blasting contractor be licensed by the State under NYS Labor Department regulations. The blasting protocol is summarized below:

- All blasting will be conducted in compliance with New York State requirements (Title 12 of the New York Code of Rules and Regulations [12 NYCRR Part 39]) for the possession, handling, storage and transportation of explosives.
- Blasting will be conducted by licensed and insured blasting contractors. Prior to blasting, a permit will be obtained from the Town of Cortlandt. Blasting will comply with all applicable Town of Cortlandt Codes.
- Pre-blasting inspections will be conducted of any off-site structures located within 1,000 feet of the blasting/excavation area, if authorized by the property owners. These inspections will include photographic or video documentation.
- Prior to blasting, an analysis will be completed by the contractor, to determine the size, placement and timing of blasting charges.
- This blasting plan will be available for review by the Town Engineer, or designee, and will include the layout, size of blast, timing of charges, and quantity of material to be extracted.
- Seismographic equipment with decibel meters will be placed on the property line, between the location of the blast and the nearest residences or structures. The results of the monitoring equipment will be promptly reviewed following each blast.
- Blasting operations will be limited to the hours between 8:00 am and 4:00 pm., Monday through Friday, excluding Saturday, Sunday or any holiday.
- The minimum required amount of explosives will be used in all blasting operations. Charges will be staggered to avoid the creation of high energy impacts.
- The contractor will conduct test blasting, if necessary, prior to any other blasting to determine appropriate on-site blasting techniques, when blasting is to occur within 1,000 feet of existing off-site structures.
- Blasting will be conducted so that the resulting ground vibrations at nearby structures does not exceed the standard industry measurement of a Peak Particle Velocity of 2.0 inches per second and the airborne noise does not exceed 130 dBA.
- Sufficient surficial coverage of the blast areas will be provided to prevent damage from air blast and vibration.
- Notification will be made to the Town Clerk, Police and Sheriff's Department and nearby off-site residences within 1,000 feet of the blasting area twice prior to blasting. Initially not less than 72 hours nor more than 30 days prior to the blast, notifying residents of the approximate anticipated day and time of blasting. The second notification would be not less than 24 hours nor more than 72 hours prior to the blast, to notify the exact time of blast (within 1 hour).

- When blasting activities are to be conducted, warning flags or other means will be used at a reasonable distance along roadways to give proper warning to the general public.
- For each blast, an air horn will be sounded in a manner to give proper warning once at least three (3) times in advance of firing, and two (2) times to give an "all clear" at the conclusion of each blast.

The blasting plan would minimize potential impacts associated with these activities to the maximum extent practicable.

Radon Gas Potential

The project site lies at a boundary between two geologic provinces with widely different geologic radon potential rankings[3] To the north of the site, and generally extending into northern Westchester County, the Hudson Highlands are an area of high geologic radon potential. To the south of the site, and typical for most of Westchester County, the Manhattan Prong is an area of low geologic radon potential. The actual bedrock and surficial deposits upon which each of the project structures will be constructed will influence the potential for radon seepage into foundation structures.

Building practices which utilize radon resistant techniques can be employed during construction to effectively reduce or minimize the potential for radon gas seepage into new building foundations. These methods can be employed and can be effective independent of the radon potential of the surrounding bedrock and soils. Additionally, radon mitigation techniques can be effectively employed to reduce exposure levels in existing foundations, thus providing an alternative, post-construction method of limiting radon gas infiltration into existing buildings where radon levels are observed to be higher than acceptable limits. With modern construction techniques, radon levels in new houses are not anticipated to be above the regulatory limit of concern.

3.1.3 Mitigation Measures

Soil Erosion and Sediment Control Plan

The proposed development will require conformance with NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-02-1) as it proposes to disturb more than one (1) acre of land. Included in the requirements of all GP-02-1 permits, is the development and implementation of a site specific Erosion and Sediment Control Plan. The project Erosion and Sediment Control (ESC) Plan has been developed in accordance with the erosion and sediment control guidelines referenced by the NYS DEC General Permit and the NYS DEC manual, *New York Standards and Specifications for Erosion and Sediment Control* (April 2005).

Erosion and sedimentation will be controlled during the construction period by temporary devices in applications specific for this site and this project. The ESC plan, developed by Cronin Engineering, P.E. P.C., addresses temporary and permanent erosion control and sediment containment, construction schedules and operations, and stabilization of final grades by seeding and mulching. The plan includes construction phase limitations on the area of

[3] USEPA. *EPA's Map of Radon Zones - NEW YORK*. Office of Radiation and Indoor Air - Radon Division. 402-R-93-052. 1993.

disturbance, limitations of the duration of soil exposure, delineation of watershed subbasins, criteria and specifications for placement and installation of erosion control devices, and a maintenance schedule including plan closure provisions.
Topsoil from areas to be graded will be stripped and stockpiled for future use. Stockpiled soils will be stabilized with temporary seeding or covered until reuse and enclosed with erosion control devices such as haybales or silt fences. Stormwater management basins will be used as temporary sediment basins during the construction period. Redundant sediment barriers (silt fencing plus haybales) will be maintained adjacent to wetland areas.

Following construction, erosion will be prevented by established vegetation and by the storm water management and storm water quality devices specified on the drawings. Construction of the permanent storm water management systems will commence as part of the initial earthwork for the residential development so that these systems will be functional as soon as possible.

A construction detail for each of the proposed soil erosion control devices (including temporary controls for use during the construction period) is provided on the engineer's drawings, and shown in Figure 3.1-7 Construction Phasing. The construction will occur over four phases, each of which will limit active soil disturbance to less than five acres. The phases are described as follows:

Phase 1 - Initial construction of Mill Court extension, the stormwater facility, the common driveway to Lots 20-22, residences on Lots 1, 20-22, and all utilities within the disturbance limit including individual sewer pumps and a low pressure force main for Lots 20-22.

Phase 2 - Further extension of Mill Court and construction of residences on Lots 7-13, 16 and 17, construction of driveway to Lots 14 and 15, all utilities within the disturbance limit.

Phase 3 - Completion of Mill Court extension and construction of residences on Lots 2-6,18 and 19 and installation of portions of the sewer collection system including a low pressure force main for Lots 25-27.

Phase 4 - Completion of the sewer collection system, including individual sewer pumps for Lots 23-27 and a low pressure force main for Lots 23 and 24, and construction of Lots 14, 15, 23 through 27.

The guiding objectives of Erosion and Sediment Control plans include the following Best Management Practices (BMPs) provisions:

- establishing a clearly marked Limit of Disturbance for the construction activities;
- diverting clean surface water before it reaches construction areas;
- controlling erosion at its source with temporary and permanent soil protection measures;
- capturing sediment-laden runoff from areas of disturbance and filtering the runoff or settling the sediment prior to discharge,
- decelerating and distributing storm water runoff through natural vegetative buffers or structural means before discharge to off-site areas,

- providing a stabilized construction entrance to control the tracking of soil from the property; and,
- compliance certification by the General Contractor and each subcontractor performing work on the site.

These objectives will be achieved by utilizing a site-wide approach to managing runoff, i.e. the application of BMPs that will:

Divert clean runoff - Diversion of runoff from off-site or stabilized areas will be accomplished through surface swales and erosion control barriers in order to keep clean water from entering the site or its temporary sediment traps.

Time grading and construction to minimize soil exposure - To the extent practical, the development will be phased to limit the area of disturbed soil at any particular time. Any phase of construction, for example, will remain undisturbed or temporarily stabilized until the other phases are substantially completed. The permanent storm water management systems will be installed in conjunction with the residential construction.

Retain existing vegetation wherever feasible - Silt fencing will be used to physically define the limits of work. Wooded and wetland areas not to be developed (regraded), will be retained in the existing condition until the developed areas are completed and stabilized. Substantial buffers of existing vegetation also will be provided along the perimeter of the site and near existing wetland areas. Approximately 35.41 acres (about 67.1 percent of the project site) will remain undisturbed woods, wetlands or meadow.

Stabilize disturbed areas as soon as possible - In areas where work will not occur for periods longer than two weeks, soil stabilization by hydroseeding or mulching will be done within 48 hours after the soil has been exposed. Following completion of final grading operations, level areas will be seeded and mulched. Sloped areas such as fill slopes may either be seeded and covered with stapled mattings or mulched. Ground stabilization by mulching will be used outside of the growing season.

Minimize the length and steepness of slopes - The steepness and length of slopes will be designed to minimize runoff velocities and to control or avoid concentrated flows. Where concentrated (swale) flowrates over exposed surfaces are expected to be greater than 3 feet per second, stone check dams will be installed in the swales. The check dams will be placed so that unchecked flow lengths will not be greater than 100 feet.

Maintain low runoff velocities - To protect disturbed areas from storm water runoff, haybale diversion berms and/or soil diversion berms and channels will be installed wherever runoff is likely to traverse newly exposed soil. Immediately following the clearing and stripping of topsoil, rough grading for the temporary swales and basins will take place. The swales will direct runoff so that it can be impounded in sedimentation basins.

Trap sediment on-site and prior to reaching critical areas such as wetlands - Silt fences, straw bale barriers, check dams, filter strips, ponds, sediment traps (in areas where no ponds are proposed), and catch basin filters will be used to either impound sediment-carrying runoff and or to filter the runoff as it flows through an area. A stabilized construction entrance will be installed at the single proposed construction entrance to

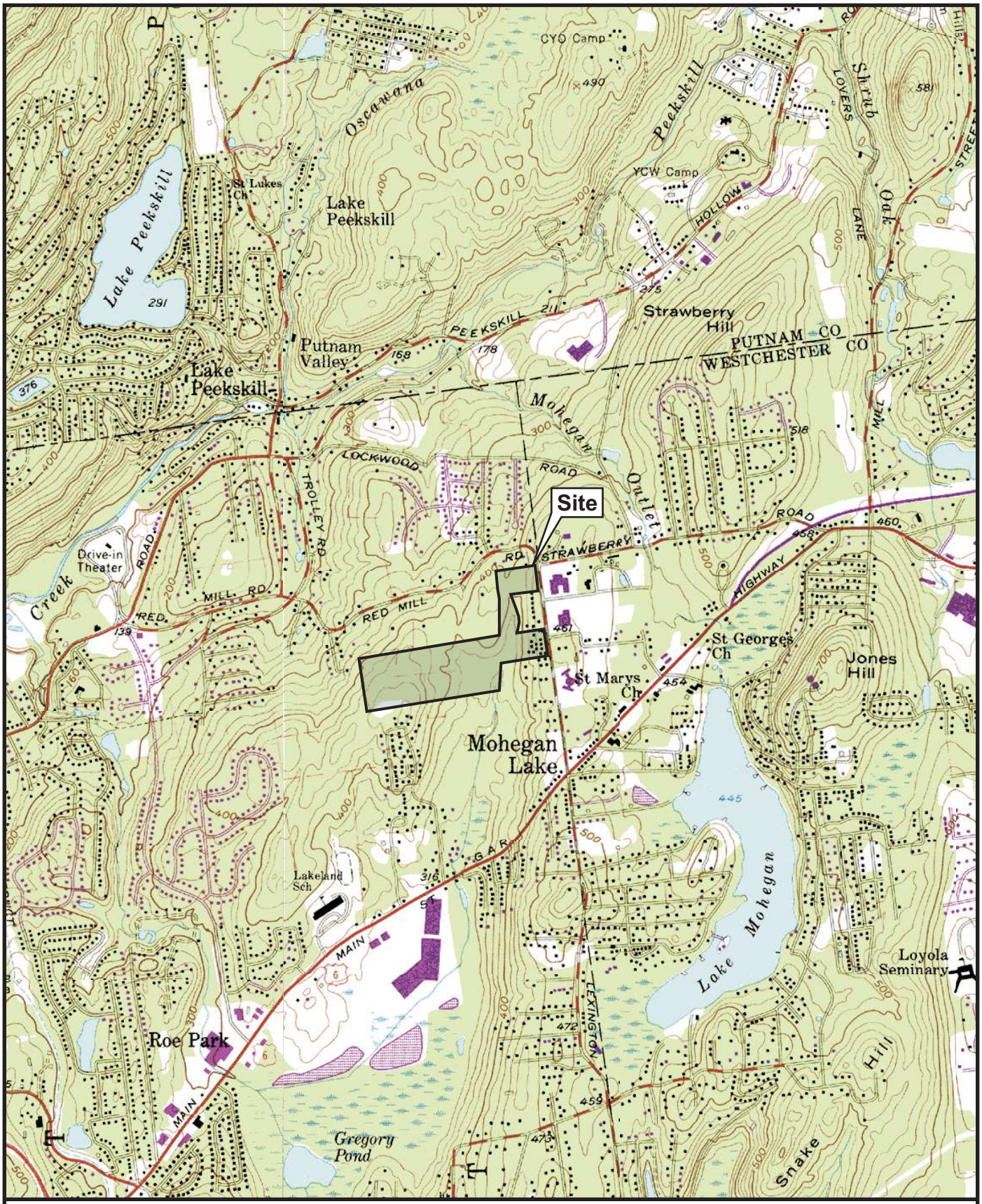
prevent construction vehicles from tracking soil onto public roadways. All temporary erosion control devices will be installed prior to the commencement of construction.

Establish a thorough monitoring and maintenance program - An authorized representative from each contractor employed on the site will sign a "Contractor Certification" form indicating that their employees understanding and agreed to comply with the terms and conditions of the SWPPP. Erosion control measures will be inspected frequently, particularly prior to and following storms, and repaired as needed to ensure that they function properly. The developer will be responsible for contracting a weekly and storm event monitoring inspector who will report to the property owner. In addition, independent inspections are expected to be conducted by staff representing the Town of Cortlandt engineer.

The project will be consistent with the standards and provisions of applicable ordinances and regulations of the Cortlandt Town Code for activities on steep slopes. Grading in areas of steep slopes will conform to the provisions of Town of Cortlandt permit requirements for disturbance to areas with steep slopes, as per §259-6(H) of the Cortlandt Town Code as follows:

1. The topography of the site precludes development along the natural terrain without alteration. The project engineer has developed a grading plan to create level building sites having minimal impacts upon the natural contours of the terrain.
2. The terracing of building sites has been minimized to the extent possible.
3. New internal roads will be constructed on grades that comply with the Town standards for development.
4. Replanting and landscaping will consist of mostly indigenous vegetation.
5. The project site is not located on a ridgeline, since areas within one half mile to the south, east, and west of the site are at equal or higher elevations.
6. The proposed regrading will alter the overall topography of portions of the site, but ultimately will blend with the terrain of the site without the use of retaining walls or artificially stabilized slopes.
7. Cut and fills will be rounded at the tops and bases of slopes.
8. Generally slopes will be limited to one (1) vertical to two (2) horizontal or less.
9. The tops and bottoms of cut and fill slopes will be set back at appropriately safe distances from structures to avoid structural problems.
10. Blasting to remove rock, if determined to be needed, will be minimized through the initial use of cutting, ripping and chipping as appropriate.
11. Areas of steep slope disturbance will be stabilized during one construction season to avoid exposure during the winter and spring months.
12. Vegetative cover will not be disturbed more than fifteen days prior to grading or construction activity.
13. Temporary soil stabilization, such as seeding, mulching or geotextile installation, will be completed within two days of establishing final grade and permanent stabilization will occur within fifteen days of establishing the final grade.

14. In areas of disturbance where final grade is not expected to be achieved within 60 days, soil stabilization will occur within two days of disturbance.
15. Soil erosion and sedimentation control measures will be consistent with the *New York Standards and Specifications for Erosion and Sediment Control* (April 2005).
16. Disturbance to steep slopes is being undertaken with consideration of soil limitations characterized by the Westchester County Soils Survey.
17. Topsoil will be stored on site in stabilized stockpiles placed in areas of the site of less than 10 percent slope.
18. No organic material or rock with a size that will not allow appropriate compaction or cover by topsoil will be used as fill material. Fill material will be no less granular than the soil upon which it is placed and will drain readily.
19. Compaction of fill areas will be performed in accordance with good engineering practice.



N
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Figure 3.1-1: Existing Area Topography

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Base Map: USGS 7.5-minute Topographic Map, Mohegan Lake Quad

Scale: 1 inch = 2,000 feet

File 05077 05/04/06
JS:\05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

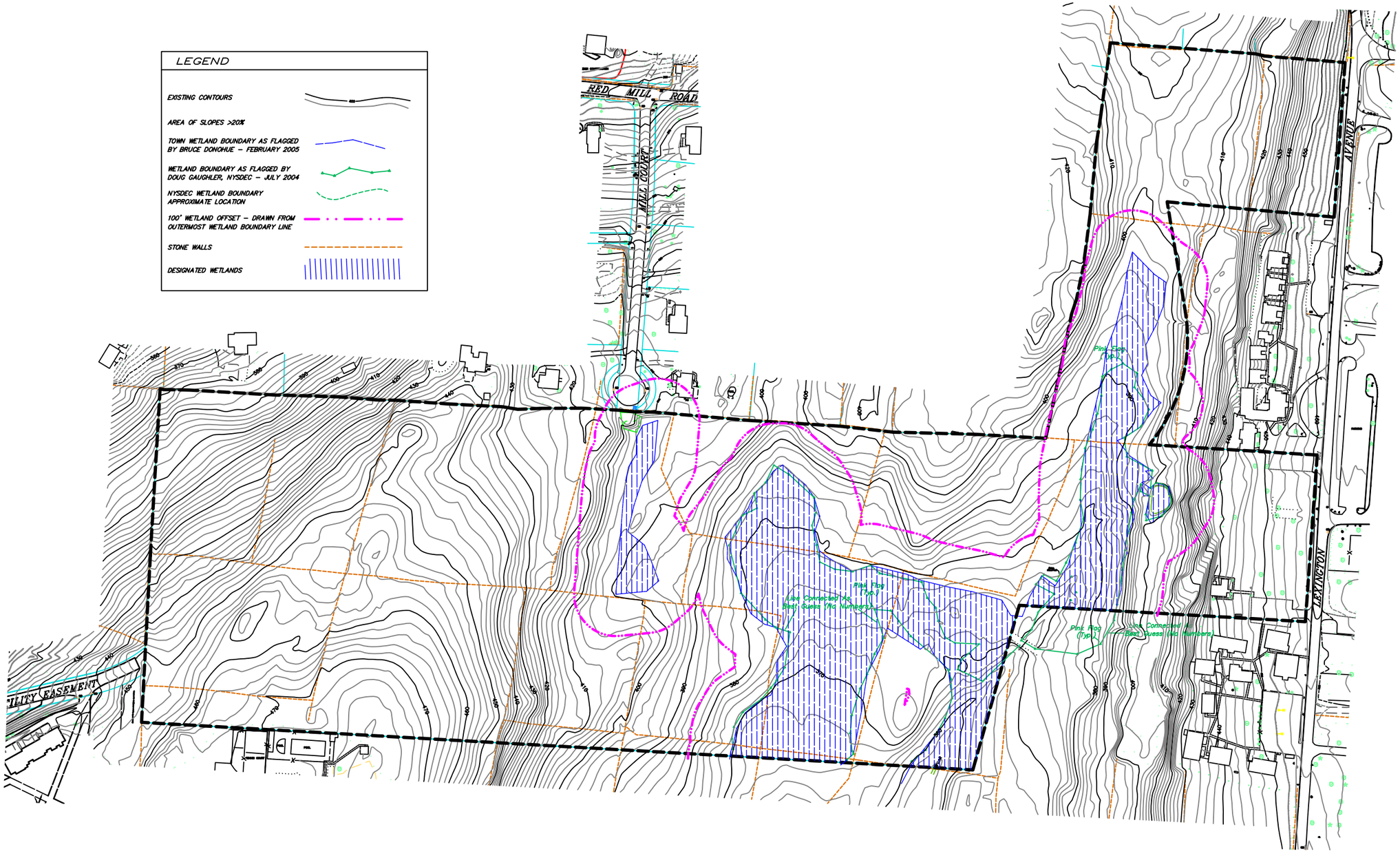

Figure 3.1-2: Existing Site Topography

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Source: Cronin Engineering P.E, P.C., 05/20/2005

Scale: 1" = 250'

File: 05077 06/27/06
JS/05077

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LEGEND

EXIST. CONTOUR

10% TO 15% SLOPES

15% TO 20% SLOPES

20% TO 30% SLOPES

SLOPES > 30%

North

0 100 200 400

SCALE IN FEET

11/14/06
TMA File 05077

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Figure 3.1-3: Existing Slopes Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

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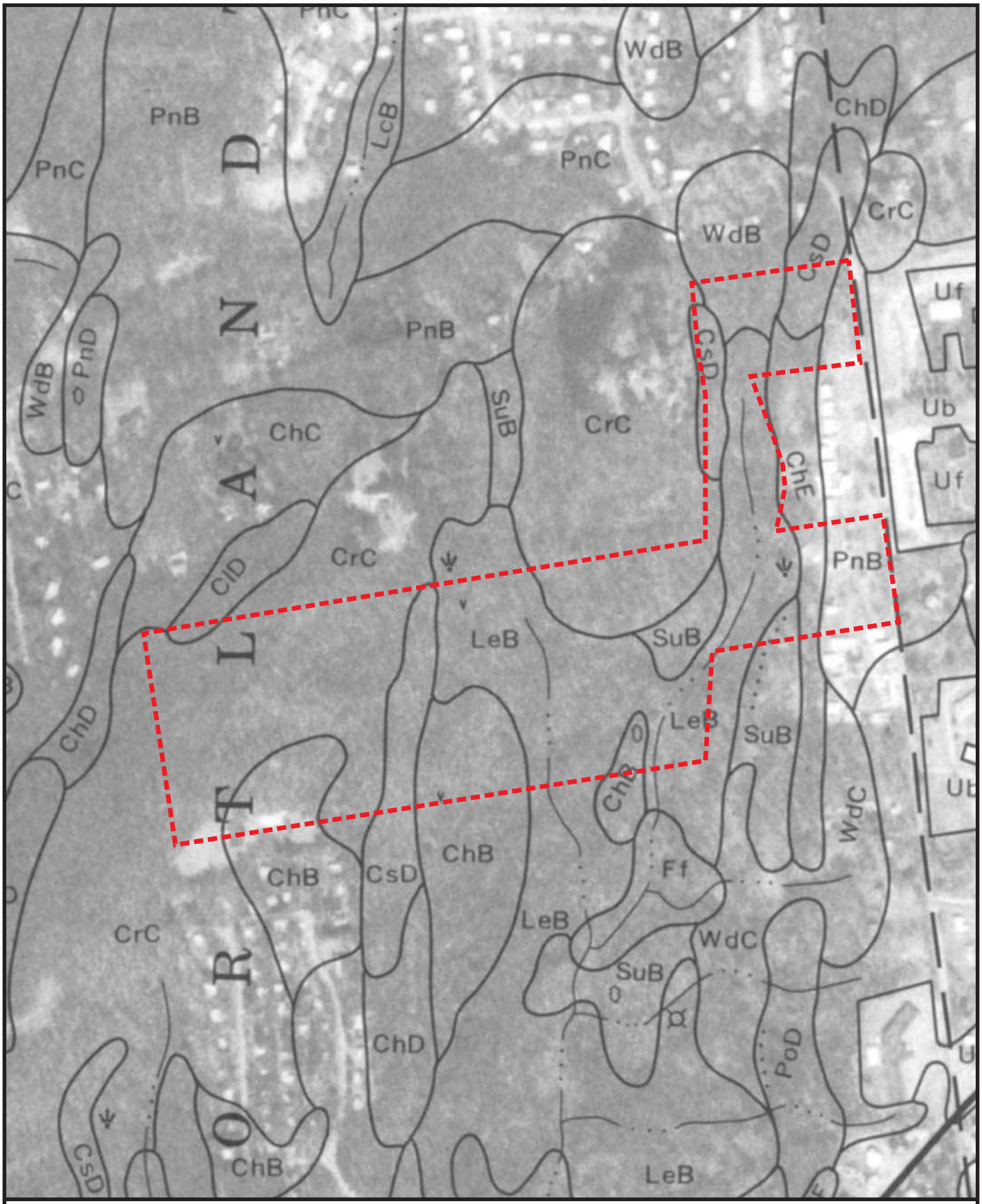

Figure 3.1-4: Site Soils Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Base Map: Soil Survey of Putnam and Westchester Counties, NY
U.S. Dept. of Agriculture, Soil Conservation Service
Scale: 1 inch = 2,000 feet

File 05077 05/04/06
JS:\05077

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LEGEND

EXIST. CONTOUR

0% TO 10% SLOPES

10% TO 15% SLOPES

15% TO 20% SLOPES

20% TO 30% SLOPES

SLOPES > 30%

AREA OF DISTURBANCE

North

0 100 200 400

SCALE IN FEET

1/22/07
TMA File 05077

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Figure 3.1-5: Slopes Disturbance Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

LEGEND

EXIST. CONTOUR

AREA OF DISTURBANCE

North

POTENTIAL BLASTING AREA
OVER 300' FROM NEAREST RESIDENCE

>300' FROM NEAREST RESIDENCE

0 100 200 400

SCALE IN FEET

11/14/06
TMA File 05077

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Figure 3.1-6: Potential Blasting Area
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

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LEGEND

EXIST. CONTOUR

AREA OF DISTURBANCE

PHASE OF CONSTRUCTION

ACERAGE OF DISTURBANCE PER PHASE
PHASE 1 – 4.8 ACRES
PHASE 2 – 5.0 ACRES
PHASE 3 – 3.7 ACRES
PHASE 4 – 4.0 ACRES

North

0 100 200 400
SCALE IN FEET

11/14/06
TMA File 05077

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Figure 3.1-7: Construction Phasing
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

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3.2 Water Resources

3.2.1 Existing Conditions - Groundwater

Groundwater is the subsurface water found in the saturated zones within the soil and rock mantle of the earth. This soil and rock mantle consists of unconsolidated sediment and bedrock and where it contains a usable supply of water, is referred to as an aquifer. Locally, groundwater is found in joints, fractures and other spaces contained in the hard granitic or gneissic bedrock. Within this type of bedrock, only areas that are highly fractured are considered favorable for the development of a major groundwater resource. No such areas are known to underlie the site.

The project site is located in the Hudson Highlands physiographic province which is characterized by complexly folded and faulted metamorphic and igneous rocks. The project site is underlain by biotite granitic gneiss which is Precambrian in age. A fault contact with an older series of metamorphic rocks is located in the vicinity of the site to the south of Route 6. The fault in this area runs in an east-west direction and roughly parallels Route 6. All usable water would be found in the fractures and joints of this bedrock unit (secondary permeability). The number and location of the bedrock fractures (fractures typically contain greater quantities of usable water than joints) is dependent on the degree of deformation that the bedrock has undergone through its formation.

As shown on the Groundwater Resources Map in the Town of Cortlandt Master Plan Base Studies, 1990, and reproduced herein as Figure 3.2-1A, the project site is not located in any area of fractured bedrock favorable for groundwater development. The closest such area is approximately one-half mile to the north near Lockwood Avenue in the northeast corner of the Town. Groundwater flow generally follows the topography in the vicinity of the project site. The Town of Cortlandt resources map shows that groundwater on the west side of the project site flows towards the north and other groundwater on the project site flows to the south.

Depth to water table (groundwater elevations) varies across the site and during any seasonally wet periods the water table may rise to the surface in many low lying areas. Based on data in the USDA's *Soil Survey for Westchester and Putnam Counties*, several of the loamy soils on the site (identified as PnB, LeB, SuB and WdB in Figure 3.1-4) may have groundwater within 2.5 feet or less of the surface from November to May. The predominant soil within the area of development of the project (Chatfield-Charlton soil complex, identified as CrC on Figure 3.1-4) has a water table at depths greater than six feet throughout the year.

No information is currently available regarding water quality conditions of the groundwater at the site. Prior to the availability of public water, groundwater was historically used for potable purposes and there is no known contamination of groundwater in this area.

The project site and surrounding areas receive public water from the Cortlandt Consolidated Water District. Groundwater is not utilized as a source of drinking water for the abutting properties as all have active water accounts with the Water District[1]. As all of the nearby properties receive public water, as will the proposed project, groundwater supply is not a significant issue for this application.

[1] Conversation with Mr. Robert Foster, Water District Supervisor, Town of Cortlandt. 8 March, 2006.

3.2.2 Existing Conditions - Surface Water and Wetlands

Surface Water

The site lies entirely within the drainage basin of Peekskill Hollow Creek (NYSDEC ID # H--55-6-2, pp. 2662 of Title 6) which drains into the Hudson River at Peekskill, NY. Surface runoff from the majority of the site (approximately 39.4 acres or 75% of the site) flows toward the depressional area that comprises a NYSDEC wetland, as shown in Figure 3.2-3, and drains in a southerly direction. A small, semi-permanent pond exists behind an earthen berm on the eastern side of the property. A narrow channel through the berm connects this small, 0.09 acres, man-made pond during overflow conditions with the downstream wetlands. There are no perennial streams on the property, but most water deposited on the property follows two stream courses in the low-lying areas within the wetland. This wetland is contributory to Gregory Pond (NYSDEC ID # H--55-6-P170a, pp. 2662 of Title 6), a small (approximately 70 acre) subwatershed of Peekskill Hollow Creek (NYSDEC ID # H--55, pp. 2658 of Title 6). Surface runoff from the western portion of the site (approximately 10.5 acres or 20% of the site) drains as sheet flow to the northwest, and a small northeastern portion (approximately 2.9 acres or 5% of the site) drains as sheet flow to the northeast, both portions eventually contributing to Peekskill Hollow Creek. Peekskill Hollow Creek is approximately 3.5 miles downstream of the project site.

All surface waters of New York State are assigned classifications by the NYSDEC, with the highest values assigned to “Class A” waters and the lowest to “Class D” waters. Surface water classifications are presented in Title 6 of the New York State Conservation Law, Parts 800-941. “Best uses” assigned to the various surface water classifications by the NYSDEC are described in Table 3.2.-1.

The surface stream that conveys the site runoff to Peekskill Hollow Creek is a NYSDEC “Class D” waterbody within the NYSDEC stream classification system. Peekskill Hollow Creek is an A(T) classified waterbody in lower portions of its watershed. The “T” designation indicates that it supports trout on a year-round basis, but is not capable of supporting the natural reproduction of trout. The watershed area of the Creek also serves as the source of drinking water for the City of Peekskill and neighboring communities.

FEMA (Federal Emergency Management Administration) flood insurance rate maps indicate there is no 100-year flood plain on the property. (Refer to Figure 3.2-1, FEMA Flood Map).

Table 3.2-1
Best Usage of Surface Water

Surface Water Classification	6NYCRR Section	Best Usage
A	701.6	The best usages are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival.
B	701.7	The best usages are primary and secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival.
C	701.8	The best usage is fishing. These waters shall be suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.
D	701.9	The best usage is fishing. Due to such natural conditions as intermittent flow, water conditions not conducive to propagation of game fishery, or stream bed conditions, the waters will not support fish propagation. These waters shall be suitable for fish survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Source: Environmental Conservation Law, NYCRR Title 6, Chapter X.

Wetlands

The National Wetland Inventory (NWI) of the Fish and Wildlife Service of the US Department of the Interior has mapped many wetlands nationwide based on analysis of color infrared aerial photography. NWI wetlands maps have no regulatory significance but the maps do show the general configuration, location and classification for many existing wetlands. The wetlands are presented as overlays on 7.5 minute USGS topographical maps. The NWI wetland map for Mohegan Lake, New York covers the project site (Figure 3.2-2). Because the NWI maps are limited in precision by their scale (1:24,000) and by the identification method used, the boundaries of wetlands shown on the NWI maps are approximate and may be more precisely determined during field surveys. Commonly, small wetland areas, and, less frequently, large wetland areas are not shown on NWI maps. As can be seen in Figure 3.2-2, the project site does not include any NWI identified wetlands.

The NYSDEC has mapped freshwater wetlands that are 12.4 acres in size or larger as well as some smaller wetlands that are of unusual local importance (Environmental Conservation Law, Article 24). The NYSDEC wetland map for Mohegan Lake, New York, covers the project site. As shown in Figure 3.2-3, a portion of NYSDEC Wetland A-50 falls on the project site. A representative of NYSDEC visited the site in July 2004 and delineated the State wetland boundary, which appears on the engineer's project plans. Wetland A-50 is a Class II wetland, defined by the degree to which ecological benefits are supplied by this wetland as described in State Environmental Conservation Law (664.5).

The US Army Corps of Engineers regulates activities in wetlands that meet certain criteria for hydrophytic vegetation, hydric soils and wetland hydrology, all of which must be present in an area to be considered a wetland. Criteria used to determine the presence of these three

indicators are set forth in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, dated January, 1989. The Corps does not regulate a wetland buffer.

The Town's local wetland ordinance (Chapter 179 of the Town Code) defines regulated wetlands similarly to the US Army Corps (1989 Federal Manual) and regulates activities in defined wetlands and within 100 feet of a regulated wetland. The wetlands on the project site were delineated by the Town's wetland consultant, Bruce Donohue, in November 2004 in accordance with Town and Federal regulations. Those wetland boundaries appear on the engineer's project plans. Appendix D presents the wetlands delineation report by the Town's consultant.

Three wetland areas were field delineated during the project field investigations, encompassing a total of 8.56 acres of the site. The wetland boundary delineated by the Town's consultant, which very nearly coincides with that of the State boundary in most cases, but delineates additional wetland area meeting Town (and Federal) criteria, defines the regulatory boundary used for this project. The surveyed site wetland boundaries as flagged by the Town and State delineators are shown in Figure 3.2-4 and on the engineer's plans.

The largest wetland area is identified as Wetland A and occupies a total of 8.00 acres on the project site in two locations: 5.67 acres in the central portion of the property and 2.33 acres in the eastern portion of the property. These areas are portions the larger NYSDEC Wetland A-50 that extends off-site to the south. Activities within these areas would be regulated by the Town of Cortlandt, the State of New York, and the US Army Corps of Engineers (ACOE). The second wetland (Wetland B) is much smaller (0.46 acre) in size and is located in the north-central portion of the property. This is a depressional wetland with no established connection to other wetlands, but may drain overland towards Wetland A. Activities within Wetland B would be regulated by the Town of Cortlandt but not by the State of New York. The ACOE has been requested by letter of March 9, 2006, to rule on their jurisdiction, if any, over Wetland B (see Appendix B). As of the date of this document, no response has been received from the ACOE.

In accordance with Magee's criteria in A Rapid Procedure for Assessing Wetland Function Capacity, the Town wetland consultant identified a small man-made pond on the east side of Wetland A. While this area is hydrologically connected to Wetland A and thus part of the State wetland system, it has been identified for assessment purposes as Wetland Assessment Area C ("Wetland C"). This pond is 0.10-acre in size and is a small, steep-sided, depressional, man-made excavation that drains through a narrow channel to Wetland A proper. Activities in Wetland C would be regulated by the Town of Cortlandt, the State of New York and ACOE.

The functional capacity of the three wetlands was assessed by the Town's wetland consultant in accordance with the Town of Cortlandt wetland regulations (§179 - Freshwater Wetlands, Water Bodies and Watercourses). Appendix D presents the wetlands assessment by the Town's consultant. The regulations reference the use of a hydrogeomorphic wetland classification method[2] to evaluate Town wetlands. The Magee (1998) method allows for the overall assessment of any wetland as determined by its dominant wetland type, either sloping, depressional or riverine.

[2] Magee, D.W. 1998. *A Rapid Procedure for Assessing Wetland Function Capacity*. Normandeau Associates. Bedford, NH. 190 pp.

Table 3.2-2 shows the extent of each wetland hydrogeomorphic type assessed by the Town's wetland consultant: Wetlands A and B were evaluated as sloping wetlands while Wetland C was evaluated as a depressional wetland.

Table 3.2-2
Project Site Wetland Hydrogeomorphic Assessment Areas
Mill Court Crossing

Wetland ID	Hydrogeomorphic Type
A	8.00 acres, Sloping
B	0.46 acres, Sloping
C	0.10 acres, Depressional
Total	8.56 acres wetlands on site

Source: Donohue. Kirquel Development - Wetlands report.

As presented in the project wetlands report (Appendix D), each wetland has been qualitatively evaluated for four general characteristics: landscape, hydrology, soils, and vegetation. Each wetland was further quantitatively evaluated for a number of specific environmental variables that were then used to rank the wetland. These variables are related to only the public benefits aspects of wetland function and do not consider significant wetlands functions, such as the export of substances (e.g. tannins or nutrients), that may detract from perceived public benefits. The variables evaluated to derive the rankings including the effect of each wetland on:

1. Modification of groundwater discharge
2. Modification of groundwater recharge
3. Storm and floodwater 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 index rankings presented in Appendix D allow only for comparisons of the potential to which each wetlands performs an individual function in relation to other similar wetland types. Other factors not included in these rankings may affect the functional significance of a wetland within a watershed.

Wetlands - Description and Functional Analyses

Below are summary descriptions of each on-site wetland area and a general evaluation of its wetland functions based on NYS Environmental Conservation Law. This evaluation was completed using the wetland rankings presented in the Town's consultant's wetlands report (Appendix D). Two of the wetland areas (Wetlands A and B) were observed to be relatively undisturbed by environmental alterations related to development, while the area around the man-made Wetland C is noted to be significantly disturbed by nearby man-caused alterations to the landscape. Wetlands A and B are classified as palustrine habitat while Wetland C is primarily a wetland with emergent vegetation.

Wetland A

Wetland A is made up of a drainage corridor that flows from north to south through the central portions of the property and towards Gregory Pond across Route 6. This drainageway begins on the site where runoff from the adjacent slopes collects and then drains to a culvert under Route 6. Due to the relatively flat slope, runoff is slow, allowing longer saturation times. Seasonally saturated soil conditions have developed that resulted in a dominance of shrubby and herbaceous vegetation that is tolerant of wet conditions, including dogwoods, Northern spicebush and common winterberry. Intermittent channels carry runoff through a rocky terrain, and runoff may collect in small pockets throughout the channels. Canopy cover is complete.

This wetland is the northernmost edge of a little disturbed wooded swamp complex (NYSDEC Wetland A-50, Mohegan Lake Quad) that exists to the south of the site and extends into the area of Gregory Pond. Due to relatively flat slopes in the area, runoff is slow, allowing longer saturation times. Seasonally saturated soil conditions have developed that resulted in a dominance of shrubby and herbaceous vegetation that is tolerant of wet conditions. Over the on-site portions of the larger wetland NYSDEC Wetland A-50, vegetation is dominated by red maple in the canopy, an understory of tall shrubs (primarily dogwoods) and an herbaceous layer of sedges and ferns.

Soils within this wetland are generally Leicester loams (Section 3.1) as shown on the Westchester County *Soil Survey* map.

Wetland A Function

Functional assessment of this wetland indicates that it is currently performing most associated wetland functions at a moderate to high level. This is based on the size of the wetlands, their low topographic gradient and storage capacity for stormwater. Functions related to stream and storm flow, modification of water quality and storm and flood water storage are particularly high for these reasons, in addition to the presence of well developed vegetation to filter and detain storm flows. Due to its larger size and more complex hydrology, this area may be used as habitat for species which might not be able to inhabit the smaller site wetlands. It does provide dense cover and nesting opportunities for bird species. This low gradient, vegetated wetland helps to filter flows running off from the undeveloped grounds on the property. This wetland also provides cover and saturated conditions for several wetland dependent species, including salamanders and frogs.

Because this wetland ultimately drains to wetlands and Gregory Pond on the south side of Route 6, it is important that flow patterns be maintained, flow characteristics (i.e., flow volumes and rates) be consistent with existing conditions, and the vegetative cover be preserved. Flows out of Wetland A are much more significant in terms of contribution to hydrology and water quality than other site wetlands, and conservation of existing conditions in this wetlands is expected, as proposed developments will have minimal impacts to its many functions.

In total, Wetland A covers approximately 8.00 acres of the site and is regulated by NYSDEC, the Town and ACOE. This low gradient, densely vegetated wetland functions to filter stormwater and groundwater discharges that ultimately drain into Peekskill Hollow Creek, which is located approximately 3.5 miles downstream of the site wetlands. Detention time within the wetlands is greater than for other wetlands in this portion of the property, allowing more time for filtering effects of the existing vegetation and soils to occur.

Wetland B

Wetland B is a small (0.46 acre) wetland with intermittent overland outflow to Wetland A that lies 200 feet to the east and 10 to 15 feet lower in elevation. There is no established surface connection between this and other site wetlands, however evidence of heavy overland flow from the southeast corner towards Wetland A has been noted. This wetlands has a watershed of about 6.4 acres in the north central portion of the property. Seasonally saturated soil conditions have developed that resulted in vegetation dominated by red maple, red oak, white oak and hornbeam in the canopy, an understory primarily of spicebush and hornbeam and a sparse herbaceous layer.

The primary function and benefit of Wetland B is the conveyance and detention of storm flows and the filtering of collected runoff resulting in improved water quality. The presence of a mineral soil over glacial till presumably restricts infiltration from this wetlands into the groundwater.

Soils within this wetland are generally Leicester loams (Section 3.1) as shown on the Westchester County *Soil Survey* map.

Wetland B Function

Due to its smaller size and lack of surface connectivity with nearby wetlands, this area has few wetland functions. It does serve as a temporary collection point for overland runoff and infiltration. This wetland primary provides localized water quality functions related to surface water infiltration and recharge value for Wetland A.

Wetland C

A small, permanent pond exists behind a berm on the eastern side of the property. A narrow channel through the berm intermittently connects this small, 0.10-acre, man-made pond with the downstream wetlands. This pond is physically part of Wetland A, but as a depressional area, provides a different wetland function than the remainder of Wetland A, thus has been designated as a separate assessment area, Wetland C. The tree canopy of red maple around the pond is open. Understory vegetation around this pond is dominated by multiflora rose (*Rosa multiflora*) and skunk cabbage.

Wetland C Function

Due to its small size and small watershed area, Wetland C has generally below average capability to perform many wetland functions. However, due to its ability to retain standing water, in a well-vegetated pond basin with a restricted water outflow, the ability to provide water quality improvements to surface waters is well above average.

Soils within this area are generally Leicester loam, as described in Section 3.1, and as shown on the Westchester County *Soil Survey* map.

Summary of Wetland Evaluations

Wetlands typically provide many benefits that may include fish and wildlife habitats, recreation opportunities, flood control, and water quality improvement for surface waters and aquifers. The wetland areas located on site have specific functions and benefits that were quantitatively evaluated in the wetlands report (Appendix D), although none of the wetlands have open water or open-canopied areas which would provide nesting or feeding habitat for migratory waterfowl.

As described above each of the wetlands provides some wetland function and benefit at various levels. Wetlands A and B, due to their connection to much larger wetlands to the south, have generally high functional valuations. These high value functions include stormwater filtering and detention, wildlife habitat potential and modification of stream flow to maintain base flows in the watershed. Wetland C is also a part of the overall surface water drainage basin contributing to Gregory Pond. Wetland B due to its smaller size, lack of significant contributory wetland or drainage area and distance from other site wetlands has generally lower value related to wetland functions, but remains a part of the drainage and infiltration patterns contributing to the other downstream wetlands and water bodies. Each of the wetlands has a small watershed relative to the size of the wetland, which increases the magnitude of the influence that these wetlands have on their received waters.

The larger wetlands on the site were generally identified as being red maple/hardwood swamps, a community type which is widely found throughout New York State. This community is recognized by the presence of hydrophytic vegetation, including red maple and American elm in the upper story. The understory shrub layer is generally dominated by highbush blueberry and arrowwood viburnum. The herbaceous layer typically consists of sensitive fern, tussock sedge, sphagnum mosses and skunk cabbage.

An assessment of the ecological benefits of the on-site wetlands with respect to the freshwater wetland benefits identified in Article 24 of the NYS Environmental Conservation Law is provided in Table 3.2-3 below.

Table 3.2-3: Assessment of On-site Freshwater Wetland Benefits			
Freshwater Wetland Benefit	**Wetland A**	**Wetland B**	**Wetland C**
(a) Flood and storm control by the hydrologic absorption and storage capacity of freshwater wetlands.	Medium	High	Medium
(b) Wildlife habitat by providing breeding, nesting and feeding grounds and cover for many forms of wildlife, wildfowl and shorebirds, including migratory wildfowl and endangered species.	High	Low	Medium
(c) Protection of surface water resources and watersheds and, under appropriate hydrological conditions, recharging of groundwater and aquifers.	High	Low	Medium
(d) Recreation by providing areas for hunting, fishing, boating, hiking, birdwatching, photography, camping and other uses.	Low	N/A	Low
(e) Pollution treatment by serving as biological and chemical oxidation basins.	High	High	High
(f) Erosion control by serving as sedimentation areas and filtering basins, absorbing silt and organic matter and protecting channels and harbors.	High	High	Medium
(g) Education and scientific research by providing outdoor bio-physical laboratories, living classrooms for studying natural history, ecology, and biology.	Low	N/A	Low
(h) Open space and aesthetic appreciation by providing visual variety, especially in urban areas where they may contribute to social well-being by providing relief from intense development.	Low	Low	Low
(i) Sources of nutrients in the freshwater food cycles and location of spawning and nursery grounds for species of fish.	High	Low	Medium
Sources: Environmental Conservation Law, Article 24, Title 1, Section 24-0105-7 and Tim Miller Associates, Inc.			

Existing Stormwater Quality

The existing quality of runoff from the site is expected to be typical of that from undeveloped sites, and is not expected to contain any significant levels of residential pesticides or fertilizers, coliform bacteria from animal waste, or pollutants from septic systems or roadways above irreducible concentrations.

Existing Nearby Drainage Facilities

The existing drainage facilities in Mill Court consist of a closed drainage system (catch basins or drop inlets connected by underground pipes) with curbs and gutters directing stormwater to the closed drainage system in Red Mill Road.

The drainage facilities in Red Mill Road consist of roadside gutters or swales between Strawberry Road and MacArthur Boulevard. A closed drainage system begins in the vicinity of MacArthur Boulevard which conveys the stormwater flows toward Trolley Road. A combination of roadside shoulders/gutters or swales exists on both sides of Red Mill Road from MacArthur Boulevard to Trolley Road except for the location starting ±300 feet east of Mountain View Road to ±300 feet east of Trolley Road where curbing exists on the north side of Red Mill Road.

The drainage facilities in Mountain View Road consist a closed drainage system with curbs or roadside gutters on the south end of the road which discharge between the 4th and 5th residences on the west side of the road to a wooded area behind these residences. From this location north, the curbing continues on the west side of the road and roadside ditches and

driveway culverts are located on the east side of the road, both of which convey stormwater to the closed system in Red Mill Road.

The drainage facilities in Trolley Road consist of a closed drainage system with curbs and gutters from Red Mil Road to just north of East Hill Road. At this point, the closed system discharges to an open ditch on the east side of Trolley Road where flows continue north along the road and then east, leaving the roadside just before reaching the last residence on Trolley Road.

3.2.3 Potential Impacts

Potential impacts to the on and off-site surface water resources that might be expected to result from the proposed action, without mitigation, include sedimentation during construction, post development increases in pollutant loading in stormwater, post development flooding from increased peak rates of stormwater discharge, and bed and bank erosion in receiving watercourses resulting from increased stormwater discharge velocities. The proposed development will require mitigation measures to conform with the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activities. A project Erosion and Sediment Control (ESC) Plan developed for this permit application in accordance with the current (2003) NYS DEC manual, *New York Standards and Specifications for Erosion and Sediment Control* and the 1984 Westchester County *Best Management Practices Manual for Stormwater Management* is presented in the project Storm Water Pollution Prevention Plan (SWPPP) and summarized in Section 3.1.3. The purpose of the ESC Plan is to minimize the on-site erosion of disturbed soil and to prevent the migration of sediment into surface waters and off-site properties during construction and until the site has received final stabilization. Adherence to these requirements will minimize or avoid adverse affects on downstream waters and groundwater of the watershed of Peekskill Hollow Creek and the Hudson River. Low density development of this nature has occurred throughout the region without adversely impacting groundwater quality. Moreover, there will be no new groundwater discharges of domestic sewage on the subject site, and a reduction in existing discharges, further limiting impacts to groundwater quality.

Without appropriate mitigation incorporated into the proposed action, it would have the potential to increase the volume and velocity of stormwater through land clearing and conversion of existing land forms into impervious surfaces and landscaped areas. If not controlled, these activities may lead to accelerated erosion and sedimentation during and after construction. Sedimentation of the receiving water bodies would likely result in decreased light penetration and nutrient enrichment, increased turbidity, increased transport of pollutants that are adsorbed to the sediment particles, shielding of pathogens from disinfection processes, and clogging of gills and filters in aquatic organisms. In order to reduce stormwater-induced impacts from the project, it is essential that the applicant design and construct adequate erosion and sediment control practices to mitigate these potential impacts. Accordingly, a Stormwater Management Plan and an Erosion and Sediment Control Plan, that includes construction sequencing, has been included in the Stormwater Pollution Prevention Plan prepared for the project.

Qualitative Analysis of Construction-Related Impacts

During construction activities potential short-term impacts from regrading and stockpiling of soil materials can impact surface water quality both on-site and downstream. Erosion and sedimentation provide potential indirect impacts of water runoff into adjacent wetland areas.

A hydrologic analysis was prepared to estimate the increase in runoff to the three overland discharge design points of the proposed development (included in DEIS Appendix C). Construction of the project will require significant regrading over 30 percent of the site, but existing drainage patterns will generally remain the same although there will be a redirection to Georges Pond of the drainage from approximately four acres that presently drain overland to residential properties to the northwest and northeast of the site. However, as a result of the creation of additional impervious area, more surface runoff will occur into the stormwater detention facilities where the rate of stormwater runoff from the site can be controlled.

Flood Area Mapping

According to Federal Emergency Management Agency (FEMA) floodplain mapping for the Town of Cortlandt, the project site is not located within a designated FEMA flood plain or floodway and no flood hazard areas exist on the project site (Figure 3.2-1). The Flood Insurance Rate Map prepared for the FEMA National Flood Insurance Program shows the site is located outside of any such area.

Post-Construction Increases in Pollutant Loading in Stormwater

The proposed development will also increase the pollutant loading of stormwater runoff. Long-term impacts to surface water quality can result once the development is complete and operational. An increase in pollutants (e.g. pesticides, fertilizers, phosphorous, nitrogen and suspended solids) typically associated with residential land use activities, including stormwater runoff from the paved areas and rooftops, can be expected in the inflows to the stormwater water quality basins.

Accordingly, the project engineer has prepared a Stormwater Management Plan, included in the SWPPP, which will be implemented to treat post construction runoff to minimize increases in pollutants in stormwater discharged from the development in accordance with design standards of the NYSDEC Stormwater Management Design Manual (August 2003). The Design Manual provides State standards for the design of stormwater management practices (SMPs) to be included in project specific SWPPPs that will protect the waters of the State of New York from the impacts of suburban stormwater runoff. The Design Manual establishes specifications and uniform criteria for the practices included in a SWPPP. The Design Manual presents a technique that was designed to provide water quality sizing of SMPs to enable them to capture and treat 90% of the average annual stormwater runoff volume (i.e. the “WQv” requirement). The Design Manual states that by meeting the water quality sizing requirements through employment of the practices in the manual, a project will, by default, meet water quality objectives. Some water quality parameters (i.e. suspended solids, phosphorus and nitrogen) are considered “irreducible” below levels that reflect the internal production of these constituents by the biological processes present within wetlands and water quality basins. These constituents are expected to always be present in the discharge of a stormwater basin at or above the low but “irreducible” values unique to every biological system.

Other constituents in stormwater runoff will be introduced by pesticide and fertilizer applications by future homeowners. Use of these chemicals are controlled by the same State, County and local regulations as apply to all residential uses in the community. Sections 179-3 and 179-4 of the Town Code restrict these activities within regulated areas, defined as "That area which consists of a wetland, water body or watercourse and its associated buffer area." These restrictions prohibit the direct or indirect use of herbicides, pesticides, and fertilizers, including during the normal maintenance of lawns and gardens, within regulated areas unless a permit is

obtained pursuant to §179-5 of the Code. Current data indicates that, if applied correctly, contemporary pesticides (e.g. herbicides and insecticides) will not migrate to any great extent, and will break down rather quickly after application and therefore are not expected to represent an adverse impact to groundwater or surface water quality. Because of the treatment provided on-site to stormwater flows and the low anticipated levels of these substances, no significant adverse impacts on water bodies or watercourses is anticipated.

Potential adverse impacts on surface water resources associated with fecal coliform bacteria (FCB) are not anticipated as a result of this proposal either. The low density of development, the disposal of wastewater by a municipal sewer system approved by the County Health Department and the connection of several existing septic systems to this sewer system will reduce the potential for increased coliform levels in the environment. Other possible FCB sources, including pets and waterfowl, will not be significantly greater than the existing wildlife population on site and therefore should not cause increased FCB loading.

Direct Impacts to Site Wetlands

One significant environmental constraint to use of the property is the presence of wetlands on the site. However, the project as proposed will result in very little activity within and adjacent to regulated wetlands. The project site plan avoids disturbance of wetland areas to the maximum extent practicable, however it is expected that a total of 0.03 acres (1,502 square feet) of Wetland B, or less than 8% of Wetland B, will be affected by the installation of the access road from Mill Court. This is a road lengthening that was contemplated by the Town in its approval of Mill Court, which currently ends abruptly at the property line. In connection with the process for approval of the Scope for the DEIS, the Planning Board understood the need for some minimum disturbance to access the site. The Town's Draft Scope, dated August 8, 2005, Article VIII b) (pages 15-16) proposed as an alternative, a conventional subdivision plan with NO disturbances to wetlands, wetland buffers, and steep slopes. During the hearings that proceeded towards the adoption of the scope the Applicant's engineer demonstrated that it was impossible to access the site without some disturbance of the wetland, wetland buffer and steep slopes that begins at the end of Mill Court. The Planning Board accepted the Applicant's position; and the scope for the DEIS, approved by Resolution 44-05, permits the Applicant for purposes of the "no disturbance" alternative to make minimal disturbances to access the property.

Activities Within Wetland Buffers

A total of 1.66 acres of Town- and State-regulated wetland buffer (i.e. 100-foot adjacent area) will be disturbed for the project as proposed. After restoration of temporarily disturbed buffer areas such as the grounds over sewer lines and graded areas next to pavement, approximately 0.30 acre of the buffer will remain as permanent impervious surfaces. The specific areas of buffer impact result from the following activities: subdivision access road, 0.52 acres; stormwater facility, 0.63 acres; common driveway, 0.26 acres; and sewer and utility lines, 0.25 acres. The disturbances outlined occur mostly on the fringes of the buffer area farthest from the protected wetlands. The access road disturbance is the exception; and, this is because the existing end of Mill Court is already in the buffer. The optimal location of the stormwater basin is established by the on-site topography which necessitates it being located within the proximity of Wetland B in order to preserve to the extent practicable the existing drainage pattern and wetland functioning of the site.

The filling of a portion of Wetland B is necessary for construction of the embankment for the primary access to the site (see Figure 3.2-7). The plan includes road grading, pavement, and fill within 0.52 acres of the 100-foot Town-regulated buffer and 0.03 acres of the wetland. Road construction within the buffer is minimal but unavoidable to construct a road to Town standards given that such access would come from the end of the Mill Court cul-de-sac, the southern half of which is, in the existing condition, located in the buffer. The road layout, which will meet Town standard specifications, has been designed in a curved alignment as it connects to Mill Court to minimize the buffer disturbance.

Criteria for NYSDEC and Town of Cortlandt Permitting

There are both temporary and permanent impacts proposed to regulated buffers associated with Wetlands A and Wetlands B. Activities in or within 100 feet of Wetlands A and C are regulated by §663 of Chapter X of the State Environmental Conservation Law (ECL) and Chapter 179-3 of the Town Code. Activities in Wetland B are regulated by Chapter 179-3 of the Town Code. Applicable Town and State provisions for permit issuance for the proposed activities in the wetlands and buffers are discussed below.

Permit issuance provisions of ECL §663 are applicable to proposed activities in or within 100 feet of Wetlands A. Regulated activities of the project proposal are limited to the installation of utility services (sewer main extensions) and a paved driveway in the wetland buffer. There is no direct impact proposed to Wetlands A or C.

In subdivision 663.4(d) of the ECL, activity definitions are provided that designate the installation of sewer lines as Item No. 37 and the construction of roads as Item No. 28. For this project, temporary disturbance to buffers would be associated with construction of underground utilities lines and permanent disturbance would be associated with construction of the shared driveway to Lots 20-22. Each of these activities is designated an ECL rating of "P(N)" when conducted within the 100 foot adjacent area of a NYSDEC wetlands. As defined in §663.2(r), a “P(N)” rating designates a use “usually incompatible with a wetland and its functions and benefits, although in some cases the proposed actions may be insignificant enough to be compatible.” The applicant must present a compatibility evaluation to NYSDEC that addresses three criteria specified in the standards for permit issuance outlined in §663.5 in order to obtain a permit from the NYSDEC for the proposed disturbances.

For P(N) designated activities, the NYSDEC must consider if the activity (i) would be compatible with preservation, protection and conservation of the wetland and its benefits, and (ii) would result in no more than insubstantial degradation to, or loss of, any part of the wetland, and (iii) would be compatible with the public health and welfare.

For the activities proposed, the disturbances represent an area that is less than one percent of the total acreage of the NYSDEC wetland buffer on the property and is not expected to degrade the character of the wetland. The temporary disturbance of the utility installation will occur in areas which will be restored to vegetated cover upon completion. The area of permanent disturbance would be limited to an approximate 150-foot linear section of impervious driveway surface within the regulated buffer. The applicant’s plan proposes to cross the wetland buffer in a direction tangent to and within the outer perimeter of the buffer to minimize the adverse impact to this area while allowing the project access to developable portions of the site that are otherwise inaccessible. No adverse impact to the public health or welfare is expected to result from this activity.

The proposed activities in Town Wetlands B and it's buffer are regulated by Chapter 179 of the Town Code, and require the issuance of a wetlands permit by the Planning Board. This code section has been enacted with the intent of providing a balance between the rights of the individual property owner to the free use of his property and the rights of present and future generations. (Town Code, Chapter 179, Section 1A) After restoration, permanent impervious cover in the buffer will be approximately three tenths of one acre. The Applicant's use of the buffer is reasonable and does not materially effect the protective function of the buffer area.

The proposed plan addresses the nine wetland permit criteria of Section 179-A and B of the Town Code as follows:

1. Environmental impact: Proposed activities include the loss or disturbance of approximately 1.66 acres of wooded wetland buffer and the loss of approximately 0.03 acres of wetlands for roads and driveways.
2. Alternatives: Project alternatives, presented in DEIS Section 4.3, involve wetland disturbances of from 0.0 to 2.31 acres. Alternative Layout B presents a plan that involves no direct wetland impact, although it is acknowledged that this plan is not an economically viable plan. All other alternatives, including the proposed Mill Court Crossing action, have a minimum wetland impact of 0.03 acres, dependent on the need to access the site from Mill Court in the proximity of Wetland B.
3. Irreversible commitments: With the proposed action, disturbance of approximately 1.66 acres of wooded wetland buffer and 0.03 acres of Wetland B would occur. A substantial portion of these areas would be revegetated. 81.9 percent of the disturbed buffer area will be restored to vegetative cover upon completion of the project.
4. Character of, injury to or interference with safety, health, or reasonable use of property: The proposed wetland disturbance is not expected to cause any injuries or interference to public safety or health on the property or in the downstream watershed.
5. Suitability of activity: The proposed activities are permitted under the existing zoning for the property.
6. Effect on wetland functions: Any adverse effect on the functions of the riparian wetlands on the property or throughout the downstream watershed as a result of the proposed wetland disturbance would be negligible. The proposed plan includes measures for stormwater infiltration of surface water collected from new impervious surfaces, and wetland buffer enhancement measures that are designed to offset any impact on wetland functions.
7. Availability of preferable alternative locations: As described above, the Town Planning Board has acknowledged the need for some disturbance to wetlands and wetland buffer to facilitate the road access into the site. The applicant’s engineer has demonstrated that it remains impossible to access the site without some disturbance of the wetland, wetland buffer and steep slope that exists at the south end of Mill Court.
8. Availability of mitigation measures: The loss of wooded wetland is proposed to be mitigated by several wetland buffer enhancement measures described below.
9. Property rights and public benefit vs. possible degradation, interference with other property rights, and public health, safety, or welfare: The applicant has the right to seek a wetland permit for the proposed wetland disturbance. A vegetated buffer will be retained around the existing wetland, and the proposed activity would not degrade or

interfere with public or property rights in the town nor adversely impact the public health, safety, or welfare. No private wells were identified on adjacent properties.

Under the current plan, a wetland permit will be required from the Town of Cortlandt Planning Board to conduct the specified activities described above that are regulated in §179-3 of the Town Code and a wetlands permit will be required from the NYSDEC pursuant to §663. The proposed limitations applied to the wetland and buffer disturbances, when balanced with the community benefits associated with the subdivision plan, are expected to satisfy these wetland permit issuance criteria.

Potential Cumulative Impacts to Surface Water Resources

There are 19 other development projects identified within a two-mile radius of the project site in the towns of Cortlandt and Yorktown that are in some state of review for approvals or pending construction (listed in Table 3.6-1). Of these projects, there are two within approximately one-half mile of the site that are also located in the same subwatershed of the Peekskill Hollow Creek as the subject site. These are identified as the Appian Way Estates 4-unit single family project on Fawn Ridge, and the Hagerty 2-unit single family project on Red Mill Road. These residential projects are located such that Appian Way will contribute stormwater downgradient from Design Point 1 of the Mill Court Crossing stormwater analysis, and Hagerty will contribute stormwater downgradient from Design Point 3.

Whether or not these small projects are actually built, their contribution to the existing surface water quality and quantity of the Peekskill Hollow Creek can be expected to be relatively minor. These are small project sites which are subject to the same Town review and approval requirements as the Mill Court Crossing project. It is anticipated that the potential cumulative effect of these projects with the proposed Mill Court Crossing project will not result in a significant adverse impact on the surface water resources of the watershed.

3.2.4 Mitigation Measures

In order to avoid any project demand on or impacts to surface and ground water resources, the project is proposed to connect to municipal water and sewer systems. The property is included in the Cortlandt Consolidated Water District which serves most of the Town of Cortlandt. The project sponsor is applying for extension of the Peekskill Hollow Sewer District that serves the adjoining development to the west. The project proposal includes sewer hookups for several existing residences, which are owned by a Corporation related to the project applicant, located along Lexington Avenue. This connection will allow abandonment of existing subsurface septic systems, as described in the Project Description.

The applicant has designed the project to minimize wetland impacts to the maximum extent practicable while still providing necessary services and access to all proposed lots. While the direct impact to the Town wetland near the access road is unavoidable as explained above[3], the disturbance proposed to the wetland buffer can be offset by the proposed creation of a 0.194 acre wetland area within the stormwater basin and revegetation of disturbed buffers areas that are not to be paved. The 8,445 square feet (0.194 acres) of created habitat within the stormwater basin are designed to offset the wetland impact at a greater than 5.6:1.0 ratio.

[3] Road construction within the buffer is minimal but unavoidable to construct a road to Town standards given that such access would come from the end of the Mill Court cul-de-sac, the southern half of which is, in the existing condition, located in the buffer.

A preliminary landscaping plan accompanies this document that identifies the appropriate plant species for the wetland enhancement area and adjacent upland areas.

The stormwater basin will be planted with an emergent vegetation seed mix and its perimeter planted with shrubs beneficial to wildlife that will allow the basin to enhance the ecological benefits associated with the wetlands. The compensatory wetlands within the stormwater basin will enhance the existing primary functions of Wetland B which have been identified as: stormwater flow control, biological control of water quality parameters, and erosion and sedimentation control of surface waters. The disturbances that will occur within the wetland buffer as described above, although unavoidable to implement the proposed plan, will be mitigated by the reestablishment of vegetative cover that is appropriate for a wetland buffer area.

As recommended in the Town's wetland consultant report, the proposed project addresses the minimization of potential adverse impacts to wetlands in the following ways:

1) *Leave Wetland A, the principal wetland, intact with no crossings or encroachments.* -- The proposed project includes no disturbance to Wetland A.

2) *Leave buffers undisturbed, even for lawn.* -- Buffer disturbance is avoided for the development of the individual house sites, however disturbance to buffers is necessitated for access and utilities. Disturbances to buffers of Wetland A are necessitated by sanitary sewer connections. Disturbances to the buffer of Wetland B are necessitated to provide access into the site from Mill Court meeting Town road specifications and by siting of the stormwater management basin. A common driveway is proposed to Lots 20-22 to minimize buffer disturbances that would otherwise be necessary to access these lots with three driveways. Notwithstanding the above, after restoration, over 97% of the buffer area will be in a vegetated state (0.30 ac. impervious in buffer / 11.93 ac. total buffer).

3) *Use existing stone walls as definitive boundaries, such as property lines and conservation easements.* -- The existing stone walls were built by farmers to delineate generally rectangular agricultural fields and appear to bear little relation to the site topography or other features. As these walls were built for a land use unlike the proposed site use, the walls generally do not follow the lines of the proposed lot boundaries. Portions of existing stone walls in the western area of the site that will be removed for development of the roads and house lots will be relocated to delineate new lot lines, where appropriate. Additionally, the existing project site property line along the northern and western boundaries is defined by stone walls that are proposed to be preserved.

4) *Keep stormwater management facilities out of the buffer areas as much as possible.* -- The optimal location of the stormwater basin is established by the on-site topography which necessitates it being located in the buffer of Wetland B.

5) *Maintain the existing surface and subsurface runoff patterns. Provide infiltration from all storm drains by using perforated pipe. Provide greater than usual infiltration of pavement runoff. Utilize gallies rather than drywells to better diffuse infiltration. Convert point discharge to overland flow wherever possible. Utilize grassed swales rather than pipes and gutters wherever possible.* -- Existing runoff patterns are generally maintained in this project, with the exception of some diversion away from Mountain View Road area toward the central portion of the site. The proposed plan incorporates infiltration by drywells for a number of the rooftops and driveways. The project engineer has opted to

use drywell structures rather than gallies, either of which would perform the same function. Drywell overflow pipes are 4" pipes due to the low volume of discharge that will readily disperse onto downslope areas. The proposed stormwater basin outflow incorporates a level spreader. Town standard requires use of curbs and catch basins.

6) *Compensatory wetlands on this site should probably be independent of the existing wetlands rather than a simple expansion, due to the nature of the existing wetland edges. The exception to this would be the narrow terrace area just south [and north] of man-made Wetland C.* -- Compensatory wetlands are proposed to be physically separate from the on-site wetlands and due to the small extent of wetland compensation needed in the project, is a part of the stormwater facilities that are proposed. It is expected that this design will enhance the aggregate wetland functioning of the site.

7) *Doubled erosion and sediment controls should be required for all disturbances upslope of areas designated as Depression wetlands [Wetland C].* -- The haybale / silt fence sediment control barrier detailed on the engineer's erosion control plan is specified for use on Lots 23 and 24, which are located upslope of Wetland C.

The applicant is proposing additional methods to mitigate the stormwater impacts of the project. The intent would be to use stormwater collection and detention methods that will replicate and enhance the functions and values that are provided by the on-site wetlands and forests.

The on-site wetlands presently provide stormwater runoff improvements by providing stormwater storage and infiltration, therefore the applicant is incorporating the features of the NYSDEC *Design Manual* micropool extended detention pond to include these functions in the SWPPP. A micropool extended detention pond (designated as Practice P-1 in the NYSDEC *Design Manual*) is a stormwater management pond with a small permanent pool of water combined and a larger basin for extended detention of stormwater, and including elements of a shallow marsh. Rather than a specific design plan, the *Design* Manual illustrates a conceptual design and specifies performance criteria which this practice must meet to perform its function.

In addition, runoff from the impervious areas that will be created will be treated in drywells and the landscaped areas will be provided with yard drains or otherwise graded to provide swale and overland flow patterns through vegetated areas similar to the flows within the existing watersheds.

In compliance with requirements of the NYSDEC General Permit (GP) for construction site surface water discharges (GP-02-01), the project has produced both an ESC Plan for the construction phase and a SWPPP that controls water quality and quantity discharges from the developed site. These plans are presented as Appendix C of this DEIS.

Off-site Drainage Improvements

Areas tributary to contiguous residential properties exist on the forested northwestern and northeastern boundaries of the property at Design Points No. 2 and 3, respectively (Figure 3.2-6). The majority of these basins will remain as on-site wooded areas and lawns, with houses and driveways for the proposed residences. The developed portions of these basins, including the lawns, will be treated with drywells prior to discharge towards the pre-existing design points for each basin. As presented in the project SWPPP, both the drainage area and the runoff rates for these design points will remain the same or decrease for all rain events evaluated. As these areas are tributary to drainage facilities on Mill Court, Red Mill Road,

Mountain View Road and Trolley Road, the project is expected to have no adverse drainage impacts along these area roads.

The Town recently installed additional drainage piping facilities along Red Mill Road that reduce stormwater flows down Trolley Road. The improvements divert approximately 79 acres of watershed away from Trolley Road to drain toward the intersection of Red Mill Road and Oregon Road. Prior to these betterments, about 194 acres were directed down Red Mill Road to Trolley Road. The new diversion reduces the size of the drainage basin by over 40%, and will produce a sizable reduction in stormwater flows into the Trolley Road drainage system thereby helping to alleviate flooding.

The Applicant is exploring with the assistance of Town staff three areas that may warrant additional changes, and would contribute funds to their implementation commensurate with the contribution of runoff from the project site. The first would entail the construction of a new drainage structure within the existing Red Mill Road right of way; the second, modifying the Benedict Pond spillway and the stream channel below the pond; and the third, picking up the runoff in the rear of homes proposed to be constructed on the northwest side of the site and discharging into the Mountain View Road system. Items #2 and #3 will necessitate the Town having to obtain easements.

Erosion and Sediment Control Plan

A preliminary ESC Plan with construction sequencing and scheduling -- which in part is being implemented to protect on site wetlands during construction -- is included with this DEIS, with final details to be included in the final site plans..

Erosion and sedimentation from construction and development are potential indirect impacts to adjacent wetland areas. All soil erosion and sediment controls will be installed in accordance with best management practices as set forth in the NYSDEC soil erosion and sediment control manual[4] and the Town of Cortlandt municipal code.

The primary aim of this ESC plan is to minimize the potential for soil erosion from areas exposed during construction and prevent sediment from reaching the down gradient wetlands and watercourses. Prior to the commencement of any phase of this project that will result in the disturbance of soils, the perimeter erosion and sediment control measures will be placed in accordance with the specifications on the construction drawings. These measures will be maintained in good condition and left in place until permanent vegetative cover is established.

The Town of Cortlandt may require a construction bond to insure the proper installation and maintenance of sediment and erosion control measures, and for site restoration if necessary. The construction contractor will be responsible for installing all sediment and erosion control measures and maintaining them throughout the entire construction process. These measures are monitored during construction by the project engineer and a state-certified site erosion control inspector and are subject to inspections by representatives of the Town and the NYSDEC.

The proposed ESC plan minimizes the area of soil exposure to the greatest extent practicable in accordance with the conditions of the NYSDEC SPDES General Permit (GP-02-01) for Stormwater Discharges from Construction Activities. Erosion and sedimentation measures

[4] NYSDEC. April, 2005. *New York Standards and Specifications for Erosion and Sediment Control.*

specified in the ESC Plan are developed specifically for this project to provide both temporary controls during the construction period and permanent controls to be in place and functioning at the completion of construction.

As described in Section 3.1-3 and depicted on the full size Erosion and Sediment Control Plan, the following elements will be in place during the construction of the project:

- Installation of protective fencing around the drip line of trees and other features to be preserved.
- Installation of a stabilized construction entrance and temporary perimeter silt fencing around the construction area with doubled silt barriers around sensitive wetland areas.
- Construction of permanent water quality and detention basins and installation of temporary swales and berms as needed to direct runoff to the basins. The basins will be utilized as temporary sediment traps during construction.
- Stockpiling of stripped topsoil.
- Provision of temporary sediment protection at all stormwater inlets.
- Maintenance of silt fence barriers, sediment traps, and other erosion control measures in working order throughout the construction period.
- Stabilizing of all disturbed areas in a timely manner to prevent or minimize erosion.
- Monitoring to ensure establishment of all landscape plantings and other permanent erosion control measures at the site. Prompt stabilization and restoration of damaged plantings and seeded areas for a period of three years following final stabilization.

To mitigate for increased surface runoff from within the site, stormwater facilities have been engineered to prevent impacts of this increase in runoff to on-site wetlands and downstream areas. Water detention basins are designed to reduce post-development peak flow rates to levels below existing rates.

Stormwater Pollution Prevention Plan

To address impacts to surface water quantity and quality, the stormwater facilities have been engineered in accordance with NYSDEC water treatment requirements. The designs will incorporate the standards presented in the NYSDEC stormwater management manual[5]. Appendix C presents the proposed mitigation methods for drainage controls that will reduce stormwater runoff impacts for up to a 100-year storm. The procedure used to analyze and quantify the stormwater runoff characteristics of the site was the computer program HydroCad Version 7.1 that is based on the USDA Soil Conservation Service Technical Release TR-20. The proposed micropool detention pond will provide a storage volume of 15,600 cubic feet, which is 2,000 cubic feet greater than that required by the TR-20 requirement.

Potential Downstream Channel and Bank Erosion and Flooding

The development will have a detention pond that will capture and attenuate the peak storm water runoff into NYSDEC Wetland A-50. The peak rate of storm water discharge from the site under proposed developed conditions will be the same as, or reduced from, the peak flows

[5] NYSDEC. August, 2003. *New York State Stormwater Management Design Manual*.

under existing conditions (Table 3.2-4 and Appendix C) and will discharge in approximately the same directions as the existing drainage.

Table 3.2-4
Peak Pre- and Post-development Flows (cfs)
for 24-Hour Design Storms

Storm Event	Existing Conditions	Developed Conditions	Change
1 year - Stream Channel Protection	16.50	16.10	-0.40
10 year - Overbank Flood Control Protection	81.40	77.20	-4.20
100 year - Extreme Flood Control Protection	181.90	167.90	-14.00

cfs = cubic feet per second
Source: Cronin Engineering PE PC

By reducing stormwater runoff discharge to rates lower than pre-development rates in all storm scenarios, thus there will be no adverse impacts related to downstream flooding. By reducing post-construction peak rates of stormwater discharge to below pre-construction levels, the applicant has fully mitigated the potential for increased downstream channel, bank erosion and flooding from the proposed action.

Pollutant Loading in Stormwater

The SWPPP for the project will include the latest Best Management Practices (BMPs) for control of pollution during and after storm events. Grass-lined swales, grass channels, catch basin traps, dry wells, infiltration chambers and micropool detention basins with controlled release outlets will all be used in a combination that will remove pollutants from storm water runoff. All systems will be designed to conform to the rules, regulations, specifications, and requirements of the NYSDEC and the Town of Cortlandt. While there are no other rules and regulations for the protection of the Hudson River and City of Peekskill water supply that are specifically applicable to this project, the project as proposed will comply with State and Town requirements so as not to impact these downstream water resources.

The use of curbing and/or driveway pitch to yard drains or other conveyances are proposed where stormwater collection is required for the driveways. Roof leaders and underground infiltration units will be provided for lots that are not connected to the common stormwater collection system. The proposed method of water quality treatment for runoff from individual lots is by dry swales, underground infiltration units or seepage pits.

The construction of a vegetated water quality basin, while recognized as a site disturbance, will still serve to enhance the water quality functions of the wetland buffer prior to discharge to the watercourses and will be appropriately landscaped to blend into the landscape through the use of low maintenance, native vegetation. The landscape plan includes a specification of the proposed plant mix for this area. Water quality basins are required to comply with NYSDEC and Town of Cortlandt (by reference to State standards) regulatory requirements and any basin should be placed to make best use of site topography for the treatment of the greatest percentage of water from impervious surfaces.

Stormwater treatment facilities will be located on individual lots in the Mill Court Crossing subdivision These facilities will consist of 8-foot diameter by 6-foot deep drywells surrounded by a one foot ring of gravel. Between one and five drywells will be provided on each parcel where individual lot stormwater treatment is provided.[6] Individual lot stormwater treatment facilities will be located on the following parcels:

Lot 4	Lot 20
Lot 5	Lot 21
Lot 6	Lot 22
Lot 7	Lot 23
Lot 8	Lot 24
Lot 9	Lot 25
Lot 14	Lot 26
Lot 15	Lot 27

During construction, maintenance will be performed by the developer, and will consist of an initial cleaning following construction and site stabilization.

A drainage district will be established to facilitate continued maintenance of the stormwater facilities in this project that are located within the road right-of-way and easements. Maintenance of stormwater treatment facilities (drywells) located on lots will be the responsibility of individual homeowners after they take possession of their lot. Homeowners will then be responsible to perform a semi-annual inspection, with cleaning as necessary for the first three years following construction. Thereafter, annual inspections, with cleaning if needed, will be necessary. Cleaning would consist of removal of sediments from the dry wells when the sediment depth in the bottom of the dry wells is found to be greater than one foot. The applicant will develop, in conjunction with the Town's Department of Technical Services, a site management manual to be provided to the homeowners that will outline maintenance responsibilities of the drywells on the individual lots. A mechanism for tracking the homeowners' inspections, possibly by reporting to the Department of Technical Services, will be included in the manual.

With the implementation of the project specific SWPPP, including the proposed ESC plan and the stormwater management plan, no other potential adverse impacts to on-site or downstream water resources are expected to result from the proposed development.

[6] Both drywells and grassed swales are analyzed in the SWPPP for stormwater treatment on the individual lots and, while either practice would achieve the necessary water quality treatment, drywells are proposed as they would require less site disturbance.

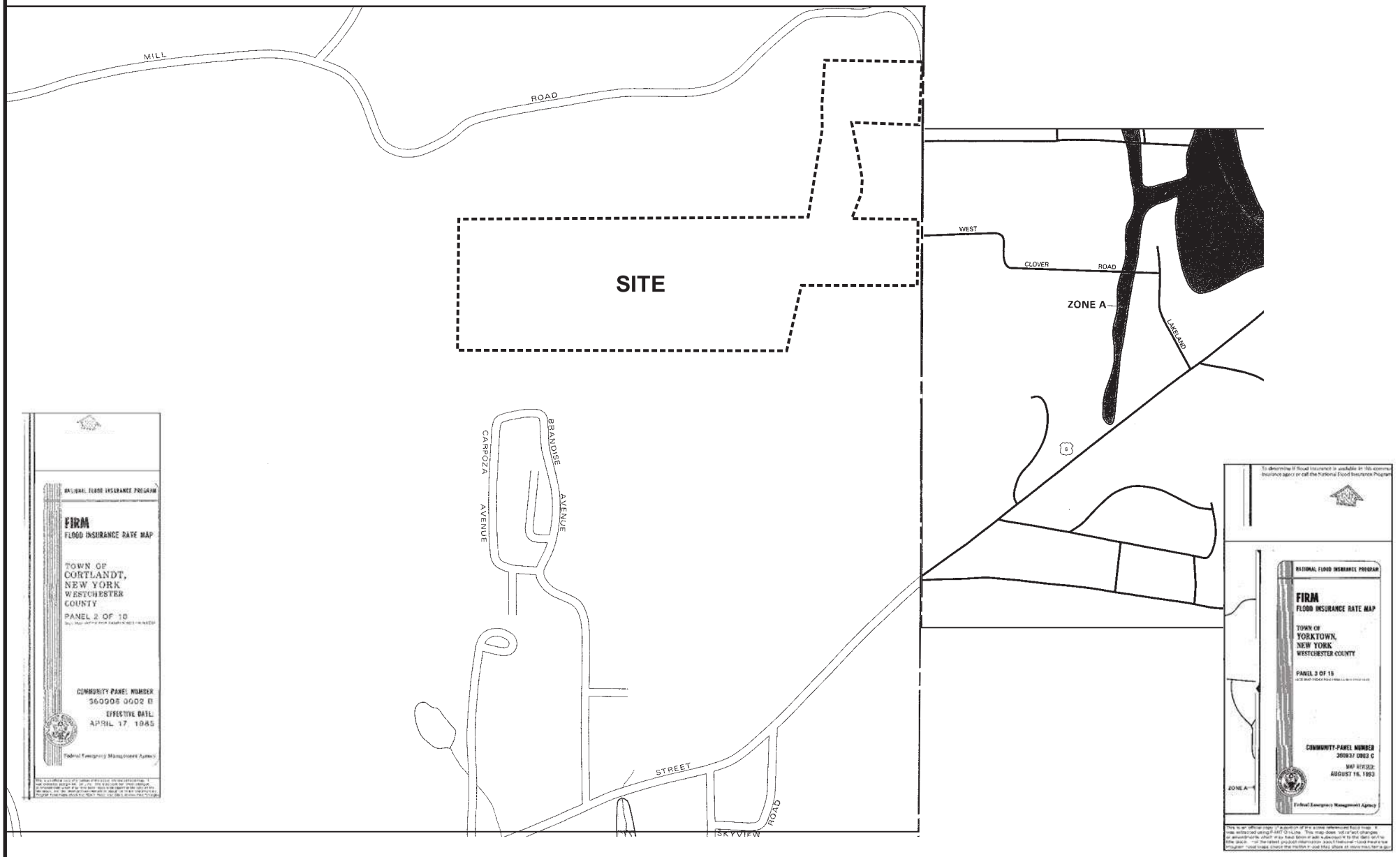

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Figure 3.2-1: Project Site on FEMA Flood Insurance Map

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Source: FEMA

Approx. Scale: 1 inch = 800 feet

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JS:\05077

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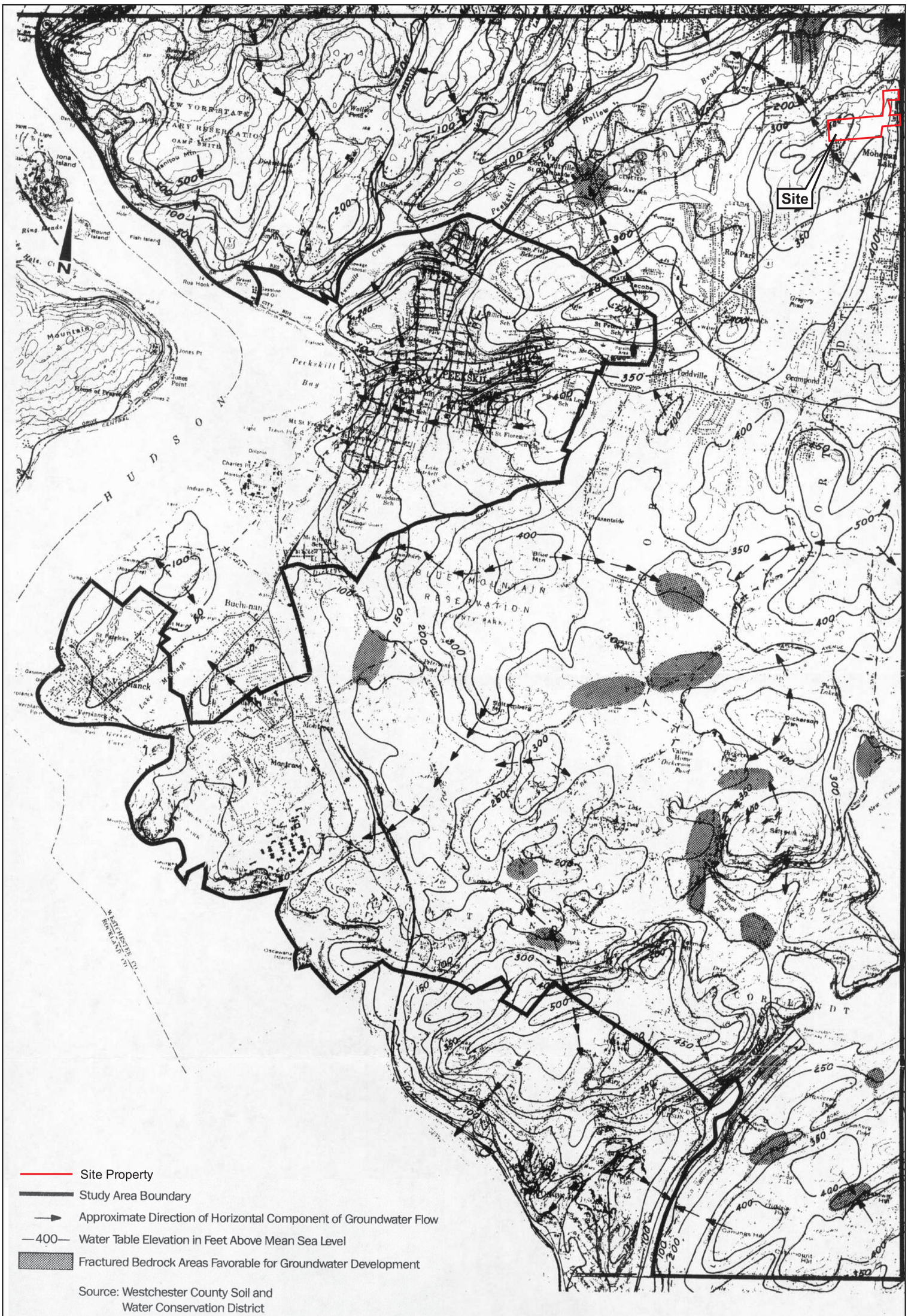

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Figure 3.2-1A: Groundwater Resources Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Town of Cortlandt Master Plan, 1990
Scale: 1 inch = 3,500 feet

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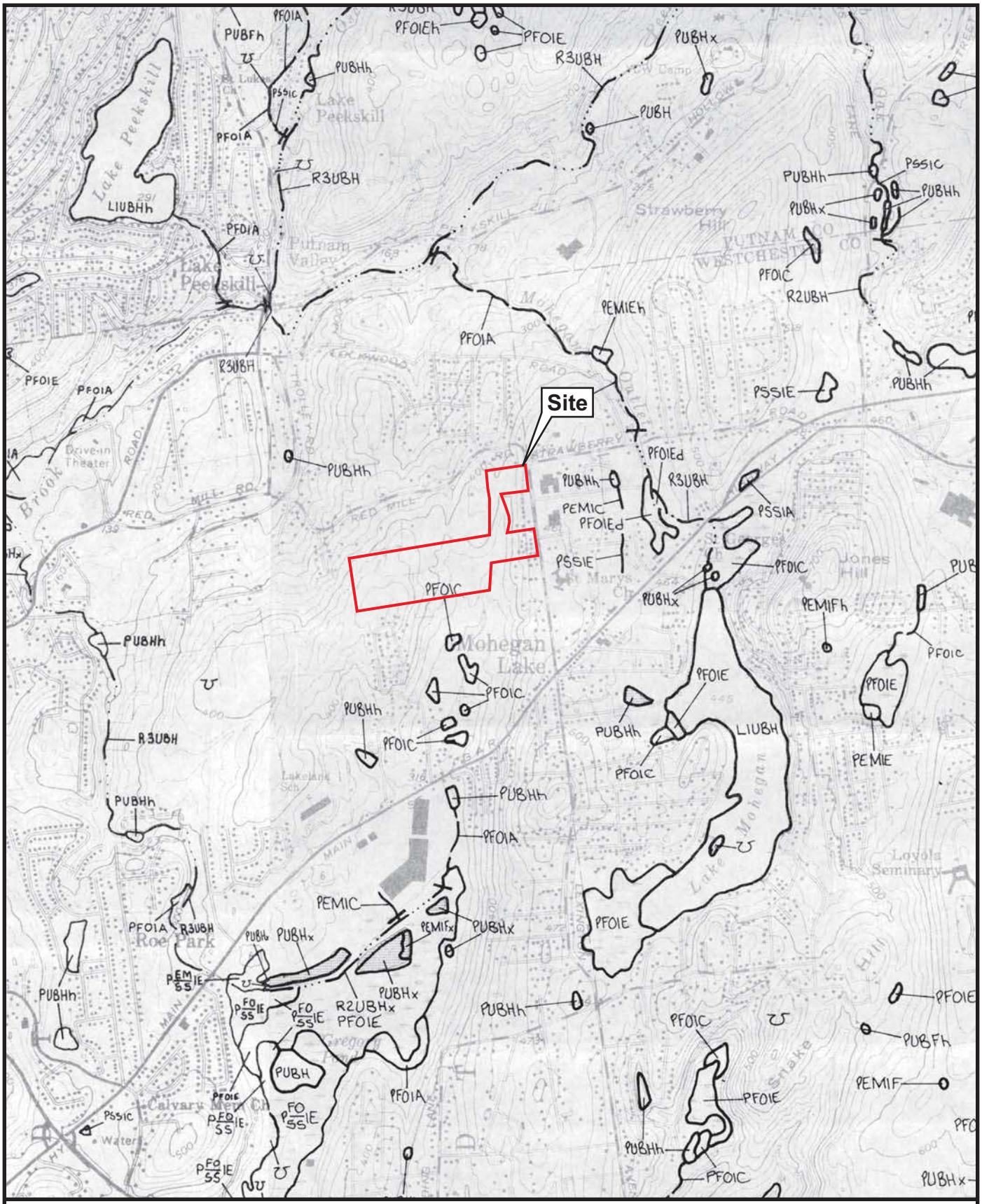

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Figure 3.2-2: Project Site on National Wetlands Inventory Map

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Source: U.S. Dept. of the Interior, Fish and Wildlife Service

Mohegan Lake and Peekskill Quads

Scale: 1 inch = 2,000 feet

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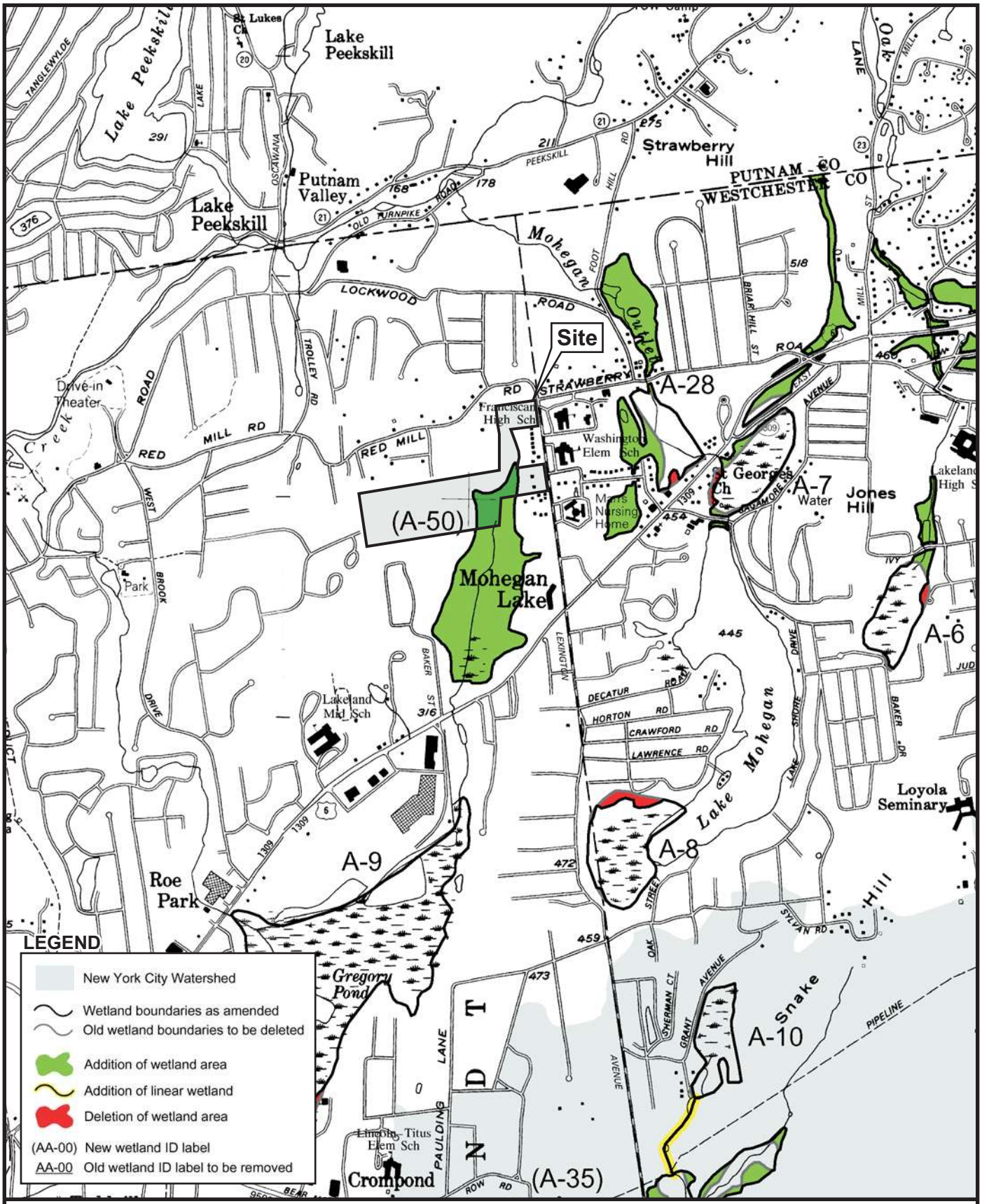

Figure 3.2-3: Project Site on NYSDEC Freshwater Wetlands Map

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Source: NYSDEC

Mohegan Lake and Peekskill Quads

Scale: 1 inch = 2,000 feet

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Figure 3.2-4: Wetland Delineations on Project Site

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Source: Cronin Engineering P.E, P.C., 05/20/2005

Scale: Graphic

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LEGEND

EXIST. CONTOUR

DRAINAGE BASIN BOUNDARY

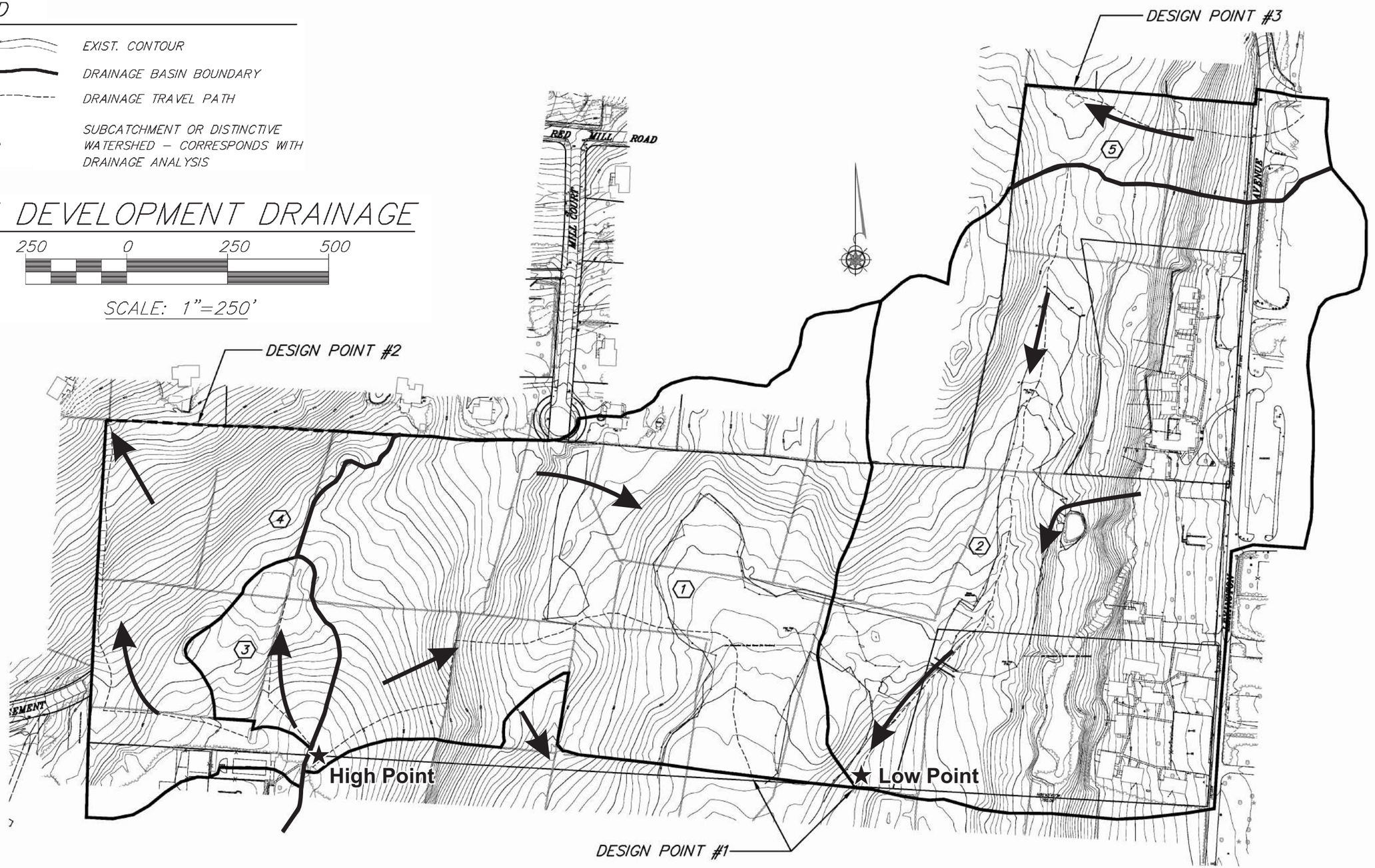
DRAINAGE TRAVEL PATH

(1) SUBCATCHMENT OR DISTINCTIVE WATERSHED – CORRESPONDS WITH DRAINAGE ANALYSIS

PRE DEVELOPMENT DRAINAGE

250 0 250 500

SCALE: 1"=250'



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DESIGN POINT 1
AREA = 61.8 AC
Q_{100} = 146.0 CFS
Q_{10} = 67.1 CFS
Q_1 = 14.0 CFS

DESIGN POINT 2
AREA = 11.8 AC
Q_{100} = 20.9 CFS
Q_{10} = 6.7 CFS
Q_1 = 0.5 CFS

DESIGN POINT 3
AREA = 4.0 AC
Q_{100} = 15.0 CFS
Q_{10} = 7.6 CFS
Q_1 = 2.0 CFS

Figure 3.2-5: Pre-Development Stormwater Boundaries
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering P.E., P.C.
Date: 04/07/06
Scale: Graphic

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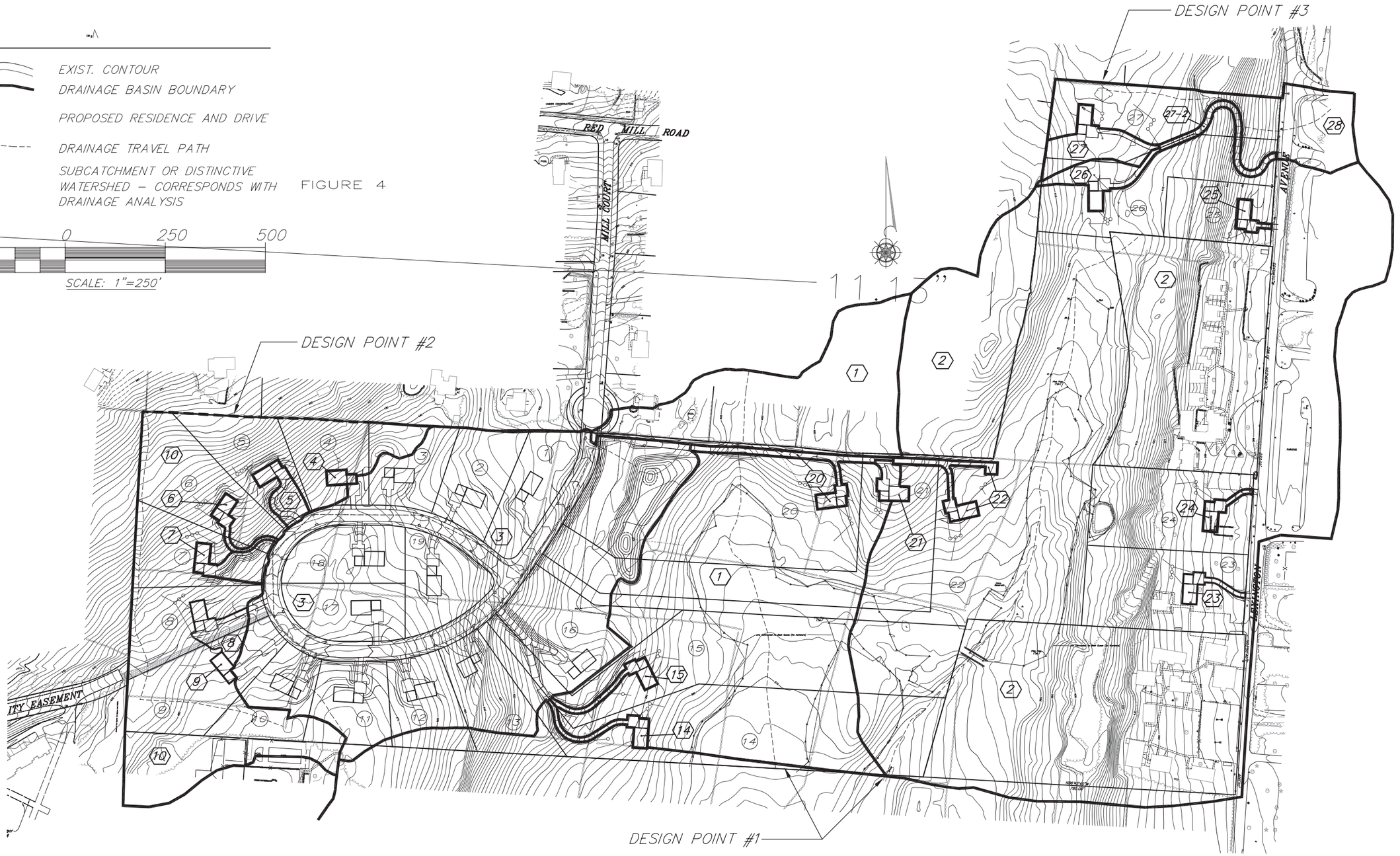
LEGEND

- EXIST. CONTOUR
- DRAINAGE BASIN BOUNDARY
- PROPOSED RESIDENCE AND DRIVE
- DRAINAGE TRAVEL PATH
- (1) SUBCATCHMENT OR DISTINCTIVE WATERSHED – CORRESPONDS WITH DRAINAGE ANALYSIS

FIGURE 4

250 0 250 500

SCALE: 1"=250'



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DESIGN POINT 1
AREA = 66.1 AC
Q_{100} = 138.0 CFS
Q_{10} = 63.7 CFS
Q_1 = 14.0 CFS

DESIGN POINT 2
AREA = 8.8 AC
Q_{100} = 17.1 CFS
Q_{10} = 6.6 CFS
Q_1 = 0.5 CFS

DESIGN POINT 3
AREA = 3.0 AC
Q_{100} = 12.8 CFS
Q_{10} = 6.9 CFS
Q_1 = 1.6 CFS

Figure 3.2-6: Post-Development Stormwater Boundaries
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering P.E., P.C.
Date: 11/20/06
Scale: Graphic

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LEGEND

EXIST. CONTOUR

AREA OF DISTURBANCE

PROP. BUFFER DISTURBANCE

PROP. WETLAND DISTURBANCE

WETLAND

North

0 100 200 400

SCALE IN FEET

11/14/06
TMA File 05077

FS: MillCt\drawings\SitePlans111406\Kirquel-T SitePlans 111406.dwg

Figure 3.2-7: Wetland & Wetland Buffer Disturbance Areas
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

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3.3 Air Resources

Air quality is a relative measure of the amount of noxious substances, natural and manmade, that occur in the air. Certain airborne gases and particles can cause or contribute to the deterioration and/or destruction of biological life as well as damage to property and other physical components of the environment. Air pollutants can be defined as solid particles, liquefied particles, and vapor or gases, which are discharged into, or form in, the outdoor atmosphere. Air quality in any particular location is influenced by contaminants discharged into the atmosphere and by regional and local climatic and weather conditions. Atmospheric conditions such as sunlight, rainfall and humidity, air turbulence, temperature differences, and wind speed and direction can disperse, intensify or chemically change or alter the composition of air contaminants.

3.3.1 Existing Conditions

Climate

The climate of Westchester County is controlled by the presence of highlands to the north and west and the Atlantic Ocean and Long Island Sound to the east and south. The Highland regions tend to slow the migration of very cold air masses so that air mass temperatures are moderated before they reach the County and the Town of Cortlandt. The maritime climatological effects of the nearby water bodies has a moderating effect on temperature so that periods of temperature extremes are of relatively short duration. In addition, maritime air provides atmospheric moisture so that precipitation periods are generally evenly distributed throughout the year.

Prevailing winds are generally from the northwest in winter months and southwest in summer months, although local conditions may alter these flows to some degree.

Mean annual precipitation in Westchester has been recorded at 46.31 inches (in Bedford) and 47.33 inches (in Scarsdale). (These are the closest recording stations to the project site.) Precipitation is fairly evenly distributed throughout the County.

Background Air Quality

The Federal Clean Air Act (1990) and its amendments require each state to develop a State Implementation Plan (SIP) that provides a regulatory framework for implementing the requirements of the Act. The SIPs describe how each state will attain and maintain air quality standards. The New York SIP adopted ambient air quality standards (AAQS) from a list of seven pollutants identified by the US Environmental Protection Agency (USEPA). Attainment of the AAQS is required under the Act, and each state has a designated time period to bring non-conforming areas into compliance. The AAQS establish levels to protect the health (primary standard) and welfare (secondary standard) of the general public with an adequate margin of safety. These standards are designed to protect the most vulnerable segments of the population (for example, children and the elderly) that are susceptible to air quality-related health problems. Locations of sensitive receptors considered in assessing air quality in relation to pollutant sources include, but are not limited to, schools, hospitals and convalescent homes.

New York State is divided into nine (9) Air Quality Control Regions (AQCR) used to evaluate air quality by geographic region. The Town of Cortlandt is located in the southern portion of the Region 3 AQCR, which includes the following counties: Rockland, Orange, Putnam,

Westchester, Sullivan, Dutchess and Ulster. The Federal criteria pollutants currently monitored within Region 3 include: sulfur dioxide (SO_2), ozone (O_3), total suspended particulates, inhalable particulates (PM_{10}), and lead. Particulate standards include only those particles with nominal diameters less than 10 microns which are inhalable. The remaining criteria pollutants - carbon monoxide (CO) and nitrogen dioxide (NO_2) - are not monitored in the Region 3 AQCR, but are monitored in Region 2 AQCR, which includes the five boroughs of New York City. The sources, the effects on human health and the final disposition of these contaminants in the environment vary considerably.

Sources of air pollutants are summarized in Table 3.3-1, below.

Table 3.3-1
Principal Sources of Air Pollutants

Pollutant	Principal Sources
Carbon Monoxide (CO)	Motor Vehicles (90%) Other Combustion Sources (10%)
Oxidants (primarily Ozone)	Produced by the Action of Sunlight on HC and NO_x Compounds in the Atmosphere
Nitrogen Oxides (NO_x)	Stationary Source Combustion (50%) Mobile Sources (50%)
Hydrocarbons (HC)	Motor Vehicles (60%) Industrial Process and Evaporative Losses from Storage Facilities (40%)
Particulates (part)	Many Sources (Stationary and Mobile) Including Crushing and Grinding Operations and Natural Resources
Sulfur Dioxide (SO_2)	Electric Power Generation (40%) Space Heating (30%) Other Combustion of Fuels in Industrial Processes (30%)

Sources:
DGEIS for IBM - Proposed Re-zoning, IBM Properties, Town of Fishkill, October 3, 1983, prepared by Ronald A. Freeman Associates, P.C. Consulting Engineers
NYSDEC Region 3, NYS Air Quality Report, Ambient Air Monitoring System Annual Report 1992-DAR-93-1
Note: The percentage figures represent approximate contributions for the sources identified in middle-latitude areas. For more specific information, refer to the annual reports of the Council on Environmental Quality.

Table 3.3-2 presents a summary of 2004 data collected at monitoring stations located closest to the project site, in the Region 3 AQCR. These data provide information on existing air quality in the local region. Use of the regional data provides a reasonable representation of the air quality conditions in the local area of the project site, since the New York State Department of Environmental Conservation (NYSDEC) monitoring stations are strategically located to characterize the ambient air quality of the region. Based upon the 2004 data, all air quality constituents in the vicinity of the project site are at acceptable levels.

Data collected by NYSDEC has shown no significant change in air quality over the last ten years. The recorded concentrations remain well below the air quality standards in the New York SIP.

Table 3.3-2
2004 Regional Air Quality Data Summary

Pollutant	Monitoring Location	Concentration	Air Quality Standard	Within Standard?
Ozone (O_3)	White Plains	0.018 ppm (2)	0.08 ppm (2)	Yes
Sulfur Dioxide (SO_2)	Mt. Ninham	2.2 ppb (1)	30 ppb (1)	Yes
Inhalable Particulates (PM_{10})	Belleayre	11 g/m^3 (1)	50 g/m^3 (1)	Yes
Inhalable Particulates ($PM_{2.5}$)	White Plains	10.8 g/m^3 (1)	15 g/m^3 (1)	Yes
Lead (Pb)	Wallkill	0.04 g/m^3 (3)	------	Yes
PM Sulfate	Belleayre	3.3 g/m^3 (1)	------	Yes
PM Nitrate	Belleayre	0.2 g/m^3 (1)	------	Yes

Notes:
(1) Annual Arithmetic Mean in parts per billion (ppb).
(2) 4th Highest Daily Maximum 8-Hour Average in parts per million (ppm).
(3) Maximum Quarterly Average in grams per cubic meter ($g/m^{3)}$).
Source: New York State Department of Environmental Conservation Air Quality Report, 2004.

Existing Air Pollution Sources and Receptors

Land use in the immediate vicinity of the project site is primarily a mix of residential and commercial uses. There are no major stationary sources of air pollution emissions in the immediate vicinity of the project site. The George Washington Elementary School, located on Lexington Avenue, is not considered a major source of air emissions.

Potential pollutant receptors identified within one-half mile of the project site include single family residences located on surrounding roads such as in the South Hill Road and Fawn Ridge Drive neighborhoods, and multi-family residences in the Wild Birch Farms community. Several sensitive receptors were identified in the project area. The George Washington Elementary School and TreeTops at Mohegan Lake nursing home are located along Lexington Avenue across from the project site. Lakeland School is located along US Route 6 within one-half mile of the project site. The Strawberry Road Early Learning Center is located on Strawberry Road within one-quarter mile of the project parcel boundary. No other sensitive receptors (hospitals, schools, nursing homes, parks and recreation areas) were identified in the vicinity of the project site.

The primary sources of air emissions by residences are typically passenger vehicles, gas-powered yard maintenance equipment, and home heating systems. The primary pollutants associated with exhaust emissions from these combustion sources are nitrogen dioxide (NO_2), hydrocarbons (HC), and carbon monoxide (CO). Since short term exposure to elevated CO concentrations can have acute health impacts, State and Federal AAQS have been developed for ambient CO concentrations requisite to protect the health and welfare of the general public with an adequate margin of safety. There are no short term health standards currently enforced for NO_2 and HC, since the primary concern with these pollutants is their role in the

photochemical reactions that lead to the formation of secondary pollutants known as ozone and "smog" which are known lung and eye irritants. Since ozone and smog formation is a slow process that occurs outside the primary impact area of any one project, these pollutants are only analyzed on a regional scale (mesoscale) and not locally (microscale).

3.3.2 Potential Impacts

The air emissions generated by the proposed single family residences will be similar to those generated by the existing residences in the area from passenger vehicles, gas-powered yard maintenance equipment, and home heating systems. Given the proposed low density of the project, the projected low volume of traffic generation, the limited lawn and landscaped areas to be created, and the installation of new, energy-efficient heating systems in the units, no significant air quality impacts are expected to result from the proposed development.

The proposed subdivision will consist of 27 units. An estimated 52 vehicles may be added to the area assuming two cars per household. Based on an emission model used by the NYSDEC that considers average vehicle speed and roadway functional class (a modified version of USEPA's MOBILE5B), emissions of ozone precursors, volatile organic carbon (0.52 grams/mile) and nitrogen oxides (2.14 grams/mile), from vehicular use generated by this project would be below the level of detection. The amount of these emissions would be extremely small compared to the total emissions from the traffic in the area and would not affect ozone concentrations at or in the vicinity of the project site.

It is expected that this project will have no appreciable affect on regional NO_2, HC, CO, or ozone levels. No long-term air quality impacts are expected to result from the proposed residential development.

Construction Related Impacts

Construction activities may have a short-term impact on local air quality through generation of fugitive or airborne dust. Fugitive dust is generated during ground clearing and excavation activities, and generally when soils are exposed during dry periods. Throughout the construction period, passage of delivery trucks and other vehicles over temporary dirt roads and other exposed soil surfaces would also generate fugitive dust. Residences closest to the proposed areas of grading, such as those located in the Wild Birch Farms condominiums or along Mill Court, would have the greatest potential to be impacted by dust. These potential impacts are described below.

Construction related air quality mitigation measures, as described below, are proposed to avoid significant adverse impacts on single and multi-family residences in the immediate vicinity of the project site.

Short Term Noise Impacts During Construction

Local daytime ambient noise levels in the immediate vicinity of the site will increase during some periods of construction of the proposed subdivision. Construction activities and the operation of construction equipment are an expected and unavoidable consequence of any new construction project. Thus, some intermittent noise impacts would be expected. It is important to note that noise resulting from construction activities is a temporary impact, and will cease upon completion of the project. The following table shows representative maximum sound levels for diesel powered equipment and activities at a range of receptor distances.

Table 3.3-3
Construction Noise Levels
(dBA)

	Maximum Sound Level			
Equipment/Activity	**50 feet**	**200 feet**	**500 feet**	**1000 feet**
Backhoe	82-84	70-72	62-64	56-58
Blasting	93-94	81-82	73-74	67-68
Concrete Pump	74-84	62-72	54-64	48-58
Generator	71-87	59-75	51-67	45-61
Hailer	83-86	71-74	63-66	57-60
Loader	86-90	74-78	66-70	60-64
Rock Drill	83-99	71-87	63-79	57-73
Trucks	81-87	69-75	61-67	55-61

Source: Tim Miller Associates, Inc., 2005.

To the average person, a noise level increase of 2 to 3 dBA is barely perceptible; an increase of 5 dBA is noticeable; and an increase of 20 dBA or more is perceived as a dramatic change. Annoyance to people frequently results from increases of 10 dBA or more, depending upon the frequency and duration of the noise events.

The level of impact from construction noise sources depends upon the type and number of pieces of construction equipment being operated, the duration of the construction activities, as well as the distance of the receptor from the construction sites. The noisiest period of construction will occur during site clearing and grading activities, when sections of the site are prepared for the building; although all construction activities at the site are likely to produce increased noise levels.

The project site is located in a residentially zoned district, as is all contiguous land. According to Chapter 197, Noise, of the Town of Cortlandt Code, noise levels in a residential district measured at the property line are restricted to a maximum of 65 dBA between the hours of 8:00 a.m. and 6:00 p.m., and a maximum of 55 dBA between the hours of 6:00 p.m. and 8:00 a.m. However, construction noises are subject to the regulation set forth in Section 197-16, which specifically addresses construction-related noises without reference to specific noise levels or zoning designation. Section 197-16 prohibits the use and operation of construction machinery and equipment between the hours of 7:00 p.m. and 7:00 a.m., Monday through Saturday, and all day Sunday and national holidays. No noise generated by construction activities during the stated times shall "be audible to the human ear beyond the property line of the property upon which such excavation, filling, demolition, rehabilitation or construction operations are being undertaken, provided that this subsection shall not apply to operations of an emergency nature undertaken by governmental entities or public service corporations during the prohibited hours set forth above."

Construction activities can be expected to conform to the construction-related restrictions set forth in the Town Code, but will result in periods of elevated noise during workdays while the project is under construction.

Noise levels due to construction activities will vary widely, depending on the phase of construction activities. Occasional noise levels at the site property line are projected to range between 65 dBA and 90 dBA, depending on the actual location of construction equipment at any given time. These elevated noise occurrences are typically sporadic during the construction period. Noise levels actually experienced on a nearby property would be expected to be lower, accounting for distance from the noise source and other attenuating factors.

Short-Term Fugitive Dust Emissions

The construction of the proposed project will involve land clearing, grading, and blasting activities that may result in the release of fugitive dust and particulate matter from the project site. The anticipated construction period is anticipated to be three construction seasons over 3½ years. Construction activity will be limited to the hours of 7 AM and 7 PM, Monday through Saturday, in accordance to the Town of Cortlandt Code. During construction, dust and particulate matter from the project site may be released into the air and carried off-site by wind. On-site mitigation measures are proposed as part of the project during construction to limit the dispersal of particular matter. No significant impacts to nearby residences on Mill Court, Amherst Road or Lexington Avenue are expected to result from the construction-related dust emissions.

Short-Term Construction-Vehicle Emissions

Temporary impacts on local air quality are expected to occur during the construction phase of the project from mobile source emissions of construction vehicles and equipment. These air emissions will occur in those portions of the project site where construction activity is proposed. Most of the construction activity will occur on or near the proposed access road in the western portion of the property. Construction activity will be limited to the hours of 7 AM and 7 PM, Monday through Saturday. Construction-related air emissions will result primarily from the use of diesel fuel as a source of energy for construction vehicles and equipment. Some of the construction equipment may utilize gasoline as a source of fuel, but use of this equipment will be relatively low in comparison to diesel fuel consuming equipment and vehicles.

Well maintained diesel engines are more fuel efficient than gasoline engines, however, their exhaust is a source of some air pollutants. The major pollutants resulting from diesel fuel include the following:

- Hydrocarbons - Unburned or partially burned fuel molecules consist of hydrocarbons that can react in the atmosphere to form ground-level ozone, a major component of smog that can cause of range of respiratory health problems.
- Carbon monoxide - Emissions from diesel engines contain very low levels of carbon monoxide in comparison to gasoline engines. Carbon monoxide is a colorless, odorless gas which combines with the blood and limits its ability to transport oxygen. Carbon monoxide is the result of incomplete combustion of fuel.
- Nitrogen oxides - Because diesel engines consume fuel and air, and create heat, nitrogen from the air can be transformed into nitrogen oxides. This reddish brown gas can irritate the lungs and eyes. Nitrogen oxides react with hydrocarbons in the atmosphere to form ground-level ozone. At low concentrations, ozone can cause eye irritations; at higher concentrations, ozone can create respiratory problems in susceptible people, including the elderly and small children.

- Particulate matter - Smoke from diesel engines contains microscopic airborne carbon particles that result from fuel combustion. The smoke from properly maintained diesel engines should not be visible. Exhaust fumes that are thick and black, occur when diesel engines are poorly maintained or maintained improperly. Particulate matter can damage the respiratory system and contribute to the odor associated with diesel exhaust.

Construction related impacts would vary based on the proximity of the activities to the adjacent properties and the type and amount of construction equipment used for each project phase. However, to address potential air quality impacts from construction related activities, mitigative measures have been proposed for specific construction activities to minimize the overall impact on the air quality. If mitigative measures are applied properly, adverse air quality impacts would be minimized.

Long-Term Air Quality Impacts

The primary generator of air emissions from any proposed residence is the operation of passenger vehicles. Given the proposed density of the project, the projected volume of traffic, no air quality impacts are expected to result from the proposed development.

The potential impacts from the project-generated traffic were evaluated using the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM) Chapter 1, Section 9 - Projects Needing Air Quality Analysis (January, 2001). Carbon monoxide (CO) is the primary pollutant of concern for traffic generated air emissions and is used by the NYSDOT as a screening tool since CO generally has local impacts and higher concentrations of CO are limited within a short distance of heavily traveled roadways.

According to the NYSDOT Procedures Manual, intersections with level of service (LOS) C or better, do not require air quality analysis. One (1) signalized intersection was examined near the project site as part of the traffic analysis, Lexington Road and Route 6. This intersection has been evaluated as having a level of service (LOS) D for the build conditions. Therefore, the NYSDOT Procedures Manual was used to further evaluate this intersection to determine the need for a microscale air quality analysis. The screening criteria are as follows:

- 10 percent or more reduction in the source-receptor distance;
- 10 percent or more increase in traffic volume on affected roadways between the No Build and Build scenarios;
- 10 percent or more increase in vehicle emissions;
- Any increase in the number of queued lanes; and,
- 20 percent reduction in speed.

Evaluation of the projected traffic and the criteria above indicates the proposed project will not exceed any of the criteria for further CO micro-scale air quality analysis. Therefore, a microscale air quality analysis is not required for the Lexington and Route 6 intersection as it is not anticipated that the ambient air quality standards would be exceeded based on the screening analysis.

All other intersections involved in the project area will be stop sign controlled. The NYSDOT EPM states: *"It is not expected that intersections in a build alternative controlled by stop signs will require an air quality analysis*". Thus, while some nonsignalized intersections may have a Build level of service lower than "C", the screening analysis concludes that traffic volumes

associated with stop sign controlled intersections are not sufficiently high to warrant further CO microscale analysis. The level of CO at a stop sign controlled intersection would not exceed ambient air quality standards.

3.3.3 Proposed Mitigation

Measures to Control Emissions from Home Heating Systems

The applicant has entered into an agreement of understanding with Independence Energy Homes (IEH), to construct Zero Net Energy Cost residences as an option to new home buyers. IEH designed homes accomplish this goal by integrating solar based heating, cooling and water heating with grid based energy. The IEH homes eliminate the unfavorable emissions from home heating systems.

Efforts to Reduce Ground Level Ozone Concentrations

The NYSDEC, USEPA, and the NYSDOT are the primary agencies responsible for programs and policies to reduce emissions which lead to ozone formation in New York State. Stringent limits on gasoline volatility, hydrocarbon vapor control during refueling, tailpipe emission standards, inspection and maintenance programs, warning systems when emission controls malfunction and other programs have contributed to the overall downward trend of ozone in metropolitan New York since the early 1980's.

The air quality impact analysis of vehicle-generated emissions documented that site-generated traffic would not result in adverse air quality impacts at the primary intersections in the vicinity. Based on the intersection capacity analysis, the projected vehicle queues at the study intersections resulting from the project would not be significant enough to cause air quality concerns and no mitigation is required relating to long-term air quality.

The applicant will conform to emission reduction measures during construction through routine vehicle inspection and maintenance, application of diesel emission controls, use of clean diesel gasoline and efficient operations.

Noise Control Measures During Construction Activities

The anticipated duration of the construction period is approximately 24-36 months, for all construction phases. Construction activity will be limited to hours between 7:00 AM and 7:00 PM, Monday through Saturday, exclusive of Sundays and national holidays. Typically, construction activities will cease prior to 6:00 PM. These hours of operation are consistent with the Noise Control Law of the Town of Cortlandt. The Town Code specifically restricts any construction noise during the period of 7:00 PM and 7:00 AM.

All construction vehicles and equipment will be well maintained and operated in an efficient manner. In particular, the mufflers on all construction equipment will be fully functional and well maintained by the construction contractors. As the Build Condition is not anticipated to result in any long-term significant adverse noise impacts, no additional mitigation measures are proposed.

Dust Control Measures During Construction Activities

Methods to control dust include minimizing the area of the site which is subject to disturbance at any one time, use of mulch or other temporary covers on exposed soil areas, limiting the movement of trucks and construction equipment over exposed soil surfaces, and covering haul trucks to prevent dust emissions while in transit to and from the site. All debris will be thoroughly wet down before loading and while dumping into trucks and other containers during dry weather. During dry weather conditions, spraying water on unpaved areas subject to heavy construction vehicle traffic will help control dust. Paved areas will also be kept clear of loose dirt that can be re-entrained into the air during vehicle passage. The use of stone tracking pads at access points to the site or washing of vehicle tires will greatly lessen the tracking of soil onto adjacent roadways. All haul vehicles entering or exiting the project site while loaded with earth materials will be covered.

With minimal site maintenance and careful attention to construction activities, impacts from fugitive dust can be maintained below the State or Federal AAQS at off-site properties. Although exhaust emissions from construction equipment is not as significant as fugitive dust generation, particulate matter from diesel exhaust emission will also be controlled through proper tuning of the engine and maintenance of the vehicle air pollution controls. This will minimize additional contribution to site generated particulate emissions during construction.

No additional mitigation measures are proposed.

3.4 Terrestrial and Aquatic Ecology

3.4.1 Existing Conditions - Vegetation

General Vegetation

The project site consists almost exclusively of woodlands and wooded wetlands as shown on the 2004 aerial photograph provided in Figure 2-3. The existing vegetation cover types on the site are described below. Forested cover on surrounding properties is similar, although more limited in extent due to the development for residential uses and commercial developments along Route 6 to the south and Lexington Avenue to the east.

Site Vegetation

The project site is characterized by mature second and third growth deciduous forest of lowland and wetland species (Table 3.4-1). The site has a well developed tree canopy, although the presence of extensive stone walls over the project site indicates that the site was probably more opened in the past and had been developed for various farming activities. The age class of the woodlands on site is rather uniform, with most of the overstory comprised of pole to saw-timber sized deciduous hardwoods. A few scattered unusually large trees were also observed adjacent to stone walls that bisect the site, a reminder of the era when the bulk of the property was maintained as open field. The widespread occurrence of thin soils and the rocky and stony nature of the property precluded a more intense agricultural utilization of the site. Eastern portions of the site along Lexington Avenue contains a building, paved parking and lawn areas. Less than one-quarter-acre of the property, in the eastern portion, presently exists as open meadowland.

The plant community supports a three strata system dominated by medium size trees, shrubs and an herbaceous layer. A survey of trees 12 inches in diameter and greater (measured at 4.5 feet above the ground) on the property and generally outside of the wetland areas, produced an average tree diameter of 15.4 inches. The size of trees on the property indicate that the land has only recently been reforested. An aerial photograph of the site taken in 1954 shows that, outside of the forested wetlands areas, approximately half of the site existed as open, fallow fields or open canopied forests (see Figure 3.4-2). It is estimated that with few exceptions the older trees on this property are approximately 40 to 50 years of age. There are 13 trees with a trunk diameter of 36 inches or greater that may be over 50 years of age.

Overall, the site vegetation appears to be healthy and productive. The dominant plant species are identified below. Species abundance appears to be typical for a second growth upland community. The under story is generally open in the interior of the site and denser near the site boundaries, in the areas of fallen trees and in the wetlands.

A comprehensive natural resource inventory and biodiversity assessment was produced for the site by the Town's environmental consultant, Mr. Stephen Coleman, and is included in this report as Appendix E. An ecological investigation was also conducted specifically for the site wetlands during 2004 (Appendix D) by the Town's wetland consultant, Mr. Bruce Donohue. Additional field surveys (e.g. tree survey) for this assessment were conducted during 2005. The Mill Court property is characterized as a generally intact forest with centrally located wetlands that are the headwaters for a well-defined stream flowing south from the northeastern portion of the property. The dominant trees forming the canopy are various oaks (*Quercus* spp.), sweet (black) birch (*Betula lenta*), maples (*Acer* spp.), hickories (*Carya* spp.) and tulip poplars

(*Liriodendron tulipifera*). The most prevalent ecological community types on the site are a mesophytic hardwood forest and a riparian hardwood forest as defined in "Ecological Communities of New York State".[1]

The older aged second growth woods are dominant in the western portion of the site and within sections of the forested wetlands. Woodlands on the eastern portion of the site are more fragmented and disturbed in comparison.

[1] Edinger, G.J. Et al (Eds.) 2002. *Ecological Communities of New York State*. Second Edition. NY NHP, NYSDEC. Albany, NY. 136 pp.

Table 3.4-1 **Regional and Site Vegetation***	
Common Name (***Scientific Name***)**	
TREES	
Tulip poplar (*Liriodendron tulipifera)*	Shagbark hickory (*Carya ovata)*
White oak (*Quercus alba)*	Slippery elm (*Ulmus rubra)*
Red oak (*Quercus rubra)*	Black cherry (*Prunus serotina)*
Red maple (*Acer rubrum)*	Norway spruce (*Picea abies)*
Sugar maple (*Acer saccharum)*	Black locust (*Robinia pseudoacacia)*
Pignut hickory (*Carya glabra)*	Eastern red cedar (*Juniperus virginiana)*
Sweet (black) birch (*Betula lenta)*	Pin oak (*Quercus palustris)*
Sassafras (*Sassafras albidum)*	Eastern hemlock (*Tsuga canadensis)*
Norway maple (*Acer platanoides)*	American beech (*Fagus grandifolia)*
American elm (*Ulmus americana)*	Yellow birch (*Betula alleghaniensis)*
Ironwood (Blue beech) (*Carpinus caroliniana)*	White pine (*Pinus strobus)*
Black oak (*Quercus velutina)*	White ash (*Fraxinus americana)*
American basswood (*Tilia americana)*	Sour-gum (Black gum) (*Nyssa sylvatica)*
FORBS and GRASSES	
Selfheal (*Prunella vulgaris)*	Pokeweed (*Phytolacca americana)*
Ox-eye daisy (*Chrysanthemum leucanthemum)*	Queen Anne's Lace *(Daucus carota)*
Dandelion (*Taraxacum officinale)*	Pennsylvania smartweed (*Polygonum pensylvanicum)*
Lamb's quarters (*Chenopodium album)*	Common chickweed (*Stellaria alsine)*
Rattlesnake plantain (*Goodyera pubescens)*	Purple loosestrife (*Lythrum salicaria)*
Naked tick-trefoil (*Desmodium nudiflorum)*	Clearweed (*Pilea pumila)*
Common plantain (*Plantago major)*	Marsh bedstraw (*Galium palustre)*
Field horsetail (*Equisetum arvense)*	Canada mayflower *(Maianthemum canadense)*
Pigweed (*Amaranthus* spp.*)*	Wild blue phlox (*Phlox divaricata)*
Cardinal flower (*Lobelia cardinalis)*	Canada goldenrod (*Solidago canadensis)*
Field strawberry (*Fragaria virginiana)*	Spreading dogbane (*Apocynum androsaemifolium)*
White wood aster (*Aster divaricatus)*	Field pennycress (*Thlaspi arvense)*
Virginia dayflower (*Commelina virginica)*	Garlic mustard (*Alliaria petiolata)*
Virgin's bower (*Clematis virginiana)*	Wood asters (*Aster* spp.*)*
Deptford pink (*Dianthus armeria)*	Forget-me-not (*Myosotis verna)*
Orange jewelweed (*Impatiens capensis)*	Wild geranium (*Geranium maculatum)*
Greenbrier (*Smilax* spp.)	Wood anemone (*Anemone virginiana)*
Jack-in-the-Pulpit (*Arisaema* spp.*)*	Wild columbine (*Aquilegia canadensis)*
Virginia creeper (*Parthenocissus quinquefolia)*	Ragweed (*Ambrosia* spp.*)*
Poison ivy (*Toxicodendron radicans)*	Wild morning glory (*Ipomoea* spp.*)*
Grape (*Vitis* spp.*)*	False Solomon's seal (*Maianthemum racemosum)*
Skunk cabbage (*Symplocarpus foetidus)*	Butter-and-eggs (*Linaria vulgaris)*
Smooth yellow violet (*Viola pensylvanica)*	Celandine (*Chelidonium majus)*
Indian pipe (*Monotropa uniflora)*	Gill-over-the-ground (*Glechoma hederacea)*
Daisy fleabane (*Erigeron annuus)*	Trout lily *(Erythronium americanum)*

Common Name (***Scientific Name***)	
FORBS and GRASSES (Continued)	
Tall meadowrue (*Thalictrum pubescens)*	Common burdock (*Arctium major)*
Pennsylvania bittercress (*Cardamine pensylvanica*)	Yellow avens (*Geum aleppicum)*
Deadly nightshade (*Solanum dulcamara)*	White baneberry (*Actaea pachypoda)*
Asiatic bittersweet (*Celastrus orbiculatus)*	Enchanter's nightshade (*Circaea lutetiana)*
Tall buttercup (*Ranuculus acris)*	Path rush (*Juncus tenuis)*
White clover (*Trifolium repens)*	Kentucky bluegrass (*Poa pratensis)*
False hellebore *(Veratrum viride)*	Japanese stilt grass (*Microstegium vimeneum)*
Yellow sweet clover (*Melilotus officinalis)*	Manna grass (*Glyceria obtusa)*
Wild mint (*Mentha arvensis)*	Meadow fescue (*Fescue elatior)*
Yellow sedge (*Carex flava)*	Deer-tongue grass (*Panicum clandestinum)*
Soft rush (*Juncus effuses)*	Lurid sedge (*Carex lurida)*
Broom sedge (*Andropogon virginicus)*	Crabgrass (*Digitaria* spp.*)*
Reed-canary grass (*Phalaris arundinacea)*	Common reed (*Phragmites australis)*
Laxiflora sedge (*Carex laxiflora)*	Fox sedge (*Carex vulpinoides)*
Pennsylvania sedge (*Carex pensylvanica)*	
SHRUBS	
Summersweet clethra (*Clethra alnifolia)*	Winterberry (*Ilex verticillata)*
Spicebush (*Lindera benzoin)*	Multiflora rose (*Rosa multiflora)*
Japanese barberry (*Berberis thunbergii)*	Silky dogwood (*Cornus amomum)*
Arrowwood (*Viburnum* spp.*)*	Serviceberry (*Amelanchier canadensis)*
Flowering dogwood (*Cornus florida)*	Forsythia (*Forsythia* spp.*)*
Witherod viburnum (*Viburnum cassinoides)*	Brambles (*Rubus* spp.*)*
Witchhazel (*Hamamelis virginiana)*	Purple-flowering raspberry (*Rubus odoratus)*
Morrow's honey suckle (*Lonicera morrowii)*	Burningbush *(Euonymus atropurpureus)*
Blackberry (*Rubus allegheniensis)*	Wineberry *(Rubus phoenicolasius)*
Smooth blackhaw (*Viburnum prunifolium)*	Maple-leaved viburnum (*Viburnum acerifolium)*
Southern arrowwood (*Viburnum dentatum)*	Dewberry (*Rubus* spp.*)*
Highbush blueberry (*Vaccinium corymbosum)*	
FERNS and MOSSES	
Royal fern (*Osmunda regalis)*	New York fern (*Thelypteris noveboracensis)*
Sensitive fern (*Onoclea sensibilis)* †	Christmas fern (*Polystichum acrostichoides)*
Cinnamon fern (*Osmunda cinnemomea)*	Spagnum moss (*Sphagnum* spp.*)*
Woodfern (*Dryopteris* spp.*)*	Hayscented fern (*Dennstaedtia punctilobula)* †
Lady fern (*Athyrium filix-femina)*	Marginal woodfern (*Dryopteris marginalis)*
Marsh fern (*Thelypteris palustris)*	
* Based on observations during field investigations conducted in 2004 and 2005 by S. Coleman, B. Donohue and TMA biologists. ** USDA. 2005. *The PLANTS Database, Version 3.5*. Note: This list represents species observed during field investigations conducted during 2004, 2005. It is not, however, represented to be an exhaustive list. Note: All ferns listed above are protected in New York State with the exception of those followed by a "†" marker.	

Mesophytic Hardwood Lowland Forest

This forest community develops on moist (i.e. mesophytic), well-drained soils typical of southeastern New York and is the most extensive plant community on the Mill Court property. The predominant overstory trees observed on the Mill Court site include red oak (*Quercus rubra*), black oak (*Quercus velutina*), sweet (black) birch (*Betula lenta*), sugar maple (*Acer saccharum*), shagbark hickory (*Carya ovata*), pignut hickory (*Carya glabra*), tulip tree (*Liriodendron tulipifera*), white ash (*Fraxinus americana*), hemlock (*Tsuga canadensis),*

American beech (*Fagus americana*), and sassafras (*Sassafras alibidum*). The shrub layer is composed primarily of spicebush (*Lindera benzoin*), witch-hazel (*Hamamelis virginiana*) and arrowwood viburnum (*Viburnum dentatum*). Commonly observed ground layer species include Christmas fern (*Polystichum acrostichoides*), garlic mustard (*Alaria petiola*), Virginia creeper (*Parthenocissus quinquefolia*), white wood aster (*Aster divaricatus*) and various wood ferns (*Dryopteris* spp.).

Forested Riparian Wetland Complex

This is a hardwood swamp community that develops over poorly drained depressions. On the Mill Court property, this plant community is found closely associated with the 8.56 acres of wetlands drainage and watercourse that bisects onto the property from the southern border. Red maple is the most dominant mature tree and sapling species in the wetlands. Other dominant or commonly observed trees were American elm (*Ulmus americana*), white oak (*Quercus alba*), red oak, sugar maple and hornbeam (*Carpinus caroliniana*). Some portions of the community are dominated by spicebush, silky dogwood (*Cornus amomum*) and winterberry (*Ilex verticillata*) and are more representative of a scrub-shrub wetlands habitat. The herbaceous layer throughout the wetlands is dominated by skunk cabbage (*Symplocarpus foetidus*), in a community that also includes sphagnum mosses (*Sphagnum* spp.), sensitive fern (*Onoclea sensiblis*), cinnamon fern (*Osmunda cinnemomea*), garlic mustard and sedges (*Carex* spp.).

A single, semi-permanent pond exists behind a berm on the eastern side of the property. A narrow channel through the berm connects this small, 0.09 acres, man-made pond with the downstream wetlands. Plants around this pond are dominated by red maple, multiflora rose (*Rosa multiflora*) and skunk cabbage.

A total of 139 species of plants were observed on the site, including 26 species of trees, 23 species of shrubs and vines, and 90 species of forbs (i.e. herbs, ferns, grasses and grass-like plants). The current and past land uses of the site and adjacent areas has resulted in a forest community structure of relatively low species diversity and significant evidence of human activities.

Rare or Unusual Plant Species

Correspondence from the New York State Department of Environmental Conservation (NYSDEC) Natural Heritage Program was requested to identify listings of rare or state-listed animals or plants, or significant natural communities or other significant habitats on or in the vicinity of this property. A copy of their response dated 1 March, 2006, indicating no records of known occurrences of any of the listed items, is included in Appendix B (Correspondence). Based on the NYSDEC website publication "List of Endangered, Threatened, and Special Concern Species of New York State",[2] none of the plants observed, or identified on the site are listed as endangered, threatened, or special concern species.

The Croton-to-Highlands Biodiversity Plan

A regional biodiversity assessment, the Croton-to-Highlands Biodiversity Plan[3],was published in early 2004. Large areas of both public and private lands of the towns of Cortlandt, Yorktown and

[2] http://www.dec.state.ny.us/website/dfwmr/wildlife/endspec/etsclist.html.

[3] Miller, N.A. And M.S. Klemens. 2004. Croton-to-Highlands Biodiversity Plan - Balancing Development and the Environment in the Hudson River Estuary Catchment. MCA Technical Paper No. 7, Metropolitan Conservation

Putnam Valley were identified as "areas important for biodiversity" in this regional assessment process, and mapped as large- to small-scale features, including biodiversity corridors, biotic planning units, habitat constriction points and habitat fragments. The project site for Mill Court Crossing is not located within or immediately adjacent to any of the biodiversity features identified in Cortlandt or the adjacent towns (Figure 3.4-1).

Tree Survey

A tree survey was conducted on the upland areas of the property by Donnelly Land Surveying, PC, of all trees with a diameter of at least 12 inches at a height of 4.5 feet above ground level (diameter at breast height, or dbh). A list of these trees is provided in Appendix F of this document.

The Town Code defines a specimen tree as having “a minimum diameter of twelve (12) inches 4½ feet above ground level and/or a minimum crown spread of fifteen (15) feet.” Since this site is almost entirely wooded with second growth trees, there are few instances of trees having a crown spread of 15 feet on this site.

A total of 1,627 trees were surveyed on the upland areas of the project site that are 12-inch diameter and greater. An additional population of large trees exists within the boundaries of the delineated wetlands on the site that were not included in the inventory since they would remain on these protected areas of the property. The most common species in the survey were oaks (58.2%), birches (15.7%), maples (8.2%), hickories (7.3%) and tulip poplars (5.0%) that, combined, represented almost 95% of the surveyed trees. All other surveyed trees accounted for approximately 5 percent of the total. These included primarily ashes (1.4%), wild cherries (1.1%) and locust (1.0%). Lesser numbers of the following species were also surveyed as 12-inch or larger dbh trees: elms, tree-of-heaven, pines, cedar, sassafras, silver birch and American beech. The distribution of these species is generally uniform across the property, as this forest community is quite homogeneous, with the exception of presently developed areas along Lexington Avenue where fewer of these trees occurred.

Of the trees surveyed, thirteen were 36 inches or larger in diameter. Each of these specimens is either a tulip poplar or an oak and many of them are present on the existing home sites along Lexington Avenue, near the wetlands on the property or along stone walls.

3.4.2 Existing Conditions - Wildlife

Known and Expected Wildlife Species

As previously noted, most of the site is wooded. The woodlands provide wildlife habitat for a number of local species, including deer, raccoon, opossum, chipmunks, and squirrels. Regionally common bird species that reside or nest within canopied forests are also likely to be present, including woodpeckers, thrushes, owls, and warblers. The mature trees and snag trees on this site also offer a number of cavity nesting opportunities for woodpeckers, owls, songbirds and small mammals.

Because there are only limited water resources on the project site, the property is not expected to support any game fish or significant populations of other fishes such as minnows or dace.

Alliance, Wildlife Conservation Society, Bronx, New York.

Table 3.4-2 provides a list of wildlife species common to the area that are known or could reasonably be expected to utilize the site. This list identifies common species that are likely to utilize the habitat types available at the project site. It is noted that this list is not limited to actual observations at the site, but is a compilation of observations that have occurred throughout Westchester County in similar habitat conditions. This list includes those animals that were identified during the site field surveys either by visual confirmation or identification of scat, tracks or other signs. Some bird species were also identified by song alone.

During the field surveys a total of 44 bird species were observed, of which 35 could be summer breeding species, none of these species identified are considered endangered or threatened. The developed nature of the surrounding properties and overall disturbances in the area have created significant habitat fragmentation and overall disturbances that have reduced the viability of the available habitat for breeding birds in comparison to other areas of Westchester County (Appendix E).

Table 3.4-2 indicates, by asterisks, those species that were identified during project related field activities. A total of seven amphibians and three reptiles were observed on the site during the field surveys. Most of the species observed are considered to be common and generalist species, with the exception of the wood frog and the Eastern box turtle. The wood frog is a vernal pool indicator species and was observed in the single isolated small pond on the eastern edge of the site. The Eastern box turtle is identified as a species of special concern in the report by the Town's environmental consultant and was observed once on the property.

A total of twelve mammals were observed on the site during field surveys (Table 3.4-2). Deer were especially abundant as evidenced by signs of bedding and browsing across the site. The presence of coyote in the uplands of the site was noted by observations of scat in these areas. The mammals observed on the site are considered to be common and at average population levels indicative of northern Westchester County. None of the species observed, as noted in the report by the Town's environmental consultant, are considered to be environmentally sensitive.

The project site appears to provides overall good quality habitat and the observed abundance of wildlife species appears to be typical for mature deciduous second growth woodlands in Westchester County.

Wildlife migration through the site is limited by the developed nature of all of the surrounding properties including residential developments to the west and north, Lexington Avenue to the east, and Route 6 to the south.

The NYSDEC maintains a statewide Natural Heritage Program (NHP) database for known occurrences of state protected plants, animals and habitats. Based on a request for information from this database, there are no rare or state-listed wildlife or plant species known to inhabit the site or other areas in its immediate vicinity. Neither are any significant natural communities, or other significant habitats identified in the state NHP database search for these areas (NHP letter in Appendix B). On-site observations are consistent with this assessment as none of the species observed on the property are listed as an endangered species in New York State or Westchester County. Section 5 of the report by the Town's environmental consultant provides a summary assessment of the biodiversity features of the site.

Table 3.4-2
Known or Expected Wildlife and Their Habitat Associations

Common Name	Scientific Name	Habitat Type					
MAMMALS		**U**	**FW**	**OF**	**SS**	**Ed**	**SW**
White-tail deer*	*Odocoileus virginianus*	X	X	X	X	X	
Raccoon*	*Procyon lotor*	X	X				
Coyote*	*Canis latrans*	X	X	X	X	X	
Red fox	*Vulpes vulpes*	X	X		X	X	
Gray fox	*Urocyon cinereoargenteus*	X			X		
Opossum	*Didelphis virginiana*	X	X				
Eastern chipmunk*	*Eutamias striatus*	X					X
Gray squirrel*	*Sciurus carolinensis*	X	X				
Flying squirrel*	*Glaucomys volans*	X	X				
Eastern cottontail*	*Sylvilagus floridanus*	X		X	X	X	
Striped skunk*	*Mephitis mephitis*	X					
White-footed mouse*	*Peromyscus leucopus*	X					X
Deer mouse*	*Peromyscus maniculatus*	X					X
House mouse	*Mus musculus*			X			
Meadow vole	*Microtus pennsylvanicum*			X			X
Woodchuck*	*Marmota monax*	X				X	
Short-tailed shrew*	*Blarina brevicanda*	X					X
Little brown bat	*Myotis lucifugus*	X	X				
Red bat	*Lasiurus borealis*	X	X				
REPTILES							
Eastern garter snake*	*Thamnophis sirtalis*	X	X	X	X	X	X
Milk snake	*Lampropeltis triangulum*	X		X	X	X	
Northern ringneck snake*	*Diadophis punctatus edwardsii*	X	X	X	X	X	X
Eastern racer	*Coluber constrictor*	X		X	X	X	X
Eastern box turtle*	*Terrapene carolina*	X	X		X	X	
AMPHIBIANS							
Red-backed salamander*	*Plethodon cinereus*	X	X				X
Two-lined salamander*	*Eurycea bislineata*		X				X
Spring peeper*	*Pseudocris crucifer*	X	X				X
Pickerel frog*	*Rana palustris*		X				
American toad*	*Bufo americanus*	X					X
Wood frog*	*Rana sylvatica*	X	X			X	X
Green frog*	*Rana clamitans*	X	X				
BIRDS							
Wild turkey	*Meleagris gallopavo*	X	X	X	X		
Ruffed grouse	*Bonasa umbellus*	X		X	X		
Hairy woodpecker*	*Picoides villosus*	X	X				
Downy woodpecker	*Picoides pubescens*	X	X				
Yellow-shafted/northern flicker	*Colaptes auratus*	X	X				
Yellow-billed cuckoo	*Coccyzus americanus*	X	X				
Red-tailed hawk	*Buteo jamaicensis*	X	X			X	
American robin	*Turdus migratorius*	X	X	X	X	X	
Gray catbird	*Dumetella carolinensis*	X					
Northern mockingbird	*Mimus polyglottos*	X	X	X	X	X	
Flycatchers	*Empidonax* spp.	X	X	X	X		
Eastern phoebe	*Sayornis phoebe*	X	X				
Common yellowthroat	*Geothlypis trichas*	X		X	X	X	

Habitat type: U - Forested upland, FW - Forested wetland, OF - Old Field, SS - Scrub-shrub wetland, Ed - Edge Habitat, SW - Stone walls

Table 3.4-2
(Continued)

Common Name	Scientific Name	Habitat Type					
BIRDS (Continued)		U	FW	OF	SS	Ed	SW
American crow	*Corvus brachyrhynchos*	X	X	X	X	X	
Blue jay	*Cyanocitta cristata*	X	X	X	X	X	
Scarlet tanager*	*Piranga olivacae*	X	X				
American goldfinch	*Carduelis tristis*	X	X	X	X		
Northern cardinal	*Cardinalis cardinalis*			X	X		
Sparrows	*Spizella* spp.			X	X		
Rufous-sided/eastern towhee	*Pipilo erythrophthalmus*	X	X				
Dark-eyed junco	*Junco hyemalis*	X	X				
Mourning dove	*Zenaida macroura*	X	X	X	X	X	
Black-capped chickadee*	*Parus atricapillus*	X	X	X	X		
White-breasted nuthatch	*Sitta carolinensis*	X	X				
Turkey vulture	*Cathartes aura*	X	X				
Eastern screech owl	*Otus asio*	X	X				
Great horned owl	*Bubo virginianus*	X	X				
European starling	*Sturnus vulgaris*	X	X	X		X	
Cedar waxwing	*Bombycilla cedrorumS*	X	X	X		X	
Tufted titmouse	*Parus bicolor*	X	X	X	X		
Eastern wood-pewee	*Contopus virens*	X	X	X	X		
Baltimore/northern Oriole	*Icterus galbula*	X		X		X	
Brown-headed cowbird	*Molothrus ater*	X	X	X		X	
Common grackle	*Quiscalus quiscula*	X	X	X	X	X	
Brown thrasher	*Toxostoma rufum*	X	X	X	X	X	
Indigo bunting	*Passerina cyanea*					X	
Red-eyed vireo*	*Vireo olivaceus*	X	X	X			
Black and white warbler*	*Mniotilta varia*	X	X	X			
Black-billed cuckoo	*Coccyzus erythropthalmus*	X		X	X	X	
Blue-winged warbler	*Vermivora pinus*			X	X	X	
Broad-winged hawk	*Buteo platypterus*	X	X			X	
Chestnut-sided warbler	*Dendroica pensylvanica*	X		X		X	
Cooper's hawk	*Accipiter cooperii*	X	X	X		X	
House wren	*Troglodytes aedon*	X		X		X	
Carolina wren	*Thryothorus ludovicianus*			X		X	
Ovenbird*	*Seiurus aurocapilla*	X	X				
Red-bellied woodpecker	*Melanerpes carolinus*	X	X	X			
Pileated woodpecker*	*Dryocopus pileatus*	X	X	X			
Rose-breasted grosbeak	*Pheucticus ludovicianus*	X	X	X		X	
Warbling vireo	*Vireo gilvus*	X	X	X		X	
Wood thrush*	*Hylocichla mustelina*	X	X				
Veery*	*Catharus fuscescens*	X	X				

Habitat type: U - Forested upland, FW - Forested wetland, OF - Old Field, SS - Scrub-shrub wetland, Ed - Edge Habitat, SW - Stone walls

Note: This list represents many species that could potentially inhabit this site. It is not, however, an exhaustive list, particularly relative to migratory bird species.
*Species observed during site visits conducted in 2004 and 2005 by S. Coleman, B. Donohue and TMA biologists.
Source: Tim Miller Associates, Inc.; Westchester County Endangered Species List, 2005

3.4.3 Potential Significant Impacts

Vegetation and Wildlife Habitat

The project would disturb approximately 16.47 acres of woodlands and retain approximately 35.39 acres (67.1 percent) of the site in existing natural cover on individual lots throughout the property. The woodland areas that occur within wetlands, wetland buffers and steep slope areas will be subject to the protective measures contained in the Town's environmental regulations. The proposed plan necessitates approximately 3.0 acres of steep slope disturbance (15% and greater). The undisturbed areas would continue to serve as wildlife habitat for those species occurring on the site. Since the project site is close to major road networks and residential developments, there is a relatively low species diversity.

Table 3.4-3
Existing and Proposed Approximate Land Coverage

	Existing		Proposed	
	Acres	**Percent**	**Acres**	**Percent**
Upland meadow	0.12	0.2	0.12	0.2
Upland woods	41.66	79.0	25.19	47.8
Wetland	8.56	16.2	8.72	16.5
Impervious Areas*	0.29	0.6	4.71	8.9
Lawns/Landscaping	2.13	4.0	14.02	26.6
Totals	*52.76*	*100.0*	*52.76*	*100.0*

* includes roads, driveways, and buildings
SOURCE: Cronin Engineering, P.E., P.C.

As the project site is developed the wildlife habitat will be altered. The breeding of interior bird species may be changed; and it is possible that the revised habitat will favor adaptable wildlife species over less adaptable sensitive species. In addition, the composition of the wildlife at the property may be modified somewhat following development, with increases in the populations of species with greater tolerance for human activity. The woodlands that would remain would continue to provide habitat for many typical woodland species, as few species that are solely dependent on large, dense woodlands currently utilize this site. The portions of the project site where disturbance to existing woodland is proposed is shown by the boundary of construction activities on Figure 3.1-7. The areas of disturbance shown on this figure include areas that would be impacted by the construction activities, but would be landscaped and replanted with native and ornamental species.

No fencing is proposed as part of the project other than temporary fencing around disturbed areas and protected trees during the construction process.

Cumulative Impacts

The proposed project would result in a net reduction of forested open space on the site of approximately 36 percent, while leaving 64 percent of the property undisturbed. The cumulative impacts of this project and other proposed developments within a half-mile radius are not anticipated to be significant for terrestrial and aquatic resources as only two are present within this area. These projects are a 2-unit residential development on Red Mill Road (Hagerty, as shown in Table 3.6-1) and a 4-unit residential development at Fawn Ridge (Appian Way

Estates). These properties drain to the north, away from the proposed Mill Court Crossing development. The project site does not currently function as a wildlife corridor to off-site habitat areas within this half-mile radius, due to the surrounding roadways and developments, as can be seen on the aerial photo Figure 2-3. Therefore, fragmentation of habitat areas is not anticipated to be a significant impact.

Table 3.6-1 lists all other pending development projects within the larger two-mile radius of the site. Of the 19 other projects pending, six are within the watershed of the site. Half of these are commercial or religious site projects that could substantially alter stormwater drainage patterns upon their sites. However, with the effective implementation of stormwater management in accordance with current State and Town requirements at each of these developments, all future peak flow rates through the watershed can be expected to remain at or below present rates.

Adjacent Properties

The project would not impact ecological resources on any adjacent properties. As detailed in the Stormwater Pollution Prevention Plan (Appendix C) and reviewed in Chapters 3.1 and 3.2, the stormwater would be controlled and treated to prevent off-site impacts.

Rare or Endangered Wildlife Species

As described above, the site is not known to provide habitat for any state-listed or rare species identified by the New York State Department of Environmental Conservation. No threatened or endangered wildlife species are known to occur on the project site or were observed during site investigations (Appendices C and D). Therefore, the project is not anticipated to adversely impact any threatened or endangered wildlife species.

Specimen and Protected Trees

The tree survey prepared for the project site was used to develop the proposed project plan. The project is expected to result in the loss of approximately 16.47 acres of woodlands. The project as planned will necessitate removal of some 417 trees greater than 12 inches dbh. A "specimen" tree is defined in the Town Code as being greater than 12 inches dbh and/or having a minimum crown spread of 15 feet. Specimen trees are rare on this site given the density of the woodland tree canopy which restricts crown growth and makes the actual dimension of a tree crown difficult to ascertain. Of the 13 large trees (36" dbh and greater) surveyed on the site, eight are located outside of the limit of disturbance and will be protected and the other five are proposed to be removed but may be protected as detailed design advances as discussed below. A description of tree removals is provided below and tabulated in Table 3.4-4.

To implement the proposed plan the following numbers of trees, by type and size, will be removed: 3 ash trees between 13" and 35" dbh; 6 black birch trees between 13" and 35" dbh; 20 hickory trees between 13" and 35" dbh; 4 locust trees between 13" and 35" dbh; 21 maple trees between 13" and 35" dbh; 336 oak trees between 12" and 36" dbh and 3 oak trees 36" dbh; 2 pine trees between 13" and 35" dbh; 8 poplar trees between 13" and 35" dbh; 8 tulip trees between 13" and 35" dbh, 1 tulip tree 40" dbh and 1 tulip tree 42" dbh; and 4 wild cherry trees between 13" and 35" dbh. The following 12-inch trees will be removed: 4 ash, 1 ailanthus, 1 beech, 99 black birch, 1 cedar, 26 hickory, 9 locust, 21 maple, 129 oak, 1 poplar, and 9 wild cherry trees. Overall, of the surveyed trees that are proposed to be removed, nearly half (47 percent) are oaks between 13" and 35" dbh, 42 percent are trees of various species with 12" dbh, and 99 percent are less than 36" dbh.

The Tree Survey Plan identifies which trees are proposed to be preserved and protected by the Limit of Disturbance line. All trees large and small that are located outside of the limit of disturbance line are proposed to be preserved and protected. Implementation of the project plan as proposed will require that the limit of disturbance line that is shown on the Grading Plan and Tree Survey Plan be located in the field prior to commencement of construction and clearly marked with construction fencing so that trees located outside of the limit of disturbance and proposed to be preserved will be so protected.

Table 3.4-4
Tree Removals

Species	**Existing Count**	**Removals**		
	12" dbh and greater	**12" dbh**	**13"- 35" dbh**	**36"+ dbh**
Ash	23	4	3	0
Ailanthus	5	1	0	0
Beech	1	1	0	0
Black Birch	256	99	6	0
Cedar	1	1	0	0
Elm	8	0	0	0
Hickory	118	26	20	0
Locust	17	9	4	0
Maple	134	21	21	0
Oak	947	129	336	3 (36")
Pine	2	0	2	0
Poplar	14	1	8	0
Sassafras	1	0	0	0
Silver birch	1	0	0	0
Tulip	81	0	8	2 (40" & 42")
Wild Cherry	18	9	4	0
Totals:	*1,627*	*301*	*412*	*5*

Note: The tree survey map includes 82 trees located near the property line on adjacent properties at Lexington Avenue; these are not tabulated here.

Tree protection measures will be implemented to save individual trees near proposed development activity where practicable. Approximately 909 trees, some 56 percent of the surveyed trees on the subject site, are located outside the proposed limits of disturbance and would be preserved. It is anticipated that others of the surveyed trees, that are within the proposed limits of disturbance, can also be preserved during construction, as described below in tree protection measures.

3.4.4 Proposed Mitigation Measures

The goal of the applicant is to develop the subject site in its best use following modern best management practices applicable to the development of comparably sensitive sites. As indicated in the Town Code, land development practices applied within the town should provide flexibility in design in such a way as to promote the most appropriate use of land to facilitate the adequate and economical provisions of streets, and utilities as well as to preserve the natural and scenic qualities of open space.

The Town's 2004 Master Plan established goals for residential developments which includes the preservation of existing wooded wetland areas as dedicated conservation areas, the integration of buffer zones to protect potentially sensitive habitat and the minimization of fragmentation of wildlife habitat. In order to minimize effects to the areas of wetlands on this site, the applicant proposes roads and residential lots that have been located to circumnavigate these sensitive areas of the property to the greatest extent practicable. The Applicant, during the course of the subdivision plan review process, will establish conservation easements to preserve as much open space on the individual lots as is practicable. However, the Applicant's subdivision plan requires preliminary approval prior to a determination of the precise conservation easement boundaries.

In response to the September 22, 2006, letter from the Cortlandt Land Trust (Land Trust) to the Planning Board (see Appendix B), the Applicant contacted it's Co-Chair and initiated discussions to address the Land Trust's concerns. Subsequently, at the request of the Land Trust, the Applicant's proposed site plan was sent to the Westchester Land Trust. On November 17, 2006, representatives of both Land Trusts, a member of Cortlandt Watch, and the Applicant met at the site. After a long conversation it was agreed that the participants would work together on a plan to set aside, in the form of conservation easements or otherwise, open spaces which would produce as much as possible a protected, unfragmented and undeveloped continuous broad strip of land.

The Master Plan states that no more than 50 percent of a property may be consumed by lots, streets and designed active recreation area, where proposed. The project acreage to be disturbed by construction of the proposed plan is approximately 17.36 acres, or less than one-third of the site. Due to its location at the edge of the existing right-of-way, access into the property from Mill Court, with a road built to Town road specifications, is not possible without creating a small area of fill in the wetland and construction of pavement within the wetland buffer.

None of the proposed houses will encroach upon terrestrial or aquatic habitats associated with wetlands or wetland buffer areas, or steep slopes in excess of 30 percent.[4] The proposed site plan does necessitate crossing the wetland buffer for driveway access at the common driveway to Lots 20-22. Temporary buffer disturbance would occur for construction of the proposed stormwater basin in the central portion of the site and for utility installation on the western side of the site.

The site tree survey was used to assess the project impacts to the existing vegetation and as an aid in identifying individual trees on the project site that could be preserved during project development. Trees were surveyed that were within or near the boundaries of the proposed area of disturbance but were generally not included in the survey if they were within the 8.56 acres of the site wetlands. Thus the full inventory of trees on the site is much larger than the count of 1709 surveyed trees. The assessment of impacts on site trees indicates that all of the trees in the wetlands and approximately 58 percent of the surveyed trees in the upland areas are located outside of the area of disturbance and would remain as forested areas of the site after development. Some of the largest of the trees in the survey, those measuring 36 inches dbh or larger, exist in areas of the site where their protection can be assured, including the frontage with Lexington Avenue, within the wetland boundaries or along existing stone walls that may be preserved where feasible and practical during site development. As the site plan is further developed, the preliminary assessment of impact on the five large trees will be

[4] Refer to Section 3.1.2 for further description of effects on slopes.

reevaluated to determine if the limit of disturbance can be moved to preserve these and other trees.

Landscape and Stormwater Basin Plantings

The project includes over 12 acres of lawn and landscape plantings. The landscape plantings would consist of a mixture of native and ornamental species. The lawns and landscaped areas created by the proposed development will still be available as forage by deer and other plant eating wildlife, and many species of trees and shrubs commonly chosen for home landscaping will provide both food and nesting sites for squirrels, songbirds and other avian species. The applicant proposes to install street trees along the internal roads, and wildlife plantings at the stormwater facilities that will additionally provide screening in the perimeter buffer area. A preliminary landscaping plan accompanies this document.

The berms and basin of the proposed stormwater detention basin will be seeded and planted with regionally hardy shrubs and emergent vegetation that will provide both stormwater treatment benefits as well as wildlife habitat. The preliminary Landscape Plan specifies three naturalizing seed mixtures for meadow-type herbaceous cover with bank stabilization qualities and suited to temporarily flooded situations in low maintenance areas that will not be mowed on a regular basis (such as around the pond embankment and in the basin floor), called the Northeastern US Roadside Native Seed Mix, the Seasonally Flooded Area Mix, and the Retention Basin Floor Seed Mix, sold by Ernst Conservation Seed Company. Actual seeding rates will be shown on the final construction drawing.

Due to the removal of woods vegetation close to the property line in this area, shrub plantings are proposed at the perimeter of the basin to soften views from the neighboring residential property. The 8,445 square feet (0.194 acres) of created habitat within the stormwater basin will effectively mitigate the impacted wetland in a greater than 5.6:1.0 replacement ratio. All disturbance to wetland buffer areas will be restored in such manner as to insure the continued function of the wetland buffer area.

The preliminary Landscape Plan shows the concept for grading proposed for the stormwater basin, upon which the seed mixes specified on the plan will be broadcast and mulched to establish erosion protection. The specified seeding will require no regular maintenance, and once established, periodic mowing of the basin will maintain the herbaceous cover for stormwater filtering (no more than once per year).

Landscape plantings in the upland area near the stormwater basin are proposed to include the species listed in the following table.

Table 3.4-5 **Regional Upland Condition Landscaping Plantings**	
Trees	**Shrubs**
Deciduous Trees - Major	Deciduous Shrubs
Horse chestnut (*Aesculus hippocastanum*)	Bottlebrush buckeye (*Aesculus parviflora*)
Red maple (*Acer rubrum*)	Oak leaf hydrangea (*Hydrangea quercifolia*)
Sweetgum (*Liquidambar styraciflua*)	Common witchhazel (*Hamamelis virginiana*)
Red oak (*Quercus rubra*)	Staghorn sumac (*Rhus typhina*)
Pin oak (*Quercus palustris*)	Red-osier dogwood (*Cornus stolonifera*)
Little leaf linden (*Tilia cordata*)	Sweetfern (*Comptonia peregrina*)
Green Ash (*Fraxinus pennsylvanica*)	Winterberry (*Ilex verticillata*)
Deciduous Tees - Minor	Beautybush (*Kolkwitzia amabilis*)
Shadblow (*Amelanchier canadensis*)	Northern bayberry (*Myrica pennsylvanica*)
Paperbark birch (*Betula papyrifera*)	Viburnum (*Viburnum* spp.)
Flowering dogwood (*Cornus florida*)	Elderberry (*Sambucus* spp.)
Crabapple (*Malus* spp.)	Eastern wahoo (*Euonymus atropurpureus*)
Cherry (*Prunus* spp.)	Snowberry (*Symphoricarpos alba*)
Plum (*Prunus* spp.)	Cotoneaster (*Cotoneaster* spp.)
Coniferous Trees	Evergreen shrubs
White fir (*Abies concolor*)	Rosebay rhododendron (*Rhododendron maximum*)
Colorado spruce (*Picea pungens*)	White rhododendron (*Rhododendron album)*
Norway spruce (*Picea abies*)	Leatherleaf viburnum (*Viburnum rhytidophyllum*)
Douglas fir (*Pseudotsuga mensiesii*	Inkberry (*Ilex glabra*)
White pine (*Pinus strobus*)	Virginia red ceder (*Juniperus virginiana*)
Red pine (*Pinus resinosa*)	Mountain laurel (*Kalmia latifolia*)
Source: Tim Miller Associates, Inc.	

In addition, certain invasive species such as multi-flora rose, barberry, winged euonymus and honeysuckle will be eliminated where encountered on the project site. The removal of these invasive species is beneficial to wildlife.

Tree Protection Measures

The proposed plan will conform to the provisions of Town of Cortlandt standards for approval of permits for tree cutting, as per §283-8(A) of the Cortlandt Town Code as follows:

1. Removals methods – Erosion control measures are proposed to avoid erosion from tree removal operations. Tree cutting shall be conducted such that debris is kept away from public roads and rights-of-way.
2. Tree preservation – The project plan calls for preservation of 56% of the surveyed trees on the property and all trees (unsurveyed) in wetland areas. The Tree Survey Plan included with the DEIS document specifically locates all surveyed trees 12" dbh and greater that are proposed to be preserved on the site in relation to the limit of disturbance line. Tree protection measures will be implemented to save individual trees near proposed development activity where practicable, including all but five identified specimen trees. Tree protection details are specified on the engineer's detail sheet. Adjustments in grading will be further evaluated as the project design progresses in an effort to preserve the five large trees.
3. Replanting of trees – The project proposal includes a landscaping plan that will add trees to cleared areas of the site.

Tree preservation on the site will take several forms. First, using the Tree Survey as a guide (see description above), the limits of disturbance will be established in the field. No trees beyond these limits will be disturbed. These limits will be marked with erosion control fencing as noted in *New York Standards and Specifications for Erosion and Sediment Control* (April 2005).

Secondly, trees that will definitely be removed will be marked. No large trees that are not marked will be removed unless during the construction it is determined that those trees cannot be saved.

Thirdly, where practicable, large trees will be saved through the use of tree wells. These wells will typically be constructed with excess rock from on site excavation activities. The walls of the wells will be dry laid, with provision for positive drainage out of the wells.

In addition, the following mitigation measures are proposed to minimize potential impacts to vegetation and wildlife:

- Erosion and sediment controls would be utilized throughout the construction phase of the project until all disturbed area are fully developed or soils have been stabilized through vegetation plantings or other means. These measures are described in Chapter 3.1 of the DEIS and illustrated in the full size Grading and Erosion Control Plan in the rear of the DEIS.

- Where no construction is proposed, existing stones walls will be preserved, especially along the property boundaries. Where walls are disturbed, the wall stone will be reused where possible for low retaining walls, tree wells or other decorative features on the lots.

- Through the creation of stormwater quality and detention basins, the quantity and quality of the stormwater released from the site would meet the criteria of the New York State General Permit for stormwater discharges.

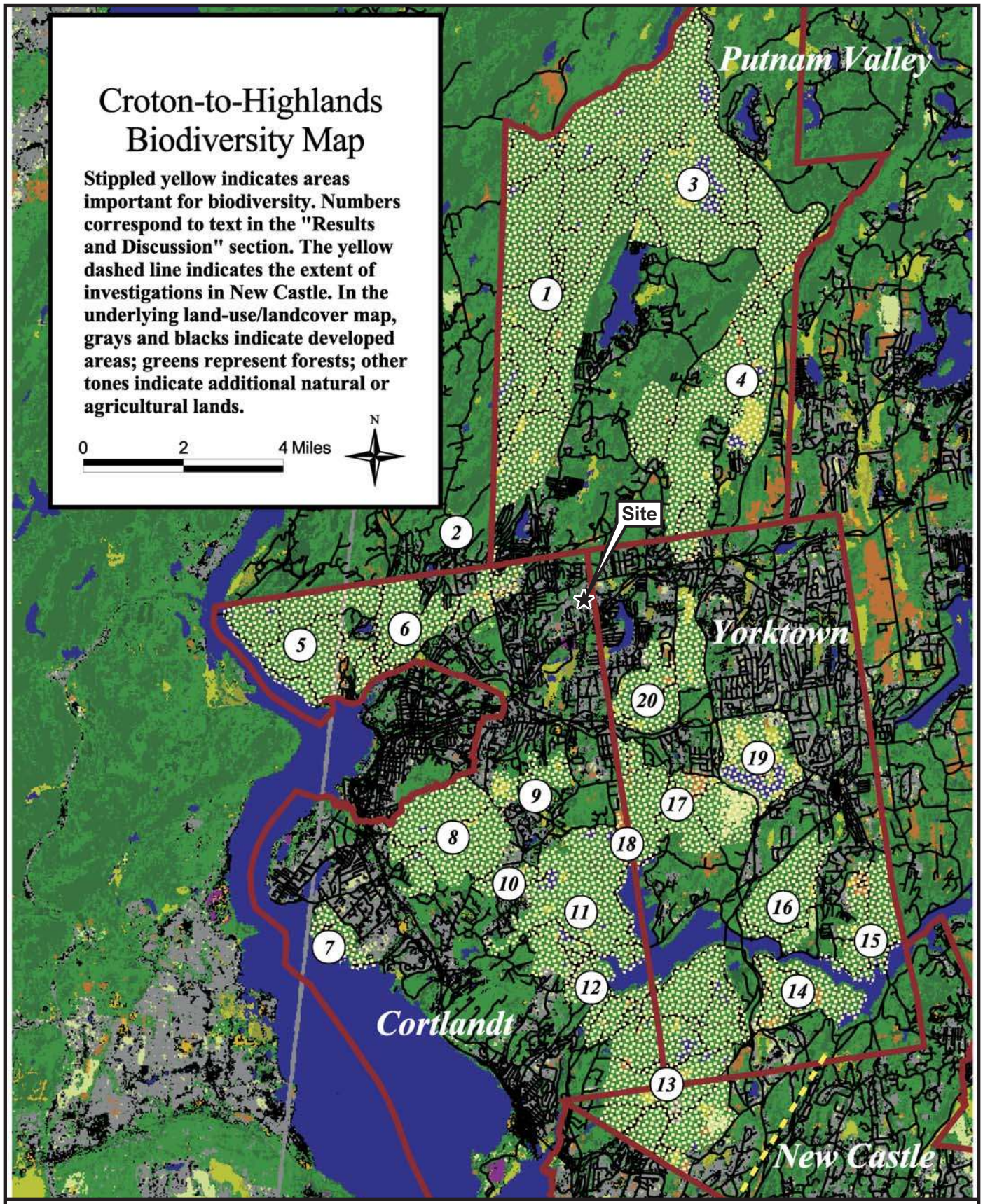

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Figure 3.4-1: Croton to Highlands Biodiversity Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Croton to Highlands Biodiversity Plan
Metropolitan Conservation Alliance
Scale: Graphic

File 05077 05/04/06
JS:\05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

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Figure 3.4-2: 1954 Aerial Photograph
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: EDR
Approx. Scale: 1 inch = 700 feet

File 05077 09/01/06
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3.5 Traffic

Introduction

The project site is located in the Town of Cortlandt, Westchester County, New York. The site location and regional transportation network are shown in Figure 3.5-1. A *Traffic Impact Study,* was conducted by TRC Raymond Keyes, dated March 24, 2006. This study specifically assesses the traffic impacts associated with the Residences at Mill Court Crossing, herein referred to as Mill Court Crossing and is included in Appendix I of this DEIS.

The *Traffic Impact Study* evaluates existing and future traffic conditions at the site access and adjacent intersections along Red Mill Road and Lexington Avenue. The following intersections were analyzed, the locations of which are highlighted in Figure 3.5-1:

1. Route 6 and Lexington Avenue
2. West Road and Lexington Avenue
3. Strawberry Road and Lexington Avenue
4. Red Mill Road and MacArthur Boulevard
5. Red Mill Road and Mill Court
6. Red Mill Road and Mountain View Road
7. Red Mill Road and Trolley Road
8. Red Mill Road and Old Oregon Road
9. Red Mill Road and South Hill Road
10. Red Mill Road and Oregon Road/Westbrook Drive

3.5.1 Existing Traffic Conditions

Kirquel Development proposes to construct 27 single-family homes along an extension of Mill Court and along Lexington Avenue in the Town of Cortlandt, New York. Access to 22 of the homes will be provided via an extension of Mill Court. Access to the remaining five homes will be provided by four driveways along Lexington Avenue, Lots 26 and 27 share a common driveway to Lexington Avenue.

Regional transportation access is provided via US Route 6 and its connection to the Taconic State Parkway to the east and the Bear Mountain Parkway, Route 202/35 to the West.

In order to establish the existing traffic volumes for the study intersections in the vicinity of the Mill Court Crossing property, manual turning movement traffic counts were conducted by TRC Raymond Keys TRC on Wednesday, June 8, 2005 from 6:30 AM to 9:30 AM and from 3:30 PM to 6:30 PM and Tuesday, December 6, 2005 and December 20, 2005 from 7:00 to 9:30 AM and from 4:30 PM to 6:30 PM, to determine the existing traffic volumes for the weekday a.m. and p.m. peak hour periods. In addition to the manual traffic counts, field observations were performed to determine roadway geometry, lane widths, traffic control, etc.

Based upon the traffic counts performed, the Peak Highway Hours were determined to be as follows:

Peak AM Highway Hour -	7:30 AM to 8:30 AM
Peak PM Highway Hour -	5:15 PM to 6:15 PM

During these hours, the combination of existing traffic along the roadways adjacent to the site and traffic to be generated by the proposed Mill Court Crossing will generally be the highest for the day, and thus, represent design hour conditions.

3.5.2 Existing Roadway Network

The following is a description of the roadways in the vicinity of the site. In general, the roadways have standard lane widths:

US Route 6 – Route 6 traverses the Town of Cortlandt in an east/west direction traversing through the Town and generally consists of 1 to 2 lanes per direction, with left turns provided at major intersections in the vicinity of the site. Route 6 is under the jurisdiction of the New York State Department of Transportation (NYSDOT). While the road width varies along its length, the approximate width of Route 6 in the site vicinity is 36' with varying shoulders.

Lexington Avenue – In the vicinity of the site, Lexington Avenue consists of one lane per direction with limited shoulders on both sides and traverses in a general north/south direction. Lexington Avenue has a posted speed limit of 30 mph. Lexington Avenue extends from Strawberry Road to Crompond Road. Parking is restricted along Lexington Avenue in the vicinity of the site. There are no sidewalks located along Lexington Avenue. (Staff # 45) While the road width varies at different locations along its length, the approximate road width of Lexington Avenue travelway is 21'-23' with 1'-3' shoulders.

Red Mill Road – Red Mill Road is a two-lane roadway and travels in an east/west direction from its intersection with Oregon Road/Westbrook Road to its continuation as Lexington Avenue on the eastern border of the Town. The portion of the roadway west of Trolley Road is generally a level roadway with straight alignment. The portion of the road east of Trolley Road is hilly, including a 13% gradient for approximately 1,500 feet. While the road width varies at different locations along its length, the approximate road width of Red Mill Road travelway is 21'- 24' with 1'- 3' shoulders on both sides.

Strawberry Road – Strawberry Road is a two-way, local roadway consisting of one lane per direction, flowing in an east/west direction from its intersection with Lexington Road to its continuation as East Main Street. The posted speed limit is 30 mph. There is a truck restriction on Strawberry Road prohibiting trucks over five tons. The westbound approach of Strawberry Road was recently modified by eliminating a turning lane and substituting a single shared left-turn/right-turn lane which is stop sign controlled. It is too soon to measure the effectiveness of these recent safety improvements. The road width of Strawberry Road varies from approximately 21'- 22' with no shoulders.

Mill Court – Mill Court is a residential roadway, consisting of one lane per direction and travels in a north/south direction. This roadway is approximately 24 feet wide with no shoulders and begins at Red Mill Road to the north and to the south currently ends in an easement assisted "turn around".

MacArthur Boulevard – MacArthur Boulevard is a local roadway and, in the vicinity of the site, consists of one lane per direction, flowing in a north/south direction. The approximate road width of MacArthur Boulevard is 39' with no shoulders.

West Road – In the vicinity of the site, West Road is a local roadway that consists of one lane per direction, flowing in an east/west direction. West Road provides an alternate access to US Route

6, connecting at a signalized intersection. The approximate road width of West Road is 23' with no shoulders.

Oregon Road – Oregon Road is a two-lane roadway, flowing in a north/south direction, providing traffic flow from Putnam Valley to the Bear Mountain Parkway and the City of Peekskill. While the road width varies at different locations along its length, the approximate road width of Oregon Road travelway is 24' with 1' shoulders.

Trolley Road – Trolley Road is a local roadway that consists of one lane per direction, flowing in a north/south direction. The approximate road width of Trolley Road is 22' with 2' shoulders on portions of its southern stretch and 26' on its northern stretch.

Amherst Road – Amherst Road is a private road that consists of one lane per direction. The approximate road width of Amherst Road is 33' with no shoulders.

Mountain View Road - Mountain View Road is a local roadway that consists of one lane per direction, flowing in a north/south direction. Mountain View Road is located south of Red Mill Road to the west of Mill Court. There is no outlet from Mountain View Road.

3.5.3 Level of Service Criteria

The Highway Capacity Manual (National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000) procedures document the methodologies used for modeling levels of service, and average vehicle delay at both signalized and unsignalized intersections. Level of service is a measure of the operational quality of an intersection; level of service A is the highest, most efficient level, and level of service F is the lowest level. The operational quality of an intersection is based on the average amount of time a vehicle is delayed. Levels of service are examined by lane group, the set of lanes allowing common movement(s) on an approach.

The New York State Department of Transportation policy (Highway Design Manual, NYS DOT, Section 5.2.2.3, Nov. 2003) requires capacity analysis methodologies consistent with Highway Capacity Manual. The Highway Capacity Manual serves as the basis for all level of service computations in the *Highway Capacity Software* (McTrans Center, University of Florida, Gainsville, Florida, 2005).

Table 3.5-1 presents the levels of service criteria for unsignalized intersections.

Table 3.5-1
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

SOURCE: Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

Table 3.5-2 presents the levels of service criteria for signalized intersections. The New York State Department of Transportation (NYS DOT) generally seeks a minimum level of service D (delay of 55 seconds or less for a signalized intersection) for all lane groups. The NYS DOT's Highway Design Manual notes, "In some cases, it may be necessary to accept LOS (levels of service) E or F on individual lane groups due to unreasonable costs or impacts associated with improving the level of service."

Table 3.5-2
Signalized 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 20
C	greater than 20 and less than or equal to 35
D	greater than 35 and less than or equal to 55
E	greater than 55 and less than or equal to 80
F	greater than 80

SOURCE: Highway Capacity Manual, National Academy of Sciences, Transportation Research Board, National Research Council, Washington, DC, 2000.

The *Highway Capacity Software* model results apply to peak hour periods only and do not represent every minute of traffic operations. During off peak periods, which is the majority of the time, drivers typically will find operations better than the modeled peak hour results. During peak periods the experience of individual drivers can vary, because the model calculates average vehicle delay.

Peak 15 minute traffic flows typically do not all occur in the same 15 minute period in the peak hour. The traffic model does not always account for the ability of the traffic signal to compensate for shifting traffic volumes and thus may overestimate delay. For unsignalized intersections, the model conservatively assumes peak approach volumes occur simultaneously.

3.5.4 Findings

Kirquel Development proposes to construct 27 single-family homes along an extension of Mill Court and along Lexington Avenue in the Town of Cortlandt, New York, see Figure No. 3.5-2, Proposed Subdivision Layout. Access to 22 of the homes will be provided via an extension of Mill Court. Access to the remaining five homes will be provided by four driveways along Lexington Avenue.

Based upon field observations and the detailed analysis undertaken during the preparation of this Traffic Impact Study, the following findings are presented:

- The site is provided good local access via Lexington Avenue, Red Mill Road, Strawberry Road, West Road, and Route 6.

- Based upon conservative projections, it is anticipated that the Project will generate approximately 7 entering vehicles and 21 exiting vehicles during the Peak AM Highway Hour. During the Peak PM Highway Hour, there will conservatively be approximately 21 entering vehicles and 12 exiting vehicles.

- Traffic from 28 adjacent developments was considered in the analysis. In addition, a conservative growth factor of 2% compounded annually was added to the existing traffic data, to account for traffic associated with background growth and some of the potential developments in the area.

- Capacity analyses were performed for the study locations for the Existing, 2007 No-Build (without the Project) and 2007 Build conditions (with the Project). These analyses indicate that the traffic generated by the proposed Project will be adequately accommodated on the adjacent roadway system.

- Table No. 3.5-3 summarizes the results of the capacity analyses conducted for each intersection included in this study. Average delay, expressed in seconds per vehicle, is listed below each Level of Service.

- As illustrated in Table 3.5-3 below, the proposed project will not have a significant impact on the traffic operating conditions in the area. Modeling results set forth in the Town's traffic consultant's report conclude that the traffic generated by the site would have minimal impacts on traffic operations on the surrounding roadway network, which is to be expected with the level of trip generation (see Edwards and Kelcey Traffic Review dated August 31, 2006). All intersections will operate at essentially the same Levels of Service with or without the Project. The intersection of Strawberry Road and Lexington Avenue, with or without the project, for vehicles turning left from Strawberry Road, will experience some delays in the PM peak hour. Recent modifications to this intersection by the Town have increased the PM Peak Hour Delays. (See Section 3.5.2 - Strawberry Road for details.) As the analysis for an unsignalized intersection delay increases beyond 50 seconds, the delay formulas in the HCS tend to break down and the numbers lose their validity. However as the project represents only 2%

of the traffic at the intersection during the PM Peak Hour, traffic along Lexington Avenue will continue to travel under free-flow conditions.

The intersection of Lexington Avenue and US Route 6 will continue to experience some delays, with or without the project, during the PM Peak Hour. However, there is no change to the operating levels of service as a result of Mill Court Crossing, and the increase in delays as a result of this project will be negligible.

- The intersection of Red Mill Road and Mill Court was, based upon comments made by local residents, the subject of a sight distance analysis. The study concluded there are some current sight distance restrictions, which could be remedied. The removal of some existing trees, vegetation and rock outcroppings would increase the sight distance close to the recommended intersection sight distance and in excess of the minimum stopping sight distance. The applicant, in coordination with the Town of Cortlandt, is willing to improve the sight distance at this location. The Town's traffic consultant has opined (See August 31, 2006 Traffic Review, last paragraph of page 8, included in Appendix M) that the increased site distance will help improve safety at this particular intersection, and is reasonably related to the increased traffic volumes on Mill Court associated with this development.

3.5.5 Levels of Service

Existing, No-Build and Build traffic volumes for the roadway network are shown in Figures 2, 4 and 10 of the Traffic Impact Study, respectively. A summary of the capacity analyses for the area intersections under Existing Conditions, No-Build and Build conditions is provided in the Level of Service Summary Table 3.5-3. A detailed description of the level of service operating characteristics for each intersection is provided in the full Traffic Impact Study, contained in Appendix I.

Table 3.5-3
Overall Level of Service Summary

	Existing		2007 No-Build		2007 Build	
Intersection	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Route 6 & Lexington Avenue	C 28.9	D 49.6	D 35.1	E 63.4	D 35.2	E 63.8
West Road & Lexington Avenue	a 9.3	b 10.9	a 9.4	b 11.0	a 9.4	b 11.2
Strawberry Road & Lexington Avenue	c 20.3	f 51.9	c 24.9	f 85.6	d 26.3	f 98.2
Red Mill Road & MacArthur Blvd.	b 13.9	c 16.3	b 14.9	c 17.7	c 15.3	c 18.2
Red Mill Road & Mill Court	b 11.2	b 11.5	b 11.6	b 11.9	b 11.8	b 11.6
Red Mill Road & Mountain View Rd.	b 11.7	b 11.8	b 12.2	b 12.3	b 12.2	b 12.3
Red Mill Road & Trolley Rd.	b 14.0	c 18.0	b 14.9	c 20.1	b 15.0	c 20.2
Red Mill Road & Old Oregon Rd.	b 12.3	b 14.6	b 13.0	c 15.8	b 13.0	c 15.8
Red Mill Road & South Hill Rd.	b 10.7	b 12.9	b 11.1	b 13.7	b 11.1	b 13.7
Red Mill Rd & Oregon Rd./Westbrook Dr.	UB-0.32 LB-0.39	UB-0.46 LB-0.57	UB-0.35 LB-0.42	UB-0.52 LB-0.65	UB-0.35 LB-0.42	UB-0.52 LB-0.65
Lexington Avenue & Proposed Site Drwy.	-	-	-	-	a 9.6	a 9.9

*Levels of Service for Signalized intersections are represented by upper case letters with average delay in seconds provided below, and is provided for the overall intersection.
*Levels of Service for Unsignalized intersections are represented by lower case letters with average delay in seconds provided below, and is provided for the worst-case minor street approach.
*Upper- and Lower-bound values of critical gap and follow up time utilized to calculate capacity and critical flow for the roundabout.

It is the considered professional opinion of TRC Raymond Keyes, traffic engineers for the project, that the traffic associated with the Mill Court Crossing will not have a significant impact on the operating conditions of the adjacent roadways and intersections. Accordingly, safe and efficient operating conditions will be provided for through traffic as well as for traffic destined to the site.

3.5.6 No Build Traffic

Based on discussions with representatives of the Towns of Cortlandt, Yorktown and Putnam Valley, it was determined that traffic associated with the following proposed adjacent developments should be accounted for in the determination of future traffic volumes. For analysis purposes, it was conservatively assumed that each of these developments will be approved and completed by the Year 2007 and thus, the full traffic generation for each of these developments was included in the analysis, where appropriate.

Traffic studies were not submitted for many of these projects, therefore, traffic associated with some of the following developments was estimated by TRC based on data published in the Institute of Transportation Engineers' (ITE) report entitled, "Trip Generation", Seventh Edition. The trip generation was assigned to the roadways based on the 2000 US Census Journey-to-Work data.

For the smaller developments or those further away, the traffic is accounted for in the growth rate. The following adjacent developments were included in the determination of future traffic volumes:

Town of Cortlandt

1. Hollowbrook Ridge – 85 Townhomes
2. Sunset Ridge – 6 Single-family Homes
3. Juncaj – 2 Single-family Homes
4. Appian Way Estates – 4 Single-family Homes
5. Jacob's Hill Crossing – 161 Townhomes
6. Khan – 3 Single-family Homes
7. Hagerty – 2 Single-family Homes
8. Van Cortlandtville Commons – 4 Two-family Homes
9. ML Realty Investors – 3 Single-family Homes
10. Montes – 2 Single-family Homes
11. Martinez – 3 Single-family Homes
12. Jenkinson – 2 Single-family Homes
13. DePateria – 10 Single-family Homes
14. Hillside Estates – 5 Single-family Homes
15. Best Buy – 30,000 square feet (sf) Retail
16. Hilltop Subdivision – 52 Single-family Homes
17. Hollowbrook Golf Club – 6 Single-family Homes and Golf Club
18. Westchester Hellenic Association – 10,000 sf Church
19. Hudson Valley Hospital Center – 133,000 sf Expansion
20. Hudson Valley Homebuilders – 4,800 sf Office and Storage
21. V.S. Construction – 2,700 sf Retail

Town of Yorktown

22. EJICC Mosque
23. Wallauer's Paint Store
24. Cranberry Hill – 10 Single-family Homes
25. Yorktown Realty Associates – 292 Senior Housing Dwelling Units

Town of Putnam Valley

26. Emerald Ridge Subdivision – 25 Single-family Homes
27. Iamiceli Subdivision – 2 Single-family Homes
28. Southfork Subdivision – 3 Single-family Homes

The traffic volumes for the main potential developments listed above are illustrated on Figure No. 3 of the Traffic Impact Study, contained in Appendix I. Traffic from the smaller developments and those further away are accounted for in the growth rate as described above.

3.5.7 Site Generated Traffic

The ability of any roadway network to accommodate anticipated traffic is measured by comparing Peak Hour Traffic Volumes to roadway capacities. Thus, it is essential to determine the Hourly Traffic Volumes to be generated by the proposed development and add them to the No-Build Traffic Volumes for the Peak Hours.

Site-generated Traffic Volumes for the proposed housing subdivision were estimated based upon Land Use Code 210, "Single-Family Detached Housing" in the Institute of Transportation Engineers' (ITE) publication entitled "Trip Generation", Seventh Edition.

The trip generation characteristics of Mill Court Crossing are summarized in Table No. 3.5-4 below.

Table 3.5-4
Trips Generated Summary

	Trip Rate					
	A.M. Peak Hour			P.M. Peak Hour		
Land Use	**IN (Trips/ Unit)**	**OUT (Trips/ Unit)**	**Total Trip Generation**	**IN (Trips/ Unit)**	**OUT (Trips/ Unit)**	**Total Trip Generation**
5 Single family dwelling units (along Lexington Avenue)	1	4	5	4	2	6
22 Single family dwelling units (along Mill Court)	6	17	23	17	10	27
Total 27 Single Family Dwelling units	7	21	28	21	12	33

Source, TRC Raymond Keys, March 24, 2006.

3.5.8 Site Generated Traffic Distribution

The arrival and departure trip distribution for the site were determined based upon the existing roadway traffic patterns and potential origins, including the 2000 US Census Journey-to-Work data. Figures No. 5 and 6 of the Traffic Study, illustrate the Arrival and Departure Distribution patterns for the site traffic generated by the 22 dwelling units that would be accessed via Mill Court. For analysis purposes, it was assumed that all of the site traffic generated from the five houses that would be accessed along Lexington Avenue would come in and out of one driveway, to be conservative and Figures No. 7 and 8, of the traffic study, illustrate the Arrival and Departure Distribution patterns, respectively.

3.5.9 Emergency Access

To address the Town's regulation regarding length of dead end roads, the project plan includes provision of an emergency access road connecting the proposed subdivision road to Amherst Road, a private road, through an easement. The access road will be designed as a hard surface (concrete grass pavers), one-lane access that will accommodate the weight and grade requirements of emergency vehicles, including the local Fire Department's largest truck. If desired by the Town emergency services, the emergency access road will have a locked gate. Provision of the point of secondary access from the most interior point of the proposed subdivision road will effectively divide the length of dead end road for this subdivision in half. This secondary access will benefit the existing residences on both Mill Court and Amherst Road by connecting these dead end roads for emergency access. Consideration will be given to convert the emergency access easement, granted by Applicant, to a public right of way upon finalization of Applicant's site plan.

3.5.10 Public Transportation

Bus Service

The Westchester Bee-Line system provides bus service in the vicinity of the site and has sufficient capacity. The #10, #15 and #16 Bee-Line bus routes run along Route 6 in the vicinity of the site. The Putnam Transit System operates Bus Route #4, which provides bus service along Oregon Road and Westbrook Drive. Bee Line bus service is generally coordinated with the train arrival/departure schedule. There are five bus stops along Lexington Avenue between Strawberry Road and Route 6. The proposed project will not have an impact on the current bus service.

Railroad Service

Passenger rail service is available near downtown Peekskill on Metro-North Railroad's Hudson Line and has sufficient capacity. The Hudson Line also provides service at the Cortlandt and Croton-Harmon Stations in the Town of Cortlandt. The minimal traffic associated with the proposed development will not have an adverse impact on railroad travel at the Peekskill and Cortlandt train stations.

3.5.11 Pedestrian Environment

The roadways in the vicinity of the site are generally standard widths with standard lane markings for two-lane roads. In front of the site, Red Mill Road is approximately 25 feet wide with minimum shoulders. Along Red Mill Road, there are no sidewalks on either side of the road. The site's side of Red Mill Road is uncurbed and has no sidewalk or drainage structures. Parking is not permitted along Red Mill Road or Lexington Avenue. Red Mill Road has some curves and a steep hill. Lexington Avenue is approximately 25 feet wide with limited shoulders and no sidewalks available. Mill Court is approximately 30 feet wide. There are no sidewalks available on Mill Court.
The surrounding area is generally not pedestrian or bicyclist oriented. Sidewalks generally do not exist in the study area. There are no designated bicycle lanes within the study area. Field observations determined that very few people are walking or bicycle riding in the area. The limited traffic to be generated by the project is not projected to have an impact on the pedestrians and bicyclists.

3.5.12 School Bus Transportation

Based on discussion with representatives of the Putnam Valley School District, in the vicinity of the site, there are currently 8 school bus routes and 10 school bus stops along Red Mill Road and Lexington Avenue.

According to the Lakeland School District, there are 6 school bus routes and 42 daily (total pick-up and drop-off) school bus stops along Red Mill Road and Lexington Avenue. Students are generally picked up in front of there homes due to the lack of crossings along Red Mill Road and Lexington Avenue in the vicinity of the site. Students who live along Mill Court are picked up at the intersection of Red Mill Road and Mill Court as a group. Since the proposed lengthening of Mill Court will result in a longer, looped Town road, it is anticipated that public school buses will enter Mill Court and pick up students along Mill Court rather than on Red Mill Road.

The anticipated traffic associated with the proposed project will not have an adverse impact on school bus services in the vicinity of the site.

Based upon discussions with Lakeland School District, the Elementary School operates from 8:25 AM to 2:40 PM, the Middle School operates from 9:10 AM to 3:35 PM, and the High School operates from 7:30 AM to 2:00 PM. According to the Putnam Valley Central School District, the Elementary School operates from 9:00 AM to 3:30 PM, the Middle School operates from 7:58 AM to 2:30 PM, and the High School operates from 7:10 AM to 1:50 PM.

3.5.13 Route 202/35/6/BMP Sustainable Development Study

The Routes 202/35/6/Bear Mountain Parkway Sustainable Development Plan (SDP) was prepared by Edwards & Kelcey to represent a consensus among the public as well as local (three municipalities), County, State and Federal government participants on ways to: create more livable neighborhoods and communities, improve traffic flows in the study area, integrate transportation and land use decisions and improve interagency and intermunicipal coordination. There were five aspects to this study – the collaboration of four levels of government – Federal, State, County and municipal. Land use, transportation and environmental aspects and strategies were considered in a coordinated and comprehensive manner. Multiple roadways and modes of transportation were addressed as a system rather than as individual elements. The study states that it allowed the regional Metropolitan Planning Organization (NYMTC), in concert with the other study partners, to identify specific transportation projects that should be advanced. The study was also suggested for use by the municipalities in the updating of their comprehensive plans and land use regulations.

Preferred alternatives are identified through traffic and land use modeling. The following are some examples of the different development patterns and different specific transportation systems the study identified as possible roadway changes in the vicinity of the site:

Lexington Avenue Extension

The Plan recommends that a study be undertaken to evaluate the feasibility of constructing a road in the vicinity of Strawberry Road and Foot Hill Road north to the vicinity of Peekskill Hollow Road in Putnam County. This improvement has the potential to reduce traffic on local roads in Northeast Cortlandt although a new direct route to Route 6 may also be a growth inducement and result in adding traffic on Strawberry Road.

The design of the new segment of roadway would provide only limited access to adjacent properties so as to preserve the purpose of the connection to serve through traffic.

Traffic from the proposed project would not have a significant impact on this potential roadway modification.

Bear Mountain Parkway Safety Improvements

The Plan recommends that NYSDOT design and implement safety improvements along the existing Bear Mountain Parkway. These improvements would include the rehabilitation of pavement, lane configuration, ramp redesign, striping and signage and other advisable actions.

The design would be coordinated with the findings of the Truck Classification Study to be undertaken by NYSDOT as an outgrowth of this study. The truck classification study would determine the feasibility of allowing various classes of trucks on the Bear Mountain Parkway during daytime hours and evaluate the potential impacts on existing roadways and intersections, including the Route 6 and Bear Mountain Parkway interchange.

Traffic to be generated by the proposed project will not have a significant impact on this potential roadway modification.

Route 6 Bypass (One-Way Pair and Two-Way Roadway)

The study found that the establishment of a Route 6 Bypass (One-Way Pair) through the Mohegan Lake hamlet could have a beneficial impact on the quality of life of the hamlet. If the Bear Mountain Parkway Connection and the enhancement of the Route 6/Bear Mountain Parkway interchange projects are delayed for a prolonged period, the implementation of the bypass will have a greater role to play in addressing traffic congestion conditions. A feasibility study would be initiated to identify a potential route for a westbound facility that could be incorporated into the planning for development projects in the Mohegan Lake/Northeast Cortlandt areas.

In addition to the Route 6 one-way pair, one of the recommendations developed in the course of the SDP was a two-way roadway that would roughly parallel Strawberry Road to the north of the Mohegan Lake business district. This roadway would cross Lexington Avenue between Strawberry Road and West Road and traverse through the site. The Combination Cluster and Conventional Alternative allows room for future construction of the Route 6 By-Pass, as shown in Figure 4-4. The By-Pass would not be significantly impacted by the proposed project. This is discussed further in the Alternatives Section of this Report.

The Plan concludes by identifying implementation steps necessary to make the changes to future road facilities, travel patterns and land use to achieve the consensus vision of the future that the study identifies. A community outreach process was performed which led to some of the recommendations set forth in the Study. According to a NYSDOT liaison, the Town of Yorktown and the Town of Cortlandt, as of January 2007 there has been no significant movement with regard to the plans for rerouting of Route 6 or the By-pass[1]. While discussion is continuing between these parties, there is no projected timetable for implementation of the rerouting of Route 6 or the By-pass.

The NYSDOT, in conjunction with the Sustainable Growth Committee, is currently considering three potential routes for the Route 6 ByPass:

A route closer to Route 6 behind the existing buildings,

A route to go between the elementary school and the mosque on Lexington Avenue and then make a sharp turn to the south,[2]

A route that would travel underneath (underground) Lexington Avenue.

Upon agreement with the Towns of Yorktown and Cortlandt, the NYSDOT will enter a potential Engineering Study of the feasibility of the three options into its Transportation Improvement Program (TIP). The Feasibility Study would then be performed by a NYSDOT consultant.

Per the final scope for this DEIS, a review and modeling of the subject application as it relates to the SDP has been performed for both existing and future conditions. A summary of the results has

[1] Telephone conversation of Brian Dempsey, PE, of TRC Raymond Keyes Associates and John Helmer of NYSDOT, January 29, 2007.

[2] In conversations with Ed Vergano and the applicant's review of schematic maps of the alternatives, this project would not be affected by this alignment.

been provided in a report prepared by Edwards and Kelcey, dated August 2006 and included herein as Appendix M. The report includes a discussion of how the proposed Mill Court Crossing relates to the SDP with respect to the Route 6 Bypass proposals, Lexington Avenue Extension and the Bear Mountain Parkway Improvements.

The Edwards & Kelcey (E&K) Report makes the following recommendations/observations.

- The report states “the Trip Generation conducted by the applicant appears to be conservative”. The Traffic study projects trips from the 27 single family units proposed.
- The majority of trips to/from the site will originate or end at destinations to the east and south, although the percentages may vary, due to the low level of site generated traffic, the minimal impacts on the off site intersections would not materially change if the percentages were revised. Notwithstanding, modeling of a scenario connecting Mill Court to Amherst Road failed to produce any significant positive, or negative, impacts to the effected traffic patterns.
- The applicant's No-Build Traffic analysis appears reasonable.
- Traffic Modeling Results indicate acceptable levels of service for all movements except eastbound Lexington Avenue and westbound Strawberry Road. These movements experience delays with or without the proposed project.
- Red Mill Road should be the subject of analysis independent of the proposed project to investigate the feasibility of improvement to the geometric and alignment of this roadway.
- Site access options should consider the SDP and Comprehensive Plan objectives of “creating linkages in local roadways wherever possible.”
- Land Use Considerations - Development of this property as single family residential is consistent with the Comprehensive Plan.
- Pedestrian /Bicycle Access - The E&K study recommends sidewalks internal to the project site on one side of the internal road, at a minimum. The E&K study also recommends sidewalks along Lexington Avenue and/or the necessary right of way be set aside.
- Route 6 Realignment - “Detailed engineering analysis of the alignment needed for the Route 6 bypass has shown that environmental considerations and engineering challenges make a new alignment (of Route 6) that crosses the property problematic.”

The E&K Report notes that the applicant's proposal to improve the sight distance at the Red Mill Road / Mill Court intersection will help improve safety at this particular intersection and is reasonably related to the increased traffic volumes associated with this development. Given the minor effect of project-generated traffic on the local road network as documented in the Traffic Impact Study, this intersection improvement is the only off-site road improvement proposed by the applicant.

The E&K Report also notes that "Red Mill Road will continue to have substandard geometrics along its length, and [the Town of] Cortlandt should consider basic geometric improvements consistent with the rural and historic character of the roadway". E&K acknowledges that Red Mill Road in the study area "presents unique challenges" and "will continue to experience heavier than desirable traffic volumes given its geometrics" regardless of the proposed Mill Court Crossing project.

A sidewalk is not proposed as part of the Mill Court Crossing project since there is no existing sidewalk system on any of the adjoining streets to connect to, and while E&K recommends a

sidewalk within the subdivision, the current plan does not include a sidewalk to minimize impervious pavement and the future maintenance necessitated by such a sidewalk since there is very low traffic volume anticipated within the project (both vehicular and pedestrian). Should the Planning Board desire provision for a future sidewalk along the Lexington Avenue frontage, the applicant's plan will set aside adequate right of way for this purpose.

3.5.14 Northeast Quadrant Traffic Study

In October of 1996, TRC Raymond Keyes' predecessor firm, Raymond Keyes Associates, prepared the Northeast Quadrant Traffic Study for the Engineering Department of the Town of Cortlandt. The Traffic Study addressed existing traffic problems and driver behavior on the roadway network of the area. The requested Study was in response to comments from area residents who had expressed concerns relative to congestion, heavy commercial traffic, school children awaiting school buses and other hazards and safety concerns including speeding, and the commuting use of local roadways by people residing outside of the study area.

TRC analyzed the information collected and determined appropriate measures and any costs associated therewith, to address the concerns of the residents and Town officials. The report documents the tasks performed by TRC to provide the Board of Supervisors the necessary information to make decisions in implementing TRC's recommendations. TRC determined that the following general recommendations should be given consideration by the Town Board to deter traffic flow through the residential neighborhood, improve traffic safety and improve signalized intersection operations:

- Eliminate neighborhood through traffic.
- Improve traffic control devices.
- Improve intersection operations.

Several meetings and hearings were held over the years to determine what aspects the Town should proceed with. Some recommendations of the Northeast Quadrant Traffic Study were completed while other aspects were not, due to lack of consensus/funding.

3.5.15 Proposed Off-site Mitigation Measures

The project proposal includes certain off-site traffic improvements to sight lines at the Mill Court / Red Mill Road intersection. No other off-site improvements have been identified to be warranted as a result of the minor traffic impacts associated with the proposed project.

As described above, sidewalks are not proposed as part of the Mill Court Crossing project since there is no existing sidewalk system on any of the adjoining streets to connect to. The current plan does not include a sidewalk along the subdivision loop road to minimize impervious pavement and the future maintenance necessitated by such a sidewalk since there is very low traffic volume.

anticipated within the project (both vehicular and pedestrian). The proposed roadway conforms to the Towns subdivision road specification.

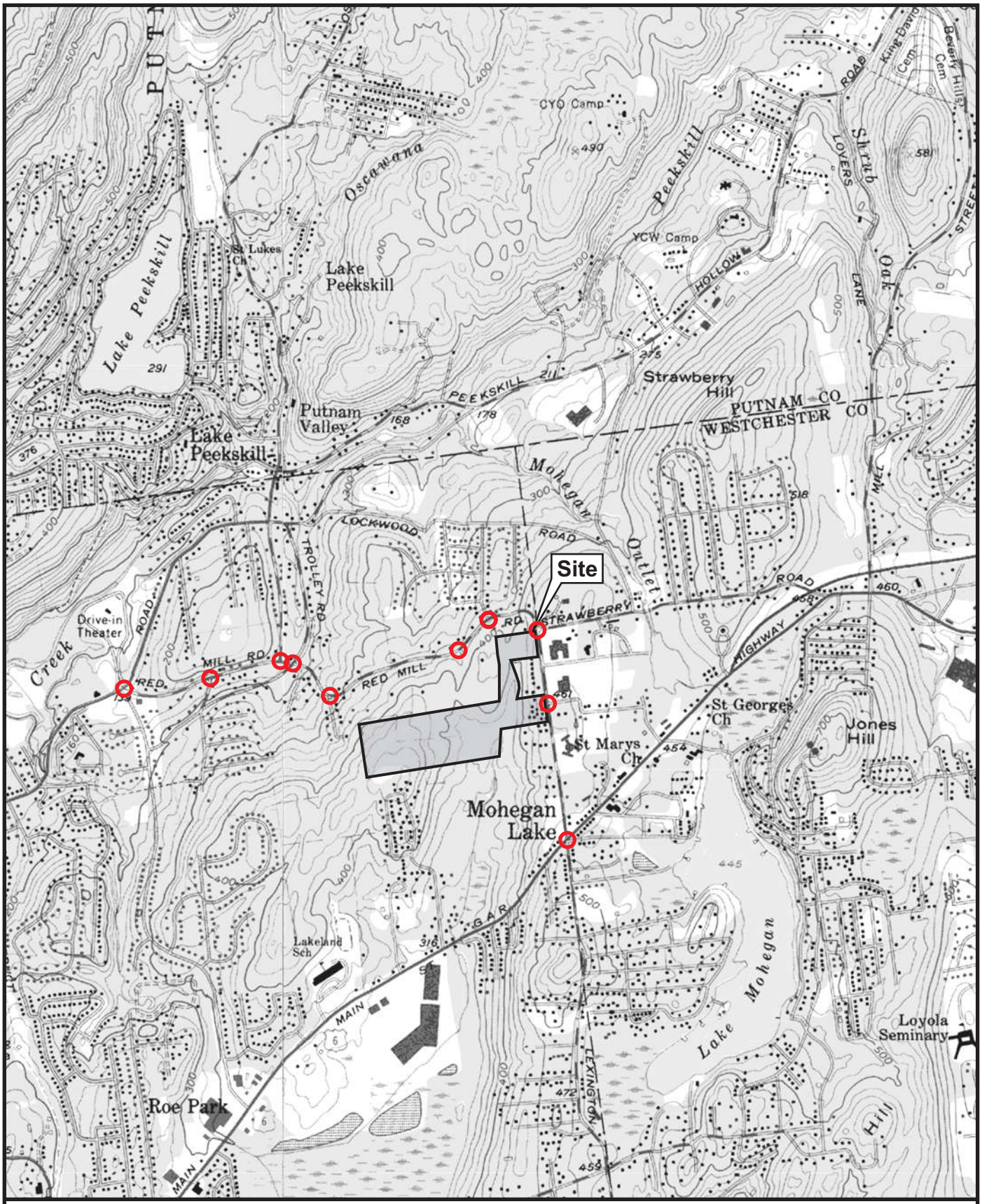
While the need for other pedestrian connections in the project area have not been identified, the applicant is prepared to set aside adequate right of way for a future sidewalk along the Lexington Avenue frontage of the project site.

3.5.16 Construction Traffic

During development of the project, construction-related traffic will access the site from Red Mill Road and Lexington Avenue. Construction will generally be between the hours of 7:00 AM and 3:30 PM. The majority of the contractors are expected to arrive at the site between 6:30 and 7:00 AM and will generally depart between 3:30 to 4:00 PM. Deliveries will occur at various times throughout the work day. Since the off-site weekday peak traffic hours are between 7:30 to 8:30 AM and between 5:15 to 6:15 PM, the majority of the contractors arriving at and departing from the site will be on area roads during off-peak hours.

During the demolition, clearing and heavy construction phases, demolition material will be hauled from the site and construction equipment will be delivered to the site using adjacent roads. Preliminary estimates indicate that there would be an excess cut of 4,000 cy over the entire site, however, efforts will be made to utilize as much of this excess material on-site as possible. Export of up to 4,000 cubic yards of fill would require less than 2 trucks per day during the first 6 months of construction when the grading work is being done. Construction workers will drive to and from the site using passenger vehicles and small trucks. After the heavy construction phase is complete, small trade contractors will constitute the primary traffic to and from the site. Over the approximate two-year build-out period, these tradesmen will access the site to build individual homes as construction is warranted.

All utility work and roadway construction will follow State regulations regarding the maintenance and protection of traffic.



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○ - Intersections Studied

Figure 3.5-1: Transportation Network

Mill Court Crossing

Town of Cortlandt, Westchester County, New York

Base Map: USGS 7.5-minute Topographic Map, Mohegan Lake Quad

Scale: 1 inch = 2,000 feet

File 05077 05/04/06
JS:\05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

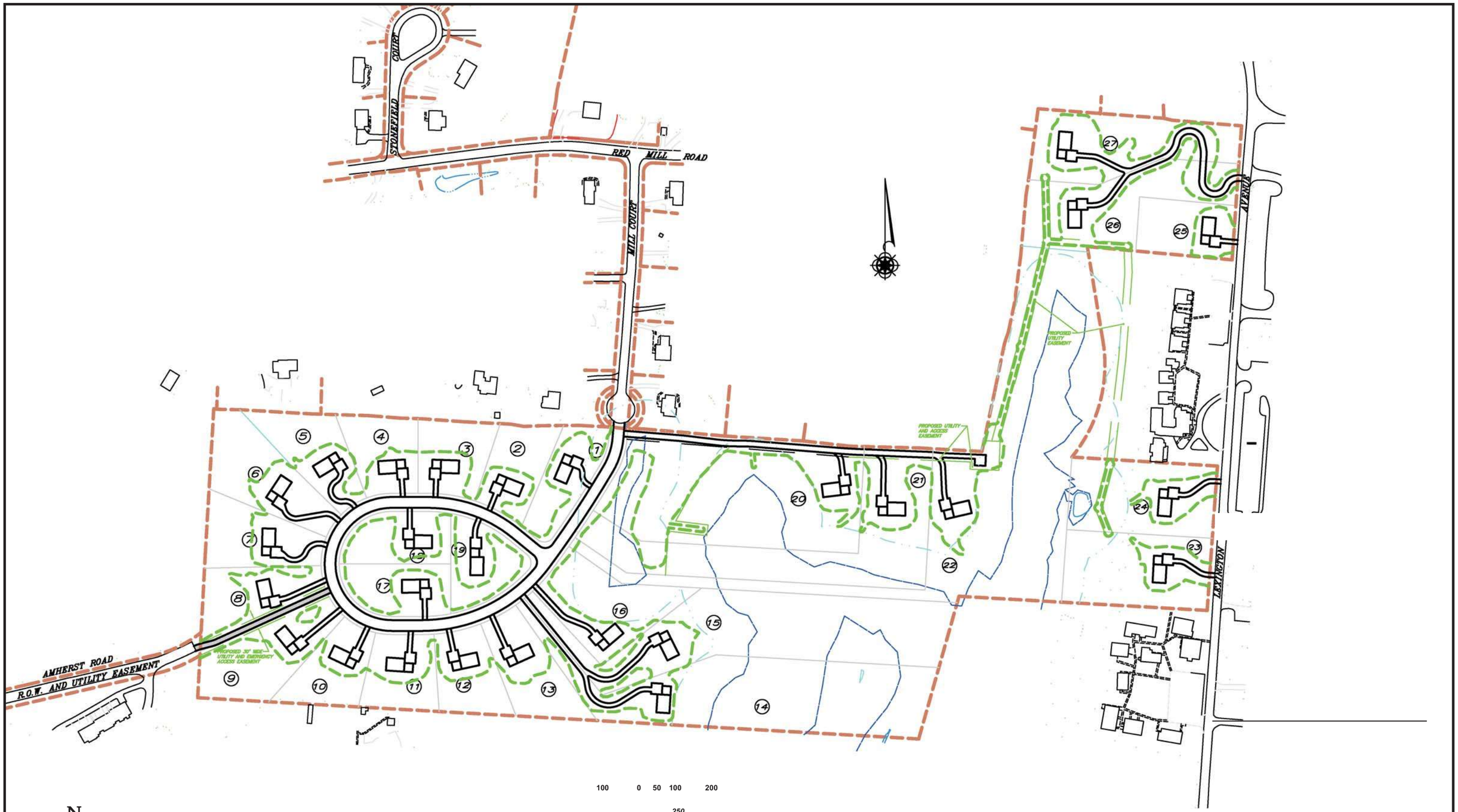


Figure 3.5-2: Proposed Subdivision Plan
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering P.E., P.C.
Date: 06/19/06
Scale: 1" = 250'

File 05077 06/22/06
JS/05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

3.6 Land Use and Zoning

3.6.1 Existing Land Use and Zoning

Existing Land Use of Project Site and Surrounding Area

The project site is located south of Red Mill Road and Mill Court, an existing dead-end street that runs perpendicular to Red Mill Road. The project site includes two sections of frontage along its eastern border, Lexington Avenue, for a total of approximately 770 feet of frontage. The boundary between the Town of Cortlandt and Yorktown runs concurrent along the Lexington Avenue frontage. The site is approximately 2,000 feet northwest of the NY State Route 6/Lexington Avenue intersection.

The project site lies in an area of existing predominantly residential as well as some institutional uses within the Town of Cortlandt. Residential development and institutional uses are also located to the east of the project site within the Town of Yorktown. The institutional uses east of Lexington Avenue include the George Washington Elementary School, a mosque, (the former Franciscan High School), Strawberry Early Childhood Development Center at 1770 Strawberry Road, and TreeTops at Mohegan Lake nursing home. Additionally, vacant land exists between the project site and US Route 6 to the south. There is significant commercial development along US Route 6, which is located one half mile south of the project site.

The site is located one mile northeast of Van Cortlandtville Elementary School, which is located at the intersection of the NY State Route 6/Constitution Drive. Cortlandt Town Center is directly south of the elementary school and includes such retail stores as Home Depot, Old Navy Linens and Things, Pier One, Best Buy and Barnes and Nobles. A condominium development, known as Wild Birch Farms, and existing roadways, including Amherst Road, are located immediately west of the project site. Further west, beyond the condominium development, is Westbrook Drive, which runs in a north/south direction, and serves as a collector road, providing access between Putnam valley to the north and the US Route 6 corridor. Residential development, which is majority single-family, institutional uses, and vacant land are located directly east of the site in the Town of Yorktown.

Currently, the site consists of second growth hardwood forests of various ages, sloping terrain, and wetlands. This area of the Town of Cortlandt is generally developed into residential development with lot areas of one acre or greater interspersed with undeveloped wooded land and this prominence of wood cover has created the rural characteristic of the area. This area of the Town of Yorktown contains more density and consists of lot areas of one acre or less.

Proposed Development Within Two-Mile Radius

There are various types of new development pending within a two-mile radius of the project site. Table 3.6-1 summarizes these proposed developments including location, type, number of units/square footage (SF), school district and status. Over 300 new residential units and approximately 95,300 SF of retail development are in various stages of approval, review or construction in the site vicinity.

Table 3.6-1
Pending Development Within Two-Mile Radius
In the Towns of Cortlandt and Yorktown

Name of Development	Street	Number of units/SF	Type of Development	School District	Status
TOWN OF CORTLANDT					
Hollowbrook Mews	Oregon Road	85 Units	Condominiums	Lakeland	Under Construction
Sunset Ridge	Locust Avenue	6 Units	Single Family	Lakeland	Preliminary Approval
Juncaj	Lockwood Road	2 Units	Single Family	Lakeland	Final Approval
Appian Way Estates	Fawn Ridge	4 Units	Single Family	Lakeland	Final Approval
Jacobs Hill Crossing	Route 6	161 Units	Apartment and Condominium	Lakeland	Under Construction
Khan	Lexington Ave.	3 Units	Single Family	Lakeland	Pending
Hagerty	Red Mill Road	2 Units	Single Family	Lakeland	Final Approval
ML Realty Investors	Michael John Amato Drive East	3 Units	Single Family	Lakeland	Under Construction
Montes	Locust Ave.	2 Units	Single Family	Lakeland	Pending
Martinez	Locust Ave.	3 Units	Single Family	Lakeland	Pending
Dipaterio	Route 202	10 Units	Single Family	Lakeland	Pending
Hillside Estates	Locust Ave.	5 Units	Single Family	Lakeland	Pending
Best Buy	Route 6	30,000 SF	Retail Building	Lakeland	Complete
Hollowbrook Golf Club	Oregon Road	6 Units	Single Family and Golf Club	Lakeland	Under Construction
Westchester Hellenic Association	Lexington Avenue	10,000 SF	Church Site Plan	Lakeland	Pending
Hudson Valley Homebuilding	Arlo Lane	4,800 SF	Office and Storage	Lakeland	Under Construction
TOWN OF YORKTOWN					
Mosque	Lexington Avenue and Strawberry Rd	46,000 SF	Religious - Site Plan	Lakeland	Operational
Wallauer Paint Store	East Main Street	4,500 SF	Retail Building	Lakeland	Operational
Cranberry Hill	Cranberry Lane	10 units	Single Family	Lakeland	Under Construction

Sources: Town of Cortlandt, Planning Department; Town of Yorktown, Planning Department; updated for Town of Yorktown projects 5/2/07.

It is noted that after preparation of this DEIS commenced, projects called Hollowbrook Plaza and Cortlandt Crossing initiated applications before the Town of Cortlandt Planning Board, and Lockwood Estates (20-lot subdivision), Esposito development (6,200 sf retail /residence in 2 buildings), and Mohegan Avenue development (18,000 sf office/daycare in 3 buildings) initiated applications before the Town of Yorktown Planning Board. Freedom Gardens has initiated an application for variance for MF dwelling in a SF zone before the Town of Yorktown Zoning Board.

Current Use of Site and Existing Structures

Currently, the vast majority of the project site is undeveloped land and historically the project site was used as farm land. An existing multi-family structure and portions of two adjoining parking lots are located on the southwest portion of the project site along Lexington Avenue. Two parking areas that exist within easements service the adjacent multi-family residence located immediately north and south of the project site on Lexington Avenue. A copy of the easement agreement is included in Appendix L. This multi-family (3-unit) structure part of a larger multi-family development that is adjacent to the south of the project site on Lexington Avenue. As mentioned above, the site is mostly undeveloped and wooded. Numerous stone walls in various locations on the site are evidence of its past history as farmland. These existing features are shown on the full size Existing Conditions plan.

Existing Zoning

Figure 3.6-1 shows the existing zoning of the project site and the surrounding area in both the Town of Cortlandt and the Town of Yorktown. As shown on Figure 3.6-1, the site vicinity is predominantly zoned for residential uses of various densities. The project site is currently zoned as R-40 Single-Family Residential District as is contiguous land to the north and south of the project site. R-20 Single Family Residential Zoning Districts are located to the north and west of the project site in the Town of Cortlandt. R-10 Single Family Residential Zoning designation is located to the southwest of the project site. Highway Commercial District, HC, designed to accommodate automobile-oriented commercial facilities along Route 6, is located south and southeast of the site also in the Town of Cortlandt.

R1-40 and R1-20 Single Family Residential Zoning Districts are located to the east of the project site in the Town of Yorktown. The business hamlet of Mohegan Lake, which is zoned commercial along Route 6, is located east of the intersection or Route 6 and Lexington Avenue, in the neighboring Town of Yorktown.

Present R-40 zoning allows single family dwellings and customary accessory uses such as garages; studios, barns, sheds, and stables; and tennis courts, swimming pools and cabanas as-of-right.

Other uses permitted as of right include the following:

- greenhouse, nursery and sale of agricultural and garden crops produced on-site
- churches
- passive and active parks and open spaces
- public and private schools offering general instruction
- raising of field and garden crops, vineyard or orchard farming
- government buildings
- certain public utility facilities
- home occupations

Uses permitted by special permit within the R-40 district include:

- two family dwellings in a transitional location
- accessory apartments
- bed and breakfast establishments
- certain home occupations
- kennels
- livestock farms
- riding academies
- nursery schools
- university, colleges or seminaries
- public golf courses
- country clubs
- tennis club, yacht club or similar sports and recreation club
- marina
- museum or art gallery
- conversion of dwellings to funeral service
- hospitals or nursing homes
- offices of doctors, dentists or other health care practitioners
- business or professional offices in transitional locations
- certain public utility facilities

Depending on the use, special permits may be issued by the Town Board, the Planning Board or the Zoning Board of Appeals pursuant to Section 307-40 of the Town Code.

Table 3.6-2 below summarizes dimensional regulations applicable to the R-40 District.

Table 3.6-2
Dimensional Regulations for Uses in the R-40 District

	Minimum Required
Lot Area	40,000 square feet
Lot Width	150 feet
Front Yard	50 feet
Rear Yard	30 feet
Side Yard, Width of 70 feet or more	20% of width to a maximum of 30 feet
Side Yard, Width less than 70 feet	15% of width to a minimum of 5 feet
Landscape Coverage	60 percent
Off-Street Parking Spaces / Single-Family Dwelling Unit	2 per unit
	Maximum Permitted
Building Height	2½ stories or 35 feet
Building Coverage (dwelling)	15%
Lot Depth	300 feet

Source: Section 307-17, Zoning Town of Cortlandt, Table of Dimensional Regulations
* Under provision of Section 265-19 of the Subdivision Regulations, depth of lots shall not exceed 300 feet unless there are topographic or other unusual conditions.

3.6.2 Land Use Plans

Town of Cortlandt Comprehensive Master Plan

In 2004, the Town of Cortlandt adopted an updated Comprehensive Master Plan. According to the Comprehensive Master Plan, a Town is characterized by its residential neighborhoods and approximately 94 percent of the Town of Cortlandt is zoned for residential use. The land use component of the Comprehensive Master Plan designates the project site and most of the area surrounding the site for lower density residential development. Lower density is defined as areas with predominantly one acre lots.

Portions of the area surrounding the project site are designated medium density residential, as well as multi-family and open space. Medium density residential uses are found in the northern and western sections of the Town and typically contain uses with less than one acre lots. Existing multi-family uses are located southwest of the project site.

The Comprehensive Master Plan includes an Open Space component and references the final report of the Town's Open Space Committee. The Open Space Final Report, dated May 2004, includes recommendations of the Committee regarding specific parcels of land in the Town.

The Town of Cortlandt's Open Space Final Report (Open Space Report), dated May 2004, identifies the subject parcel as a highest priority under-utilized property. The Open Space Report makes five recommendations; four of which are not, at this time, relevant to the Environmental Impact Statement. However, the first recommendation requires discussion and is paraphrased as follows:

> 1. The Town should take affirmative steps to preserve each of the highest priority parcels prior to applications for development being submitted. The Town, for example, should:
>
> (a) set aside sufficient dedicated funds for land acquisition;
>
> (b) proactively seek out the owners of important parcels and engage in dialogue and education efforts with them.

No Town agents or officials have ever contacted the project Applicant regarding the Open Space Report. The Applicant is not aware of any "set aside" for acquisition relative to this parcel, nor has the Town "proactively" conducted any outreach on this project. Selected pages of the Open Space Report, including all of the recommendations, are set forth in Appendix N.

It should be noted that the Sustainable Development Plan contemplated that the Applicant's property would be ideal for a "hamlet" designation with a corresponding increase in density. However, the Town does not have a currant mechanism in place that could accomplish this result. Therefore, the proposed subdivision, as proposed, is clearly the use and density envisioned; and, is consistent with the Comprehensive Plan and the zoning code (see Edwards and Kelcey, Town consultant, review, dated August 31, 2006 at page #13, Land Use Considerations) environmentally.

The Comprehensive Master Plan includes the objective of identification and listing of Historic Roads. The purposes of this identification and list is to encourage the preservation of historic and scenic roads including the existing pavement and alignment of these roads. The list is also designed to encourage the preservation to the maximum extent by a Historic Road Ordinance

of the existing historic residences, stone walls, and mature trees located along identified scenic and historic roads. The list of historic roads contained in the Comprehensive Master Plan does not include Mill Court or Lexington Avenue upon which the project site has frontage. Therefore, the existing features (i.e. mature trees, stone walls) along Mill Court and Lexington are not identified as historic. Red Mill Road, however, is identified in the Master Plan as an historic resource. The Master Plan recommends the "preservation of the character of the Town's historic roads". Preservation would include preserving the road alignment and width as well as maintaining stone walls and mature shade trees bordering the road, and protection and maintenance of historic mile markers. The Town of Cortlandt currently does not have an historic roads ordinance nor does it have regulations or restrictions regarding historic roads.

The disposition of stone walls on this site is shown in Figure 3.6-3. The current proposed plan necessitates removal of approximately 2,378 linear feet of existing stone walls. The character and condition of these old farm walls varies on the site, however, stones from these walls are proposed to be stockpiled and reused to construct approximately 2,910 linear feet of new, decorative stone walls. New walls will be installed primarily in three locations (shown in Figure 3.6-3): along the Mill Court Extension, along the wetland buffer line on Lots 14, 15, and 16, and along the wetland buffer line on Lots 20, 21 and 22.

Westchester County Patterns

In 1995, the Westchester County Planning Board formally adopted a policies and strategies statement to guide land use in the county, entitled Patterns for Westchester: The Land and the People. Patterns offers a broad policy framework for governmental action to guide the county's future physical development. Although the primary purpose is to provide a set of standards for the Westchester County Planning Board, Patterns proposes a range of strategies through which County and municipal governments may implement their common planning goals.

Policies from Patterns that are applicable to the proposed project include the following:

- Channel development whenever possible to centers where infrastructure can support growth, where public transportation can be provided efficiently and where redevelopment can enhance economic vitality.
- Preserve and protect the county's natural resources and environment, including its ground water resources, water bodies, wetlands, coastal zones, and significant land resources which include unique natural areas, steep slopes and ridge lines, and prime agricultural land.
- Encourage a range of housing types that are affordable to renters and home buyers, with each municipality addressing its needs for affordable housing as well as a share of the regional need.

Patterns recommends that new development in Westchester be located primarily in existing development centers and within already developed transportation corridors. Indeed, the significant intensification of development and redevelopment in existing centers and corridors is endorsed, in order to discourage urban fragmentation and sprawl. Through the revitalization of older centers it is asserted greater employment and residential opportunities may be created, and more undeveloped open space areas in the county preserved.

The Patterns document recommends development densities for the project site consistent with the County's "Medium Density Suburban 2-4" designation. Land use intensity in this category would provide a gross residential density (GRD) between 2 and 7 dwelling units per acre. For comparative purposes, the Patterns guidelines also recommend floor area ratios (FAR) for the 2-4 designation range to be between 0.05 and 0.21 (gross floor area/site area).

Areas to the immediate north, east and west of the project site are recommended for similar development densities as the project site. Areas to the south of the project site, along NY State Route 6, are recommended for high density development, which would provide a GRD of between 4 and 6 dwelling units per acre.

Future Development Trends and Pressures

As indicated in the Master Plan, overall, the residential character of Cortlandt -- ranging from medium density suburban to low density -- is expected to be maintained. With increasing housing demand and development pressure continued throughout the Northern Westchester and Putnam County area, new housing developments are anticipated in this area. As previously discussed in Table 3.6-1, fourteen subdivisions in various stages are proposed within a two-mile radius of the site. NYS Route 6 will remain as the main corridor for commercial uses.

Lot Count

Site capacity calculations for the subject site have been performed by Cronin Engineering, P.E., P.C., in accordance with the Town Zoning Code. Lot count calculations and mapping have been submitted to the Town Engineering Division for verification. The lot count was determined by applying the formula contained in §307-18 of the Town Zoning Ordinance. Wetlands (including 50 percent of the buffered area), areas containing steep slopes 20 percent and greater as defined in §307-18, areas of floodplain not included in the prior figures, and 10 percent of the preliminary net parcel area were subtracted from the Gross Parcel Area (GPA) of the site. The remainder was then divided by the minimum lot size in the R-40 zoning district (i.e. 40,000 square feet or 0.918 acres). The calculations are summarized as follows:

Table 3.6-3
Site Capacity Analysis

Zoning District	R-40	
Lot #	SECTION; 13.18, BLOCK: 2, LOT: 2	
Total Approx. GPA in Zone	2,298,052 S.F.	52.756 AC.
Wetland (WWW)	373,030 S.F.	8,564 AC.
50% of 100' Wetland Buffer Area (WBA) *	230,847 S.F.	5.300 AC.
Slopes > 20% (SS)	178,129 S.F.	4.089 AC.
NYSDEC Wetland (FW) (Area Included in Wetland Area)	0	0
100 Year Floodplain (FD)	0	0
Total Constrained Area	782,006 S.F.	17.952 AC.
Parcel Area After Constraints	1,516,046 S.F.	34.804 AC.
10% of Parcel Area After Constraints	151,605 S.F.	3.480 AC.
Net Parcel Area (NPA)	1,364,441 S.F.	31.323 AC.
R-40 Residential Density Permitted (40,000 S.F. / Lot Min. Required)	34.11 Lots = 34 Lots Maximum	

* [519,861 S.F. (Total Buffer Area) - 58,167 S.F. (Slopes > 20% within buffer area)] x 50% = 230,847 S.F.

Based on the Formula in Section 307-18 of the Town Code: $N = \frac{(GPA-WWW-FW-FD-SS-WBA) - 10\% NPA}{MLS}$

Source: Cronin Engineering.

The engineer's lot count calculation for the project site yields a maximum of 34 lots. The Applicant's proposal, which reduces permitted density, by seven lots, has been designed to minimize impacts on sensitive areas. Thus, only 13.8% and not 50% of buffer areas; and only 28% and not 100% of steep slopes, between 15 and 20%, are disturbed by the Applicants' environmentally sensitive proposal.

3.6.3 Potential Impacts

The Applicant proposes to subdivide the undeveloped 52.756-acre parcel into 27 single-family residential lots. The 24 market rate homes will average 3,500 square feet (gross floor area) with three, four and five bedrooms (four bedrooms on average). The building height of these market rate homes will not exceed 35 feet. The proposed affordable homes will average 2,000 square feet (gross floor area) with three bedrooms. The building height of these affordable homes will not exceed 35 feet.

The subdivision will have house lots ranging in size from 0.92 acre (40,005 sf) to 7.62 acres (331,748 sf). The proposed lot sizes will conform with the existing R-40 residential zoning requirement of 40,000 square foot minimum lot area. Each house lot will include off-street parking space for at least two vehicles. Table 3.6-4 summarizes the proposed lot size distribution.

Table 3.6-4
Lot Size Distribution

Lot Size (acres)	No. of Lots
0.92-1.2	15
1.2-2.0	6
2.0-7.62	6
Total	**27 lots**

Source: Cronin Engineering, PE, PC; Tim Miller Associates, Inc.

The subdivision is proposed to have one primary access roadway from the existing Mill Court. Twenty-two residences will have access off of the primary access road, Mill Court extension, while five residences located on the eastern side of the site would have driveways from Lexington Avenue.

The proposed subdivision would yield a density of one home per 1.95 acres of land, which is at the low end of the County's Medium Density designation. The project is anticipated to be developed over a multi-year period in response to market conditions.

Compatibility with Town Zoning Code

The proposed single family residences are a permitted use within the R-40 district, as identified within the Town zoning regulations. The proposed number of lots is less than the maximum number of lots permitted on the property, based on the site capacity calculation contained in zoning code. According to the project engineer, each of the proposed residential lots will comply with the dimensional requirements stipulated in the zoning code.

Compatibility with Town Subdivision Regulations

The Residences at Mill Court Crossing has been designed by the project engineer to comply with all the provisions of the Town Subdivision Regulations (§265 of the Town Code).

Compatibility with Town Comprehensive Master Plan

The proposed subdivision has a gross density of one home for each 1.95 acres. Overall development of the project site will involve less than one third of the total property. The developed portion will be not unlike other areas developed in single family homes in the project vicinity. The remaining two-thirds of the property will continue to function in its natural capacity as woodland and wetland resources contiguous with adjoining lands of similar natural function. Thus, the applicant believes that the proposed residential subdivision is compatible with the land use objectives articulated in the Town Comprehensive Master Plan for the site. The project has been designed to avoid wetland and steep slope disturbance to the greatest extent practicable and preserves large portions of the perimeter in natural woodland cover. It is not proposed as a cluster subdivision.

Compatibility with Westchester County Patterns

With a gross residential density of the 1.95 homes per acre, the proposed subdivision would have a density at the lower end of the density recommended by Patterns.

The project site lies within existing low to medium-density residential neighborhoods, with community facilities such as a firehouse and schools nearby. NYS Route 6 and existing public bus lines along Strawberry Road, Lexington Avenue, Westbrook Drive and Route 6 are a short distance from the project site for public access. Commuter railroad facilities are also nearby with the Peekskill, Cortlandt, and Croton stations in the general area. Public water and sewer systems exist nearby to facilitate extensions into the site. The subject development complies with the Westchester County Patterns to channel development near centers where infrastructure can support growth, where public transportation can be provided efficiently and where redevelopment can enhance economic vitality.

Indian Point Emergency Evacuation Plan

The Mill Court Crossing project site is located within Planning Area #8 of the Indian Point Emergency Evacuation Plan. Bus routes W36, W40, W41, W42, W43, W44, W49, W50, W52, and W53 have designated stops within the area. Reception Center C (Valhalla Middle/High School in Valhalla in the Town of Mount Pleasant) is designated to serve the portions of the Lakeland School District within Cortlandt.

Potential Impacts

Apart from the need to incorporate the site into the existing plan as a developed property with a resident population which may need to evacuate the area, no adverse effects are foreseen on the Indian Point Emergency Evacuation Plan.

3.6.4 Mitigation Measures

The proposed development has been designed at a density that is compatible with the surrounding area to cause the minimum practicable amount of removal of existing vegetation for the development of the roads, infrastructure, and house lots. The majority of the proposed homes are laid out surrounding the circular access road designed to minimize disturbance to the existing wetlands and steep slopes located on the project site.

There are no mechanisms proposed, such as deed restrictions or conservation easements, to prevent these lots from being further subdivided in the future. No further subdivision of Lots 1 to 22 is contemplated, and the prohibition for further subdivision of these lots will be noted on the final approved subdivision plat. Lots 23 to 27 that have access from Lexington Avenue will be restricted from further development; unless, however, future zoning changes alter the designation of these areas and/or increase their permitted density.

No other land use impacts have been identified that would result from implementation of the proposed development. The proposed plan for single family residential housing has been designed to complement the surrounding development. This project will have no effect on zoning. Therefore, no further mitigation measures are needed or proposed.

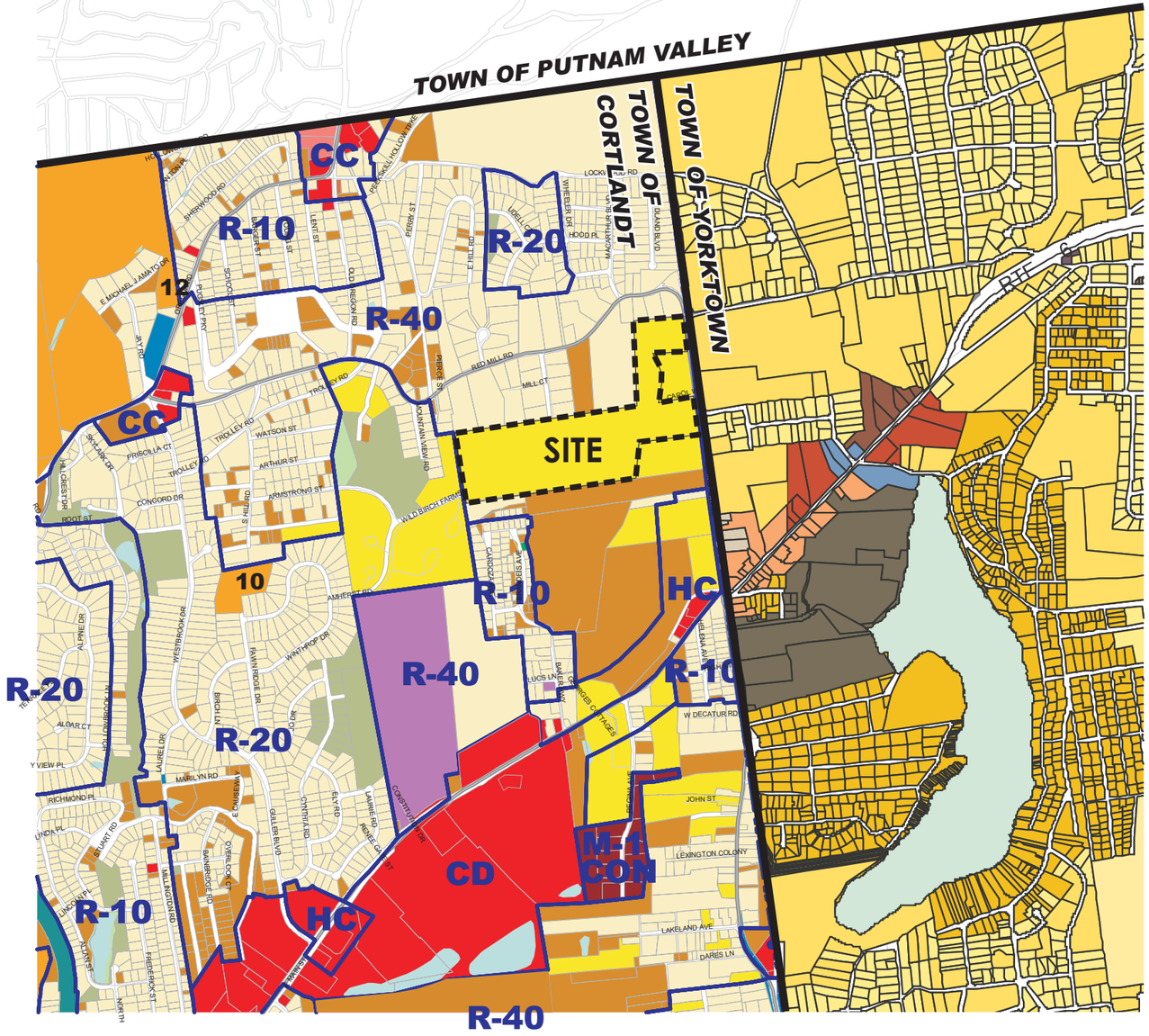
TOWN OF CORTLANDT
EXISTING LAND USE AND ZONING

Landuse Classification:

- Agriculture
- 1, 2, 3 Family Residential
- Multifamily Residential
- Vacant
- Pending Subdivision
- Commercial
- Offices
- Government
- Community Services
- Parks
- Conservation Lands
- Private Recreational
- Utilities
- Industrial
- Subdivision Pending

1. Roundtop
2. Valeria
3. Emery Ridge
4. Abee Rose Estates
5. Lakeview Estates
6. Furnance Dock Inc.
7. Lakeland Acres
8. Levesque Estates
9. Hillside Estates
10. Appian Way
11. Durrin Avenue
12. Oregon Road
13. Cortlandt Avenue
14. Maple Avenue Partners
15. Jacob Hill Crossing
16. Washington Trails
17. Springvale Apts.
18. VanCortlandt Commons

- Croton Watershed Boundary
- Municipal Boundaries
- Major Roads
- Zoning Districts
- Lakes
- Tax Parcel Boundaries



TOWN OF YORKTOWN
ZONING

Single-Family Residential

R1-10	1/4 acre (Must have 20,000 sq ft to build)
R1-20	1/2 acre
R1-40	1 acre
R1-80	2 acre
R1-160	4 acre
R1-200	5 acre

Multi-Family Residential

R-2	Two-Family
R-3	Multi-Family

Senior Residential

RSP-1	Age-Oriented Community (55 and older)
RSP-2	Senior Citizen Development (55 and older)
RSP-3	Continuous Care (62 and older or 50 and handicapped)

Special Zones

IN	Interchange Zone
T	Transitional Zone

Office

O	Office
OB	Office Business Campus

Commercial

CR	Commercial Recreation
CC	Country Commercial
C-2	Business
C-2R	Business
C-3	Business
C-4	Business
C-1	Commercial Shopping Center
CRC	Commercial Regional Center

Industrial

I-1	Light Industry
I-2	Industry (Front Street)

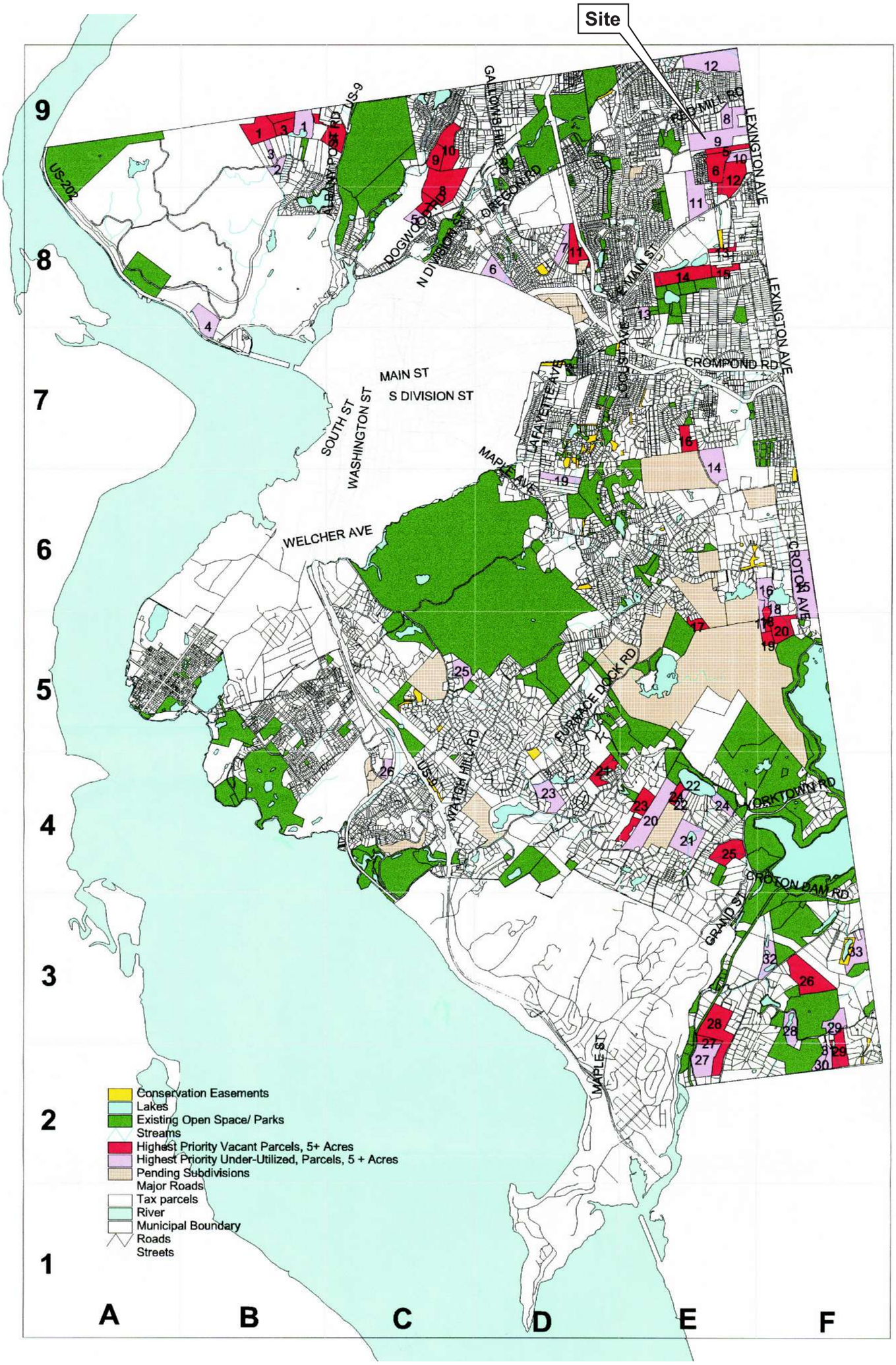
N W E S

Site Property Boundary

Figure 3.6-1: Existing Land Use and Zoning of Site Vicinity
Mill Court Crossing
Towns of Cortlandt and Yorktown, Westchester County, New York
Source: Land Use Map, 2003 Master Plan,Town of Cortland
Town of Yorktown Zoning Map, Town of Yorktown Planning Dept.

File 05077 05/04/06
JS/05077

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



N
W E
S

Figure 3.6-2: Highest Priority Parcels Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Town of Cortlandt, Open Space Final Report, May 2004

File 05077 08/16/06
JS:\05077

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

LEGEND

EXIST. CONTOUR

AREA OF DISTURBANCE

EXIST. STONE WALL

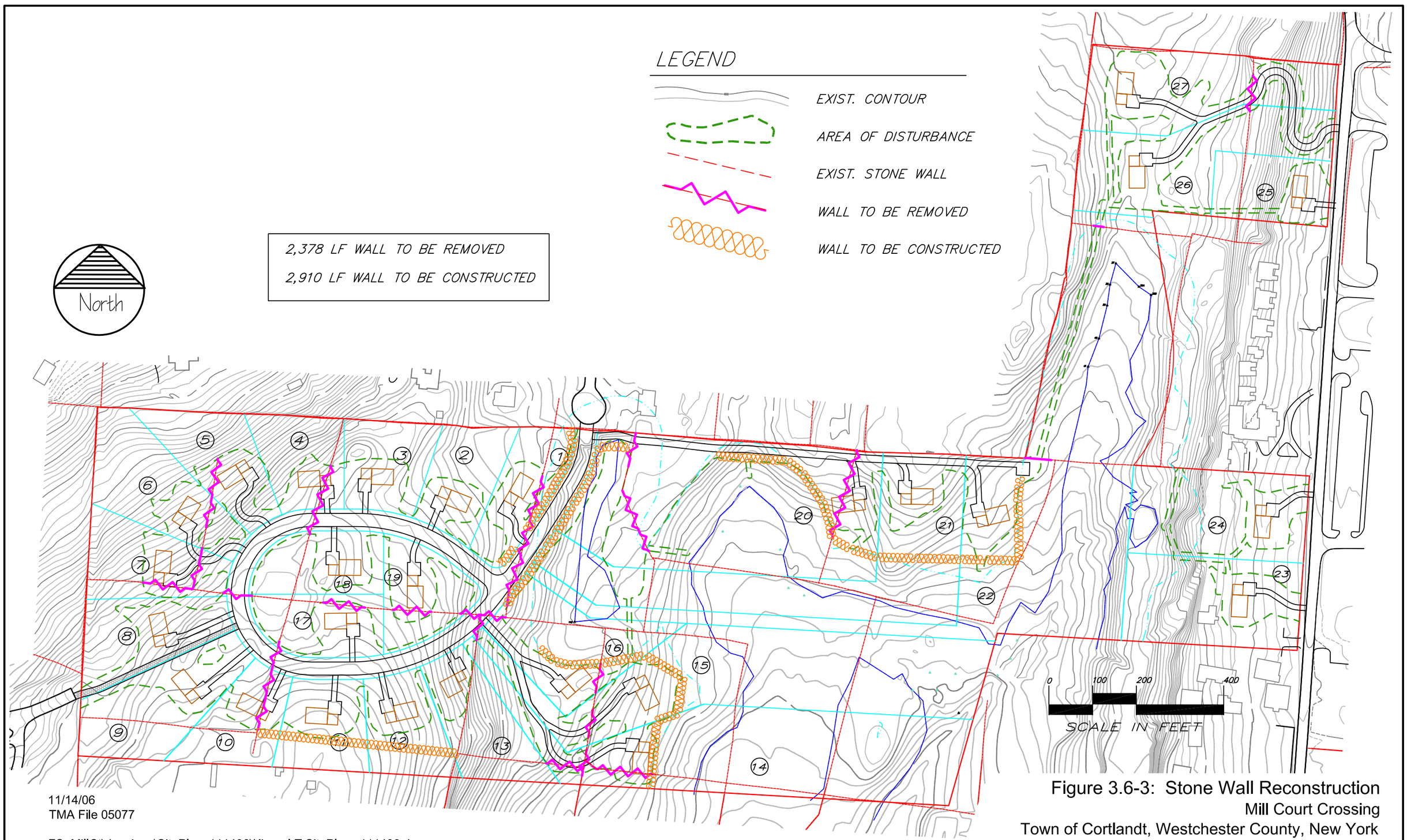
WALL TO BE REMOVED

WALL TO BE CONSTRUCTED

2,378 LF WALL TO BE REMOVED

2,910 LF WALL TO BE CONSTRUCTED

North



11/14/06
TMA File 05077

FS: MillCt\drawings\SitePlans111406\Kirquel-T SitePlans 111406.dwg

Figure 3.6-3: Stone Wall Reconstruction
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

3.7 Community Services

3.7.1 Project Background

The Town of Cortlandt, New York, is located in the northwestern corner of Westchester County. The Town is bounded on the west by the Hudson River, the north by Putnam County, the east by the Town of Yorktown, and on the south by the Town of New Castle and Ossining. Cortlandt includes two incorporated villages, Croton-on-Hudson and Buchanan, and several hamlets including Montrose, Crugers and Verplanck.

The proposed Residences at Mill Court Crossing development is located in an area of predominantly residential development, as well as some institutional uses, within the Town of Cortlandt. The site fronts Mill Court on the north side which offers access to the site. The eastern side the property abuts Lexington Avenue in the Town of Yorktown.

The proposed development of 27 single-family residences, is anticipated to have a sales price of $1,000,000 for each 4-bedroom residence. The schedule for construction is approximately three years starting in April 2007 and ending by late 2010.

A population projection for the proposed Mill Court Crossing development has been based on demographic information for the "single-family" housing type for the northeastern United States derived from the 1987 American Housing Survey and reported in the Development Impact Assessment Handbook published by the Urban Land Institute in 1994. Because population and school-age children multipliers derived from 2000 Census data have not been published, data contained in this publication are the most currently available at this time, and are considered the planning standard for analyses such as these. The demographic multipliers provided for total household size, and total school-age population, for four bedroom homes in the Northeast region are 3.6248 and 0.8738 persons, respectively. 2000 Census data indicate an Average Family size of 3.22 persons in the Town of Cortlandt. The ULI multipliers are higher and thus, represent a maximum impact scenario.

Based on the above, the proposed Mill Court Crossing is projected to increase the Town's population by 98 persons, including 24 school aged children, when fully occupied. Based on information provided by the Westchester-Putnam School Boards Association (Facts & Figure$ 2004-2005), approximately 2.5% of school-age children in the Lakeland Central School District attend private or parochial schools. Refer to *http://www2.chric.org/WPSBA*.

3.7.2 Police Protection

Existing Conditions

Westchester County's Department of Public Safety was contacted to obtain information on police services in the Town of Cortlandt. Figure 3.7-1 illustrates community facilities within two miles of the site.

The project site is located within the jurisdiction of the New York State Police and the Westchester County Police Department. There is no fixed number of NYS Police staff assigned to Cortlandt. The Town of Cortlandt has contracted with the Westchester County Police Department to provide certain protective and law enforcement services to its residents. These services include traffic enforcement, community police services, back-up to the State Police, and the DARE (drug awareness) program at two of the local elementary schools. The

Westchester County Police Department is comprised of 233 sworn officers. The County Police maintain a Northern Command Station at the Cortlandt Town Hall. According to February 20, 2006 correspondence from Lieutenant Frank J. Donovan, Westchester County Department of Public Safety (DEIS Appendix B), the department provides police patrols and specialized police services on a contractual basis. The county police patrol coverage for the town is normally one police officer on the day shift and one on the evening shift. Specialized police resources such as follow-up investigation by detectives are not dedicated but are made available to town residents as needed, 24 hours per day.

The Department handled 2070 calls for service and events of all kinds in the Town of Cortlandt in 2005. Typical events that the department handles within the town are parking problems, traffic enforcement, motor vehicle accidents, criminal incidents and aid for the sick and injured. The expected response time to the proposed Mill Court Crossing Residences is less than 10 minutes. There are no plans to expand the facility or staffing at the police precinct in Cortlandt.

Police protection is also provided for the Town of Cortlandt by the New York State Police. Zone 3, Troop K, of the State Police covers the Town of Cortlandt, including the project location, and south Putnam County with stations located in Somers, Cortlandt and Hawthorne. Zone 3 has a station located near the Cortlandt train station, which is approximately 8 miles from the project location, and a substation on Route 6 in the Cortlandt Town Center, less than three miles from the project site. Currently, Zone 3 includes a total of 35 troopers, four sergeants, seven investigators, and two dispatchers. Four of these troopers are based at the substation located at the Cortlandt Town Center. A paramedic unit providing Advanced Life Support (ALS) services to the Town under contract is also located at the police facility.

The State Police have a total of 20 vehicles available for use. At any given time between 7:00 AM and midnight, four to seven State Police vehicles are on the road. Three cars, each with two troopers, patrol the midnight shift. Troopers patrol within the State Police service area and also respond to complaints in the community. Depending on the location of police vehicles at any given time, response time by the NYS Police generally would be expected to vary from two to ten minutes.[1]

Potential Impacts and Proposed Mitigation

Development of 27 single-family homes will create a potential demand for additional police services. Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), two police personnel should be provided per 1,000 persons. Using this standard, the projected increase of 98 persons has the potential to increase police staffing needs by less than a quarter of a staff person.

Additional revenue provided via property taxes from the developed project could be used to increase staff or hours of operation, if necessary, and thus offset the potential increase in police services resulting from this project. Police protection is not funded through a special tax district and is not included in the Town Budget since the Town of Cortlandt does not have police services and contracts with Westchester County and New York State Police departments to provide police services in the Town. Based on the fiscal projection in Section 3.8, Socioeconomics, approximately $69,000 and $9,300 would accrue to Westchester County and the Town of Cortlandt respectively, which could be used to mitigate the cost of police protection.

[1] Sergeant William Dexter, NYS Police, phone conversation, July 12, 2005.

3.7.3 Education

Existing Conditions

The Residences at Mill Court Crossing is located within the Lakeland Central School District. The Lakeland Central School District is the largest suburban district in the county and lies in the northwest corner of Westchester County. Its borders push into Putnam County, then swing south almost to Peekskill. District students live in six different towns: Yorktown, Cortlandt, and Somers in Westchester County; Carmel, Philipstown, and Putnam Valley in Putnam County. There are five elementary schools, one middle school, and three high schools for a total of nine schools within the District. One of the high schools is an alternative high school known as Lakeland Alternative High School. The Elementary, Middle and High Schools serving the project site are the George Washington Elementary School, Lakeland Cooper Beech Middle School and Walter Panas High School. Figure 3.7-2 shows the location of public schools close to the project site.

Table 3.7-1 summarizes the grade distributions of the nine schools within the district:

Table 3.7-1
Lakeland Central School District

School	Grades Served	Enrollment
Benjamin Franklin Elementary School	K-5	634
George Washington Elementary School	K-5	549
Lincoln-Titus Elementary School	K-5	459
Thomas Jefferson Elementary School	K-5	502
Van Cortlandtville Elementary School	K-5	588
Lakeland Copper Beech Middle School	6-8	1469
Lakeland High School	9-12	1165
Walter Panas High School	9-12	761
Lakeland Alternative High School	9-12	32
Source: www.greatschools.com		

According to information provided by New York State Department of Education web site, the student population of Lakeland Central School District was 6,321 students in the 2005-2006 school year. There are 478 certified and 559 non-certified staff. There are approximately 463 teachers in the District with 13.7 students per staff member. The average class sizes of grades K-2, 3-5, 6-8 and 9-12 are 22, 24, 24 and 24 students respectively. The enrollment projections, prepared by the School District for the 2006 through 2010 period, are summarized in Table 3.7-2 below:

Table 3.7-2
Enrollment Projections
Lakeland Central School District

Grades	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
K through 5	2,840	2,809	2,820	2,863	2,861
6 through 8	1,471	1,541	1,511	1,486	1,445
9 through 12	2,037	2,041	2,051	2,031	2,072
TOTAL K-12	**6,348**	**6,391**	**6,382**	**6,380**	**6,378**

Source: Lakeland Central School District, 2006

The enrollment projections prepared by the Lakeland Central School District take into consideration several other development projects that are proposed or under construction within the School District.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994) and information provided by the Westchester-Putnam School Boards Association in its publication Facts & Figure $'s 2004-2005, a total of 23 school aged children who would attend public schools are projected to reside at the proposed Mill Court Crossing project.[2] One school aged child of the total of 24 generated from the Mill Court Crossing project could be expected to attend private or parochial school (nonpublic).

Potential Impacts and Proposed Mitigation

The maximum number of students projected to enroll at the Lakeland Central School District from the proposed development would be 24 or 0.38 percent of the total number of students (6,382) projected by the District in the 2007-2008 school year. This assumes that all the homes at the proposed Mill Court Crossing development are built and occupied in one year. In fact, not all of the proposed residences will be constructed and occupied at the same time. Thus, the projected student population from the proposed residences will be introduced into the School District over a multi-year period (2007-2010). It is also likely that the 23 school aged students would not be in the same grade level. The introduction of students into various grade levels over a multi-year period would ameliorate the effect of the increase in school district enrollment associated with this project. The approval and construction period of this project provides time to allow the Lakeland Central School District to implement measures for the introduction of new students from this and other area projects.

A letter was sent to Kenneth J. Connolly, Superintendent of Schools for the Lakeland Central School District to inquire about the potential effect of this project on the school district. George Washington Elementary School, Lakeland Cooper Beech Middle School and Walter Panas High School would serve students living in Mill Court Crossing. According to the correspondence received on March 14, 2006 (DEIS Appendix B) from Kenneth J. Connolly, if the additional 24 students (taking into account that all students attended schools within LCD) are spread across all 13 grade levels, there would be no impact on staff facilities or equipment. The letter received from the Lakeland School District Superintendent identifies the student enrollment in the school

[2] *Development Impact Assessment Handbook*, Urban Land Institute (1994): 4 BR Single family residence in Northeast generates 0.8738 school-age children. *Facts & Figure$ 2004-2005*, Westchester-Putnam School Boards Association: Approximately 2.5 percent of school-age children in Lakeland Central School District attend non-public schools.

district as 6,250 students and the average class size of all grades (22 students in K-2, and 24 in grades 3-12). As mentioned in the letter, since the ages and the grade levels of the students entering the school district are unknown at this time, it is difficult to evaluate the long range school capacity and possible mitigation measures.

Revenue provided via property taxes from the developed project would be available to increase school staff, facilities/equipment or bus trips, if necessary, to offset the potential increase in educational services resulting from this project. Please refer to DEIS Section 3.8, Socioeconomics, for additional information relating to tax revenues.

3.7.4 Fire Protection

Existing Conditions

The Mohegan Volunteer Fire Association provides fire protection service to the project area. It provides fire, rescue, and emergency medical services within the Lake Mohegan Fire District, a 40 square mile area in northern Westchester County, New York in the towns of Cortlandt and Yorktown. The department responded to 1,147 fire calls and 2,500 emergency medical calls. The Mohegan Volunteer Fire Association has a station located on 1130 Oregon Road in Cortlandt Manor and a station near the intersection of Route 6 and Lexington Avenue, both nearby the project site. The Mohegan Volunteer Fire Association staff currently consists of approximately 150 volunteers and 30 career fire fighters. The Fire Association also owns eight (8) fire trucks including fire engines and freightliners.

Potential Impacts and Proposed Mitigation

Development of 27 single-family homes will create a potential demand for additional fire protection services. Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), 1.65 fire personnel should be provided per 1,000 population. Using this standard, the projected increase of 98 persons has the potential to increase fire protection staff by less than a fifth of a staff person.

In response to a letter sent to the Mohegan Volunteer Fire Association, Chief Raymond J. Street has stated that the response time to the project site is expected to be approximately 3 to 5 minutes (DEIS Appendix B). The Fire Chief further stated that the current staffing levels of the Fire Department would be sufficient to cover the increased call volume of the Fire Department after the homes are built. The Department has an ongoing project to house fire and injury prevention equipment on Route 6 between Mill St. and Strawberry Rd.

Additionally, the Mohegan Fire Association would receive revenues of $26,212 provided through property taxes from the developed project, which could be used to increase manpower or facilities/equipment, if necessary, to offset the potential increases in fire protection services resulting from this project.

3.7.5 Public Water Supply

Existing Conditions

The water supply to the project site is provided by the Cortlandt Consolidated Water District (CCWD) No. 1. CCWD No. 1 supplies over 2.0 million gallons of water per day to residents and businesses within its service area. The bulk of the water supply is purchased from the Montrose

Improvement District, with smaller amounts purchased from the City of Peekskill and the Town of Yorktown. Water provided by the Montrose Improvement District is taken from the NYC Catskill Aqueduct, which is filtered and chlorinated by the Improvement District.

The Town of Cortlandt owns and operates two water storage tanks located in the vicinity of Croton Avenue and NYS Route 202 within the Croton Park Colony. The two storage tanks hold 550,000 gallons and 750,000 gallons, respectively. The proposed project site will be connected to the Town's water supply system through an existing water main located on Mill Court.

Potential Impacts and Proposed Mitigation

The proposed Mill Court Crossing development will create an additional need of 9,500 gallons of water per day. The water supply to the proposed Mill Court development represents approximately 0.5 percent of the 2.0 million gallons per day currently supplied by CCWD No. 1 to its service area. According to the project engineer's report on water and sewer use (DEIS Appendix G), the Town's system will be able to supply the additional water demand and pressure.

The project site will connect to an existing water main located within Mill Court. The water main will be extended from this existing water main located on Mill Court, through a proposed street right of way to be dedicated to the Town of Cortlandt, with a loop through Amherst Road to an existing water main on the adjacent property. The water main extension will involve the construction of approximately 3,850 linear feet of 8-inch diameter ductile iron class 54 cement lined pipe, fire hydrants and all necessary appurtenances to service the 27 proposed residences. The project proposal includes ten new fire hydrants including one off-site on Amherst Road. The extension which loops back into itself prevents a "dead end" water main.

Additional revenue of $7,672 provided through property taxes from the developed project can be expected to offset the potential increases in services resulting from this project. DEIS Section 3.8, Socioeconomics, contains information relating to the tax revenues.

3.7.6 Sewer Services

Existing Conditions

The proposed project will require reinstatement by the County to include the project site in extension of the Peekskill Sanitary Sewer District and extension of the district or establishment of a new sewer district by the Town, to include the project site, thereby allowing sewage generated by the project to be treated at the Peekskill Wastewater Treatment Plant. Approximately 20% of the northern part of the Town of Cortlandt is served by the Peekskill Sanitary Sewer District. The existing plant has a SPDES permit limit of 10 million gallons per day (mgd) from the NYS Department of Environmental Conservation.

Potential Impacts and Proposed Mitigation

The Mill Court Crossing development will result in increased sewage flow to the Peekskill Sewage Treatment Plant. The applicant is preparing a formal application to the Town of Cortlandt Town Board to be reinstated into the Peekskill Sanitary Sewer District, thereby allowing sewage generated by the project to be treated at the Peekskill Wastewater Treatment Plant. Part of the approval process will entail a recommendation from the Westchester County Department of Environmental Facilities. According to the project engineer's Sanitary Sewer

Engineering Report (DEIS Appendix H), the estimated average daily sewage flow from the proposed development is 9,500 gallons per day[3]. The project plan includes use of individual sewer pumps and a low pressure force main to serve Lots 20 through 27 in the project. An 8" gravity sewer main extension will convey sewage flow from the Mill Court Crossing development to the Peekskill Sewage Treatment Plant via Mill Court, Red Mill Road and Stonefield Court. The sewer extension will be comprised of approximately 3,336 linear feet of 8" PVC SDR35 sanitary sewer line, 18 gravity sewer manholes located off-site, and all required appurtenances to bring public sewer to the Mill Court Crossing site. 2,674 linear feet of 2" diameter low pressure force main and 10 manholes on-site will convey sewage flows from Lots 20 through 27 to the gravity collection system.

The Peekskill Wastewater Treatment Plant will continue operations within its existing SPDES permit conditions with the addition of Mill Court Crossing. All the proposed sewer infrastructure to connect this development to the existing system will be furnished and constructed by the developer and conveyed to the Town of Cortlandt at no expense to the Town upon completion and acceptance of the facilities by the Town.

Anticipated annual taxes generated by the proposed Mill Court Crossing development and payable to the town sewer district would be $6,260. This additional revenue can be used to augment the district's capabilities as necessary.

3.7.7 Solid Waste

Existing Conditions

The Town of Cortlandt's Department of Environmental Services, Highway Division located at 167 Roa Hook Road in Cortlandt Manor, manages solid waste disposal for the town. Garbage pickup in the Town of Cortlandt has two routes, one in the Northern end and the other in the Southern end of the Town, taken care of on Mondays and Tuesdays respectively. Paper is collected on Wednesday's and commingled recyclables are collected on Thursday's in the entire Town. There are also household chemical cleanup days provided by Westchester County and the Town of Cortlandt announces those days once notified. Special pickups such as refrigerators and tire recycling require an additional fee. These items require stickers and are scheduled and picked up different than the other pickups.

In April 1998, the Westchester County Board of Legislators authorized the County to enter into an Inter-municipal Agreement (IMA) with Refuse Disposal District municipalities who wanted to participate in the Organic Yard Waste Transfer Program. This IMA Program was approved for another 5 year term in 2003 to 2008. Under the IMA, participating municipalities agree to organize, operate and maintain a local transfer site for municipally collected yard waste. The county arranges for the transport of this waste to commercial composting facilities. The program was designed to divert organic waste from incineration at the Charles Point Resource Recovery Facility, increase participation in recycling and provide economic savings to the county and its communities.[4]

The waste to energy facility located at Charles Point, known as Westchester RESCO, is the nearest solid waste disposal site to the project. RESCO incinerates municipally collected and some privately collected waste. The plant has a magnetic separation system that extracts

[3] Cronin Engineering, PE, PC (November 2006), DEIS Appendix H.

[4] Westchester County Department of Environmental Facilities, Division of Solid Waste Management/Recycling Office

ferrous metal from the ash. During 2000, 17,005 tons of ferrous metal were extracted from the ash and sent to a market vendor for recycling.

The Charles Point Facility accepts solid waste from all municipalities in the area which has grown to include 36 communities since 1985, representing approximately 90 percent of the county's population. The Charles Point Facility has a permitted throughput capacity of 657,000 tons per year.

According to the March 8, 2006 correspondence with Kathleen A. Burleson, Town of Cortlandt, Director of Department of Environmental Services (DEIS Appendix B), the Town generated 19,443.17 tons of solid waste, 3,158.44 tons of commingled recycling (glass, metal, plastic) and 6,705.61 tons of newspaper recycling, in 2005. The proportion of waste recycled was 33.66 percent.

Potential Impacts and Proposed Mitigation

The potential impacts of the proposed project include increased residential solid waste and slightly longer routes for Town sanitation trucks. It is estimated that the proposed development of 27 single family homes would create at least 27 additional curbside garbage stops once a week on Mondays. The development would also create 27 potential curbside commingle and newspaper/cardboard stops each per week according to Kathleen Burleson from the Department of Environmental Services. Ms. Kathleen Burleson also points to the need for the Town to assess and monitor the sanitation route in question and address the possible impact on other routes and labor. The Monday would, potentially add thirty (30) minutes to the length of the garbage run. The 27 single family homes at Mill Court Crossing would generate an additional 2 tons of solid waste per week (104 tons per year), excluding any recycling or bulk pick up items, based on the letter received by Kathleen Burleson, Director of Department of Environmental Services.

Additional revenue of $9,507 through property taxes from the Mill Court Crossing development would offset the potential increases in services resulting from this project.

3.7.8 Hospitals, Health Care, Ambulance Services

Existing Conditions

Ambulance Services

The Cortlandt Community Volunteer Ambulance Corps would serve the project site. The Cortlandt Ambulance district covers the Village of Buchanan and the Montrose fire districts and have been providing ambulance services to these areas for over 20 years. The headquarters of the Cortlandt Community Volunteer Ambulance Corps is located on 6 Kings Ferry Road in Montrose. The Ambulance Corps has three New York State certified Basic Life Support ambulances and a New York State certified Fly-car to provide services in the neighborhood and to give mutual aid assistance to the surrounding communities. The Ambulance Corps also

provides Advanced Life Support through an agreement with the Cortlandt Regional Paramedics. The Corps handled a total of 703 emergency dispatches between January to August 2006.

Hospitals

The nearest full service hospital to the residents of the proposed Mill Court Crossing development is the Hudson Valley Hospital Center located on Crompond Road in Cortlandt. The hospital is in the process of a $23 million expansion and renovation. Part of this expansion included a new emergency department, four more surgical suites with a dedicated ambulatory surgery unit, new laboratories and education rooms and a new lobby/entrance area.

According to correspondence on January 20, 2006, from Mark Webster, Hudson Valley Hospital Center (DEIS Appendix B), the hospital has 128 beds, employs 900 people and operates 24 hours a day and seven days a week. The emergency room visits of the hospital exceeded 31,000 for the calendar year 2005.

Other medical institutions in and around the Town include the 220-bed Phelps Memorial Hospital in North Tarrytown, the 800-bed Franklin Delano Roosevelt Memorial Veterans Hospital in Crugers, and the 250-bed Northern Westchester Hospital Center in Mount Kisco. The project site is served by the Cortlandt Community Volunteer Ambulance Corps.

Potential Impacts and Proposed Mitigation

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994), 4 hospital beds are needed per 1,000 persons. Using this standard, the projected increase of 98 persons has the potential to increase hospital beds serving the area by less than 0.4 beds.

According to correspondence on January 20, 2006, from Mark Webster, additional manpower, equipment, or facilities would not be required at the Hudson Valley Hospital Center to provide medical service to the residents at the proposed Mill Court Crossing Residences.

Information has been requested from the Cortlandt Community Volunteer Ambulance Corps to assess potential impacts (TMA correspondence January 11, 2006, DEIS Appendix B)). Although follow-up attempts have been unsuccessful, impacts have been estimated based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994). Using these standards, the addition of 98 persons from the Mill Court Crossing development would generate an increase of approximately 3 emergency medical service calls per year.

Additional revenue provided through property taxes from the developed project could be used to help increase Corps staff, hours of operation, or facilities/equipment, if necessary, to offset the potential increases in hospitals, health care, or ambulance services. DEIS Section 3.8, Socioeconomics, contains information related to tax revenues.

3.7.9 Social Services

Existing Conditions

Childrens' day care and preschool services (both private and public) are provided at several locations throughout the Town of Cortlandt including Open Day Preschool (located in the Town

of Yorktown), the Flying Goose Nursery School (located on Oregon Road in north Cortlandt), the Tom Thumb Preschool (located on Route 6 in Mohegan Lake), the Hansel and Gretel Nursery School (located in Peekskill), the day care center at the FDR VA Hospital, and the Mother Connection of Cortlandt.

Other social services such as nutrition and organized social programs for senior citizens, and youth services are operated by the Town of Cortlandt at the Muriel H. Morabito Community Center, located in northern Cortlandt on Westbrook Drive. Youth services are also administered at the Youth Center located along Route 9A in the Montrose section of the Town.

Town of Cortlandt residents, 60 years of age or older can join the Towns Senior Citizen Clubs. Transportation is available Monday through Friday, to the Muriel H. Morabito Community Center, for lunch or for club meetings. Seniors are picked up at their homes in the morning and returned back to their homes in the afternoon. Advanced reservations are required for transportation for seniors to the community center. Transportation is also provided to area doctors and medical facilities and back home to seniors residing in the Town of Cortlandt. Transportation can only be provided as far as Ossining, Yorktown, Jefferson Valley, Putnam Valley, Peekskill and Cortlandt areas.

Potential Impacts

The potential impacts of this project include increased need for elderly, disabled, and children day care. Out of the total 98 persons projected to reside at the proposed project, there would be expected to be 12 elderly, 10 disabled, and 17 children requiring day care based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994).

Most day care facilities in the vicinity are private, while some are public, supplemented through revenues received from the federal, state or local government depending on income and a variety of other qualification requirements. Private facilities are typically funded through service fees paid by participating attendees. Additional tax revenues from this proposed project available to the publicly funded services could be used to offset the potential increases in social services resulting from this project. DEIS Section 3.8, Socioeconomics, addresses projected tax revenues.

3.7.10 Utilities (electric, telephone, and gas)

Existing Utility Services

Electric

Electric service in the project area is provided by the Consolidated Edison Company of New York (Con Edison). As per telephone conversation with Mr. Robert Sullivan (Con Edison District Manager for Cortlandt) on September 25, 2006, Con Edison has electric service available from its facilities located along Lexington Avenue and the existing facilities are adequate to provide service to the proposed project. A letter was sent to Mr. Bill Kuck (DEIS Appendix B) requesting more detailed information regarding gas and electric services. A response to the letter has not been received to date.

Gas

Gas service in the project area is also provided by Con Edison. As per telephone conversation with Mr. Robert Sullivan (Con Edison District Manager for Cortlandt) on September 25, 2006, an existing gas main, located in East Main Street (Route 6), would be adequate to provide service to the proposed project. A letter was sent to Mr. Bill Kuck (DEIS Appendix B) requesting more detailed information regarding gas and electric services. A response to the letter has not been received to date. At this time no gas service is proposed on the project site.

Telephone

Local telephone service is provided by Cablevision Lightpath Inc. and Verizon. There is an inter-municipal agreement between Westchester County and Cablevision Lightpath Inc. for telephone services.

Cable

Cable service is also provided by Cablevision in the project area.

Potential Impacts and Proposed Mitigation

As per telephone conversation with Mr. Robert Sullivan (Con Edison District Manager for Cortlandt) on September 25, 2006, there are existing lines to support gas and electric services on the project site. A letter was sent to Mr. Bill Kuck (DEIS Appendix B) requesting a more detailed assessment of the impacts on gas and electric services. A response to the letter has not been received to date.

According to telephone conversations with each of the utility providers, service would be readily provided to the proposed Residences at Mill Court Crossing without adverse impacts to existing supply systems. All utility lines installed to serve the proposed Mill Court Crossing development would be placed underground, as required by the Town of Cortlandt Code. The use of Zero-Net Energy use construction will also reduce or in some cases, eliminate, any potential adverse impacts.

Zero Energy homes are those that supply more energy than they need during peak demand, typically using one or more solar energy strategies, energy storage and/or net metering. Like most homes, the Zero-Net-Energy design uses electricity from the electric utility grid. However unlike most homes, the Zero Energy Homes puts electrical energy back into the grid. Ideally, the amount of electricity put back into the grid equals the amount used from the grid, on an annual basis. This means that during any particular month, the home may either have used more grid electricity than it put back or it may have put an excess of electricity back onto the grid. The goal is that at the end of a year, the electricity taken from the utility grid is offset by the solar electricity put back onto the grid.

The Applicant is working with Independence Energy Homes Incorporated (IEH), a company formed by members of the Cornell University's 2005 award winning Solar Decathlon Team, in developing a prototype energy-neutral structure. The IEH system integrates photovoltaic panels and solar thermal panels to produce the electric and hot water needs of the residence. In addition, IEH designs the homes to create a structure that will take advantage of construction techniques and passive solar features to reduce the energy load of the home. The following are examples: 1) Siting of the house on the lot to maximize the availability of sunlight. 2) Using

metal seamed roofs -- this permits longer lasting and better insulated roofs that allow for better and easier photovoltaic panel integration. 3) Exterior window shading. 4) Appropriate HVAC design to minimize energy use. 5) Energy star and other efficient appliances. 6) Healthy, low Volatile Organic Compound interior materials -- also provides a healthy home environment. 7) Walls constructed with Structural Insulated Panels. The Applicant is anticipating offering the IEH homes as an option. It is noted that no credit is taken in this document with regard to reduced impacts for reduced energy usage due to these energy strategies.

3.7.11 Recreation Facilities

Existing Conditions

New York State Parks within a 30 mile radius of the proposed project include Bear Mountain State Park, Clarence Fahnestock State Park, Rockland Lake State Park, Rockefeller State Park Preserve and the closest to the proposed project - Franklin D. Roosevelt State Park. The Franklin D. Roosevelt State Park is located in Yorktown Heights.

In 2000, the Governor increased public access to the Hudson River on a three acre parcel in the Town of Cortlandt to be operated as part of the Hudson Highlands State Park. The 4,285 acre park was established in 1967 by Governor Rockefeller to save open space in the area known as Hudson Highlands, and spans the three counties of Dutchess, Putnam and Westchester.

The Town of Cortlandt Recreation and Parks Division of the Department of Environmental Services administers a large number of active and passive recreational programs open to Town residents at Town facilities. Town facilities amount to approximately 88 acres and include the following:

- Charles J. Cook Recreation Center (51 acre facility with a large variety of active and passive facilities);
- Sunset Park and Playground (14 acre facility with ball fields, play apparatus, playground);
- Sprout Brook Park (12 acre facility with swimming, water slide, playground, and picnic area)
- Maple Avenue Playground (5 acre playground)
- Lake Meahagh Park (2 acre park with picnic area, basketball courts, paddle tennis, ice skating)
- Lynwood Gardens Field (2 acre park with ball fields)
- Eighth Street Playground (1 acre playground)
- Lake Street Tennis Courts (0.5 acre tennis courts)
- Tommy Thurber Playground (0.5 acre playground and basketball courts)
- Roundtree Playground (0.1 acre playground)

School district facilities available to Town residents include the following:

- Walter Panas High School (10 acre facility with tennis courts, ball fields, basketball courts and playground)
- Blue Mountain Middle School (5 acre facility with ball fields, basketball courts, playground)
- Van Cortlandtville Elementary School (5 acre facility with ball fields, basketball courts)
- Hendrick Hudson High School (5 acre facility with ball fields, basketball courts)
- Frank G. Lindsey Elementary School (5 acre facility with ball fields, play apparatus, basketball courts, playground)
- Lincoln Titus Elementary School (4 acre facility with ball fields, play apparatus, basketball courts, playground)
- Furnace Woods Elementary School (3 acre with ball fields, play apparatus, basketball courts, playground)

Recreation facilities used by the Town Recreation and Parks Division also include playgrounds on lands owned by homeowners' associations, and private recreational facilities. In comparison to Town and school district facilities, these facilities are much smaller and offer fewer opportunities for active recreation.

The Muriel H. Morabito Seniors Community Center, which provides social programs for senior citizens and youth, is located on 29 Westbrook Drive in northern Cortlandt at a distance ¾ mile from the project site. The Youth Center is located along Route 9A in Montrose.

Also in Cortlandt are the County-owned open space and recreation resources of:

- Blue Mountain Reservation (1,400 acres with a wide range of active and passive activities)
- George's Island Park (185 acres with ball fields and wide range of passive activities)
- Oscawana Park (161 acres with hiking and nature study)
- Croton Gorge Park (119 acres with ball fields, cross country skiing, and passive activities)

Finally, a six-mile portion of the Briarcliff-Peekskill Trailway runs through Cortlandt.

The Town's Recreation and Parks Division operates many sports, educational and recreational programs of interest to prechoolers, youth, teens, adults and seniors. Through its partial sponsorship of the Nor-West Therapeutic recreation program and services, people with disabilities may also participate in recreation and day care programs.

With approximately 1,990 acres of publicly owned recreation and open space land, Cortlandt has more than 68 acres of recreational land available for each 1,000 of its residents. The 1990 Cortlandt Master Plan (Phase 1 /Base Studies) notes a Westchester County Planning Department standard of 18 acres of open/recreation space per 1,000 residents as a planning standard. This is further divided into 10 acres of County-owned space, six acres of municipally-owned space, and two acres of other types of space. Based on the Westchester County Planning Department's standards, Cortlandt residents are well-served in terms of the overall quantity of recreation and open space resources available within the Town. However, as noted in the Cortlandt Master Plan, the distribution of recreation and open space resources remains uneven throughout the Town.

Potential Impacts and Proposed Mitigation

The proposed project will add a projected 98 persons to Cortlandt's population and increase the local demand for recreation facilities and open space. The impact of the development would be offset by the Town requirement for land or fee-in-lieu for new subdivisions. With a per-lot recreation requirement, mitigation of the demand for recreation services would be directly proportional to the number of lots developed.

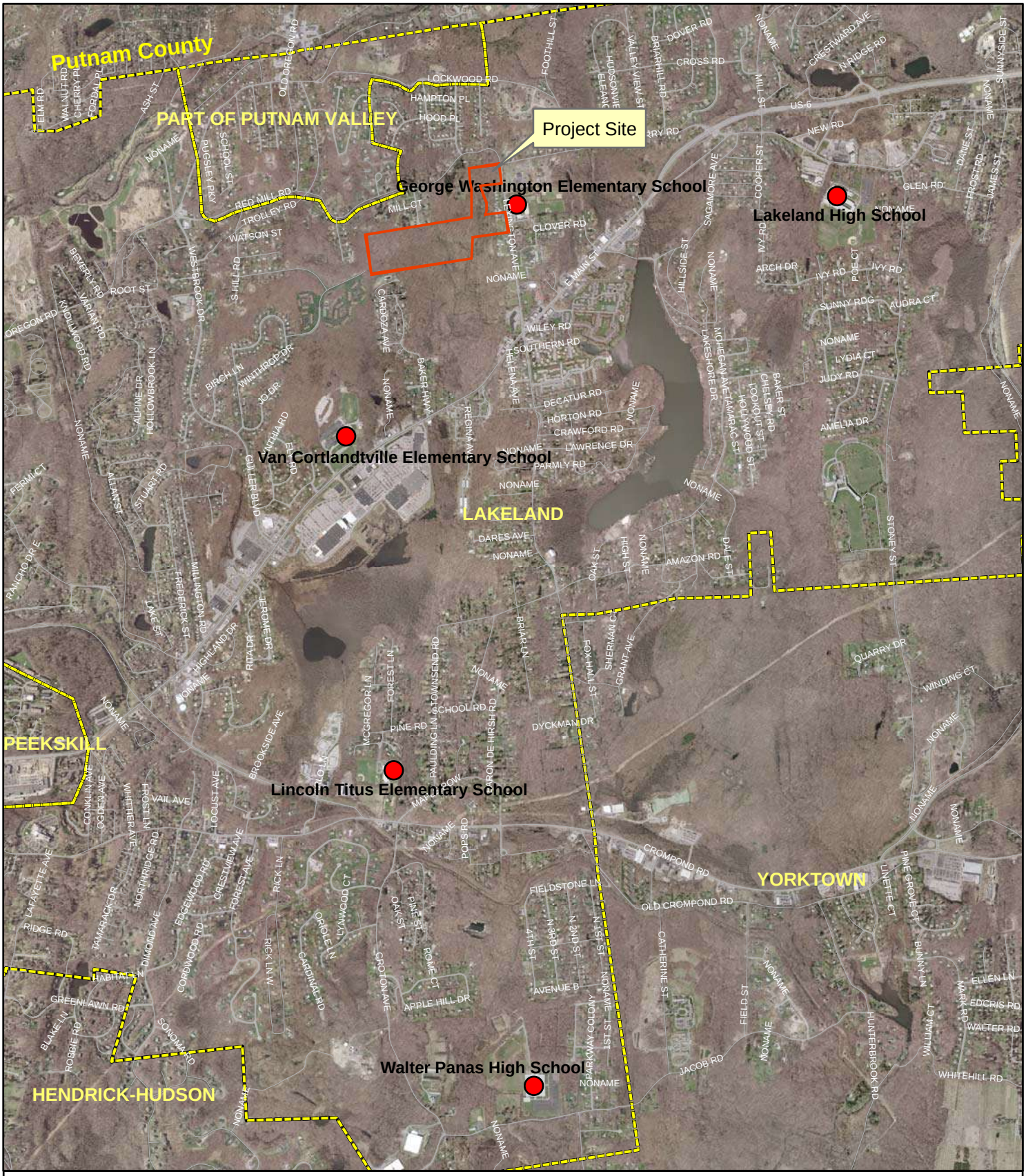
The Mill Court Crossing site will provide on-site passive recreation for the residents. The development plan preserves the existing wetlands and woodlands on the site as an existing open space resource. The total undisturbed woodlands on the site (including wetlands) comprises a total of 26.34 acres. The undeveloped areas will preserve the site wetlands for wildlife, areas of steep slope, and woodland for the residents. The development would allow continuation of this open space system and is not expected to impact parkland resources of the Towns or County.

Further, the applicant proposes to pay a recreation fee of $6,000 per newly-subdivided lot. These fees, in combination with tax revenues generated to Cortlandt by the proposed development, can be expected to be used toward the continued provision of recreation services to Town residents.

Figure 3.7-1: Location of Community Facilities
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Westchester County Planning Department & NYS GIS Clearing House
Scale: 1" = 2,500'

FS EQ: MillCourtCrossing/GIS/Schools.mxd

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516, (845) 265-4400, Fax (845) 265-4418



FS EQ: MillCourtCrossing/GIS/Schools.mxd

Figure 3.7-2: Schools Location Map
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Westchester County Planning Department & NYS GIS Clearing House
Scale: 1" = 2,500'

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516, (845) 265-4400, Fax (845) 265-4418

3.8 Socioeconomics

3.8.1 Demographics

Existing Population Characteristics

This section presents the population dynamics of Westchester County and the Town of Cortlandt. With a population of 28,672 people in 2000, Cortlandt (outside of the villages of Croton-on-Hudson and Buchanan) had a total of 826 persons per square mile at that time. This compares with an average density throughout northern Westchester County in 2000 of 825 persons per square mile. Population in the unincorporated portions of the Town of Cortlandt is concentrated in two areas -- the area to the east and northeast of the City of Peekskill, and the area between Route 9 and the Hudson River.

The Northern portion of Westchester County, in which Cortlandt is situated, is located in the New York metropolitan region's outer ring, an area of high growth and development. This portion of the county grew 7 percent between 1990 and 2000, showing the highest growth section of Westchester County during that period, along with Central County. During the 1980's, the North County's population grew by 19,900 persons to 246,449 in 1990. During the 1990's, the North County's population grew by 18,345 persons to 264,794 in 2000. Including the Villages of Croton-on-Hudson and Buchanan, the population of the Town of Cortlandt grew by 3 percent during the 1990-2000 period from 37,357 to 38,467.

Table 3.8 -1
Population in Cortlandt and Westchester County, 1980-2020

Year	Town of Cortlandt	% Change	North County	% Change	Westchester County	% Change
1980	26,775	--	226,549	--	866,599	--
1990	28,369	6	246,449	9	874,866	1
2000	28,500	1	254,160	3	891,000	2
2000*	*28,672*	*1*	*264,794*	*7*	*923,459*	*6*
2010	28,600	0.4	261,645	3	882,000	(1.0)
2020	30,200	6	271,300	4	905,000	3

Source: Westchester County Department of Planning, US Census. Projections from July 1995 publication 2020 Foresight prepared by Westchester County Planning Department. Town amounts do not include Villages of Buchanan and Croton-on-Hudson.
* - Reflects actual 2000 US Census data.

Population throughout Cortlandt and the North County is expected to continue to grow. According to an estimate prepared by the Westchester County Department of Planning in November of 1996, the Town's population (outside the Villages of Buchanan and Croton-on-Hudson) had continued to increase between 1990 and 1996. As shown in Table 3.8-1, population growth in the Town of Cortlandt is expected to reach 30,200 by the year 2020. However, as noted above, the estimate of the 1996 population in the Town prepared by the County Planning Department indicated that the population had already exceeded the population projected to reside in the Town in the year 2000.

Households

Over the last several decades the average number of persons per household throughout Westchester including the Town of Cortlandt had declined from 3.4 persons per household in 1970 to 2.9 in 1980, to 2.5 in 1990. In 2000, however, the average number of persons per household in Westchester County was 2.7, while the Town of Cortlandt average was 2.8, indicating a slight increase since 1990.

While declines in average household size had been distributed throughout Westchester County, the largest declines had been experienced in the southern and central portions of the county. Due to the presence of somewhat larger households, the average household size in the Northern Westchester has increased to 2.8 in 2000 compared to 2.7 in the Central and South County
areas.

Table 3.8-2
Household Information in the Town of Cortlandt,
North Westchester County and Westchester County - 2000

Area	Total Households	Avg. Household Size	Avg. Family Size	Percent Owner-occupied
Town of Cortlandt *	9,905	2.8 persons	3.3 persons	77.7% **
North Westchester County	91,202	2.8 persons	3.2 persons	____
Westchester County	337,142	2.7 persons	3.2 persons	____

Source: 2000 US Census
* Town of Cortlandt, excluding Villages of Buchanan and Croton-on-Hudson - total number of households is 13,517; average household size for Buchanan and Croton-on-Hudson is 2.7 and 2.6 persons, respectively, with an average family size of 3.1.
** Percentage of the total number of households (13,517).

Population Projections

Twenty-seven single family homes with an average of four bedrooms are proposed in the Mill Court Crossing development. The houses are anticipated to sell at an average price of $1,000,000.

The population projection for the Residences at Mill Court Crossing is based on demographic information for the “single-family” housing type in the northeastern United States derived from the 1987 American Housing Survey and reported in the Development Impact Assessment Handbook published by the Urban Land Institute in 1994. This publication was authored by the most noted practitioners of fiscal impact analysis in the United States -- Robert W. Burchell, David Listokin, and William R. Dolphin of Rutgers University’s Center for Urban Policy Research -- and remains the authoritative source of demographic multipliers for analyses such as this.

Assuming an average of four bedrooms in each of the 27 single family homes, a per household multiplier of 3.6248 and a school age children multiplier of 0.8738 were used. The proposed residential subdivision is therefore projected to add 98 persons to the Town’s population,

including 24 school age children. The remainder of the population is projected to be composed of a mixture of age groups of persons 18 years and older, and younger than five.

Potential Impacts and Proposed Mitigation

The addition of 98 people to the Town's population represents a 0.34 percent increase over the Year 2000 recorded population. As previously described, the New York State Economic Development Department projects that the Town will experience a continued growth trend with an estimated increase between 2000 and 2010 of about 0.4 percent. The addition of the residents from the Mill Court Crossing project is not anticipated to produce any potentially adverse demographic effects, therefore no mitigation measures are proposed.

3.8.2 Fiscal Analysis

Existing Tax Revenues

Existing Property Tax Revenues - County and Town

Table 3.8-3 provides a summary of the taxes generated by the property at this time. The current assessed valuation of the project site totals $15,075 which is based on its present status as a primarily vacant parcel. The net annual property taxes currently generated by the project site are $22,901, based on the 2005 tax bills.

The net annual property taxes currently generated by the project site and paid to Westchester County are $2,635, while the net annual County Refuse taxes are $330. The General Town, Highway, and Library property taxes currently generated by the project site are approximately $356, $2,125 and $96, respectively. Tax revenues generated for the County Solid Waste District and the Sanitary Sewer District are not now known.

Table 3.8-3
Current Taxes Generated by Project Site

Taxing Jurisdiction	Assessed Value	Tax Rate*	Current Taxes ($)
Westchester County	$15,075	174.83	$2,635
Highway	$15,075	140.93	$2,125
Library	$15,075	6.36	$96
Town of Cortlandt	$15,075	23.61	$356
County Refuse # 1	$15,075	21.87	$330
Mohegan Fire	$15,075	60.30	$909
Cortlandt Cons. Water	$15,075	17.65	$266
Cortlandt Ambulance # 3	$15,075	2.19	$33
Sewer	$15,075	N/A	N/A
Lakeland Central School District	$15,075	1071.42	$16,152
TOTAL			**$22,901**

*2005 Tax Rate per $1,000 of Assessed Valuation.
Source: Town of Cortlandt, Tax Receiver's Office.

Existing Tax Revenues - Lakeland Central School District

The net annual taxes currently generated by the project site and paid to the Lakeland Central School District are $16,152, based on the school tax rate of $1,071.42/$1,000 assessed value for the 2005/2006 school year. This tax rate includes a library tax for the district. School taxes

are paid biannually in the Fall and Winter. Existing school taxes paid to date for Fall 2005 are approximately $8,076. The remainder is due by the end of the January, 2006.

Existing Tax Revenues - Other Special Districts

The net annual property taxes currently generated by the project site and paid to the Mohegan Fire District are $909. There are no current net annual sewer taxes paid on the property, as it is undeveloped, not within a sewer district, and sewer service is currently not available.

The net annual property taxes currently generated by the project site and paid to the Cortlandt Consolidated Water District amounts to $266. The net annual property taxes currently generated by the project site and paid to Cortlandt Ambulance amounts to $33.

Projected Tax Revenues/Potential Impacts -- Sales Price of $1,000,000

The Applicant has analyzed comparable single family home sales for houses constructed and sold in 2005-2006. The Applicant's conclusion is that the Residences At Mill Court Crossing will sell in the $1,000,000 range. Massey Knakal Reality Services produced a similar study for the Applicant that concluded that the sales price should be in the $916,000 range. However, the Massey Knakal study includes resales and excluded the most recent high end development of Cortlandt Ridge. Therefore, the Applicant believes that new construction of 3,500 square foot houses will sell in the $1,000,000 range (see Tables 3.8-9 and 3.8-10). The Applicant acknowledges that there has been a correction in the real estate market. Thus, sales today might be 5% to 10% less than what the Applicant expects. Therefore, this DEIS includes separate economic analysis of the proposal for both the $1,000,000 and $900,000 sales prices.

Consistent with fiscal impact methodology[1], the property tax revenues have been determined by considering what would be generated if the development were completed and occupied today. This approach recognizes that development often requires several years to be completed and that inflation will increase costs and revenues over time. It assumes that the rising costs of public services will be matched by an essentially comparable increase in revenues through increases in the tax rate, all other things being held constant.

The Mill Court Crossing development would result in the conversion of vacant land into a residential development. The increased market value of the project site, with these improvements, would result in an increase in property tax revenues.

The projection of future taxes is based on an average selling price for each home (with land) of $1,000,000, for a projected total market value of $27,000,000. The assessed value of the project was calculated by multiplying the market value by the 2005 residential assessment ratio applicable to the Town of Cortlandt. The residential assessment ratio for the Town of Cortlandt was 1.61 percent in 2005. Table 3.8-4 summarizes the projected assessed value of the proposed development.

[1] The Fiscal Impact Handbook, Robert Burchell and David Listokin, 1978.

Table 3.8-4 **2005 Assessed Value of Residences at Mill Court Crossing**			
$1,000,000 Selling Price			
Development Type	No of units	Projected Market Value per unit	Projected Assessed Value per unit
Residential (4 BR Single Family Homes)	27	$1,000,000	$16,100
Total Projected and Assessed Values		**$27,000,000**	**$434,700**
Table prepared by Tim Miller Associates, Inc., 2005.			

Based on the above, the total projected assessed or taxable value of Residences at Mill Court Crossing is $434,700.

The approximate net increase between the total current tax revenues generated by the site ($22,901) and the total future project-generated revenues for the subdivision ($666,639) is projected to be approximately $643,737, or 29 times the revenues generated currently by the property. The total property tax projected for a typical house in the proposed subdivision would be approximately $24,690.

Projected Property Tax Revenues - County and Town

Tax revenues generated by the site to Westchester County are estimated to change from $2,636 to $75,999 after development of this project. Tax revenues generated by the site to Westchester County Refuse are estimated to change from $330 to $9,507.

Table 3.8-5 **Projected Tax Revenues** Residences at Mill Court Crossing		
Taxing Jurisdiction	**Rate (per $1,000 AV*)**	**Property Tax Revenues**
Westchester County	174.83	$75,999
Highway	140.93	$61,262
Library	6.36	$2,765
Town of Cortlandt	23.61	$10,263
County Refuse # 1	21.87	$9,507
Mohegan Fire	60.30	$26,212
Cortlandt Cons. Water	17.65	$7,672
Cortlandt Ambulance # 3	2.19	$952
Peekskill Sewer District	14.40	$6,260
Lakeland Central School District	1071.42	$465,746
TOTAL		$666,639
Source: Town of Cortlandt, Tax Receiver's Office; Tim Miller Associates, Inc. * Assessed Value.		

Tax revenues generated by the site for the General Town of Cortlandt levy are estimated to change from $356 to $10,263. Tax revenues generated by the site for Town Highway are estimated to change from $2,125 to $61,262 and for the Library from $96 to $2,765. When compared to the existing taxes generated by the subject property in its present undeveloped condition, the taxes generated from the subject action after development will be some 29 times greater to each of the taxing jurisdictions.

Projected Tax Revenues - Lakeland Central School District

The projected school tax revenues presented are based on the current tax rate for the 2005/2006 school year of $1071.42/$1,000 assessed value. With no changes in assessments, these rates are likely to increase over time. The net increase between the total current school tax revenues generated by the site ($16,152) and the total future ($465,746) project-generated school tax revenues for the subdivision is projected to be approximately $449,595.

Projected Tax Revenue - Other Special Districts

The net increase between the total current tax revenues generated by the site for the Mohegan Fire District ($909) and the total future project-generated tax revenues for the subdivision ($26,212) is projected to be approximately $25,303.

Sewer services are provided by the Town of Cortlandt for properties within sewer districts. The proposed project includes expansion of the adjacent sewer district to include this development. According to the Town of Cortlandt Receiver of Tax office, sewer usage rates are established by the district. The current tax rate for Peekskill Hollow Sewer District, to which this project will connect, is $14.40 per 1000 units. While the tax rate for each house in the proposed project has not been determined at this time, the future project-generated tax revenues generated by the site to the Sewer District are estimated to be $6,260. While existing tax revenues generated for the Sanitary Sewer District are not now known, it is anticipated that the tax revenue collected from the developed project will offset the cost to the District of serving this project.

Similarly, while existing tax revenues generated for the Solid Waste District are not now known, it is anticipated that the tax revenue collected from the developed project will offset the cost to that District of serving this project.

The net increase between the total current tax revenues generated by the site for the Cortlandt Consolidated Water District ($266) and the total future project-generated tax revenues for the subdivision ($7,672) is projected to be approximately $7,406.

The net increase between the total current tax revenues generated by the site for the Cortlandt Ambulance ($33) and the total future project-generated tax revenues for the subdivision ($952) is projected to be approximately $919.

Costs Associated with the Proposed Project and Mitigation

Town of Cortlandt

The cost to Cortlandt associated with the proposed residential development may be estimated by determining a reasonably accurate composite of current taxpayer costs on a per capita basis and multiplying this amount by the anticipated population of the proposed project.. The most straightforward means of apportioning expenditures into these categories is to subtract the amount of assessed valuation assigned to nonresidential uses from the total assessed valuation in Cortlandt. According to information derived from the Town's current assessment roll, residential valuation amounts to approximately 60 percent of the total assessed valuation in Cortlandt.

After determining the approximate percentage of expenditures to be assigned to residential uses, the amount of expenditures can be calculated and, by dividing the population into the

amount of expenditures calculated, the per capita cost determined. Finally, to estimate the portion of the per capita cost which is paid for by property tax revenues (as opposed to other forms of income to the Town), the per capita cost is multiplied by the proportion that property tax revenue comprises the overall income stream.

In this instance, the portion of the 2005 municipal budget adopted for the Town of Cortlandt which provides Town-wide services, including highway bridges, highway maintenance and the General Fund, amounts to $9,931,703. These services are provided to both the unincorporated portions of the Town and the Villages of Buchanan and Croton-on-Hudson. The portion of this which may be assigned to residential land uses is 60 percent or $5,959,022. Dividing this amount by the 2004 projected population of Cortlandt, including the villages, (39,665), provides an estimate of town wide per capita municipal costs of $150. The Town of Cortlandt (Town and Highway) is going to receive $71,525 in property tax revenues from the project site. The Residences at Mill Court are projected to increase the population of Cortlandt by 98 persons. Therefore, approximately $730 per person would be raised in property tax by the proposed project.

Based on this analysis, $580 per person in property tax revenues would accrue to the Town of Cortlandt in excess of the projected costs of the Town. Total taxes generated to the Town are projected to be $71,525 of which $10,263 are paid in general Town of Cortlandt taxes and $61,262 of which are paid in Town Highway taxes. On balance, the proposed project is projected to generate annual revenues to the Town of Cortlandt that exceed its cost to the Town by $56,825.

Approval of projects of this nature can span several budget years to complete the approval process. It is assumed that the ratio of projected revenues to the town and school district compared to their respective costs will remain similar from year to year, although the specific budget numbers and tax rates vary annually. (Staff #59) A phone conversation with the Town Comptroller[2] indicated that there was minimal change to the Town's General Fund/Highway portion of the budget from 2005 to 2006.

Lakeland Central District

The residences at Mill Court Crossing would generate annual property tax revenues of $465,746 to the Lakeland Central School District. Costs associated with the school district are based on school district data summarized in Section 3.7 of this DEIS. Since school costs typically represents the largest share of costs associated with any residential development, the cost to the school district is calculated.

Based on information published by the New York State Education Department (NYSED)[3], the budget for the 2005-2006 school year for the Lakeland Central School District totaled $116,652,633. Of this total, $82,288,187 was raised by the school tax levy; the remainder of the costs are paid through state aid and other revenue sources. According to the NYSED, the school district's public school enrollment was 6,321 students. Thus, the per capita student cost to be raised through the property tax levy is approximately $13,018 per student.

As noted earlier in this chapter, the total number of school age children to be generated by the project was calculated based on student multiplier data available from the ULI Handbook. It is

[2] Phone Conversation with Town Comptroller, Glenn Cestaro, November 28, 2006.

[3] Property Tax Report Card for Lakeland (662401) 2005-2006 School Year.

estimated that 24 school age children would be generated by the proposed Mill Court Crossing development. The additional 24 student introduced to the Lakeland Central School District would increase the total costs to the District by $312,432 annually. The residences at Mill Court Crossing would generate $465,746 in annual school tax revenues. Thus, based on this analysis a surplus of $153,314 in property tax revenues would accrue to the school district annually.

Projected Tax Revenues/Potential Impacts -- Sales Price of $900,000

Massey Knakal Reality Services produced a study for the Applicant that concluded that the sales price may be in the $916,000 range. As discussed above, the Applicant presents an analysis of the fiscal impacts of the project if the selling price of the houses is $900,000. All methodologies of this fiscal analysis are the same as the $1,000,000 analysis.

The Mill Court Crossing development would result in the conversion of vacant land into a residential development. The increased market value of the project site, with these improvements, would result in an increase in property tax revenues. The projection of future taxes is based on an average selling price for each home (with land) of $900,000, for a projected total market value of $24,300,000. The assessed value of the project was calculated by multiplying the market value by the 2005 residential assessment ratio applicable to the Town of Cortlandt. The residential assessment ratio for the Town of Cortlandt was 1.61 percent in 2005. Table 3.8-4 summarizes the projected assessed value of the proposed development.

Table 3.8-6
2005 Assessed Value of Residences at Mill Court Crossing
$900,000 Selling Price

Development Type	No of units	Projected Market Value per unit	Projected Assessed Value per unit
Residential (4 BR Single Family Homes)	27	$900,000	$14,490
Total Projected and Assessed Values		**$24,300,000**	**$391,230**

Table prepared by Tim Miller Associates, Inc., 2006.

Based on the above, at a $900,000 price point, the total projected assessed or taxable value of Residences at Mill Court Crossing is $391,230.

The approximate net increase between the total current tax revenues generated by the site ($22,901) and the total future project-generated revenues for the subdivision ($599,975) is projected to be approximately $577,073, or 29 times the revenues generated currently by the property. The total property tax projected for a typical house in the proposed subdivision would be approximately $22,221.

Projected Property Tax Revenues - County and Town

Tax revenues generated by the site to Westchester County are estimated to change from $2,636 to $65,763 after development of this project. Tax revenues generated by the site to Westchester County Refuse are estimated to change from $330 to $8,227.

Table 3.8-7
Projected Tax Revenue Comparison
Residences at Mill Court Crossing

Taxing Jurisdiction	Rate (per $1,000 AV*)	Property Tax Revenues $1,000,000 Selling Price	Property Tax Revenues $900,000 Selling Price
Westchester County	174.83	$75,999	$68,399
Highway	140.93	$61,262	$55,136
Library	6.36	$2,765	$2,488
Town of Cortlandt	23.61	$10,263	$9,237
County Refuse # 1	21.87	$9,507	$8,556
Mohegan Fire	60.30	$26,212	$23,951
Cortlandt Cons. Water	17.65	$7,672	$6,905
Cortlandt Ambulance # 3	2.19	$952	$857
Peekskill Sewer District	14.40	$6,260	$5,634
Lakeland Central School District	1071.42	$465,746	$419,172
TOTAL		$666,639	$599,975

Source: Town of Cortlandt, Tax Receiver's Office; Tim Miller Associates, Inc.
* Assessed Value.

At the $900,000 price point, tax revenues generated by the site for the General Town of Cortlandt levy are estimated to change from $356 to $9,237. Tax revenues generated by the site for Town Highway are estimated to change from $2,125 to $55,136 and for the Library from $96 to $2,488.

Projected Tax Revenues - Lakeland Central School District

At the $900,000 price point, the projected school tax revenues, based on the current tax rate for the 2005/2006 school year of $1071.42/$1,000 assessed value, the net increase between the total current school tax revenues generated by the site ($16,152) and the total future ($419,172) project-generated school tax revenues for the subdivision is projected to be approximately $403,020.

Projected Tax Revenue - Other Special Districts

At the $900,000 price point, the net increase between the total current tax revenues generated by the site for the Mohegan Fire District ($909) and the total future project-generated tax revenues for the subdivision ($23,591) is projected to be approximately $22,682.

The future project-generated tax revenues generated by the site to the Sewer District are estimated to be $5,634, it is anticipated that the tax revenue collected from the developed project will offset the cost to the District of serving this project.

Similarly, while existing tax revenues generated for the Solid Waste District are not now known, it is anticipated that the tax revenue collected from the developed project will offset the cost to that District of serving this project.

The net increase between the total current tax revenues generated by the site for the Cortlandt Consolidated Water District ($266) and the total future project-generated tax revenues for the subdivision ($6,905) is projected to be approximately $6,639.

At the $900,000 price point, the net increase between the total current tax revenues generated by the site for the Cortlandt Ambulance ($33) and the total future project-generated tax revenues for the subdivision ($857) is projected to be approximately $824.

Costs Associated with the Proposed Project and Mitigation

Town of Cortlandt

The cost analysis is the to the Town of Cortlandt does not vary based upon the price point of the units. Based upon the methodology described earlier, the per capita municipal costs is estimated at $150. At the $900,000 price point, the Town of Cortlandt (Town and Highway) is going to receive $64,373 in property tax revenues from the project site. The Residences at Mill Court are projected to increase the population of Cortlandt by 98 persons. Therefore, approximately $657 per person would be raised in property tax by the proposed project.

Based on this analysis, more than $500 per person in property tax revenues would accrue to the Town of Cortlandt in excess of the projected costs to the Town. Total taxes generated to the Town are projected to be $64,373 of which $9,237 are paid in general Town of Cortlandt taxes and $55,136 of which are paid in Town Highway taxes. On balance, the proposed project is projected to generate annual revenues to the Town of Cortlandt that exceed its cost to the Town by $49,673.

Lakeland Central District

The cost analysis to the Lakeland School District does not vary based upon the price point of the units. Based upon the methodology described earlier, the per capita student cost to be raised through the property tax levy is approximately $13,018 per student.

As noted earlier in this chapter, the total number of school age children to be generated by the project is estimated at 24 school age children. The additional 24 students introduced to the Lakeland Central School District would increase the total costs to the District by $312,432 annually. At the $900,000 price point, the residences at Mill Court Crossing would generate $419,172 in annual school tax revenues. Thus, based on this analysis the revenue generated would exceed the projected cost to the school district by $106,740 annually.

Potential Impacts on Surrounding Property Values

A recent study, which has not yet been published by the Dutchess County Economic Development Corporation, reportedly shows that new housing creates a net-positive fiscal result at the county, town and school district levels. A single-family detached home provides an average benefit of $414 to the County, $742 to the Town and $2,034 to the schools, counting property taxes from initial construction and from new resident purchases.[4]

The proposed use of the site for a single-family residential community is compatible with surrounding residential uses and the high market value for the proposed homes would be expected to have a positive effect on the property values of the nearby residential properties. The proposed single family residences will be comparable to the largest single family homes in the immediate area.

[4]Craig Wolf, Poughkeepsie Journal: *Study: New housing pays off for municipalities, schools.*

It is anticipated that construction of the roads and utilities will start upon Town approval, with the completion of all 27 homes within the next three years. It is not anticipated that any portion of the development would remain unfinished for a long period of time. There is a high demand for single family homes in Westchester County and a limited inventory. The real estate market is expected to readily absorb the proposed Residences at Mill Court Crossing. Therefore, delays in the completion of the project are not anticipated.

Thus, the proposed use of the site for a single-family residential community, a use considered compatible with surrounding residential and institutional uses, would be expected to have a positive effect on the property values of neighboring and nearby residential properties.

In addition to direct fiscal benefit to the local taxing districts, there are expected to be secondary benefits to the local economy from spending by the new residents of this project. The spending of higher-income residents expected to live at Mill Court Crossing will benefit commercial businesses in the local area and the region.

3.8.3 Provision of Affordable Housing

The Westchester County Housing Opportunity Commission has provided recommended allocations of affordable housing goals for each of the 43 municipalities in Westchester. These allocations are based upon the following criteria:

- Land Area
- Job Growth
- Overcrowded housing
- Adjusted Aggregate Household Income
- Availability of Mass Transit (Miles of Bee-Line Bus Service)

The allocation for the Town of Cortlandt, for the period 2000 to 2015 is a total of 403 units of affordable housing. According to the Affordable Housing Allocation Plan, dated November 9, 2005, contained in Appendix K, there were 119 units of affordable housing completed or under construction in the Town of Cortlandt, leaving a balance in the total allocation to be met of 284 units.

The project sponsor has made a commitment to provide 10 percent affordable housing as part of this project. The following discussion describes the socioeconomic impact of affordable housing.

Projected Tax Revenues

Fiscal analyses are provided which demonstrate the tax revenue from 27 units sold at market rate prices from $900,000 to $1,000,000. Table 3.8-4 and Table 3.8-6 show the assessed values of the property at these price points.

The affordable housing units for this project are proposed as three bedroom units. According to the Housing Action Council[5], the formula for determining the affordability of a 3-bedroom dwelling unit to house a family of four in Cortlandt (two and half times eighty percent of the median income, adjusted for inflation) would indicate the unit would need to be priced at approximately $225,000. According the Town Tax Assessor, the houses would be assessed at

[5]Phone conversation with Rosemarie Noonan, Westchester Housing Action Council, May 16, 2006.

the affordable market price, thus preserving the affordability with regard to taxes. This would result in reduced tax revenue to the various taxing districts. Table 3.8-8 provides a summary of the reduced assessed value of Mill Court Crossing, including the 3 affordable units, at the $1,000,000 price point.

Table 3.8-8
2005 Assessed Value of Residences at Mill Court Crossing with 10 Percent Affordable Units

$1,000,000 Selling Price			
Development Type	No of units	Projected Market Value per unit	Projected Assessed Value per unit
Residential (4 BR Single Family Homes)	24	$1,000,000	$16,100
Residential (3 BR Single Family Homes) -Affordable	3	$225,000	$3,606
Total Projected and Assessed Values		**$24,675,000**	**$397,268**

Table prepared by Tim Miller Associates, Inc., 2006.

The projected assessed or taxable value of Residences at Mill Court Crossing with affordable units is $397,268 or a reduction in assessed value of $37,432.

Table 3.8-9 provides a comparison of the tax revenue from Mill Court Crossing with and without affordable housing at the $1,000,000 price point.

Table 3.8-9
Projected Tax Revenues
Residences at Mill Court Crossing

$1,000,000 Selling Price				
Taxing Jurisdiction	**Rate (per $1,000 AV*)**	**Property Tax Revenues Full Market Value**	**Property Tax Revenues - Affordable**	**Reduction in Tax Revenue as a Result of Affordable Housing**
Westchester County	174.83	$75,999	$69,454	($6,545)
Highway	140.93	$61,262	$55,987	($5,275)
Library	6.36	$2,764	$2,527	($237)
Town of Cortlandt	23.61	$10,263	$9,379	($884)
County Refuse # 1	21.87	$9,507	$8,688	($819)
Mohegan Fire	60.30	$26,212	$23,955	($2,257)
Cortlandt Cons. Water	17.65	$7,672	$7,012	($660)
Cortlandt Ambulance # 3	2.19	$952	$870	($82)
Peekskill Sewer District	14.40	$6,260	$5,721	($539)
Lakeland Central School District	1071.42	$465,746	$425,640	($40,106)
TOTAL		$666,639	$609,234	($57,405)

Source: Town of Cortlandt, Tax Receiver's Office; Tim Miller Associates, Inc.
* Assessed Value.

The DEIS projects a total population increase of 98 persons including 24 students. This projection is based upon the ULI demographic multipliers of 3.6248 persons per 4 bedroom house and 0.8738 students per 4 bedroom house in each of 27 houses. As stated, the affordable houses are proposed as three bedroom units. The applicable multipliers, shown in

Table 3.8-10, result in one less person, and one less student. Since the projected student population is included in the overall population projection, the resulting difference in demographic projections is one less person who would be a student. This would result in a minimal reduction in municipal and school district costs.

Table 3.8-10
Affordable Housing Population Projection

Number of Market Rate Units	Number of Affordable Units	4 Bedroom Population Multiplier	3 Bedroom Population Multiplier	Population Projection	4 Bedroom Student Multiplier	3 Bedroom Student Multiplier	Student Projection
Project Proposal with no affordable units							
27	0	3.6248		98	0.8738		24
Total				**98**			**24**
Affordable Housing Proposal							
24		3.6248		87	0.8738		21
	3		3.3163	10		0.7792	2
Total				**97**			**23**

Note: Project population with no reduction for affordable units is used for all analyses in this DEIS.

After adjusting for the slight difference in costs, the provision of affordable housing will result in a reduction in tax revenue of $6,009 to the Town of Cortlandt and a reduction of $27,088 to the Lakeland School District, as can be seen by comparing Tables 3.8-11 and 3.8-12.

However, as shown in Table 3.8-13, after providing for affordable housing, the project is still projected to yield a fiscal benefit to the Town of Cortlandt and the Lakeland Central School District.

Table 3.8-11
Revenue & Cost Summary: Mill Court Crossing Full Market Value
$1,000,000 Selling Price

Jurisdiction	Projected Taxes ($)	Projected Costs ($)	Surplus/Deficit
Town of Cortlandt	$71,525	($14,700)	$56,825
Lakeland Schools	$465,746	($312,432)	$153,314

Source: Tim Miller Associates, Inc., 2006.

Table 3.8-12
Revenue & Cost Summary: Mill Court Crossing with 10% Affordable Housing
$1,000,000 Selling Price

Jurisdiction	Projected Taxes ($)	Projected Costs ($)	Surplus/Deficit
Town of Cortlandt	$65,366	($14,550)	$ 50,816
Lakeland Schools	$425,640	($299,414)	$126,226

Source: Tim Miller Associates, Inc., 2006.

Reducing the selling price to $900,000 would result in a smaller gap between the selling price of a market rate unit and the selling price of an affordable unit, and thus a smaller reduction in taxes attributable to construction of affordable units.

After providing for affordable housing the project is still projected to yield a fiscal benefit to the Town of Cortlandt and the Lakeland Central School District.

Proposed Mitigation Measures

Table 3.8-13, below, shows the proposed project, including 3 units of affordable housing, is projected to yield a fiscal benefit to the Town of Cortlandt and the Lakeland Central School District. No potential adverse effects have been identified on property values of neighboring residences. As no adverse effects are projected, no mitigation measures are proposed.

Table 3.8-13
Revenue & Cost Summary: Mill Court Crossing

Jurisdiction	**Projected Taxes ($)**	**Projected Costs ($)**	**Surplus/Deficit**
$1,000,000 Selling Price			
Town of Cortlandt	$71,525	($14,700)	$56,825
Reduction for Affordable Housing	($6,159)	($150)	($6,009)
Net Tax	**$65,366**	**($14,550)**	**$50,816**
Lakeland Schools	$465,746	($312,432)	$153,314
Reduction for Affordable Housing	($40,106)	($13,018)	($27,088)
Net Tax	**$425,640**	**($299,414)**	**$126,226**
$900,000 Selling Price			
Town of Cortlandt	$64,373	($14,700)	$49,673
Lakeland Schools	$419,172	($312,432)	$106,740

Source: Tim Miller Associates, Inc., 2006.

Table 3.8-14
Sampling of Fair Market Values for Comparable Single Family Homes
In the Vicinity of the Proposed Residences at Mill Court Crossing

Source: Kirquel Development LTD

	Location	Lot Size	Square Feet	Price	Price,Per Foot	Other Facts
Little Flower Estates	Cortlandt Manor	.25 acre	2,700	$789,000	292.222222222	Septic
124 Colabaugh Pond Road	Croton-On-Hudson	2+	2,300	$879,000	382.173913043	Septic
Lockwood Road	Cortlandt Manor	1	4,200	$975,000	232.142857143	Sewer
Franklin Lane	Croton-On-Hudson	.4 acre	3,000	$996,000	332	Sewer
10 Fox Run Rd	Croton-On-Hudson	2+	4,079	$1,245,000	305.221868105	Septic
Brook Lane	Cortlandt Manor	1	4,100	$1,265,000	308.536585366	Septic
Brook Lane	Cortlandt Manor	1	3,760	$1,295,000	344.414893617	Septic
Prospect Corners	Croton-On-Hudson	1	4,300	$1,595,000	370.930232558	Sewer
Oscawana Lake Rd.	Putnam Vally	3	3,700	$985,000	266.216216216	Septic
Bel Lago Drive	Putnam Vally	20+	4,652	$1,095,000	235.382631126	Septic
57 Foundrey Pond Rd.	Philipstown	2	4,500	$1,295,000	287.777777778	Septic
4 Hudson Way	Philipstown	2+	3,965	$1,550,000	390.920554855	Septic
19 Sassinoro Blvd.	Cortlandt Manor	.75 acre	4,800	$1,155,000	240.625	Sewer
2537 Maple Avenue	Cortlandt Manor	5+	3,200	$950,000	296.875	Septic
4 E Michael Armato Dr.	Cortlandt Manor	1+	4,250	$931,000	219.058823529	Sewer
4 Jay Road	Cortlandt Manor	.91acre	2,688	$749,900	278.980654762	Sewer
1426 Washington Street	Cortlandt Manor	2	2,600	$734,600	282.538461538	Sewer
Cortlandt Ridge-Lot#3	Cortlandt Manor	.50 acre	3,500	$999,373	285.535142857	Sewer
Cortlandt Ridge-Lot#5	Cortlandt Manor	.50 acre	4,000	$1,250,000	312.5	Sewer
Cortlandt Ridge-Lot#12	Cortlandt Manor	.50 acre	4,000	$1,159,624	289.906	Sewer
Cortlandt Ridge-Lot#17	Cortlandt Manor	.50 acre	3,750	$1,078,422	287.5792	Sewer
Cortlandt Ridge-Lot#23	Cortlandt Manor	.50 acre	3,500	$999,373	285.535142857	Sewer
Cortlandt Ridge-Lot#24	Cortlandt Manor	.50 acre	4,000	$1,206,318	301.5795	Sewer
Cortlandt Ridge-Lot#28	Cortlandt Manor	.50 acre	4,000	$1,122,358	280.5895	Sewer
Average Square Foot Price					293.821674261	

Table 3.8-15
Luxury Single Family Residence Sales

Source: Massey Knakal Realty Services

Address	City	Sale Date	Sale Price	Sq. Ft.	Lot Size:	P.P.S.F.
1 Wyche Way	Ossining	04/15/06	$ 855,000	3,538	32,670	$242
20 Grace Ln	Ossining	04/03/06	$ 875,000	2,727	47,480	$321
13 Seminary Ln	Granite Springs	03/31/06	$ 720,000	2,514	46,609	$286
115 Sidney Ct	Yorktown Heights	03/14/06	$ 935,000	3,123	23,958	$299
4 Tamarack Rd	Mahopac	03/06/06	$ 565,000	3,631	21,780	$156
3 Green Tree Rd	Yorktown Heights	02/17/06	$ 660,000	2,677	40,075	$247
2641 Deer St	Mohegan Lake	01/18/06	$ 1,090,500	3,696	54,886	$295
9 Kelly Ct	Ossining	12/15/05	$ 844,000	3,790	24,394	$223
12 Seminary Ln	Granite Springs	11/10/05	$ 742,000	2,680	216,493	$277
35 Derby Ln	Ossining	10/31/05	$ 654,640	2,538	64,469	$258
1112 Gambelli Dr	Yorktown Heights	10/21/05	$ 1,325,000	2,826	83,200	$469
10 Applegate Way	Ossining	10/17/05	$ 807,500	2,837	67,082	$285
182 Mahopac Ave	Granite Springs	10/11/05	$ 625,000	2,786	87,120	$224
2187 Van Cortlandt Cir	Yorktown Heights	10/07/05	$ 599,987	2,568	58,806	$234
2522 Pine Grove Ct	Yorktown Heights	09/26/05	$ 632,000	2,858	31,000	$221
4 Rossa Ln	Ossining	09/15/05	$ 999,000	3,212	31,799	$311
2 Acacia Dr	Mahopac	08/16/05	$ 704,000	2,812	22,216	$250
1 Su Garden Rd	Granite Springs	08/03/05	$ 775,000	2,940	39,640	$264
14 Tavano Rd	Ossining	08/03/05	$ 825,000	3,506	40,511	$235
36 Saddle Ridge Rd	Ossining	07/15/05	$ 667,000	2,883	43,560	$231
1 Dawning Ln	Ossining	07/06/05	$ 749,900	2,584	90,605	$290
293 Croton Dam Rd	Ossining	06/23/05	$ 685,000	3,477	47,045	$197
2666 Farsund Dr	Yorktown Heights	05/19/05	$ 920,000	3,281	79,715	$280
1 Surrey Ln	Ossining	05/17/05	$ 669,000	2,717	54,014	$246
10 Cottage Pl	Granite Springs	05/12/05	$ 750,000	2,873	43,996	$261
123 Morningside Dr	Ossining	05/05/05	$ 835,000	2,668	258,311	$313
10 Moseman Rd	Yorktown Heights	04/29/05	$ 670,000	2,790	56,192	$240
1254 Judy Rd	Mohegan Lake	04/27/05	$ 527,500	2,627	22,890	$201
93 Tomahawk St	Yorktown Heights	04/15/05	$ 645,000	3,124	41,382	$206
10 Glendale Rd	Ossining	04/01/05	$ 785,000	2,652	105,851	$296
AVERAGE:			**$ 771,234**	**2,965**	**62,592**	**$262**

Subject's Total Square Footage:	**AVERAGE (PLANNED)**	**3,500**
Average Price Per Square Foot:		**$261.95**

3.9 Cultural Resources

3.9.1 Visual Resources

Background

"Viewshed" is defined as the geographic area from which a "facility" or project may be seen. A significant aesthetic resource is a designated place visited by the public for the purpose of enjoying its beauty. A resource may be designated by a locality, a state agency, or a federal agency.

A visual assessment is an analytical technique that determines the viewshed of a particular project, identifies aesthetic resources within the viewshed, determines the potential impact of the project on the aesthetic resources, and identifies strategies to avoid, eliminate or reduce adverse impacts. The visual assessment may incorporate line-of-sight profiles or photographs where necessary to demonstrate potential visibility of a facility from a sensitive viewpoint.

Variables associated with the actual visual experience include but are not limited to: atmospheric perspective (diminishing clarity and contrast of view due to atmospheric interference), and size perspective (reduction of apparent size of objects as distance increases). It is noted that mere visibility of a facility/development, even startling visibility, does not automatically mean it has an adverse visual or aesthetic impact. Aesthetic impact occurs when there is a demonstrated detrimental effect on the public enjoyment of an aesthetic resource. Visual impact occurs when mitigation measures, or the mitigating effects of perspective, do not adequately reduce the visibility of a facility from an aesthetic resource to an insignificant level.

Existing Conditions

The project site is located in a setting of rolling topography and moderate development, where views of the landscape are limited by the nearby hills, vegetation and curving roadway corridors. The residential developments that adjoin the property to the northwest, west and south have very limited views of the interior of the site due to the existing vegetation and topography.

A visual resources "windshield" survey was conducted in the project area on November 21, 2005, to identify locations in the vicinity where the project site may be visible from roads and public properties. The findings of that survey are described below. The extent of the survey was determined by inspection of a US Geological Survey topographic map, which reveals the potential visibility of the project site based on topography alone. Thus, the survey encompassed the *potential viewshed* of the proposed project. The field survey refined this assessment based on existing factors that limit the actual visibility of the site, accounting for topography, vegetation, and buildings. The field survey identified the *actual viewshed* from specific locations in the site vicinity where the site and the proposed project would be visible. Since most leaves were off the trees at the time of the survey, the maximum visual exposure could be assessed. During other times of year when trees are in leaf, views in the project site area would be from shorter distances and more obscured than discussed in this chapter.

The field survey included identification of prominent land forms, land cover types, and the visual character of the site and local area. The survey also investigated potential views looking in to the site from nearby residential neighborhoods.

Designated Scenic Resources

Westchester County's Executive Open Space Policy addresses the protection and preservation of properties having scenic significance. Scenic resource preservation is included in two of the six policy statements, Open Space Character and Environmental Resources. The protection of scenic views is a element of open space that is identified as a high priority for the County in regards to open space preservation.

Patterns for Westchester, 1996, is a County-developed document which is the equivalent of a county comprehensive plan, sets long-term goals and policies for Westchester County. This document recognizes the value of scenic corridors and need for protection of natural aesthetic resources, however no specific areas are identified.

The Town of Cortlandt Comprehensive Master Plan, dated July 9, 2004, identifies some areas of particular visual importance. The historic, scenic and archaeological resources listed in the Master Plan are the Croton Reservoir, Hudson Highlands, and Hudson River, as well as several open space lands such as Blue Mountain Reservation, Croton Gorge, George's Island, Oscawana Island, Hudson Highlands Gateway Park and Harbour Landing. The project area is not included in any of these identified areas.

The Master Plan also identifies scenic vistas, areas in the Town of Cortlandt that are considered to have visual significance, and should be protected. There are no scenic vistas identified near the project site and no scenic vistas look into the project area. The two closest identified vistas are located in Cortlandtville and are views from Gallows Hill and further south along this ridge line, both locations some two miles east of the project site. Both of these indicated scenic vistas are directed generally towards the south and do not include the project site. No designated natural areas of significant scenic value were identified on or adjacent to the project site.

Stone Walls

The Master Plan sets a goal related to the preservation of stone walls and associated trees in both Policy 136 and 141 of the Master Plan. Figure 3.1-2, Existing Topography, shows the location of existing stone walls on the property.

Stone walls currently exist in several areas on the project site. The stone walls were built by farmers to delineate generally rectangular agricultural fields and appear to bear little relation to the site topography or other features. These walls were built for a land use unlike the proposed site use. The internal walls generally do not follow the lines of the proposed lot boundaries. The existing project site property line along the northern and western boundaries is defined by stone walls that are proposed to be preserved.

The locations of the existing stone walls and walls to be reconstructed in the project are shown in Figure 3.6-3. Portions of the existing stone walls in the western area of the project site will be removed for development of the roads and house lots. The stones from these walls will be reused along the Mill Court Extension and to delineate the wetland buffer line on Lots 14, 15

and 16 and 20, 21 and 22. Walls that are located outside of the proposed areas of disturbance are proposed to be left undisturbed. These include any stone walls that exist in the wetlands or on steep slopes.

Additionally, stones and boulders from walls that are disturbed by the project development may be used in the construction of house lot features, including tree wells and low retaining walls, to preserve and enhance character of the site and its environs.

Existing Visual Character and Views into the Site

The on site topography is gently sloping as the site is generally sitting on a small hilltop along the slope of a broader hill. Generally lower elevations exist to the north and west with higher elevations to the south and east. The property is entirely wooded, with tree heights ranging from approximately 40 to 60 feet in height on the property.

Site Views from Area Roads

The site could be potentially visible from a number of public viewing places, mostly roads. The roads in the project vicinity have not been designated by local, state or federal agencies as scenic byways or roads which afford scenic views, although Red Mill Road is on the Town Master Plan's list of Historic Roads.

Red Mill Road, to the north, is lower than the project site, with elevations of approximately 300 to 380 feet msl in the area of the project site. This roadway is separated from the project site by some 750 feet of developed and wooded land, such that no views of the site exists from Red Mill Road. Along the eastern side where the project has road frontage, Lexington Avenue has an elevation of approximately 475 feet msl, which increases towards its intersection with US Route 6, south of the project site. Given the higher elevations to the south, potential views into the project site from Route 6 or smaller residential roads could extend to the project site, if no tree cover was present. Actual views from the road however, extend about 100 feet, or less, due to the density of trees.

Windshield and field surveys of views of the project site from area roads were conducted to ascertain existing visual conditions that could affect views of the site after development is complete.

Views of the site from public roads near the site are extremely limited, due to the topography, existing buildings and vegetation. Views between structures from public roads near the site reveal the wooded cover of the site, and generally extend 100 feet or less into the site during winter months. The natural terrain effectively obscures further views into the site. Leaf cover during the summer months would reduce these distances significantly.

No off-site vantage point was identified from which more than a small portion of the project site could be viewed.

US Route 6

US Route 6 travels in a generally east-west direction to the south of the project site. US Route 6, locally known as Main Street, is primarily developed with commercial establishments. In the project area, US Route 6 is at a higher elevation than the project site.

Lexington Avenue

The project site has approximately 770 total feet of frontage along Lexington Avenue, in two separate areas. The site has frontage beginning approximately across from Strawberry Lane and extending towards Route 6. There are no structures located along Lexington on this portion of the parcel. A second area of frontage along Lexington occurs opposite West Road. There is one existing structure located on the project parcel fronting on Lexington Avenue at this location.

Red Mill Road

Red Mill Road travels in a east-west direction just north of the project site and gives access to Mill Court, from which the project will gain access. Red Mill Road is a historic road, as discussed in further detail in Historic Resources, below. The site is not visible from Red Mill Road.

Mill Court

Mill Court is located on the north side of the project parcel and terminates in a cul-de-sac at the property boundary. Views into the site from this location are limited to approximately 100 feet or less due to the dense vegetation.

Amherst Road

Amherst Road currently provides access to Wild Birch Farms, a private condominium community. Amherst Road currently terminates in a dead end at the project property line. Currently, due to the existing vegetation on the project site, views into the site are limited to approximately 100 feet from the end of Amherst Road.

Helena Avenue

Helena Avenue is a residential street located on the south side of US Route 6 and terminates in a dead end. Due to the higher elevation of the Helena Avenue dead end, above Route 6 and the project site, the potential for views of the project site exist. However, when views were examined from this location during the visual study, it was determined that there are limited views of the site from Helena Avenue. Existing vegetation at the end of Helena Avenue partially screen the view to the north, where the project site is located.

Other Area Roads

Based on the visual study, which was conducted during winter months when there was little to no leaf cover, the project site is not visible from other area roads, including Winthrop and Jo Drives, Brandeis and Cardoza Avenues and Cynthia Road. Topography, existing buildings and vegetation obscure views of the site from these locations.

Views Out From the Site

Views from the interior of the project site were investigated during the field survey. As previously stated, the Mill Court Subdivision is proposed on the rounded top of hill along the

northeastern slope of a broader hillside. There will be potential views out from the site after the removal of some vegetation during the construction phase. Views out from the site will likely be limited by remaining vegetation on the site, views out from the site were limited to portions of the adjoining properties, with no views to off-site hillsides. No long distance views were identified. There were no notable vistas or scenic views identified from the interior of the project site nor from the perimeter of the site looking outward.

No visually prominent natural features were observed on the site. Several rock outcrops of various heights were encountered that are only visible from locations within the project site. A pattern of old stone walls crisscrosses the site, providing a taste of its agricultural past. These agricultural walls are in various stages of disrepair but are generally intact where they appear on the project plans and on Figure 3.1-2. The walls consist of stones and boulders collected from the site environs. The agricultural walls form generally rectangular areas, some closely following the northern and western property boundaries of the project site. According to the project archaeologist, these agricultural walls are not historically significant as they do not represent former patent boundaries or other notable historic demarcations, but are remnants of the past agricultural activities that were common in this region.

Potential Impacts

The proposed project would convert approximately 16.5 acres of vacant wooded property to residential use. Grading activities to prepare the site would result in minor topographic alterations which may alter views of the site. Construction of residential dwellings and lawns may likewise alter views. Portions of the property may appear more open with the removal of the tree canopy as viewed from the surrounding roads and residential areas that adjoin the site. These areas were analyzed for potential visibility to the site and potential impact to the visual environment as a result of the proposed development. However, due to the existing vegetation which resulted in extremely limited visibility of the site from the surrounding roads, photographs from many of these locations did not shows views of the site. Thus, this section is intended to describe these potential changes.

Given the position of the site in relation to locations of potential public views from the surrounding area, no off-site vantage point was identified from which more than a small portion of the project development would be viewed and are in detail below. The following descriptions assess the effects of changes in views from particular locations of concern.

Altered Views from Area Roads

Construction of the Mill Court Crossing subdivision would change the existing visual character of the project site by removing existing woodland from the site, result in topographic changes due to grading activities, and introduce a residential neighborhood with homes and yards. These changes may be visible from area roads and a discussion of the potential impacts to each road is discussed below.

US Route 6

As shown in Figure 3.9-2, the project site is partially visible from US Route 6, but due to the existing vegetation and commercial buildings that line the north side of the road and higher elevation of US Route 6 above the project site, views of the site are limited to the tree canopy. In particular, the area of the project site that can be seen from US Route 6 includes the area

where the on-site wetlands are located, for which no development is proposed. The areas proposed for the construction of residential dwellings is not visible from US Route 6. Thus, while a change in the tree canopy will be evident from Route 6, there are no significant impacts to the visual conditions anticipated from US Route 6.

Lexington Avenue

The project site fronts on, and would be visible from, Lexington Avenue. Five of the proposed residential dwellings will be situated along and gain access from Lexington Avenue. Two of these houses will be at least partially visible from Lexington Avenue, though they will be at a lower elevation and set back approximately 130 feet from the road. The other two houses will be set back from Lexington Avenue by approximately 400 feet and be at an elevation of at least 50 feet below that of Lexington Avenue, thus greatly reducing their potential visibility. There will be no connection to the rest of the project parcel from Lexington Avenue and thus the existing tree cover will remain between the lots on Lexington Avenue and the remainder of the project. The visual character of Lexington Avenue after development of the proposed Mill Court Crossing subdivision, and in particular, the houses which will be located along Lexington Avenue, will be similar to what currently exists. The proposed houses will be in accordance with the zoning setback regulations and will be sited similarly to the existing structures located along Lexington Avenue.

Red Mill Road

As previously noted, Red Mill Road has lower elevations than the project site and the site is not visible from Red Mill Road. There will be no visual impacts to Red Mill Road as a result of the proposed Mill Court Crossing Subdivision.

Mill Court

Since the project will gain access from Mill Court, there will be a change to the visual environment near the end of the existing street after the construction of the new road extension. Due to topography and vegetation, it is likely that only a few of the proposed houses will be visible from the existing end of Mill Court.

Amherst Road

There would be limited views of the proposed development from the end of Amherst Road. The proposed site plan indicates there will be over 200 feet from Amherst Road to the closest proposed residential structure, of which at least 100 feet is planned to remain wooded after development.

Helena Avenue

After construction, a portion of the project may be visible from the terminus of Helena Avenue. However, it should be noted that this change will not be significant given the angle of view and the distance and may only be visible from the end of Helena Avenue during off-leaf conditions.

Other Area Roads

Based on the visual study, which was conducted during winter months when there was little to no leaf cover, the project site is not visible from other area roads, including Winthrop and Jo Drives, Brandeis and Cardoza Avenues and Cynthia Road. Topography, existing buildings and vegetation obscure views of the site.

The character of the dwellings would be compatible with the existing residential surroundings.

In summary, views of the Mill Court Crossing residential buildings are not anticipated to result in a significant impact to local area roads.

Altered Views from Residential Areas

As previously indicated, the project site is not anticipated to be visible from the majority of surrounding areas. Limited views may be seen during off-leaf conditions from residences along Mill Court, Amherst Road, and along Lexington Avenue. No off-site vantage point was identified from which more than a small portion of the project site could be viewed. Thus, although the open space component of the Town Master Plan identified the site as open space (under-utilized open space), the site is not considered a significant visual resource to of the Town.

Lighting Impacts on Surrounding Residential Uses

Lighting on individual house lots (interior lights and exterior area lights) will create new visibility of portions of the project from adjacent properties at night. This change is not expected to cause significant adverse effects on the local neighborhoods, which are also residential uses. There are no street lights proposed in this project..

Preservation of Natural Features and Open Space Character

The proposed project has been designed to fit into the existing landscape while minimizing the necessary area of tree clearing and landform alteration to the maximum extent practicable.

No significant visual change has been identified from any location or critical vantage point in the site vicinity. Given the general topographic setting of the site and its location within a suburban residential landscape, the proposed project is well suited for its environment. While views of portions of the project development will be created through the existing tree cover around the perimeter of the site, the siting of new houses proposed in the development such that significant portions of existing woods can be preserved will mitigate the changes in existing views. No off-site vantage point was identified from which more than a small portion of the project site could be viewed. This project will have no significant adverse visual impact.

The partially wooded, partially developed character of the Mill Court Crossing area will be maintained by the wooded wetlands area preserved in the eastern portion of the site. This proposed residential development has been designed to be visually compatible with the surrounding residential neighborhoods.

Since the stone walls on the property were built by farmers to delineate rectangular agricultural fields and appear to bear little relation to the site topography or other features, none of the internal walls follow the lines of the proposed lot boundaries. Where disturbed, stone walls will

be relocated on lots for use as low retaining walls, tree walls, and lot boundary markers where feasible. The existing stone walls on the perimeter property line for the project site, however, will be preserved.

Proposed Mitigation Measures

As no significant impacts to the visual conditions are anticipated as a result of the proposed Mill Court Crossing development, no mitigation measures are currently proposed. The current plan incorporates preservation of most of the woods vegetation around the perimeter of the project as well as a large area of wooded wetland in the interior of the site that will allow the site to retain its wooded character when viewed from off-site.

3.9.2 Historic and Archaeological Resources

Existing Conditions

Historic Resources

National and State Registers of Historic Places

According to the Office of Parks, Recreation and Historic Preservation's (OPRHP) interactive web site, there are several buildings listed on the National and State Registers of Historic Places located in the Town of Cortlandt. Below is a list of historic sites within the Town of Cortlandt that are listed on the National and State Registers.

1. Bear Mountain Bridge and Toll House
2. Quaker Bridge Road
3. John Jones Homestead
4. Van Cortlandt Upper Manor House
5. Old St. Peter's Church and Old Cemetery at Van Cortlandt
6. Old Croton Aqueduct
7. Old Croton Dam (site of New Croton Dam)
8. Little Red Schoolhouse
9. Town Hall- Old Van Cortlandtville School
10. Aaron Copeland House (State Register only)

Additionally, both 134 Sixth Street and Little Lakes Historic Sites #1 and #2 are Register Eligible, but not yet listed on the Register. The New Croton Dam Spillway and FDR VA Hospital are both eligible as part of a District, but not yet listed.

There are no buildings listed on, or eligible for listing on, the National or State Register located near the proposed project.

Westchester County

Westchester County maintains a County Inventory of Historic Places, which includes those sites that are listed on the State and National Registers of Historic Places, as well as County identified historic resources. The County Inventory of Historic Places includes the Old Croton Aqueduct, Bear Mountain Bridge and Toll House, and the Cortlandt Furnace (Furnace Dock Road).

Town of Cortlandt Comprehensive Master Plan

The Town of Cortlandt Comprehensive Master Plan, dated July 9, 2004, references the National and State Register of Historic Places, the Westchester County Inventory of Historic Places, as well as those locations identified as potentially significant by the Master Plan Committee (MPC). The Master Plan Committee compiled a list of properties that were not included in the National, State or County lists by consulting various sources. These sources include the Cortlandt, Van Cortlandtville and Croton historical societies, the Town Historian and OPRHP. The MPC identified historic places are listed below.

- Cortlandt Furnance
- Anthony's Nose
- Camp Smith
- Pumphouse
- Colonial Terrace
- The Community Church
- 50th Milestone
- Gallow Hills Mile Marker
- Gallows Hill Road Monument
- Lent's Cove
- Verplanck Community Center
- Steamboat Dock
- Old Cortlandt Town Hall
- Lake Meahagh
- Old Trolley Hotel at Oregon Corners
- Stone Pump House on Oregon Road
- Paul Robeson Concert
- Post Hannoch House
- Corne/Kennedy House
- Boscobel Methodist Church
- St. Christopher's Church
- Church of Divine Love
- Catholic Kolping Society Property
- College Hill Road
- Reformed Church of Cortlandtown
- George's Island
- FDR VA Hospital
- Lieutenant Benjamin Dyckman House
- Old Curry Homestead
- McCoy Homestead, Camp Smith
- Layfayette Avenue Graveyard
- Belmont
- Oscawana Island
- McAndrews Estate
- DeGraaf Estate
- Spook Rock
- Railroad Pond
- Valeria
- First School in Furnace Woods
- Cemetery (by Furnace Woods School)
- Cortlandt Grange
- Pleasantville Chapel
- Hercules Lent House
- Todd House
- Crompond Post Office
- Toddville School
- Verplank Hamlet

The Master Plan also identifies four major areas of historic significance within the Town:

- Van Cortlandtville
- Verplank
- Oregon Corners
- Pleasantside

None of these areas are located near the proposed Mill Court development, nor are any properties listed in the Master Plan are located near the proposed project.

The Master Plan identifies several roads which are historic. These identified scenic roads include Furnace Dock Road, Kings Ferry Road, Albany Post Road, Gallows Hill Road, Oregon Road, Watch Hill Road, Red Mill Road, Croton Avenue and Teatown Road. Red Mill Road is located in the project vicinity and identified as a historic road. The Comprehensive Plan recommends the "preservation of the character of the Town's historic roads," including Red Mill Road. The Town of Cortlandt currently does not have an historic roads ordinance nor does it have regulations or restrictions regarding historic roads. As described in the Master Plan, preservation of listed historic roads would include preserving the road alignment and width as well as maintaining stone walls and mature shade trees bordering the road. Preservation may also include protection and maintenance of historic mile markers.

Archaeological Resources

Section 14.09 of the New York State Historic Preservation Act of 1980 act 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. If a project requires any permits or is receiving funding/grants or any other approvals from State agencies, review by OPRHP is required. This project is subject to New York State Department of Environmental Conservation review and approval 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 Office of Parks, Recreation and Historical Preservation to ensure uniformity in the review of cultural material in New York State.

Cultural Resource Management investigations are divided into three levels of assessment, called Phase I, II and III. A project may receive OPRHP approval after the completion of any of these phases by a qualified archaeologist, based on the determination that the project site has undergone sufficient investigation to eliminate the probability of significant artifacts being recovered within the area of potential effect. A Phase I investigation is subdivided into a Phase IA and Phase IB. The Phase IA consists of a Literature Review and Sensitivity Assessment, which entails the following:

1) a review of pertinent published historic material pertaining to this portion of the Town;

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 reconnaissance of the parcel to identify areas of greater and lesser potential for containing buried cultural remains, and to note areas where serious prior disturbance to upper soils may have eliminated such potential, and to photodocument any potentially affected standing structures over 50 years of age.

For any area that will potentially be disturbed by the proposed action, a Phase IB Field Investigation is conducted, which 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 systematic subsurface testing, which requires the excavation of small test pits at fixed intervals throughout the project site. The soil from these pits is examined for buried cultural remains. Significant findings can trigger the requirement of more extensive investigation via a Phase II or Phase III investigation. However, mitigation or avoidance of that portion of the site where remains are known or suspected may be accepted by OPRHP and allow the modified project to continue.

OPRHP guidelines do not require testing in areas with previously disturbed soils, steep slopes of 12% or greater, or poorly drained soils, as they are not considered to likely produce intact cultural resources.

Potential Impacts to Historic and Archaeological Resources

Historic Resources

The Mill Court Crossing development is proposed to take access from Mill Court, which is located off Red Mill Road. The proposed Mill Court development will not impact Red Mill Road with regard to historic preservation, since the project will not result in any changes to the road width or alignment, nor the removal of stone walls or mature trees. The project will not create a new access point along, nor will the project be visible from, Red Mill Road. The project will not have any impact on the Town's historic designation of Red Mill Road.

Archaeological Resources

The Phase IA Literature Review and Sensitivity Analysis was conducted on the project parcel in January 2006 and is summarized below. A full copy is included in the DEIS Appendix J.

The project site is characterized as relatively open woodland, with some on-site wetlands occurring in the eastern portion of the site, as well as a narrow stream that meanders through the center of the site in a generally north-south direction. Stone walls were observed throughout the property, which likely marked the property boundary or the edges of former farm fields. A number of bedrock outcroppings were observed. These rock outcrops included veins of cryptocrystalline lithics, such as quartz and quartzites, which may have been used by early populations for making tools. No significant overhangs suggestive of rock shelters were observed, since the rock protrusions never exceeded a few feet in height. The soils on-site were generally stony and underlain by highly folded bedrock, and most micro-areas are undulating and irregular with a number of slopes exceeding 15 percent.

No historic structures are located on the project site, however structures in the immediate vicinity present the possibility that items from those structures might have been disposed of on the project property, as evidenced by the presence of a bottle dump in the central portion of the site. Some mid-20th century concrete structure remains were observed on the project site, which would not be seen as having historical significance.

A complex of 20th century structures is located along Strawberry Road in close proximity to the project area. This complex includes several structures identified as National Register eligible including the former Franciscan Convent and gardens, which included the Gatehouse, Tower House and Franciscan High School. The complex is no longer used as a convent and is currently used as a mosque. Due to the topography of the project area, there would be no view of the proposed Mill Court Crossing project from the historic buildings on the Franciscan property, even from the observation platform on the "Tower House".

Five prehistoric archaeological sites are located within a mile of the project site and an additional five sites within two miles, of which two are National Register listed. These sites include villages, occupation sites, work areas, and a burial site.

A potential for there to be prehistoric sites and the potential for historic middens to be within the project area, as indicated by the presence of a bottle dump in the central portion of the project site, a Phase lB Archaeological Field Reconnaissance Survey was recommended for the undisturbed areas within the Area of Potential Effect to rule out the presence of prehistoric

and/or historic cultural resources. The Phase 1B investigations are underway as of the date of this document and will be submitted as part of the Final EIS for this project.

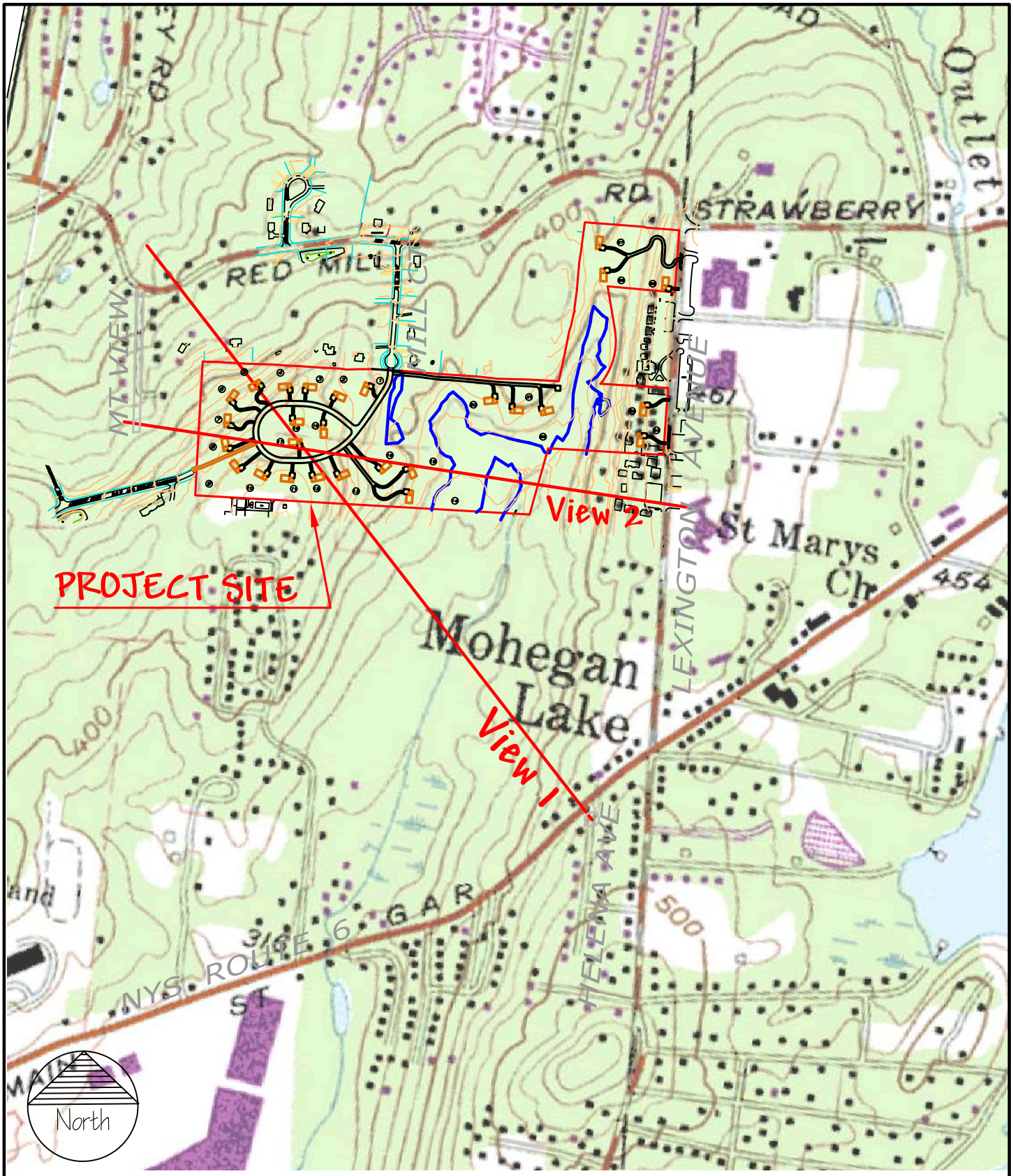
Proposed Mitigation Measures

Historic Resources

As no impacts to historical resources are anticipated, no mitigation measures are currently proposed.

Archaeological Resources

Pending the results from a Phase lB archeology survey that is specific to the area of potential effect for the proposed project, no construction activities that are part of this project, other than investigative activities, will proceed on this property. It is anticipated that due to rocky soil and limited previous development on the project site that a finding that the project will have "No Effect" on archaeological and historic resources can be anticipated. The cultural resources studies that would be conducted for this project will meet the strict criteria and requirements of OPRHP. Should significant cultural remains be discovered in the area of potential effect on this property, either mitigation or avoidance of that portion of the site will become part of the project proposal in order to gain final acceptance by OPRHP, thereby allowing the modified project to proceed.



This Figure depicts the locations of sight line Views shown in accompanying Figures.

Figure 3.9-1: Key Map to Visual Assessment

Residences at Mill Court Crossing

Town of Cortlandt, Westchester County, New York

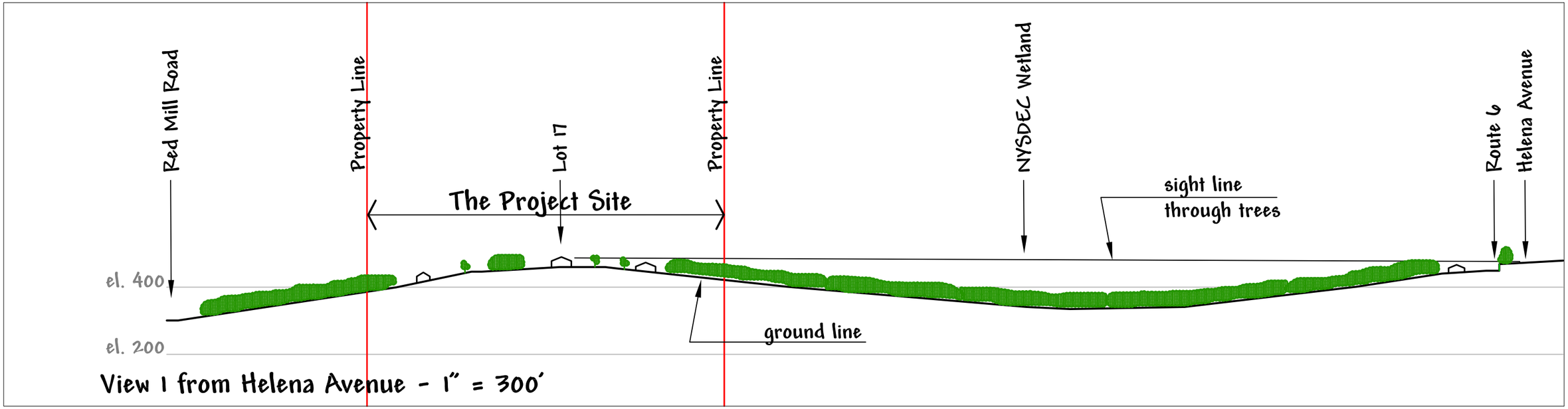
9/18/06

Scale: 1" = 800'

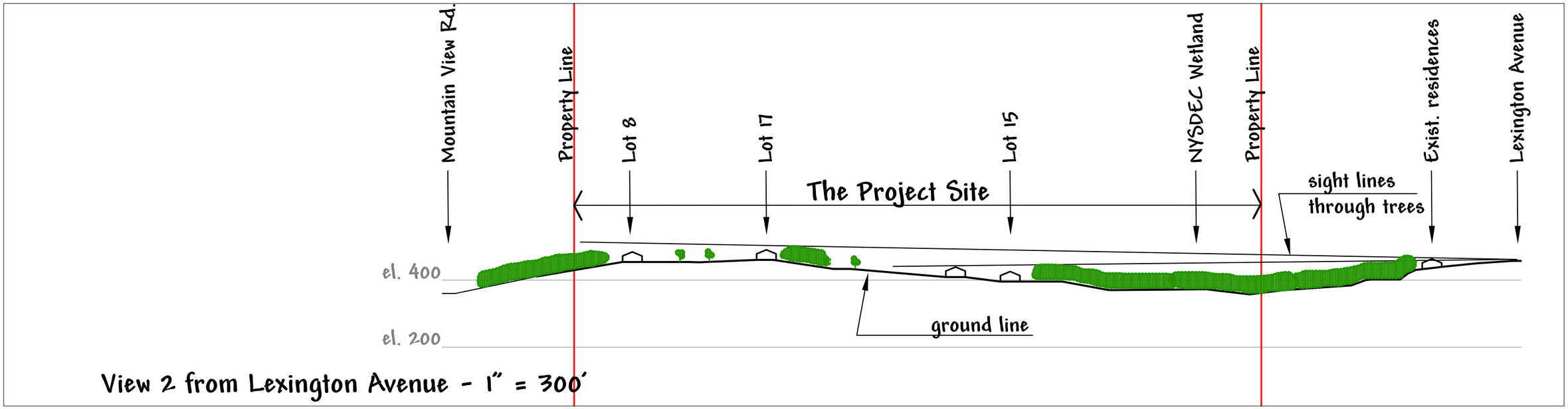
Base Maps: USGS Topo Quad & Cronin Engg.

FS: MillCourt\drawings\Kirquel visual assess.dwg: keymap

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



View 1 from Helena Avenue - 1" = 300'



View 2 from Lexington Avenue - 1" = 300'

This Figure depicts sight lines from points along ground profiles taken through the project site where shown in Figure 3.9-1, Key Map to Visual Assessment.

9/18/06
Scale: 1" = 300'

FS: MillCourt\drawings\Kirquel visual assess.dwg: views

Figure 3.9-2: Line of Sight Profiles to the Site
Residences at Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: USGS Topo Quad & Cronin Engg. Plan

Figure 3.9-3: View of Site from Route 6
Mill Court Crossing Subdivision
Town of Cortlandt, Westchester County, New York
Source: Tim Miller Associates

File 05077 12/13/05
JS/05077

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4.0 ALTERNATIVES

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a draft environmental impact statement include a description and evaluation of the range of reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor. The range of alternatives must include the "No Action" alternative.

In addition to the No Action alternative, the Scoping Document for this DEIS requires an evaluation of four alternatives in addition to the No Action: No Wetland/Steep Slope Disturbance; a Cluster Alternative; Combination of Cluster and Conventional Lots; and Alternative Road Connections. These five alternatives are described and evaluated below. A summary matrix of the varying impacts associated with each alternative is provided as Table 4-1 at the end of this section. In addition, the Scope calls for an analysis of the impact of affordable housing to be included in the document. This discussion is presented in Section 3.8 and summarized below in Section 4.2.4.

As set forth above, SEQRA requires a description and evaluation of the range of reasonable alternatives to the proposed action considering the objectives and capabilities of the project sponsor. Alternative Layout B (Conventional Subdivision with only Minimal Disturbance for Access Road, Wetland or Steep Slope Disturbance) is not considered a reasonable alternative by the applicant. Refer to the project sponsor's November 2004 letter to the Town of Cortlandt Planning Board included in Appendix B, Correspondence. Regarding Alternatives C, D, E1 and E2 (Cluster Plans), as of the date of this document, no cluster authorization has been granted by the Town Board, although requested by the Applicant on October 20, 2005 (see Appendix B).

4.1 No Action Alternative

In accordance with SEQRA regulations, the No Action alternative must evaluate the adverse or beneficial impacts that would occur in the reasonably foreseeable future in the absence of the proposed action. For purposes of this analysis, the No Action alternative assumes that the proposed project site would remain vacant.

The No Action alternative would be inconsistent with the objectives of the applicant/property owner. In order for the entire site to remain in its current state or as open space, the Town or a land conservation organization would need to acquire the property for open space purposes and compensate the property owner accordingly.

Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

Geologic Resources: There would be no disturbance to geology, soils, or topography under the No Action alternative. There would be no grading disturbance to 17.36 acres of the project site, nor alteration of 2.99 acres of slopes in excess of 15 percent. The No Action alternative would not result in any potential disturbance to bedrock.

Water Resources: Like the proposed action, the No Action alternative would not result in any impact to a flood plain. There would be no 0.03 acre disturbance to the federally-regulated wetland. The No Action alternative would not result in the alteration of drainage patterns on the project site nor the introduction of 4.71 acres of impervious surfaces that would increase stormwater runoff rates. The No Action alternative would not result in any increase in nutrient

loading beyond what currently results from overland flow carrying nutrients from the existing vacant land. There would be no impact to groundwater resources.

Air Resources: There would be no traffic generated by this alternative, thus air quality impacts would be reduced compared to Mill Court Crossing.

Biological Resources: No disturbance or removal of 17.36 acres of woodland vegetation would occur under the No Action alternative. The site would continue to provide habitat and cover for local wildlife. There would be no disturbance to 1.66 acres of wetland buffer habitat.

Transportation Resources: Under this alternative there would be no traffic generated, and no impact to the local traffic network. Improvements to the sight distance at Mill Court and Red Mill Road would not occur.

Land Use & Zoning: The project site would remain vacant and available for development in any of the as of right uses permitted in the R-40 Zoning district. No housing would be provided to address the continued need for housing in Northern Westchester.

Community Facilities and Services: There would be no demand placed on community services and facilities as a result of the No Action alternative. There would be no increase in municipal or school taxes, no surplus tax revenues would be generated. No affordable housing would be provided.

Utilities: Under this alternative, there would be no demand placed on water supply, wastewater treatment facility capacity, electric or gas.

Aesthetic Resources: The site would remain vacant. Existing views of the site from Lexington Avenue, Mill Court and other viewing locations would remain unaltered.

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust would not occur. There would be no temporary increase in vehicular traffic resulting from construction activities.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.2 Alternative Subdivision Plans

As per the Scoping Outline adopted for this DEIS, four alternative layouts have been prepared and are compared to the proposed action's impacts. An analysis of the impact of affordable housing has also been prepared. The alternatives have been designed by the project engineers, Cronin Engineering P.E., P.C. For purposes of this discussion, "Mill Court Crossing" refers to the proposed action which is the subject of this DEIS.

4.2.1 Minimal Wetland/Steep Slope Disturbance - Layout B

This alternative, shown in Figure 4-1 and labeled Layout B, provides a Conventional Subdivision layout with minimal disturbance to wetland or steep slope areas. The minimal disturbance to the

environmentally constrained areas is necessary to accommodate the lengthening of Mill Court to provide access into the property. Layout B depicts a road extension of approximately 990 feet from existing Mill Court (which is approximately 735 feet long).

This alternative, with the required minimum impacts, reduces the proposed 27 lot conventional subdivision to a 7-lot conventional layout (6 market rate, 1 affordable). Layout B would develop the seven houses on land in the western portion of the property that is unconstrained by wetlands or steep slopes. It is noted that land fronting directly on Lexington Avenue could not be utilized in this alternative for possibly three more lots since connections to the proposed sewer line would require disturbances of wetland buffers and steep slopes.[1]

In its letter to the Planning Board in October 2005 (included in Appendix B), the applicant expressed its considered opinion that a subdivision plan that would be produced in accordance with "Alternative B" would not be reasonable in light of the applicant's objective to develop a plan of 27 lots. SEQRA requires only a description and evaluation of a range of reasonable alternatives that are feasible and consistent with the considered objectives and capabilities of the project applicant [6NYCRR 617.9(b)(5)(v)]. The project applicant's clear goal and objective is to develop an environmentally sound project, consistent with current zoning standards, that produces a sufficient and fair return on investment to warrant the time, money, and effort expended.

Geologic Resources: This alternative would result in approximately 12.20 acres less disturbance than the Mill Court Crossing proposal. The amount of slopes in excess of 15 percent that would be disturbed would be 2.91 acres less than the proposed action. This alternative would not likely result in any disturbance to bedrock.

Water Resources: This alternative would result in no impact to wetland areas as compared to the 0.03 acres of wetland disturbance at Mill Court Crossing. The amount of impervious surface proposed under this action would be 1.57 acres or approximately 3.14 acres less than Mill Court Crossing, therefore, the need for and design of stormwater management facilities would be reduced. The length of driveways off the extension of Mill Court would be slightly longer. Wetland buffer disturbance would be reduced by over 1.45 acres.

Air Resources: There would be less traffic generated by this alternative, thus air quality impacts would be reduced compared to Mill Court Crossing.

Biological Resources: This alternative would result in 11.35 acres less woodland disturbance than the Mill Court Crossing, thus the biological impact would be reduced compared to Mill Court Crossing. The Applicant has discussed with the Cortlandt Land Trust the possibility of providing an open space conservation easement that would include the wetlands and adjacent areas of the property (refer to a letter to the Applicant from the Land Trust dated February 21, 2007 in Appendix B). Alternative Layout B *includes open space for such an easement.*

Transportation Resources: Since this alternative results in less than 27 units there would be less traffic. However, since the project proposal does not result in significant traffic impacts the change in traffic as a result of this alternative would be minimal.

[1] A 10-lot alternative plan is not included in the adopted scope and is not presented herein.

Land Use & Zoning: This alternative would result in a large area of undeveloped land in the central portion of the project which would be dedicated to the Town of Cortlandt. The northeastern corner of the site, directly off Lexington Avenue, would remain undisturbed.

Community Facilities and Services: This alternative would result in a reduced number of dwellings, population and school age children compared to Mill Court Crossing, thus, impacts to community facilities and services would be reduced. This alternative would result in significantly less taxes being generated to the Town of Cortlandt and the Lakeland School District. Affordable housing would be reduced from three units to one unit.

Utilities: Under this alternative, demand placed on water supply, wastewater generation, electric and/or gas would be the reduced compared to the proposed action.

Aesthetic Resources: Views of the project site post-development, from Red Mill Road, would be almost the same as with the Mill Court Crossing. However, views of the site from Lexington Avenue would be different, since the northeast portion of the site would remain undisturbed. The visual character of the subdivision would be slightly different when viewed from the internal road system, since Mill Court Crossing includes an internal loop road and this alternative includes a single road ending in a cul-de-sac. The front yard setbacks are similar to Mill Court Crossing. There would be no shared driveways in this alternative.

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, based upon the reduced lot count, the short term impacts associated with construction including noise and fugitive dust would be slightly reduced compared to Mill Court Crossing. There would be the a reduced level of construction activity, thus short-term increases in vehicular traffic would be the minimally reduced compared to Mill Court Crossing.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.2.2 Cluster Alternative - Amherst Road Connection - Layout C

This alternative produces a 27 lot plan that eliminates residences off of Lexington Avenue, and provides for the ingress and egress of 15 units via Mill Court and 12 units via Amherst Road, as shown in Figure 4-2 and labeled Layout C. Layout C depicts a road extension of approximately 840 feet from existing Mill Court (which is approximately 735 feet long). This alternative would result in smaller lots located on three compact cul-de-sacs as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. The Applicant has reviewed and discussed this alternative, with possible access from Amherst Road, with the Condominium Board of Wild Birch Farms. Table 4-1 summarizes impacts with this alternative.

Geologic Resources: This alternative would result in approximately 3.44 acres less disturbance than the Mill Court Crossing. The amount of slopes in excess of 15 percent that would be disturbed would be 1.45 acres less than the steep slope disturbance from Mill Court Crossing.

Water Resources: Like the Mill Court Crossing, this alternative would result in less than 0.1 acres of wetland disturbance. The amount of impervious surface proposed under this action

would be approximately 2.50 acres, or approximately 2.21 acre less than Mill Court Crossing, therefore, the need for and design of stormwater management facilities would be reduced. The length of driveways on the cul de sacs would be similar to the project proposal.

Air Resources: This alternative would generate the same amount of traffic as the project proposal, however approximately half of the traffic would be distributed from the Amherst Road location, reducing traffic on Red Mill Road and Lexington Avenue, thus air quality impacts at the signalized intersection of Route 6 and Lexington Avenue would be reduced compared to Mill Court Crossing.

Biological Resources: This alternative would result in 2.59 acres less woodland disturbance than the Mill Court Crossing. A large expanse of the property on the east end of the site would remain undeveloped. As mentioned for Alternative Layout B, Layout C also *includes open space for* a conservation easement that would include the wetlands and adjacent areas of the property.

Transportation Resources: This plan eliminates traffic generated onto Lexington Avenue; although the overall levels of service would remain the same. Twelve houses would use Amherst Road for ingress and egress, thus reducing impacts to the intersections of Red Mill Road/ Mill Court, Strawberry Road/Lexington Avenue and Lexington Avenue/ US Route 6. The traffic added to Amherst Road from 12 homes would not have an impact on this location, which currently includes some 95 units in the Wild Birch Condominiums. Under this alternative there would be no traffic generated directly onto Lexington Avenue, and there would be a reduction in site-generated traffic onto Red Mill Road. Trip Generation[2] indicates these twelve homes would generate 18 a.m. peak hour trips and 16 p.m. peak hour trips. Distribution of the traffic from Amherst Road would be more likely to use Oregon Road or Westbrook Drive to access the local traffic network. The Applicant has reviewed and discussed this alternative, with access from Amherst Road, with the Condominium Board of Wild Birch Farms. There has been no formal response from that Board.

Land Use & Zoning: The easterly portion of the project site would remain vacant and be dedicated as a conservation easement to the Town of Cortlandt. All property with frontage to Lexington Avenue would remain undeveloped.

Community Facilities and Services: This alternative would result in the same number of dwellings, population and school age children as the proposed action, thus, impacts to community facilities and services would be the same. Three (3) affordable units will be disbursed among the market rate homes and each affordable lot will have a minimum lot size of 20,000 square feet.

Utilities: Under this alternative, demand placed on water supply, wastewater generation, electric and/or gas would be the same as with the proposed action.

Aesthetic Resources: There would be no view of the project site from Lexington Avenue. Views of the project site post-development from Amherst Road would be visible. The visual character of the subdivision would be slightly different when viewed from the internal road system as the lots are smaller than the Mill Court Crossing. In addition, views of the easterly portion of the site would be undisturbed vegetated land. There would be no shared driveways in this alternative.

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[2] Institute of Transportation Engineers Trip Generation, 7th Edition 2003

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust be the similar to the Mill Court Crossing. There would be the same level of construction activity, thus short-term increases in vehicular traffic would be the same as the Mill Court Crossing. There may be increased awareness of construction activity from Amherst Road as compared to the project proposal.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.2.3 Combination of Cluster and Conventional Lots - Layout D

This alternative creates a 24 lot cluster, with minimum lot sizes of 20,000 square feet, on the west end of the site; and 3 conventional lots off of Lexington Avenue. Similar to Mill Court Crossing, this alternative has three driveways from Lexington Avenue, the remaining lots are located on two cul-de-sacs, as shown in Figure 4-3 and labeled Layout D. Layout D depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long). This alternative would result in smaller lots, as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. Table 4-1 summarizes impacts with this alternative. Similar to the project proposal this alternative provides a large portion of land in the central portion of the site to be dedicated to the Town of Cortlandt as a conservation easement. There would be no development in the northeast portion of the site, along to Lexington Avenue.

Geologic Resources: This alternative would result in approximately 4.67 acres less disturbance than the Mill Court Crossing. The amount of slopes in excess of 15 percent that would be disturbed would be 1.81 acres less than the proposed action.

Water Resources: Like the Mill Court Crossing, this alternative would result in less than 0.1 acres of wetland disturbance. The amount of impervious surface proposed under this action would be approximately 2.14 acres or approximately 2.57 acres less than Mill Court Crossing, therefore, the need for and design of stormwater management facilities would be reduced. The length of driveways would be similar to the Mill Court Crossing.

Air Resources: Traffic generation and distribution would be similar to the Mill Court Crossing, thus air quality impacts would be similar.

Biological Resources: This alternative would result in 4.68 acres less woodland disturbance than the Mill Court Crossing. The central portion of the site would remain undisturbed, whereas lots 20, 21 and 22 are contained in the central portion of the site on the proposed project. No Driveway would be located along the northern property boundary, east of Mill Court. As mentioned for Alternative Layout B, Layout D also *includes open space for* a conservation easement that would include the wetlands and adjacent areas of the property.

Transportation Resources: As the number of lots and the egress and ingress remain the same as the proposed project, the traffic impacts will remain essentially the same. The roadway along the northern site boundary, connecting to Mill Court would be eliminated.

Land Use & Zoning: Land use and zoning considerations are similar to the Mill Court Crossing, however the northeast portion of the site would remain vacant.

Community Facilities and Services: This alternative would result in the same number of dwellings, population and school age children as the proposed action, thus, impacts to community facilities and services would be the same. Three (3) affordable units would be located off of Lexington Avenue.

Utilities: Under this alternative, demand placed on water supply, wastewater generation, electric and/or gas would be the same as with the proposed action.

Aesthetic Resources: The visual impact of the project from Lexington Avenue would be reduced since the northeast portion of the site would remain vacant. The visual character of the subdivision would be slightly different when viewed from the internal road system as the proposed dwellings are on two cul-de-sacs, instead of a loop roadway. There would be no shared driveways in this alternative.

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust be the same as the Mill Court Crossing. There would be the same level of construction activity, thus short-term increases in vehicular traffic would be the same as the Mill Court Crossing.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.2.4 Affordable Housing Impacts

The project scope calls for an analysis of the Cluster Alternative and the Combination Cluster/ Conventional Alternatives, with and without a minimum of ten percent of affordable housing being provided. The project sponsor has made a commitment to provide 10 percent affordable housing as part of the proposed project (3 units). The project sponsor is also willing to make a commitment to provide 10 percent affordable housing as part of alternative layouts C and D. Since the impact of affordable housing is primarily socio-economic as relates to project population and unit type, and the 27-unit site plan layouts are similar in all other aspects, the analysis of the socio-economic impacts of including 3 affordable housing units is presented in detail in DEIS Section 3.8.3. The discussion of that analysis demonstrates that the provision of affordable housing will result in a reduction in tax revenue of $6,009 to the Town of Cortlandt and a reduction of $27,088 to the Lakeland School District (Tables 3.8-11 and 3.8-12). However, as shown in Table 3.8-13, after providing for affordable housing, the project is still projected to yield a fiscal benefit to the Town of Cortlandt and the Lakeland Central School District.

4.2.5 Alternative Road Connections, Right of Way for Route 6 By-Pass - Layout E1

This alternative is the same as the Combination of Cluster and Conventional Lots, shown in Figure 4-3, however, this alternative, shown in Figure 4-4 and labeled Layout E1, shows how the potential Route 6 By-Pass could be accommodated by this alternative. Construction of the Route 6 By-Pass is not part of this project proposal: However, the purpose of including this

alternative is to demonstrate what the disturbance-related impacts of the Route 6 By-Pass would be. The disturbance calculations provided in Table 4-1 occur as a result of construction of the Route 6 By-Pass by some combination of the New York State Department of Transportation, Westchester County and the Towns of Cortlandt and Yorktown. It is noted that the alignment shown for the By-Pass is very conceptual based on early studies and more recently, location of the By-Pass road through the subject property has been abandoned by the Sustainable Development study group due to its adverse environmental impacts and its high cost.

This alternative would result in smaller lots, as compared to Mill Court Crossing, and would require cluster authorization from the Town Board. Layout E1 depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long). Table 4-1 summarizes impacts with this alternative. Similar to the project proposal this alternative provides a large portion of land in the central portion of the site to be dedicated to the Town of Cortlandt as a conservation easement.

Geologic Resources: This alternative would result in approximately 0.92 acres more disturbance than the Mill Court Crossing. The amount of slopes in excess of 15 percent that would be disturbed would be 0.99 acres less than the proposed action, based upon the clustering of lots on the west end of the property.

Water Resources: This alternative would result in 2.31 acres of wetland disturbance, which is 2.28 acres more than Mill Court Crossing. The amount of impervious surface proposed under this action would be approximately 5.80 acres or approximately 1.09 acres more than Mill Court Crossing as a result of construction of the Route 6 by-pass, therefore, the need for and design of stormwater management facilities would be greater than Mill Court Crossing. The length of driveways would be similar to the Mill Court Crossing.

Air Resources: Project related traffic generation and distribution of site generated traffic would be similar to the Mill Court Crossing, thus project related air quality impacts would be similar. Should the Route 6 by-pass be constructed, a separate Air Quality Analysis of the Route 6 By-Pass would need to be conducted by the applicable agency. The regional air quality impacts as a result of construction of the Route 6 By-Pass have not been considered as part of this project.

Biological Resources: This alternative would result in approximately 0.92 acres more woodland disturbance than the Mill Court Crossing. The central portion of the site would remain undisturbed, whereas Lots 20, 21 and 22 are contained in the central portion of the site on the proposed project.

Transportation Resources: Since there is no direct connection from the proposed project to the Route 6 by-pass , traffic generation and distribution of the site generated traffic would be similar to the Mill Court Crossing, thus traffic impacts would be similar to Mill Court Crossing. The driveway along the northern site boundary, connecting to Mill Court would be eliminated. Should the Route 6 by-pass be constructed, the regional traffic impacts and changes in the distribution of traffic in the area traffic network, would need to be the subject of a separate traffic impact study conducted by the appropriate agency. The regional traffic impacts as a result of construction of the Route 6 by-pass have not been considered as part of this project.

Land Use & Zoning: Project related land use and zoning considerations are similar to the Mill Court Crossing.

Community Facilities and Services: This alternative would result in the same number of dwellings, population and school age children as the proposed action, thus, impacts to community facilities and services would be the same. Similar to Layout D, three affordable units would be located off of Lexington Avenue.

Utilities: Under this alternative, demand placed on water supply, wastewater generation, electric and/or gas would be the same as with the proposed action.

Aesthetic Resources: Views of the project site post-development would be similar to the Mill Court Crossing. The visual character of the subdivision would be slightly different when viewed from the internal road system as the proposed dwellings are on two cul-de-sacs, instead of a loop roadway. There would be no shared driveways in this alternative. The Route 6 by-pass, once constructed, would be visible from the interior of the project site.

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust be the same as the Mill Court Crossing. There would be the same level of construction activity, thus short-term increases in vehicular traffic would be the same as the Mill Court Crossing.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.2.6 Alternative Road Connections, West Road Extension - Layout E2

This alternative is similar to the Combination of Cluster and Conventional Lots, shown in Figure 4-3, however, this alternative, shown in Figure 4-5, labeled Layout E2, shows the driveway, which extends to the east at the end of Mill Court, would instead be a dedicated Town Road, continued through to Lexington Avenue and would continue as an extension of West Street. Construction of the West Road extension has been considered as part of the project under this alternative, thus, impacts from construction of the West Road extension have been included. This plan would require cluster authorization from the Town Board. Like Layout E1, this plan depicts a road extension of approximately 1,220 feet from existing Mill Court (which is approximately 735 feet long).

Geologic Resources: This alternative would result in approximately 0.92 acres less disturbance than Mill Court Crossing. The amount of slopes in excess of 15 percent that would be disturbed would be 2.11 acres or 0.88 acres less than the proposed action.

Water Resources: This alternative would result in 0.48 acres of wetland disturbance. The amount of impervious surface proposed under this action would be approximately 3.28 acres or approximately 1.43 acres less than Mill Court Crossing, therefore, the need for and design of stormwater management facilities would be minimally reduced. The length of driveways would be similar to the Mill Court Crossing.

Air Resources: Traffic generation and distribution would be different than Mill Court Crossing. Construction of the West Road extension would provide direct access to Lexington Avenue, and increase the vehicles utilizing both the Lexington Avenue/Route 6 intersection, and

the Strawberry Road/Route 6 intersection. Based upon an increase of the use of these signalized intersections Air Quality impacts would be greater than the Mill Court Crossing.

Biological Resources: This alternative would result in similar woodland disturbance compared to Mill Court Crossing. However the undeveloped central portion of the site would be separated from the undeveloped lands to the north by the alignment of the West Road Extension.

Transportation Resources: Traffic generation would be similar to the Mill Court Crossing, however the distribution of trips would be different. As stated above a direct connection from the western portion of the site, to Lexington Avenue will increase the traffic utilization of the Route 6 /Lexington Avenue intersection and decrease the number of trips likely to travel along Red Mill Road. The West Road extension would provide an alternate means to access US Route 6, reducing the site generated traffic on Strawberry Road. This alternative would provide an increased number of access points to the project site as compared to the project proposal.

Land Use & Zoning: Land use and zoning considerations are similar to the Mill Court Crossing.

Community Facilities and Services: This alternative would result in the same number of dwellings, population and school age children as the proposed action, thus, impacts to community facilities and services would be the same. Similar to Layout D, three affordable units would be located off of Lexington Avenue.

Utilities: Under this alternative, demand placed on water supply, wastewater generation, electric and/or gas would be the same as with the proposed action.

Aesthetic Resources: Views of the project site post-development would be different based upon the accessibility of the interior of the site from the West Road Extension. The visual character of the subdivision would be slightly different when viewed from the internal road system as the proposed dwellings are on two cul-de-sacs, instead of a loop roadway. There would be no shared driveways in this alternative.

Historic and Archaeological Resources: There are no historic or archaeological resources located on the project site.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust be increased compared to Mill Court Crossing due to the construction of the West Road Extension.

A comparison of impacts between the proposed action and this alternative is provided in Table 4-1.

4.3 Impact Comparisons

Table 4-1 below summarizes the quantitative impacts associated with the proposed subdivision plan and the various alternative layouts.

Table 4-1
Alternative Impact Comparisons

Area of Concern	*No Action*	*Mill Court Crossing A*	*Minimal Wetland Steep Slope Disturbance B*	*Cluster Amherst Road Connection C*	*Combination Cluster and Conventional D*	*Alternative Rd Connection 1 Route 6 By-Pass E1*	*Alternative Rd Connection 2 West Road Extension E2*
Land Use							
Impervious Surfaces (acres)	0.29	4.71	1.57	2.50	2.14	5.80	3.28
Residential Units							
Residential Units	0	27	7	27	27	27	27
Market Rate / Affordable Units	0/0	24/3	7/1	24/3	24/3	24/3	24/3
Number of Driveways from Lexington Avenue	0	4	0	0	3	3	3
Number of Shared Driveways	0	4	0	0	0	0	0
Length of Mill Court Extension (linear feet)	0	1,910 *	990 *	840 *	1,220 *	1,220 *	1,220 *
Natural Resources							
Total Site Area (acres)	52.76	52.76	52.76	52.76	52.76	52.76	52.76
Total Area of Disturbance (acres)	0	17.36	5.16	13.92	12.69	18.28	16.44
Wetland Disturbance (acres)	0.00	0.03	0.00	0.06	0.06	2.31	0.48
Wetland Buffer Disturbance (acres)	0.00	1.66	0.21	1.43	1.18	2.03	2.61
Steep Slope Disturbance (>15%) (acres)	0.00	2.99	0.08	1.54	1.18	2.00	2.11
Community Resources							
Population	0	98	25	98	98	98	98
Residential Trips (peak hour)	0	33	10	33	33	33	33
Water Demand / Sewage Flow (based on 100 gallons per 3.5 population per unit per day)	0	9,500	2,500	9,500	9,500	9,500	9,500
School-age Children	0	24	6	24	24	24	24

Notes: Estimates are approximate.
* Length of existing Mill Court is approximately 735 linear feet (lf), from which the extension would connect.
Source: Cronin Engineering P.E.,P.C.; Tim Miller Associates, Inc., 2006.

SLOPES LEGEND

- 0% TO 15% SLOPES
- 15% TO 20% SLOPES
- 20% TO 30% SLOPES
- SLOPES > 30%

LINE KEY

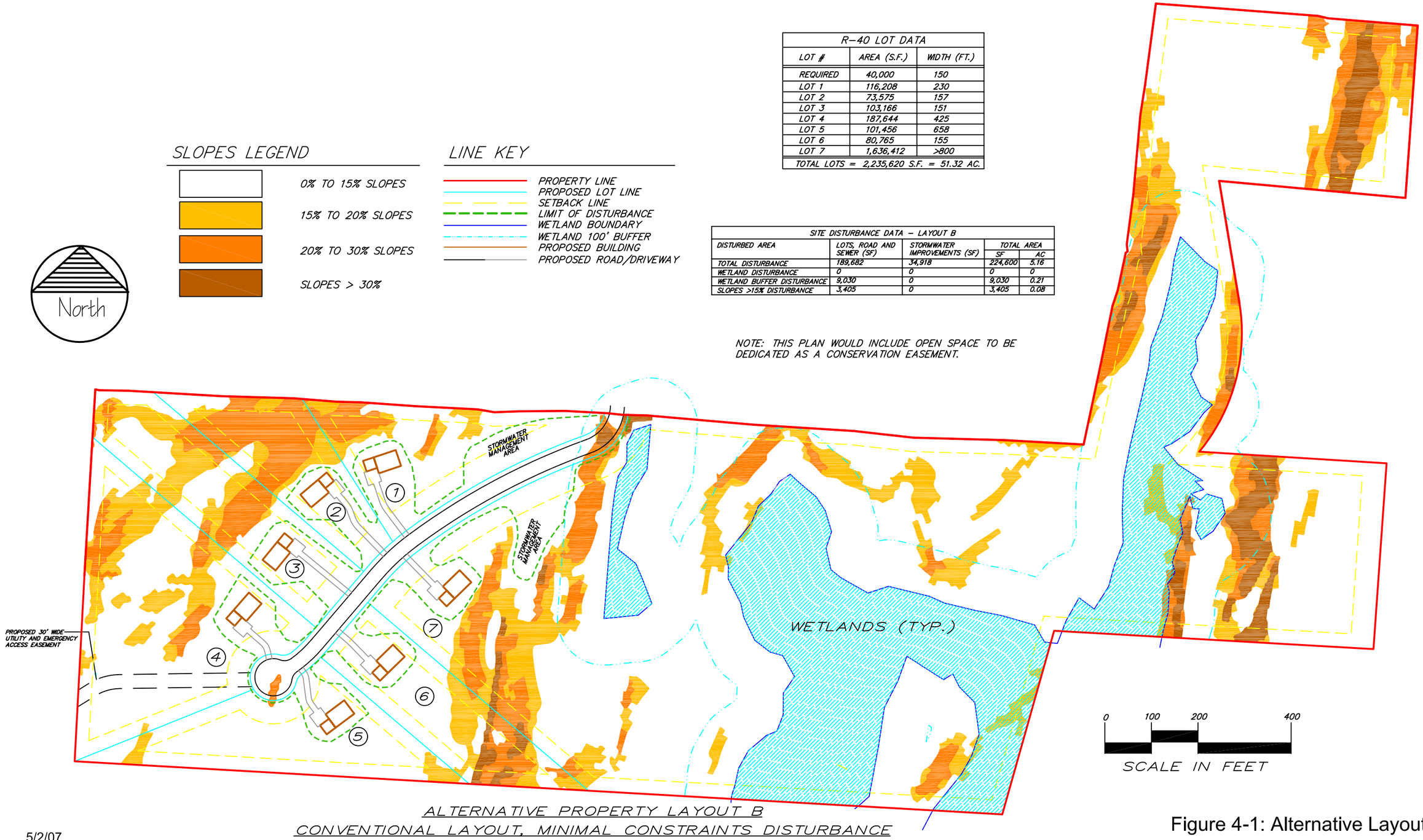
- PROPERTY LINE
- PROPOSED LOT LINE
- SETBACK LINE
- LIMIT OF DISTURBANCE
- WETLAND BOUNDARY
- WETLAND 100' BUFFER
- PROPOSED BUILDING
- PROPOSED ROAD/DRIVEWAY

North

R-40 LOT DATA		
LOT #	AREA (S.F.)	WIDTH (FT.)
REQUIRED	40,000	150
LOT 1	116,208	230
LOT 2	73,575	157
LOT 3	103,166	151
LOT 4	187,644	425
LOT 5	101,456	658
LOT 6	80,765	155
LOT 7	1,636,412	>800
TOTAL LOTS = 2,235,620 S.F. = 51.32 AC.		

SITE DISTURBANCE DATA – LAYOUT B				
DISTURBED AREA	LOTS, ROAD AND SEWER (SF)	STORMWATER IMPROVEMENTS (SF)	TOTAL AREA	
			SF	AC
TOTAL DISTURBANCE	189,682	34,918	224,600	5.16
WETLAND DISTURBANCE	0	0	0	0
WETLAND BUFFER DISTURBANCE	9,030	0	9,030	0.21
SLOPES >15% DISTURBANCE	3,405	0	3,405	0.08

NOTE: THIS PLAN WOULD INCLUDE OPEN SPACE TO BE DEDICATED AS A CONSERVATION EASEMENT.



ALTERNATIVE PROPERTY LAYOUT B
CONVENTIONAL LAYOUT, MINIMAL CONSTRAINTS DISTURBANCE
7 LOTS OFF MILL CT

5/2/07
TMA File 05077

FS: MillCt\drawings\SitePlans111406\ACAD Layout B-T1.dwg

Figure 4-1: Alternative Layout B
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

SITE DISTURBANCE DATA – LAYOUT C				
DISTURBED AREA	LOTS, ROAD AND SEWER (SF)	STORMWATER IMPROVEMENTS (SF)	TOTAL AREA	
			SF	AC
TOTAL DISTURBANCE	565,867	40,338	606,205	13.92
WETLAND DISTURBANCE	2,608	0	2,608	0.06
WETLAND BUFFER DISTURBANCE	36,836	25,550	62,386	1.43
SLOPES >15% DISTURBANCE	66,066	900	66,966	1.54

R–20 ZONING DATA		
LOT #	AREA (S.F.)	WIDTH (FT.)
REQUIRED	20,000	100
LOT 1	22,360	124.6
LOT 2	22,933	106.3
LOT 3	21,974	103.4
LOT 4	21,866	105.4
LOT 5	24,900	133.8
LOT 6	24,765	119.7
LOT 7	20,077	136.5
LOT 8	20,004	107.0
LOT 9	20,000	106.6
LOT 10	20,000	111.7
LOT 11	28,142	127.3
LOT 12	20,684	100.7
LOT 13	20,000	110.6
LOT 14	20,000	115.7
LOT 15	20,000	120.1
LOT 16	20,003	123.0
LOT 17	20,002	148.9
LOT 18	27,280	160.8
LOT 19	79,136	153.4
LOT 20	54,550	105.4
LOT 21	76,572	263.6
LOT 22	35,630	183.1
LOT 23	20,013	119.6
LOT 24	20,004	117.1
LOT 25	20,003	117.3
LOT 26	20,009	116.9
LOT 27	20,018	131.0
TOTAL LOTS = 755,493 S.F. = 17.34 AC.		

SLOPES LEGEND

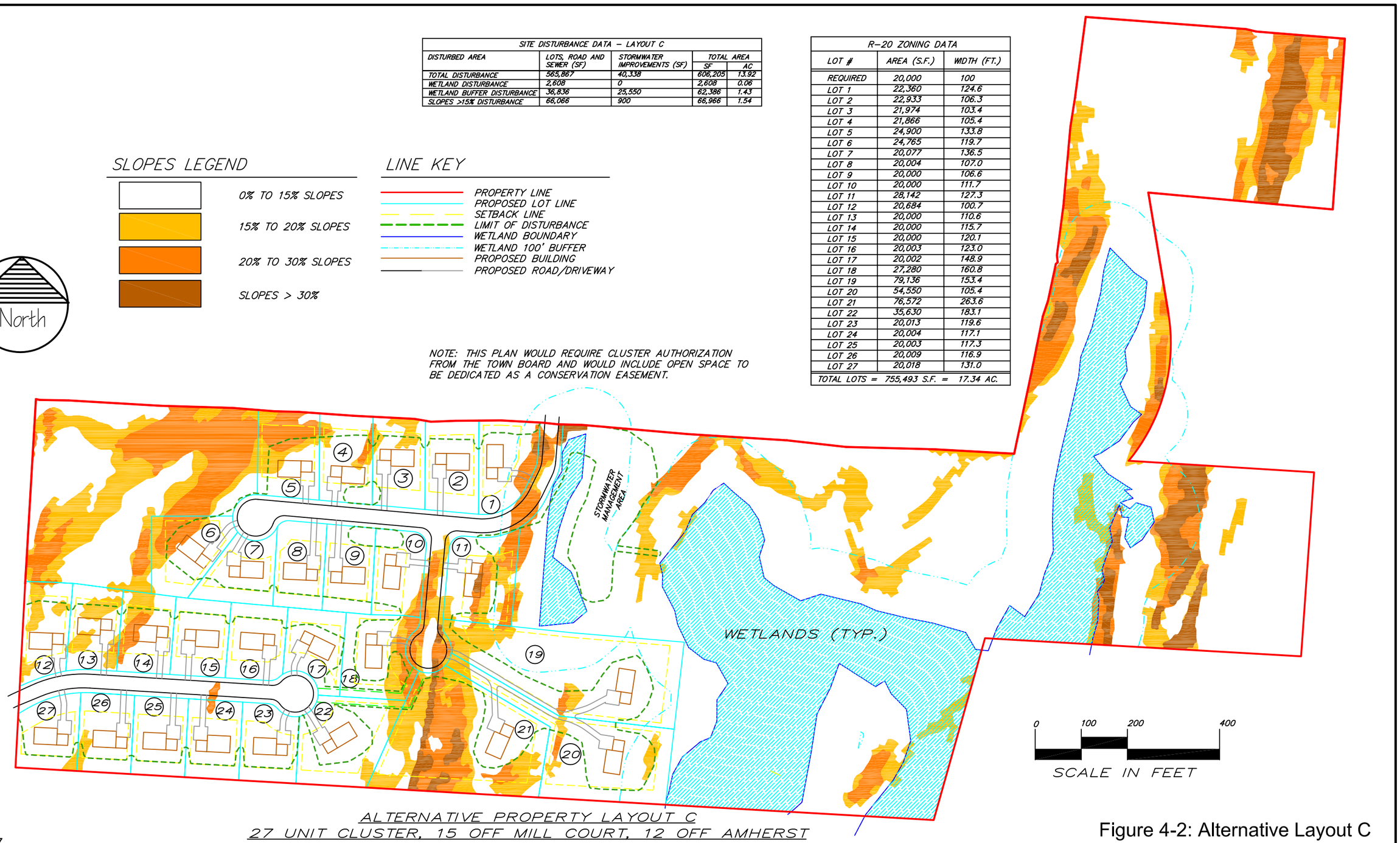
- 0% TO 15% SLOPES
- 15% TO 20% SLOPES
- 20% TO 30% SLOPES
- SLOPES > 30%

LINE KEY

- PROPERTY LINE
- PROPOSED LOT LINE
- SETBACK LINE
- LIMIT OF DISTURBANCE
- WETLAND BOUNDARY
- WETLAND 100' BUFFER
- PROPOSED BUILDING
- PROPOSED ROAD/DRIVEWAY

North

NOTE: THIS PLAN WOULD REQUIRE CLUSTER AUTHORIZATION FROM THE TOWN BOARD AND WOULD INCLUDE OPEN SPACE TO BE DEDICATED AS A CONSERVATION EASEMENT.



ALTERNATIVE PROPERTY LAYOUT C
27 UNIT CLUSTER, 15 OFF MILL COURT, 12 OFF AMHERST

5/2/07
TMA File 05077

FS: MillCt\drawings\SitePlans111406\ACAD Layout B-T1.dwg

Figure 4-2: Alternative Layout C
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

SITE DISTURBANCE DATA – LAYOUT D				
DISTURBED AREA	LOTS, ROAD AND SEWER (SF)	STORMWATER IMPROVEMENTS (SF)	TOTAL AREA	
			SF	AC
TOTAL DISTURBANCE	511,450	40,338	552,700	12.69
WETLAND DISTURBANCE	2,608	0	2,608	0.06
WETLAND BUFFER DISTURBANCE	25,892	25,550	51,442	1.18
SLOPES >15% DISTURBANCE	50,550	900	51,450	1.18

ZONING DATA		
LOT #	AREA (S.F.)	WIDTH (FT.)
REQUIRED	20,000	100
LOT 1	20,145	101.7
LOT 2	25,384	115.4
LOT 3	23,054	100.0
LOT 4	24,504	100.0
LOT 5	26,533	100.0
LOT 6	24,937	114.1
LOT 7	22,872	111.6
LOT 8	21,732	100.0
LOT 9	26,929	112.9
LOT 10	27,843	128.7
LOT 11	31,174	168.0
LOT 12	27,056	104.8
LOT 13	20,084	119.5
LOT 14	21,676	101.2
LOT 15	26,062	118.0
LOT 16	22,859	139.0
LOT 17	20,387	132.9
LOT 18	20,013	115.6
LOT 19	20,568	123.9
LOT 20	35,470	122.0
LOT 21	23,777	101.0
LOT 22	20,444	100.8
LOT 23	82,459	170.1
LOT 24	48,914	108.6
LOT 25*	271,487	226.9
LOT 26*	142,605	153.3
LOT 27*	251,353	372.0
TOTAL LOTS = 1,312,848 S.F. = 29.679 AC.		

*NOTE: THESE LOTS ZONED UNDER R-40 RESTRICTIONS MINIMUM LOT AREA IS 40,000 SQ. FT. AND MINIMUM LOT WIDTH IS 150 FT.

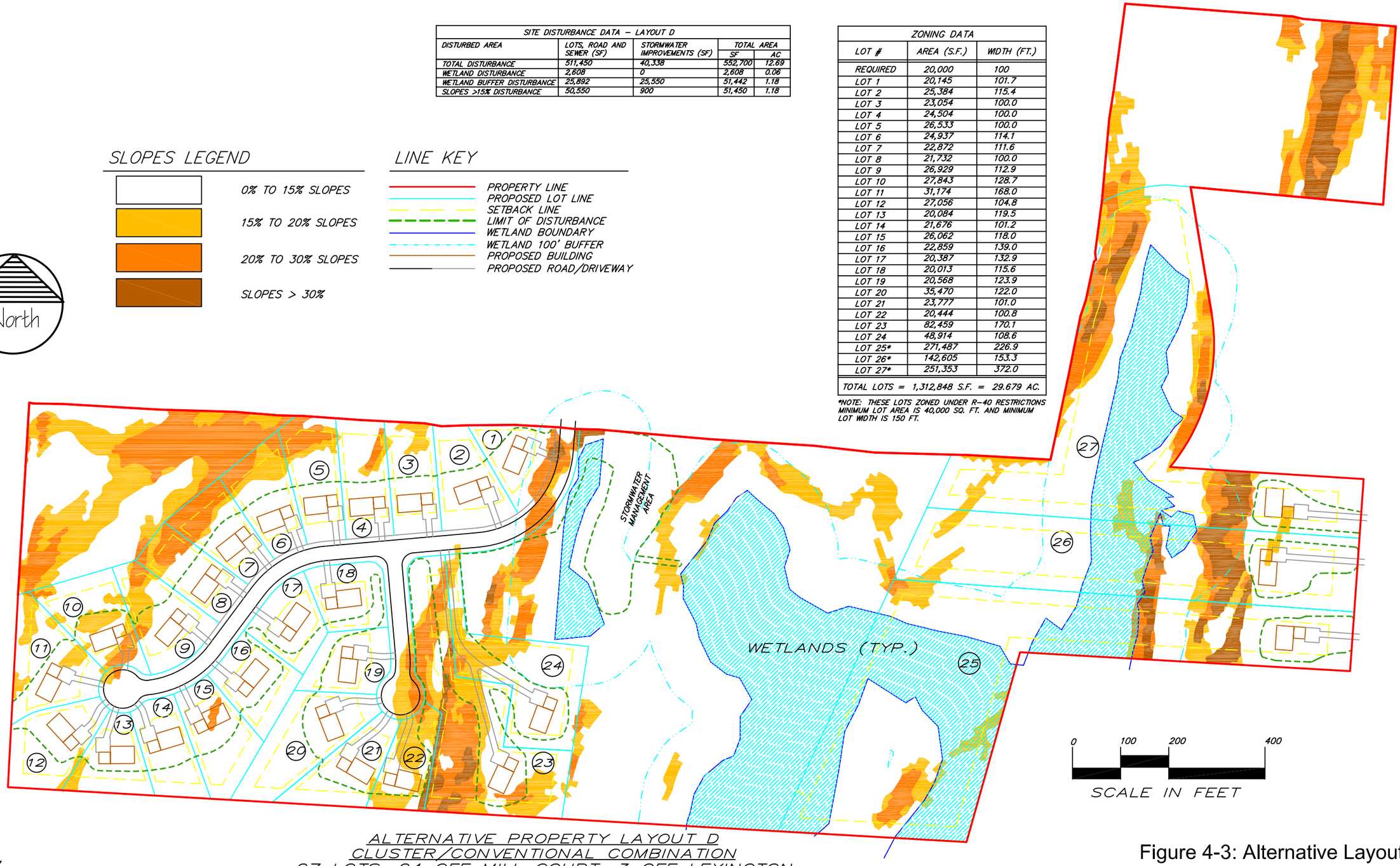
SLOPES LEGEND

- 0% TO 15% SLOPES
- 15% TO 20% SLOPES
- 20% TO 30% SLOPES
- SLOPES > 30%

LINE KEY

- PROPERTY LINE
- PROPOSED LOT LINE
- SETBACK LINE
- LIMIT OF DISTURBANCE
- WETLAND BOUNDARY
- WETLAND 100' BUFFER
- PROPOSED BUILDING
- PROPOSED ROAD/DRIVEWAY

North



ALTERNATIVE PROPERTY LAYOUT D
CLUSTER/CONVENTIONAL COMBINATION
27 LOTS, 24 OFF MILL COURT, 3 OFF LEXINGTON

3/10/07
TMA File 05077

FS: MillCt\drawings\SitePlans111406\ACAD Layout B-T1.dwg

Figure 4-3: Alternative Layout D
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

SITE DISTURBANCE DATA – LAYOUT E1					
DISTURBED AREA *	LOTS, ROAD AND SEWER (SF)	STORMWATER IMPROVEMENTS (SF)	ROUTE 6 BYPASS W/EXTRA SWATER DETENTION (SF)	TOTAL AREA	
				SF	AC
TOTAL DISTURBANCE	511,450	40,338	244,600	796,388	18.28
WETLAND DISTURBANCE	2,608	0	98,085	100,693	2.31
WETLAND BUFFER DISTURBANCE	25,892	25,550	36,826	88,268	2.03
SLOPES >15% DISTURBANCE	50,550	900	35,491	86,941	2.00

* NOTE – DISTURBANCE DATA PROVIDED DOES NOT INCLUDE ADDITIONAL DISTURBANCES THAT WOULD BE REQUIRED ON THE PARCEL OF LAND IMMEDIATELY TO THE NORTH AND WEST OF THE APPLICANTS PARCEL. THIS ADDITIONAL DISTURBANCE IS ESTIMATED AT 98,900 SF, OR 2.27 ACRES.

SLOPES LEGEND

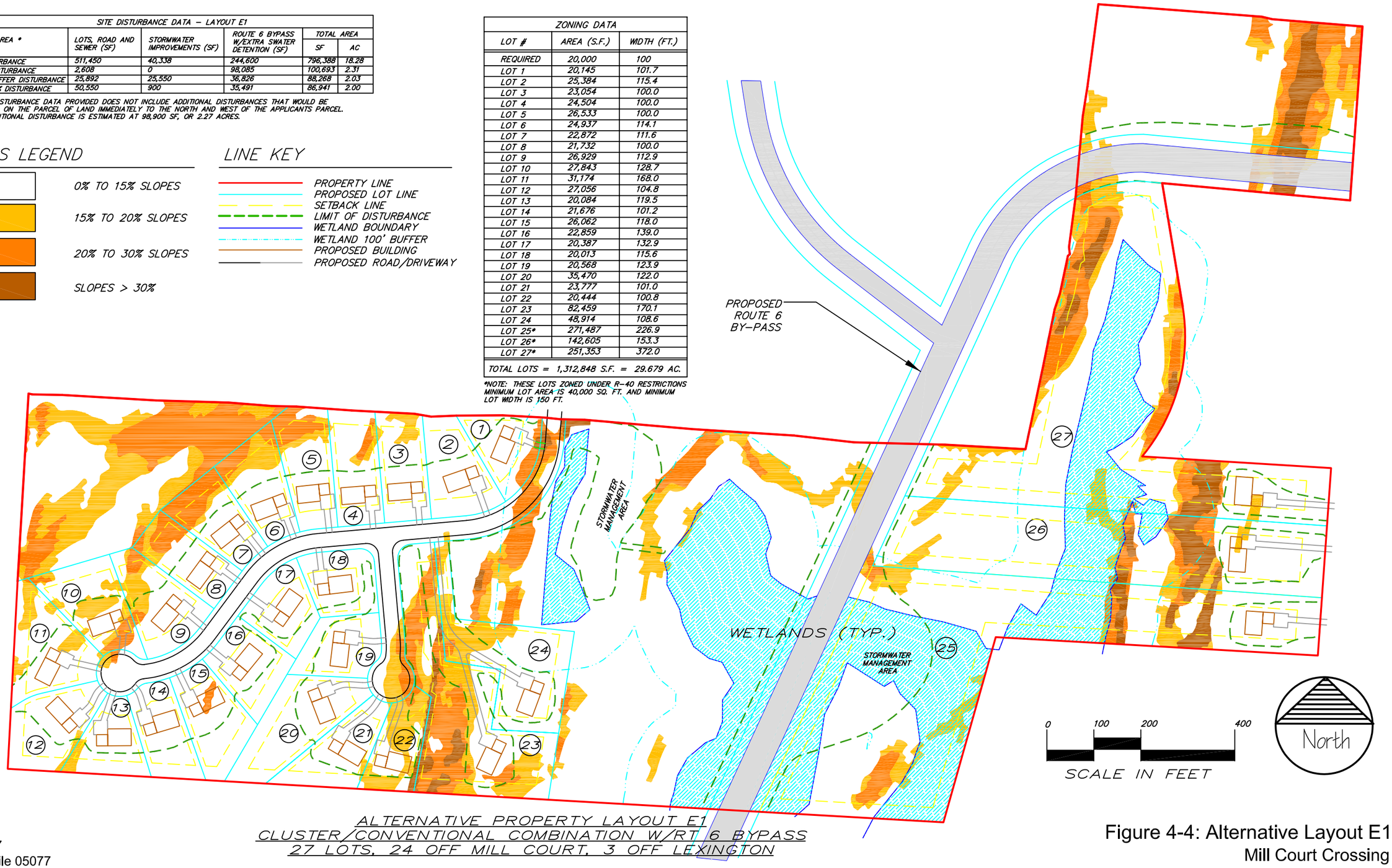
- 0% TO 15% SLOPES
- 15% TO 20% SLOPES
- 20% TO 30% SLOPES
- SLOPES > 30%

LINE KEY

- PROPERTY LINE
- PROPOSED LOT LINE
- SETBACK LINE
- LIMIT OF DISTURBANCE
- WETLAND BOUNDARY
- WETLAND 100' BUFFER
- PROPOSED BUILDING
- PROPOSED ROAD/DRIVEWAY

ZONING DATA		
LOT #	AREA (S.F.)	WIDTH (FT.)
REQUIRED	20,000	100
LOT 1	20,145	101.7
LOT 2	25,384	115.4
LOT 3	23,054	100.0
LOT 4	24,504	100.0
LOT 5	26,533	100.0
LOT 6	24,937	114.1
LOT 7	22,872	111.6
LOT 8	21,732	100.0
LOT 9	26,929	112.9
LOT 10	27,843	128.7
LOT 11	31,174	168.0
LOT 12	27,056	104.8
LOT 13	20,084	119.5
LOT 14	21,676	101.2
LOT 15	26,062	118.0
LOT 16	22,859	139.0
LOT 17	20,387	132.9
LOT 18	20,013	115.6
LOT 19	20,568	123.9
LOT 20	35,470	122.0
LOT 21	23,777	101.0
LOT 22	20,444	100.8
LOT 23	82,459	170.1
LOT 24	48,914	108.6
LOT 25*	271,487	226.9
LOT 26*	142,605	153.3
LOT 27*	251,353	372.0
TOTAL LOTS = 1,312,848 S.F. = 29.679 AC.		

*NOTE: THESE LOTS ZONED UNDER R-40 RESTRICTIONS MINIMUM LOT AREA IS 40,000 SQ. FT. AND MINIMUM LOT WIDTH IS 150 FT.



ALTERNATIVE PROPERTY LAYOUT E1
CLUSTER/CONVENTIONAL COMBINATION W/RT 6 BYPASS
27 LOTS, 24 OFF MILL COURT, 3 OFF LEXINGTON

3/10/07
TMA File 05077

FS: MillCt\drawings\SitePlans111406\ACAD Layout B-T1.dwg

Figure 4-4: Alternative Layout E1
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

SITE DISTURBANCE DATA – LAYOUT E2					
DISTURBED AREA	LOTS, ROAD AND SEWER (SF)	STORMWATER IMPROVEMENTS (SF)	WEST ST CONNECTION W/EXTRA SWATER DETENTION (SF)	TOTAL AREA	
				SF	AC
TOTAL DISTURBANCE	511,450	40,338	164,151	715,939	16.44
WETLAND DISTURBANCE	2,608	0	18,400	21,008	0.48
WETLAND BUFFER DISTURBANCE	25,892	25,550	62,128	113,570	2.61
SLOPES >15% DISTURBANCE	50,550	900	40,275	91,725	2.11

SLOPES LEGEND

- 0% TO 15% SLOPES
- 15% TO 20% SLOPES
- 20% TO 30% SLOPES
- SLOPES > 30%

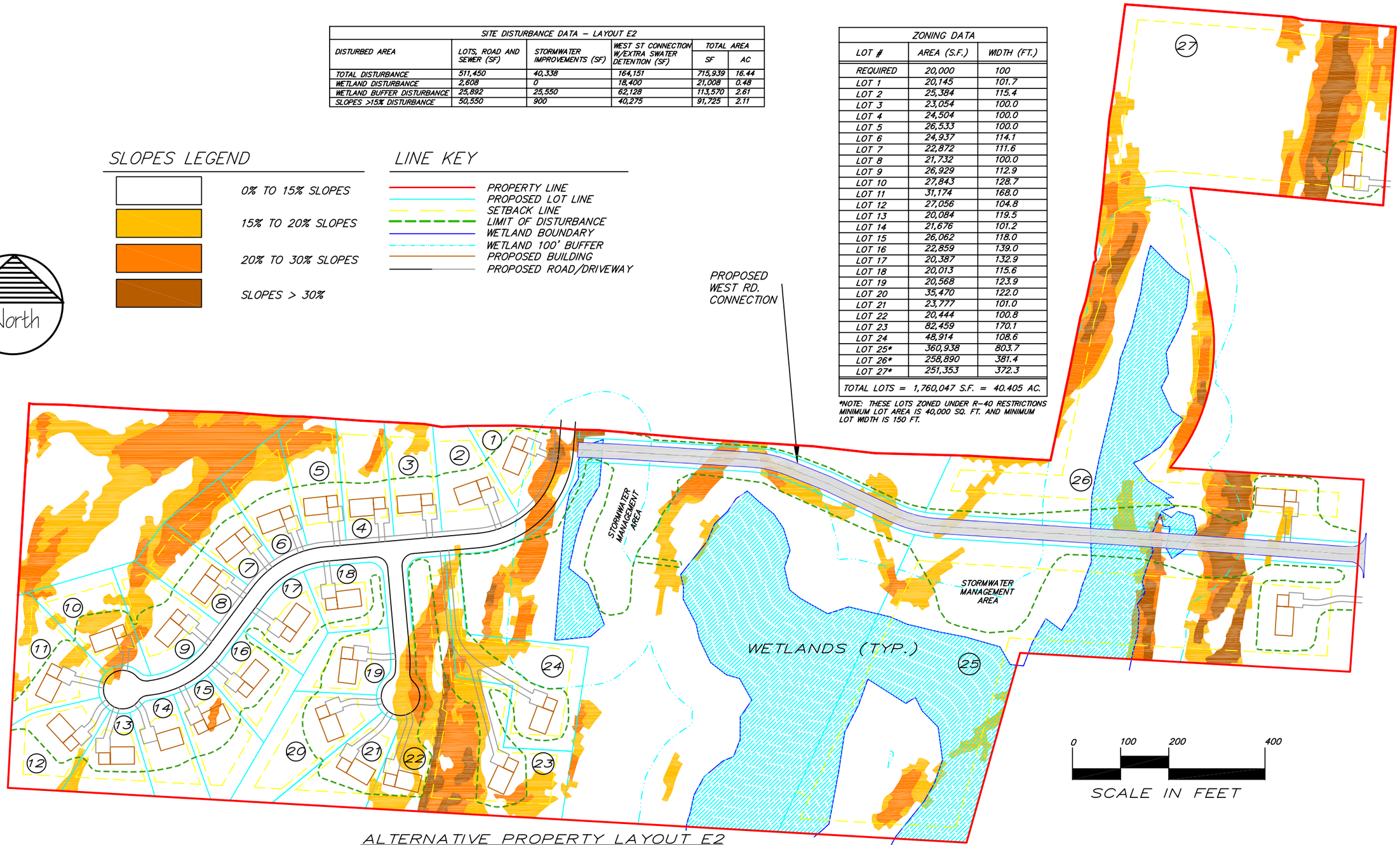
LINE KEY

- PROPERTY LINE
- PROPOSED LOT LINE
- SETBACK LINE
- LIMIT OF DISTURBANCE
- WETLAND BOUNDARY
- WETLAND 100' BUFFER
- PROPOSED BUILDING
- PROPOSED ROAD/DRIVEWAY

North

ZONING DATA		
LOT #	AREA (S.F.)	WIDTH (FT.)
REQUIRED	20,000	100
LOT 1	20,145	101.7
LOT 2	25,384	115.4
LOT 3	23,054	100.0
LOT 4	24,504	100.0
LOT 5	26,533	100.0
LOT 6	24,937	114.1
LOT 7	22,872	111.6
LOT 8	21,732	100.0
LOT 9	26,929	112.9
LOT 10	27,843	128.7
LOT 11	31,174	168.0
LOT 12	27,056	104.8
LOT 13	20,084	119.5
LOT 14	21,676	101.2
LOT 15	26,062	118.0
LOT 16	22,859	139.0
LOT 17	20,387	132.9
LOT 18	20,013	115.6
LOT 19	20,568	123.9
LOT 20	35,470	122.0
LOT 21	23,777	101.0
LOT 22	20,444	100.8
LOT 23	82,459	170.1
LOT 24	48,914	108.6
LOT 25*	360,938	803.7
LOT 26*	258,890	381.4
LOT 27*	251,353	372.3
TOTAL LOTS = 1,760,047 S.F. = 40.405 AC.		

*NOTE: THESE LOTS ZONED UNDER R-40 RESTRICTIONS MINIMUM LOT AREA IS 40,000 SQ. FT. AND MINIMUM LOT WIDTH IS 150 FT.



ALTERNATIVE PROPERTY LAYOUT E2
CLUSTER/CONVENTIONAL COMBINATION W/WEST RD CONNECTION
27 LOTS, 24 OFF MILL CT, 3 OFF LEXINGTON AVE

3/10/07
TMA File 05077

FS: MillCt\drawings\SitePlans111406\ACAD Layout B-T1.dwg

Figure 4-5: Alternative Layout E2
Mill Court Crossing
Town of Cortlandt, Westchester County, New York
Source: Cronin Engineering PE, PC
Scale As Shown

Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

5.0 ADVERSE ENVIRONMENTAL IMPACTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

The development of the proposed project will result in some adverse environmental impacts which cannot be avoided. Many of these impacts, however, can be mitigated to some extent as described in detail in the preceding chapters. Some of these impacts will be temporary or short term impacts associated with the construction phase of the project, while others will be long term impacts associated with occupancy of the project. The summary below includes brief descriptions of the mitigation measures proposed to minimize the unavoidable adverse impacts if this project is implemented.

Short Term Impacts

- Presence of construction and delivery vehicles on the site and on surrounding roads - construction traffic will use the stabilized construction entrance on Red Mill Road. It is anticipated that most construction trips will travel to and from the site via Route 6 to Strawberry Road/ Red Mill Road. The heaviest volume of construction traffic is expected to occur at the beginning of the construction period as site clearing and rough grading is conducted, and when paving and building materials are transported to the site. The project is not expected to require the import or export of soil material to or from the site. Site construction activities will comply with Town ordinances that relate to operations on a construction site.

- Potential loss of soil to erosion - the proposed project would result in grading disturbance to approximately 17.36 acres of land. The areas most susceptible to erosion include steep slopes that tend to promote the formation of channeled surface flow and increased runoff velocity. Erosion and sedimentation will be controlled during the construction period by temporary devices in accordance with a Soil Erosion and Sediment Control Plan developed specifically for the project. The plan addresses erosion control and slope stabilization.

- Localized increase in air emissions due to operation of construction vehicles and equipment - construction-related air emissions will result primarily from the use of diesel fuel to operate construction vehicles and equipment. Pollution comes from the combustion process in the form of exhaust and can include hydrocarbons, carbon monoxide, and nitrogen oxides. Well maintained vehicles and equipment help to reduce emissions.

- Increase in ambient noise levels and particulates (dust) due to operation of construction vehicles and equipment and blasting - ambient daytime noise levels will increase in the immediate vicinity of the site during periods of the project construction. Elevated noise occurrences are typically sporadic during the construction period with the noisiest period of construction occurring during site clearing and grading activities, when sections of the site are prepared for the buildings. Noise levels due to construction activities will vary widely, depending on the phase of construction activities. During daytime hours, occasional noise levels at the site property line are projected to range between 65 dBA and 90 dBA, depending on the actual number, type and location of construction equipment at any given time. Noise levels actually experienced on a nearby property would be lower with increased distance from the noise source as a function of distance from the noise source and other attenuating factors, such as existing vegetation and ambient noise levels, which

reduce the perceived level of noise. The nearby elementary school, residences, and senior housing may potentially be impacted by construction noise, primarily during the initial period of construction. However, since the elementary school is over 1,000 feet from the majority of the proposed residences, and areas of primary site work are situated out of a "line-of-sight" from these receptors (with intervening topography), noise impacts to the school and other receptors would primarily be limited to construction operations at the sites of the five proposed residences located along Lexington Avenue. Noise from construction activities is an intermittent, temporary impact that would cease upon completion of the construction phase of the project. It can be anticipated that the temporary noise impacts will not be significant for these sensitive receptors.

Blasting may be required for the construction of the project. Should blasting be required, a project blasting program will be designed prior to commencement of any blasting activities in order to identify the particular needs of this project and address compliance with applicable regulations. All blasting at the site would be conducted in such a way as to mitigate potential impacts to neighboring properties and residences to the greatest extent practicable. Dust and projectiles will be controlled through the use of blasting mats and other acceptable measures. The location of Potential Blasting Locations is shown on Figure 3.1-6.

Long Term Impacts

- Loss of woodland vegetation and associated wildlife habitats - In total, approximately 35.4 acres or 67 percent of the project site will be left undisturbed to serve as natural habitat. Following construction, approximately 4.71 acres, or 8.9 percent, of the site would become impervious (includes existing rock). These impervious areas would no longer serve as plant or wildlife habitat. Mitigation measures proposed that will offset this impact include stormwater management systems to preserve water quality, restoration of approximately 82 percent of the disturbed area with lawn and landscaped areas.

- Increase in local traffic - trip generation projections for the 27 residences predict a total of 28 trips during the AM peak hour and 33 trips during the PM peak hour. The trip generation associated with the subdivision represents a minor increment in traffic volumes on local roads, and thus will not adversely impact upon future levels of service.

- Increased demand for community services - the projected 98 persons, including 24 school age children, would increase the demand for police, school, fire protection and social services, water supply, road maintenance and waste disposal. Additional revenue provided via property taxes from the developed project to the Town, however, are projected to offset all of the costs of the potential increase in Town services resulting from this project.

6.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The proposed plan will commit the project site to residential use. Once committed to this use, the site will be unavailable for other uses for the foreseeable future.

As the project site is developed the wildlife habitat will be altered. The portions of the site that are not disturbed by the proposed project will continue to function as wildlife habitat areas. Portions of the developed area, as well, will become new habitat for some species. Disturbance to the wetlands will be mitigated through the creation of 0.19 acres of new wetland habitat area.

The finite resources that will be irretrievably committed by implementation of the proposed action are the materials and energy required for construction and for maintenance of the development afterward. Construction will involve the commitment of a variety of natural resources. These include, but are not necessarily limited to, 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 either directly as heating fuel or indirectly as electricity. Utilization of Zero-Net Energy construction methods would eliminate the need for fossil fuel resources. There will also be solid waste disposal requirements associated with the project, however, a significant portion of the total solid waste stream (30%) can be expected to be recycled.

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. It is anticipated that a portion of the construction-related workers at the site will come from Cortlandt and the immediate surrounding Westchester County area. The majority of construction workers are likely to come from areas throughout Westchester County and 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.

7.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY RESOURCES

Energy consumption will occur during construction and occupancy of the proposed residences, but this energy use will not be significant. During construction, energy will be used for power equipment and various construction vehicles. Once construction is completed and the residences occupied, energy will be required for space heating, air conditioning, and the use of household appliances and electrical equipment. Electrical (and possibly gas) service to the project site will be provided by Consolidated Edison (Con Edison). Based on telephone communication on May 15, 2006 with Ben Johnson, Con Edison's headquarters, the individual residences are projected to require 850 kilowatt hours of electricity per month in the summer and 250 therms of gas per month in the winter. This is worst case scenario for both forms of energy projected to be consumed by the proposed 27 (4-bedroom) residences. Actual electrical and gas demands for individual homes may vary considerably based upon the lifestyles and habits of the occupants.

Con Edison does not anticipate any problems accommodating the projected electrical and gas demands created by the proposed development (conversation on May 10, 2006, with Robert Bronski, Con Edison).

The design and plans for the development will take into account the New York State Energy Code. All utility lines will be underground and any connections will meet Town Code and industry specifications.

Notwithstanding the above, with utilization of Zero-Net Energy construction methods, the demands set forth above would be eliminated.

8.0 GROWTH INDUCING IMPACTS OF THE PROPOSED ACTION

As indicated in previous sections of the document, the proposed project will add a projected 98 persons to the population of the Town of Cortlandt.

The project site's environs is served by municipal water supply service, but is not supplied by municipal sewer service. Public water service will be extended into the project site as part of the proposed activities. However, the project is not expected to result in the creation of infrastructure that could induce future growth since the surrounding area is presently developed.

The project will promote increased construction employment in the short term 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.

The market value of the proposed project would total approximately $27,000,000. Construction of the project would 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. Based on labor hour estimates published by the Urban Land Institute (1994), and accounting for secondary employment resulting from the construction, this project would generate approximately 53 person-years of employment in the various construction trades associated with this project.

It is anticipated that construction workers would come from Westchester County as well as nearby New York counties in the lower Hudson River valley and northern New Jersey. These workers are expected to have a positive impact on existing local businesses that provide such services as food convenience shopping, gasoline, etc.

Future residents will utilize area retail, personal service, and other commercial services. It is estimated that approximately 30 percent[1] of a typical household's income is spent on retail goods and services. It is estimated that a household income of at least $267,000 annually would be required to support a residence valued at $1,000,000. In addition, an income of approximately $112,500 would be required to support an affordable 3-bedroom single family dwelling in the Town of Cortlandt.[2] Thus, it is estimated that the 27 households (24 market rate and 3 affordable) would spend approximately $2,023,650 annually on retail goods and services. A portion of these expenditures would be made at local area restaurants, supermarkets, convenience stores, apparel and household goods stores, and service businesses such as gas stations and hair salons.

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.

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[1] According to figures from the US Bureau of Economic Analysis published in the ULI Development Assessment Handbook, up to 40 percent of Total Personal Consumption Expenditures is composed of Shopping goods and Convenience goods. To provide a conservative analysis an estimate of 30 percent is used for this DEIS.

[2] Phone conversation with Rosemarie Noonan, May 16, 2006. The Housing Action Council utilizes the formula of two and half times eighty percent of the median income, adjusted for inflation, to establish the price of an affordable 3-bedroom single family dwelling in the Town of Cortlandt.