1.0 EXECUTIVE SUMMARY

1.1 Brief Description of the Proposed Action

Scenic Development, LLC (the "applicant") proposes to develop a mixed density residential development on approximately 208.5 acres. The project site is located in the north central area of the Town of Ramapo, Rockland County, New York (see Figure 2-1). The site is located immediately west and south of US Route 202, and immediately east of NYS Route 306 on a predominantly undeveloped site. The project site is identified on the Town of Ramapo tax maps as follows:

- Section 32.11 Block 1, Lot 2
- Section 32.11 Block 1, Lot 3
- Section 32.11 Block 1, Lot 4
- Section 32.11 Block 1, Lot 12
- Section 32.11 Block 1, Lot 13
- Section 32.11 Block 1, Lot 14
- Section 32.11 Block 1, Lot 15
- Section 32.11 Block 1, Lot 16
- Section 32.14 Block 2, Lot 3

The Comprehensive Plan of the Town of Ramapo identifies a need for an increase in the diversity of housing options in the Town. The applicant proposes a mixed density residential development including single family and multi family units which are intended to meet this need. The development, Patrick Farm, would consist of 497 residential units including 87 single family homes, and 410 multifamily units composed of 314 townhouse units, 72 workforce condominium flats and 24 rental apartments.

Among the various approvals being sought are zoning map and text amendments to construct multifamily housing on approximately 61.3 acres in the central portion of the site from R-40 to MR-8. The single family component would remain in the R-40 zone. This zone change is proposed to construct the multifamily housing designed to help meet the need for a diversity of housing in the Town of Ramapo and is necessary to construct the 72 workforce condominium flats, and 24 workforce housing apartments. The project plans will be submitted to the Town of Ramapo Planning board for their review and recommendation on the zone change proposal. Subsequently the plans will be submitted to the Planning Board for site plan and subdivision approval.

The project has been designed to be environmentally sensitive. Alternative sustainable energy sources, i.e. solar domestic hot water and geothermal heating, will be utilized to augment energy resources utilized on site. The Project would incorporate a number of green building practices, as identified in the 2008 National Green Building Standard, that would conserve energy and offset potential adverse impacts associated with energy consumption related to the construction and occupancy of the proposed project including utilizing water saving fixtures, high efficiency lighting fixtures, high efficiency insulation, and ecologically sensitive construction management practices. In addition, the project includes an extensive ground water recharge system designed to increase the groundwater recharge capability of the site post development. The Landscape Plan has been developed to limit water and energy use through the use of a low volume irrigation system which will utilize water from the existing farm pond on-site.

The applicant will employ construction workers and purchase construction materials from local sources. In addition to stimulating the local economy, this practice provide the added ecological benefit of reducing fuel consumption by reducing the distance workers and materials have to travel to the project site.

The project site is located in an area of existing water and sewer service. The project proposes to upgrade and improve the existing sewer infrastructure which serves the project site. These conceptual plans have been approved by the Rockland County Sewer District #1. United Water New York has provided a letter which indicates their willingness to provide water service to the proposed project.

The project site has direct access to U.S. Route 202 to the north and west, NYS Route 306 to the east and the residential area along Scenic Drive to the South. Access to the regional transportation network is via the Palisades Interstate Parkway (PIP). US Route 202 provides access to the Palisades Interstate Parkway (PIP) less then 2 miles from the project site.

There would be two access points to the main portion of the site, one from US Route 202 and one from NYS Route 306. There is an additional access directly to the community service worker apartments from NYS Route 306, in addition to five residential access drives located along Scenic Drive. As part of the project design it is anticipated that left turn lanes into the project site would be constructed at both main entrance locations.

Integral to the project is a stormwater management plan which includes ten stormwater basins and four recharge basins constructed to handle the change in stormwater runoff that would result from construction of the project. The 9 stormwater management ponds and recharge areas located within the multifamily areas shall be maintained by the Homeowners Association. The remaining 5 stormwater management ponds located in the single family area shall be maintained by the Town. A letter included in Appendix B, Correspondence, has been submitted to the Town for their concurrence on this matter.

The project site totals 208.5 acres and is predominantly vacant. Historically, the site had been used extensively for agricultural use. There are three, single family parcels located with frontage on Old Route 202 in Ramapo. In addition the Hasty Hills Stables, which is used by the Rockland County Sheriff's Department for horse training exercises, is located in the southwestern quadrant of the property.

A farm pond, approximately 5.2 acres in size, is located in the center of the project site. NYS DEC Wetlands are located on and adjacent to the site which ultimately drain to the Mahwah River. Wetland TH-30 is approximately 12.1 acres and wetland TH-14 is approximately 8.46 acres. In addition a 5.75 acre ACOE wetland is associated with the manmade 5.2 acre farm pond.

The site is located over the sole source Ramapo Aquifer and as such has been designated in the Town of Ramapo Zoning Code as a conservation area in which should land uses should be served by municipal water and sewer to protect the aquifer, as is proposed in this project.

The project site is served by Orange and Rockland Utilities which would provide electricity to the property; and to Columbia Gas which would supply natural gas to the property. Public water

would be provided by United Water New York. Public sewer service would be provided by the Rockland County Sewer District #1. There are existing easements located on the property to both Orange and Rockland Utilities and Columbia Gas for an underground gas main and high voltage electrical transmission towers that follow the alignment of the internal roadway. The plans have been submitted to the Land Agent for Columbia Gas Transmission for review and approval to cross the on-site easement to Columbia Gas. A preliminary review of the Construction Guidelines published by Columbia Gas, included in Appendix R, indicates the Patrick Farm project will comply with the published Guidelines. Plans have also been submitted to the New Business Office of Orange and Rockland Utilities for their review and comment. Orange & Rockland Utilities is a subsidiary of Con Edison, as such construction will be conducted in accordance with the Con Edison Safety Guide, included as Appendix L.

A preliminary site plan has been prepared for this project and is the subject of this DEIS. Large-scale plans accompany the DEIS document. As the SEQRA process continues, the site plan will be refined and revised based on input from the various agencies having review responsibilities for the proposal. The project plans will be submitted to the Town of Ramapo Planning Board for their review and recommendation on the zone change proposal. Subsequently the plans will be submitted to the Planning Board for site plan and subdivision review and approval.

It is anticipated that construction would take approximately 60 months from beginning to completion, however the actual construction schedule is dependent upon market conditions.

The proposed Patrick Farm development is subject to the regulations implementing the New York State Environmental Quality Review Act ("SEQRA"). The Ramapo Town Board is acting as Lead Agency for this proposed action, and issued a Positive Declaration on June 16, 2008, requiring preparation of a draft environmental impact statement ("DEIS"). A draft Scoping Document was prepared to outline the specific impacts and mitigation measures to be considered in this DEIS. The draft Scoping Document was the subject of a public scoping session held on June 23, 2008. The Scoping Document for this DEIS, adopted on June 25, 2008, is included in Appendix A of this DEIS. This DEIS has been prepared in accordance with Section 8-0101, et. seq. of the Environmental Conservation Law, and the regulations contained in 6NYCRR Part 617, implementing same. The action includes assessment of the potential impacts of the development of the project, the proposed zoning map and text amendments in addition to revision of the Town's 2004 Comprehensive Plan as it relates to the Patrick Farm property.

1.2 Sustainability

Sustainability is broadly defined as the level of natural resource use that can be sustained over time. Sustainability is the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs by preserving and protecting the area's ecosystems and natural resources. The concept of sustainability describes a condition in which human use of natural resources, required for the continuation of life, is in balance with Nature's ability to replenish them. This definition acknowledges the concept of vital human needs, of which housing is one of the most basic, and balancing this need with the preservation of resources.

Policy Guide on Planning for Sustainability, American Planning Association, April 2000.

The PLACE^{3}S methodology, measures the total energy consumption of a specific land use. The energy sectors that PLACE^{3}S[3] measures includes Transportation, Residential/Commercial/Industrial, Infrastructure and Energy Production. All of these measurements involve a variety of energy types and fuels that are measured in unique units. PLACE^{3}S converts the varied units of measurement into a standard Million British Thermal Unit equivalent (MMBtu). The PLACE^{3}S methodology assigns the following values for the Total Operating Energy use per household.

- Average Single Family Lot - 440 MMBtu - High Residential Energy Use
- Attached Townhouse - 380 MMBtu - Medium Residential Use
- Low Rise Apartments - 360 MMBtu - Low Residential Use

Under As-of-Right development, the Patrick Farm site would be developed in a pattern of typical urban sprawl, which is the least desirable alternative in relation to sustainability and wise use of renewable resources. According to the PLACE^{3}S methodology this alternative would be the highest consumption of energy resources, 440 MMBtu per unit.

Diversity of Housing

Another definition of sustainability relates to the longevity of a community as a whole and it's ability to meet the needs of all members of the community. "To be sustainable over time, a community must include housing types and designs that will be desirable to buyers and renters decades from now. Those residents will be ethnically diverse, older, living in smaller households, and less likely to have children. The sustainable community must have many more housing choices than master planned communities in the past."

The single family alternative does not provide further opportunity for diversity of housing in the Town of Ramapo, as would the proposed project. The Patrick Farm development, would consist of 497 residential units including 87 single family homes, and 410 multifamily units composed of 314 market rate townhouse units, 72 workforce condominium flats and 24 rental apartments which would be set aside for community service workers. The 314 units of market rate townhouse units represent an increase in the diversity of housing type in the Town at a price point significantly below the $650,000 price of a typical four bedroom single family home. The 72 workforce condominium flats and 24 community service worker apartments represent a significant addition to moderately priced housing available in the Town.

In an effort to further reduce the energy consumption needs of the proposed project, the following measures incorporated into the project design;

Pedestrian Access

As shown in Figure 2-5, the project has been designed in a pedestrian friendly manner. There are sidewalks adjacent to all public streets. A pedestrian promenade around the farm pond in the center portion of the site, provides a pleasant and scenic pedestrian environment to encourage walking. This promenade provides a connection from the single family development

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The Energy Yardstick, PLACE^{3}S Methodology, developed for the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, August 1996.

[3] **PLA**nning for **C**ommunity **E**nergy, **E**conomic and **E**nvironmental **S**ustainability **(PLACE^{3}S)**
A Step-by-Step Guide to Sustainability, Karen Walz, FAICP, July 2007.

in the northern portion of the site, through the multifamily development, connecting with the single family development in the southern portion of the site. Sidewalk access is available to connect US Route 202 with NYS Route 306. As shown on Figure 2-5, Harriman State Park and the Ramapo Equestrian Center are located within walking distance of the project site.

There is an existing easement to Columbia Gas which crosses the site. The applicant will pursue construction of a walking trail along portions of this easement. Preliminary conversations with Columbia Gas indicate their willingness to support this concept.

Mass Transit Access

The applicant will seek to coordinate a bus stop location within the multifamily portion of the site, a suggested location might be in the vicinity of Building 107 along Road C. Accommodation could also be made in the vicinity of lot 58 near NYS Route 306. The availability of mass transit within the project would enable residents to readily access mass transit thus reducing dependence on private vehicle trips and would make the shopping area to the north on US Route 202 more accessible without using a private auto. These efforts will be coordinated during the site plan approval process.

Groundwater Recharge

The proposed Patrick Farm project includes an extensive groundwater recharge program which has been designed to insure that the groundwater recharge capability of the site post development is equal to or greater than the pre development groundwater recharge capability. Based upon extensive study and soil permeability testing, the potential loss in the pre development ground water recharge capability is estimated to be 14.7 million gallons per year. The potential loss is based upon the proposed impervious surfaces that would tend to inhibit recharge. Based upon the proposed recharge system proposed at Patrick Farm, the projected groundwater recharge from the new impervious surfaces is estimated to be 18.7 million gallons per year, an increase of 4 million gallons per year. This does not take into account the water that could be drawn down from the three existing wells on site, nor does it account for the stormwater that will fall on the pervious site areas after construction. Based upon these two factors the estimated increase of 4 million gallons per year will in actuality be even higher.

The Applicant has designed a Stormwater Management System that exceeds typical mitigation for the treatment of stormwater runoff quantity and quality. The project design has incorporated a cutting-edge proposal for an overall groundwater recharge system over the Patrick Farm site. Groundwater Recharge is a sustainable practice that is receiving increasing attention and is recognized by the EPA as a Low Impact Development (LID) practice. LID is a stormwater management approach and set of practices that can be used to reduce runoff and pollutant loadings by managing runoff as close to its sources as possible. LID is typically used to achieve or pursue the goal of maintaining or closely replicating the pre-development hydrology of the site. Groundwater Recharge is not required by code, however it is likely that the groundwater recharge design approach utilized at the Patrick Farm site will become a model and a local standard for all site development in the future.

The Patrick Farm Groundwater Recharge system was designed to provide zero loss in groundwater recharge that occurs under existing conditions today. It is a form of Rainwater harvesting (RWH) in that it serves to replenish the Ramapo Aquifer, similar to pre development conditions. Groundwater hydrogeologists performed on-site permeability tests to define the rate at which the soils could transmit runoff back into the ground. The recharge system is designed capture rooftop runoff via rooftop water runoff leaders in order to infiltrate that runoff into the

ground in a manner and quantity that mimics the natural water cycle. Groundwater recharge and is considered a critical component of sustainability by the applicant, based upon the site's relation to the Ramapo Aquifer.

Landscape Irrigation System

The Landscape Plan has been developed to limit water and energy use through the use of a low volume irrigation system which will utilize water from the existing farm pond on-site to supply the water necessary to irrigate the significant landscape plantings on-site.

Harvest and Recycle Lumber

As a result of construction the applicant will be removing existing trees and extensively replanting the site with newly planted trees as shown on the Conceptual Landscape Plan. Any trees to be cut down as a result of construction will be harvested and sold or utilized for mulch on site.

Balanced Cut & Fill

A preliminary estimate of the project earthwork has been completed by the project engineer. The grading would involve approximately 225,675 cubic yards (cy) of earth cut and 224,496 cy of fill. This results in approximately 1,179 cubic yards of material which will be utilized on-site effectively creating a balanced site in terms of earthwork.

Alternate Energy

The applicant would choose to utilize Solar Domestic Hot Water (SDHW) in the market rate multifamily units to the extent feasible. SDHW can reduce the cost of making hot water by 50 to 75 percent. Solar water heaters use a free renewable resource without generating pollution. Their use reduces our demand for energy from coal, oil, natural gas, and propane, creating a cleaner and safer environment. The applicant proposes to install SDHW in two of the first five multifamily units to be built-in order to insure the feasibility of this technology in this region. Once the technology has proven itself in this application, the applicant will commit to installation in additional market rate multifamily buildings.

The applicant also proposes to provide an utilizer a renewable energy resource to supplement the energy needs of the community service worker apartments to be located along NYS Route 306. Both solar and geothermal technologies will be considered. A final determination as to the method of supplemental energy will be made prior to site plan approval.

Energy Efficient Building Materials

The applicant has made the commitment to provide energy efficient buildings. Building codes in the Town of Ramapo call for R-30 insulation in the roof and R-19 insulation in the walls. The applicant has committed to providing R-39 insulation in the roofs and R- 21 insulation in the walls of all multifamily units. The RES*check* compliance certificate, included as Appendix V, indicates this will make the multifamily units forty six (46.1) percent more efficient than the town of Ramapo Code specifies. The applicant will comply with the most recent requirements of the Town of Ramapo Building Code to use high efficiency double pane windows, water saving devices and ecologically friendly lighting systems. In addition the applicant will consider the use of siding materials used to absorb and store solar energy, and recycled building materials to the extent practical.

Construction Practices

The applicant employs a construction manager on all jobs. The construction manager will ensure that all construction waste materials are disposed of properly and that all petroleum based products are properly recycled. There will be no dumping or burying of construction materials or waste products on site, all materials will be disposed of on a weekly basis.

Employment Practices

The applicant will employ construction workers and purchase construction materials from local sources. In addition to stimulating the local economy, this practice will save in fuel by reducing the distance workers and materials have to travel to the project site.

1.3 Public Need

Table 1 summarizes select US Census population characteristics for the Town of Ramapo. The Town of Ramapo had a population of 108,905 persons in 2000. The American Community Housing Survey, was conducted in 2007. This data is published by the US Census to project population characteristics between Decennial counts.

Table 1
Town of Ramapo Population Statistics

Population Characteristic	2000	2007*	Percent Change
Total Population	108,905	112,980	+ 3.7 %
Total Households	31,561	31,676	+ 0.4%
Average Household Size	3.37	3.49	+ 3.6 %
Average Family Size	3.82	4.04	+ 5.8 %
Total School-Age Children	39,750	29,700	+ 1.4 %
Total Housing Units	32,422	33,434	+ 3.1 %
Percent Single Family Units	62.5%	61.2%	- 2.1 %
Median Value - Single Family Owner Occupied Housing unit	$229,619	$469,300	+ 104 %
Median Household Income	$60,352	$68,388	+ 13.3 %
Median Family Income	$67,004	$80,745	+ 20.5 %

Source - US Census Bureau;
*American Community Survey 3-Year estimate

As can be seen from a review of Table 1 the population of the Town has grown by approximately 4% since the 2000 census which would be an average a half a percent annually. The average family size has grown by almost six percent indicating that family size is on the rise in this area. The most notable change since the 2000 Census is the increase in median value of a single family home which has doubled since 2000. This housing type comprises more than sixty percent of the current housing stock in the Town of Ramapo. Comparatively the median income has grown by less than twenty one percent.

Based upon the current Average Household size, more than 1,000 households will be in need of housing in this area. Current homeowner vacancy rates range from two the three percent

indicating a continued need for housing growth in the area which cannot be met by the existing housing stock. The proposed Patrick Farm project will help to meet this need.

As defined in the Comprehensive Plan the Town of Ramapo has a need to provide a variety of housing. The Comprehensive Plan states " While the diversity of housing stock has increased slightly over the last decade, there is still a growing need to significantly increase the variety of housing within the unincorporated area of the Town, ...Many families cannot afford to purchase or rent a home within the unincorporated area of Ramapo, partly due to the relatively little diversity in the housing stock." The diversity of housing and the range of purchase prices proposed at Patrick Farm will provide housing for a wider range of income levels than currently exists.

1.4 Potential Impacts and Proposed Mitigation Measures

1.4.1 Soils and Topography

Potential Impacts

The presence of bedrock outcrops on the site indicates that rock removal would be required for project construction. While rock removal methods to be used on site have not been determined, it is assumed that blasting may be required to bring the property to grade. However, in areas where weathered bedrock is encountered and minimal cutting is needed mechanical means (i.e. ripping, chipping) would be employed in lieu of blasting. Site conditions would mandate which method of rock removal would be required for specific areas on the property.

Impacts to slopes would be minimal for the Patrick Farm development because of the relatively shallow slopes on the site and the limited areas of steep slopes to be disturbed. Only 6.4 percent of the entire site consists of slopes greater than 25 percent.

The grading and recontouring of soils will be required for project construction. Areas of proposed grading and soil disturbance for the site are shown in the detailed Grading Plan provided with the Site Plan drawings. The total area of grading or site disturbance is estimated to be 113.7 acres of the site.

A preliminary estimate of the project earthwork has been completed by the project engineer. The grading would involve approximately 225,675 cubic yards (cy) of earth cut and 224,496 cy of fill. This results in approximately 1,179 cubic yards of excess material which will be utilized on-site. The excess material is primarily the result of cuts required for the construction of the internal roads, building pads and stormwater basins.

Mitigation Measures

Blasting would be carried out in accordance with a final blasting contract with the Blasting Contractor. This plan would meet all New York State and Town of Ramapo requirements for blasting (Blasting and Explosive Control Law for the Town of Ramapo, Local Law No. 10-1992). New York State regulations require insurance and licensing for the contractor. The Town of Ramapo Blasting Law requires work to be completed under a New York State blaster's license and that a Blasting Permit be issued by the Town of Ramapo Building Department. Proof of valid liability and damage insurance is a prerequisite for obtaining a blasting permit.

The Town of Ramapo Blasting law requires the Permit holder to notify all property owners within 750 feet from the blasting site at least 48 hours prior to blasting. In addition, the permit holder is required to place signs at the nearest intersections to the site or site access within 600 feet, at least 24 hours prior to blasting.

The erosion control plan has been prepared by Leonard Jackson, P.C. and addresses erosion control and slope stabilization during all construction phases of the project. These plans were developed in accordance with the Erosion and Sediment Control Guidelines in the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-0-08-001). Construction will include limitations on the area of disturbance and devices to be used to help control soil erosion such as silt fencing, storm inlet protection and a stabilized construction entrance. A waiver for disturbance of more than five acres at one time will be requested from NYS DEC if necessary.

Erosion controls include silt fencing to surround all grading activities as well as the installation of curb inlet sediment traps for the proposed stormwater drains along the access roads. The plan proposes seven (7) construction entrances which would be stabilized and used for the duration of construction. Two stabilized entrances will prevent soil from being carried onto the adjacent and nearby roads. One (1) stabilized construction entrance is proposed on the western property boundary to access Route 202, a second is located along the eastern boundary to gain access to Route 306. In addition 5 minor construction entrances will be utilized to access the individual single family lots proposed along the southern boundary accessing Scenic Drive. Access to the community service worker apartments will be directly from NYS Route 306.

The following best management practices are followed in the development of the erosion control plan:

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 clean.

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. One phase of construction, for example, will be temporarily stabilized until the preceding phase is substantially complete.

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.

Stabilize disturbed areas as soon as possible - In areas where work will not occur for periods longer than 15 days unless construction will begin within 30 days, soil will be stabilization by seeding or mulching. Following completion of grading operations, level areas will be immediately seeded and mulched. Sloped areas, such as fill slopes may be seeded or stabilized depending upon weather conditions at the time of carrying out the work.

Minimize the length and steepness of slopes - The steepness and length of slopes have been designed to minimize runoff velocities and to control concentrated flow. Where concentrated (swale) flow from exposed surfaces is expected to be greater than 3 feet per second, haybale

or stone check dams will be installed in the swale. 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 and permanent swales and ponds will take place. The swales will direct runoff so that it can be checked or impounded.

Trap sediment on-site and prior to reaching critical areas such as wetlands - Silt fences, hay bale 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. Silt fencing, augmented by haybale barriers installed on the upgradient side of the silt fencing, will be used wherever land disturbance occurs within 100 feet of the on-site NYSDEC wetlands. A stabilized construction entrance will be constructed to prevent construction vehicles from tracking soil onto public roads. All temporary erosion control devices will be installed prior to the commencement of construction. The permanent storm water management systems will be installed in conjunction with the residential construction.

Establish a thorough maintenance and repair program - Erosion control measures will be inspected frequently, particularly prior to and following storms, and repaired as needed to ensure that they function properly. In addition to inspections by Town of Ramapo officials, the applicant will be responsible for monitoring and maintaining the soil erosion and sediment controls at all times.

Assign responsibility for the maintenance program - The responsibility for the monitoring and maintenance of the Erosion Control Plan will be detailed in the project specifications and construction drawings.

Details of the erosion control measures to be implemented are described in Section 3.1 of the DEIS. With these controls in place, it is anticipated that there will be no significant impacts that result from site disturbances to soils and topography.

1.4.2 Surface Water Resources

Potential Impacts

Direct Impacts to Wetlands and Surface or Ground Waters

No roads, buildings or other direct impacts to existing surface water features are proposed. No direct impacts to wetlands, surface water or groundwater are anticipated.

Future Runoff Conditions

The proposed increase in impervious coverage (46.1 acres) on the project site would result in increases in the rate of stormwater runoff in the absence of appropriate stormwater controls. Minor changes to the existing drainage patterns of the site will also occur as the land is regraded to construct buildings, parking areas, and roads. If not properly mitigated, these activities could cause stream erosion and flooding due to uncontrolled stormwater increases, and change the hydrology of associated wetlands and floodplains. In order to offset these changes,

the design of the development incorporates ten stormwater management basins (ponds) four recharge areas and multiple dry wells to control and convey stormwater runoff to the seven design points.

Each of the stormwater basins will eventually contribute discharges to the seven design points via outlet control structures that will reduce all post-development peak outflows from the basins and lower the overall site peak runoff to less than the pre-development peak runoff of the unconstrained watersheds, thus satisfying the "zero net increase of peak flow" provisions of state stormwater regulations.

The overall increase in impervious coverage will result in increases in the rate and volume of stormwater runoff in the absence of appropriate stormwater controls. Changes to the existing drainage patterns of the site will also occur as the land is regraded to construct buildings, parking areas, and roads. If not properly mitigated, these activities could cause stream erosion and flooding due to uncontrolled stormwater increases, and change the hydrology of associated wetlands and floodplains. In order to offset these changes, the design of the development incorporates ten stormwater management basins and four recharge areas. The project design includes measures to simulate the aquifer recharge capability of the site similar to undeveloped conditions. As a result of these measures there will be minimal post development loss in the recharge capability of the site to the underlying aquifer.

Water Quality

The stormwater management plan is required to incorporate structures and methods designed to satisfy provisions specified in the most recent (August 2003) version of the NYSDEC Stormwater Design Manual that incorporates Phase II stormwater regulations. As the NYSDEC manual requires that 90% of the average annual runoff volume be treated, this requirement was used to determine the water quality storage volumes for the project site. The sizing and design of the water quality ponds and the conveyance systems were based on these calculated volumes.

The use of an approved erosion and sediment control plan will incorporate Best Management Practices to comply with NYS regulations for suspended sediment control in runoff water from construction sites. With proper stormwater management and the use of erosion control BMPs, site development can occur while minimizing or avoiding impacts to downstream receiving waters. The proposed plans are designed to comply with the requirements of the SPDES General Permit for Stormwater Discharges so that such potential impacts are mitigated prior to stormwater discharge into the receiving stream.

Mitigation Measures

The DEIS includes plans that conform to criteria established by the NYSDEC. These plans include the use of erosion controls, phased site development and stormwater quality BMPs as presented in the NYSDEC Stormwater Design Manual (2003). The stormwater pollution prevention plan utilizes a combination of BMPs to best provide water quality treatment prior to discharge.

Erosion and sedimentation control measures

Implementation of an erosion control plan will minimize the potential adverse impacts resulting from the proposed clearing, excavation and grading necessary to undertake the proposed project. Erosion control plans for this project are included as part of the site plan and presented in Appendix D and in Section 3.1 of the DEIS.

Maintenance

The proposed stormwater management system will be designed to require minimal maintenance. The Homeowners Association would be responsible for maintenance of the on-site stormwater management system constructed for this project.

1.4.3 Ecology and Wetlands

Potential Impacts

Vegetation

Based upon the current proposed site plan the project proposes to permanently disturb approximately 113.7 acres (54.5 percent) of the project area. Ecological communities that would be directly impacted include successional old field, oak-tulip tree forest, successional southern hardwood forest, unpaved road/path, and interior of barns/agricultural buildings. No disturbance is proposed for the wetland communities on site.

Of the 113.7 acres of total disturbance, 69.1 acres of the proposed project will result in the loss of and/or change in forested habitat that connects similar habitat to the west and east of the project site. The loss of the on site forested and unforested uplands will alter the movement of wildlife that may use this property to access the adjacent forested areas. It will also result in the loss of habitat for those individuals that currently use the site. Existing habitat within the required property boundary setbacks and within the wetlands and wetland buffers would remain undisturbed. These areas, in conjunction with the adjacent hedgerows and open power line and gas easements, would continue to provide resident and local wildlife populations the opportunity, albeit modified, to move around the development to access other undisturbed forest lands in the vicinity.

A Sample Tree Survey Acre was conducted within the zone change area, approximately 100 trees will be harvested from this area. A comparison of the Sample Tree Survey Acre, with the proposed Landscape Plan indicates more than 50 trees will be replanted in this same area. It should also be noted that this Sample Tree Survey Acre is heavily wooded. Approximately 60 percent of the zone change area is wooded, the remaining 40 percent has already been cleared, thus no trees will be harvested from these already cleared areas.

Tree protection measures would be implemented to save trees that exist near the limits of disturbance on the boundaries of the development. Figure 3.3-6 shows the Limits of Tree Disturbance. It is estimated that 68.1 acres of existing forest will be preserved. In addition, as illustrated on the Conceptual Landscape Plan, the site will be extensively re-landscaped as part of this project.

No state listed rare or endangered plant species or communities identified on the site by the NYSDEC NHP as occurring within areas adjacent to the project site (i.e. Clustered sedge and Hyssop skullcap) were observed during visits to the site by project consultants.

Wildlife

Nearby residential and nonresidential developments along US Route 202, NYS Route 306 and Scenic Drive separate the site from the larger wetlands complex and forested habitat areas in the area. Due to the suburban landscape that surrounds the site, the overall diversity of wildlife in the area is expected to be low and dominated by generalist species capable of tolerating human contact. Such species include small mammals like chipmunk, gray squirrel, raccoon, opossum, cottontail rabbit, deer mouse and woodchuck.

The old field habitat that predominates on the site is of marginal value to wildlife, as it consists of farmed areas of poor soils and low plant diversity. Areas along the on-site wetlands and wetland buffer zones provide a more diverse plant community which is to remain undisturbed by the project development.

In general, as a project site is developed and habitat is reduced, some species would relocate to similar habitats off-site. It is not anticipated that there would be a loss of species from the area or significant impacts to existing populations, as the communities reduced by this development are not unique in the area.

Sensitive Wildlife Species

The site was surveyed to determine the potential presence of the following species:

Timber Rattlesnake (Crotalus horridus): Field surveys for timber rattlesnakes and/or timber rattlesnake habitat which were conducted both by TMA and Jason Tesauro Ecological Consulting during July and August 2008. Neither field survey observed any timber rattlesnakes on-site. The reports indicated on-site habitat was not suitable for use by the species, therefore, no impacts to timber rattlesnakes are anticipated.

Indiana bat (*Myotis sodalis*): An on-site Summer Woodland Bat Survey was conducted in August 2008 by Bat Conservation and Management, Inc. within the areas of the property's successional fields, riparian areas and wetlands and "border" woodland to determine the presence or absence of large- or small-scale habitats that could be used to sustain populations of Indiana bats. Results of the report did not indicate the presence of Indiana Bats on the Patrick Farm site.

No species of wildlife listed as threatened or endangered were observed on the project site, thus no impact to threatened or endangered species are anticipated.

Wetland and Buffer Area Disturbances

The proposed project would not disturb any on-site regulated NYSDEC freshwater wetlands or the 100-foot area adjacent to the wetlands or any ACOE regulated wetlands.

Indirect impacts that could result from the development would include potential water quality impacts associated with uncontrolled discharge of stormwater runoff. To address this potential impact, a

Storm Water Pollution Prevention Plan SWPPP has been prepared which provides physical and biological controls over the post-development runoff rates and water quality conditions.

Mitigation Measures

Stormwater management facilities incorporate standards presented in the latest New York State Stormwater Management Design Manual (August 2003). Ten stormwater detention basins and four recharge areas with forebays would be created on the site (refer to Appendix D of the DEIS). An Erosion and Sediment Control (ESC) plan has been developed and provided on the site plan. All soil erosion and sediment controls would be installed in accordance with Best Management Practices, Rockland County Soil Conservation Service, and the town municipal codes. Clearing limit lines would be established in the field on the site prior to commencing any construction activities to protect wetlands. The applicant shall retain the services of an engineer for scheduled inspections and report preparation as to the implementation of the measures identified in the SWPPP for the proposed project.

Implementation of a Landscape Plan

The project includes lawn and landscape and stormwater basin plantings that would include a mixture of native and ornamental species. Native species would be used for landscaping purposes and for revegetating the proposed water quality and stormwater detention basins where possible. This preference is based on native plant adaptability to local climatic conditions, including temperature, precipitation and length of the growing season. While less valuable to some wildlife as the existing old field habitat, the lawns and landscaped areas created by the proposed development would still potentially be used as forage by deer and other herbivores; and many species of trees and shrubs would provide both food and nesting sites for squirrels, songbirds and other avian species.

1.4.4 Land Use and Zoning

Scenic Development, LLC, the applicant, proposes a mixed density (single and multi family) residential development that would consist of 497 residential units including 87 single family homes, and 410 multifamily units. The multifamily portion of the project will consist of 386 multi-family units, (of which 314 units will be market rate, 72 units will be offered as workforce condominium flats) and 24 rental apartments reserved for community service workers, in the unincorporated portion of the Town of Ramapo. The proposed action will include a zoning map change to re-zone approximately 61.3 acres from Residential District, R-40 to Residential District, MR-8.

In 2004, the Town of Ramapo adopted the Town of Ramapo's Comprehensive Plan (Plan). The Comprehensive Plan covers a range of issues relating to future growth in the Town and establishes a framework within which future development will occur. The overriding theme or "Primary Mission" of the Comprehensive Plan is to provide a balance between the need to accommodate anticipated population growth and the need to preserve the quality of life and natural resources. It focuses on the protection of the Town's natural resources (particularly the Town's groundwater supply), current and long-range growth and development that is compatible with the Town's quality of life, and provides guidance to decision makers, residents and organizations.

The use of cul-de-sacs on the project site was necessary in certain areas on the project site. Cul-de-sac A was required due to steep slope considerations in the vicinity of the ridge line along US Route 202 in the southern portion of the site. Cul-de-sacs D1 and D2 are necessary due to environmental consideration in an effort to limit the number of stream crossings on the site. Cul-de-sacs B and E were constructed in an effort to avoid the 5.75 acre ACOE wetland in the south central portion of the site. An alternative is provided which evaluates the impacts of providing a full roadway or an emergency access connection between cul-de-sac B and E.

Potential Impacts

Overall, the proposed action would be compatible with the character and community trends of the project's surrounding area. The applicant believes that the property development would blend with the mixture of land uses surrounding the site including public parks/open space, residential (single and multifamily), institutional/quasi public uses, general/community businesses and vacant land. The site is appropriately located in a residential district adjacent to residential uses to the north, east and south and in the vicinity of scattered concentrations of commercial and industrial development.

Among the various approvals being sought are zoning map and text amendments to construct multi family housing on approximately 61.3 acres in the central portion of the site. This zone change is proposed to meet the demand for a diversity of housing within the Town of Ramapo including affordable and workforce housing as identified in the Town's Comprehensive Plan.

The construction of the proposed development would increase the density and variety of housing opportunities in Town of Ramapo and its surrounding area. Based upon the area of single family houses to encircle the multifamily development, the existing residential character of the adjacent areas to the north, south and east will be preserved. Preservation of areas of open space and significant landscape buffer areas will further reduce the impacts to community character. No significant adverse impacts to community character and development trends are expected from the proposed action.

The project layout has been designed around the natural site conditions to minimize impacts to sensitive environmental elements (wetlands and steep slope areas). The development design includes a full landscaping plan intended to provide an attractive, modern living environment in a suburban community.

The Patrick Farm development would provide a balance between accommodating additional population growth and creating a diversity in the available housing in the Town of Ramapo while preserving the site's existing natural resources, specifically, on-site wetlands.

Rockland County Comprehensive Plan

The Rockland County Comprehensive Plan recommends that large scale vacant/underutilized parcels be reused and redeveloped in a coordinated manner providing identified housing, recreation open space, institutional and economic development needs for the local community, as well as improved infrastructure that might be necessary to support such reuse and redevelopment. The future use of the project site ensures that the vacant land is redeveloped into a mixed density development that fits into the existing community character.

Mitigation Measures

As the proposed project would have no significant impact on land use and zoning, no mitigation measures are proposed. The project proposal includes various measures in the design that would make the development compatible with the local area land use pattern, including using a ring of single family homes to buffer the multifamily portion of the site from the surround areas. The project would conform to the amended zoning as proposed and the applicable provisions set forth in the Town and County Comprehensive Plans. A Landscaping Plan has been prepared which includes the preservation of open space and the creation of landscape buffering to insure the integrity of the Scenic Roadway Corridor.

1.4.5 Transportation

A *Traffic Impact Study,* was conducted by John Collins Engineer's, P.C., dated November 7, 2008. This study assesses the traffic impacts associated with the Patrick Farm development and is included as Appendix I of this DEIS.

The following are the intersections analyzed, the locations of which are highlighted in Figure 3.5-1 of the DEIS:

1. Intersection of NYS Route 202 & Route 45
2. Intersection of NYS Route 202 & Thiells-Mount Ivy Road
3. Intersection of NYS Route 202 & Palisades Interstate Parkway Southbound Ramp (Exit 13)
4. Intersection of Thiells Mount Ivy Rd & Palisades Interstate Parkway Northbound Ramp
5. Intersection of Route 202 & Camp Hill Road
6. Intersection of Route 202 & NYS Route 306
7. Intersection of Route 202 & Wilder Road
8. Intersection of Route 306 & Pomona Road
9. Intersection of Route 306 & Lime Kiln Road
10. Intersection of Wilder Road & Lime Kiln Road
11. Intersection of Route 306 & Hidden Valley Drive
12. Intersection of Route 202 & Proposed Site Access
13. Intersection of Route 306 & Proposed Site Access
14. NYS Route 306 and 24 Emergency Service Worker Apartments
15. Intersection of Route 202 & Spook Rock Road/Lime Kiln Road
16. Intersection of Route 306 & Willow Tree Road
17. Intersection of Route 306 & Grandview Avenue

Potential Impacts

The following is a brief description of each of the intersections analyzed, the results of the capacity analyses and any corresponding recommended improvements.

1. U.S. Route 202 and NYS Route 45: NYS Route 45 intersects with US Route 202 at a signalized intersection. Capacity analyses for 2008 Build condition including the proposed Miniscenogo Park and Tardikov projects, indicate that the intersection will continue to operate at an overall Level of Service "C" during the peak AM hour and at an overall Level of Service "D" during the peak PM hour. No mitigation measures are proposed.

2. U.S. Route 202 and Thiells - Mt. Ivy Road: Thiells - Mt. Ivy Road intersects with US Route 202 at a signalized intersection. Capacity analyses for the 2013 Build condition, the intersection

will operate at an overall level of service “D” during the weekday peak AM hour and will to operate at an overall level of service “C” during the weekday peak PM hour.

The NYS DOT plans to improve (P.I.N. 8093.48) this intersection by eliminating the existing park and ride entrance opposite Thiells - Mt. Ivy Road and replacing it with a right turn entry only driveway to the west and a right turn exit only driveway to the east. In addition, the U.S. Route 202 westbound approach will be widened to provide an additional through lane which will tie into the westbound right turn lane at the Palisades Interstate Parkway southbound on/off ramp. As part of this project, the U.S. Route 202 eastbound right turn lane at NYS Route 45 will be extended to the west past the Thiells - Mt. Ivy Road intersection. Construction of these improvements has already begun and is planned to be completed by the end of 2006.

With improvements in place, and upon construction of the Miniscenogo Park and the Tartikov Projects, overall level of service "D" conditions will be maintained during both the AM and PM peak hour periods. No further mitigation measures are proposed.

3. U.S. Route 202 and PIP Southbound On/Off Ramp: The Palisades Interstate Parkway Southbound On/Off Ramp intersects with U.S. Route 202 opposite the Mt. Ivy Diner at a signalized intersection.

In the 2013 Build condition, the intersection will continue to operate at an overall level of service “B” during the peak AM hour and will continue to operate at an overall level of service “B” during the peak PM hour.

With the construction of the proposed Minisceongo Park and Tartikov development, this segment of Route 202 will be widened to provide an additional eastbound lane and will provide additional storage for the U.S. Route 202 eastbound left turn. In addition, the westbound right turn lane will be converted to a shared through/right turn lane. This widening, together with the coordination of the traffic signal to be constructed as part of the Minisceongo Park development, will improve operating conditions at this location.

4. Thiells - Mt. Ivy Road and PIP Northbound Off Ramp: The Palisades Interstate Parkway Northbound Off Ramp intersects with Thiells - Mt. Ivy Road at an unsignalized intersection.

Capacity analyses for the 2013 No-Build and 2008 Build conditions indicate that the PIP Northbound Off Ramp will operate at a level of service “F” during the weekday peak AM and PM hours.

In order to improve the operation of this intersection regardless of the proposed development, a traffic signal would be required. With signalization, this intersection will operate at an overall level of service “C” during both the weekday peak AM and PM hours for the 2013 No-Build and Build conditions.

Upon the completion of improvements, Build conditions with Miniscenogo Park and the Tartikov development will continue result in level of service "C" during the AM peak Hour and level of Service "D" during the PM peak hour.

5. U.S. Route 202 and Camp Hill Road: Camp Hill Road intersects with U. S. Route 202 at a signalized intersection.

Build conditions, with both the proposed Miniscenogo Park project and the Tartikov development indicate that the intersection will operate at an overall level of service "C" during both the AM peak hour and the PM peak hour period. No mitigation measures are proposed.

6. U.S. Route 202 and NYS Route 306: U.S. Route 202 intersects with NYS Route 306 at a signalized intersection.

Capacity analyses for the 2013 Build conditions, with both the proposed Miniscenogo Park project and the Tartikov development indicate that the intersection will continue to operate at an overall level of service "C" during both the AM and PM peak hour periods. No mitigation measures are proposed.

7. U.S. Route 202 and Wilder Road: Wilder Road intersects with U.S. Route 202 at an unsignalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the Tartikov development indicate that the Wilder Road approach will operate at level of service "C" during both the AM and PM peak hour periods. No mitigation measures are proposed.

8. NYS Route 306 and Pomona Road: Pomona Road intersects with NYS Route 306 at an unsignalized intersection. Capacity analyses for the 2013 Build conditions with Minisceongo Park project indicate that the Pomona Road approach will operate at level of service "C" during the AM peak hour and at level of service "D" during the PM peak hour period. Construction of the Tartikov Development will result in level of service "E" during the PM peak hour period. No mitigation measures are proposed.

9. NYS Route 306 and Lime Kiln Road: Lime Kiln Road intersects with NYS Route 306 at a signalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the Tartikov development indicate that the intersection will continue to operate at an overall level of service "A" during both the AM and PM peak hour periods. No mitigation measures are proposed.

10. Wilder Road and Lime Kiln Road: Lime Kiln Road intersects with Wilder Road at an unsignalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the Tartikov development indicate that all approaches to the intersection will continue to operate at level of service "B" or better during both the AM and PM peak hour periods. No mitigation measures are proposed.

11. NYS Route 306 and Hidden Valley Drive

Hidden Valley Drive intersects with NYS Route 306 at an unsignalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project indicate that the intersection will continue to operate at an overall level of service "B" during both the AM and PM peak hour periods. Build conditions with both Minisceongo Park and the Tartikov development are projected to continue to operate at level of service "B".

12. U.S. Route 202 and Proposed Site Access: As previously discussed, access to the Patrick Farm project is proposed via a full movement new driveway connection to U.S. Route 202. In order to accommodate turning movements to and from the Patrick Farm site, it is recommended that a separate left turn lane on U.S. Route 202 be constructed.

Capacity analyses for the 2013 Build conditions, indicate that the site driveway is projected to operate at level of service "D" during the weekday AM peak hour and level of service "E" during the weekday PM peak hour.

Capacity analyses for the 2013 Build conditions with Minisceongo Park and the Tartikov development, indicate that the site driveway is projected to continue to operate at level of service "D" during the weekday AM peak hour and level of service "E" during the weekday PM peak hour. Under these conditions the intersection should be monitored for signalization.

13. NYS Route 306 and Proposed Site Access: As previously discussed, a second access to the Patrick Farm project is proposed via a full movement new driveway connection to NYS Route 306. In order to accommodate turning movements to and from the Patrick Farm site, it is recommended that a separate left turn lane on NYS Route 306 be constructed.

Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project indicate that the proposed site access will to operate at level of service "B" or better during both the AM and PM peak hour periods.

The Tartikov Development is proposed to have access onto NYS Route 306. It is recommended that the Patrick Farm and Tartikov driveways be aligned opposite one another.

Capacity analyses for the 2013 Build conditions, with both the proposed Minisceongo Park project and the Tartikov development indicate that the proposed site access will to operate at level of service "C" or better during both the AM and PM peak hour periods.

14. NYS Route 306 and 24 Emergency Service Worker Apartments Access Drive

The Emergency Service Worker Apartment Access Drive will intersect with NYS Route 306 at an unsignalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project indicate that the intersection will operate at an overall level of service "B" or better during both the AM and PM peak hour periods. Build conditions with both Minisceongo Park and the Tartikov development are projected to continue to operate at level of service "B".

15. U.S. Route 202 and Spook Rock Road/Lime Kiln Road: Spook Rock Road and Lime Kiln Road intersect with U.S. Route 202 at an unsignalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the proposed Tartikov project indicate that the Spook Rock Road and Lime Kiln Road approaches to the intersection will continue to operating at an overall Level of Service “C” during the weekday AM peak and weekday PM peak hours. No mitigation measures are proposed.

16. NYS Route 306 and Willow Tree Road: Willow Tree Road intersects with NYS Route 306 at a signalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the Tartikov development indicate that the intersection will continue to operate at an overall level of service "B" during both the AM and PM peak hour periods. No mitigation measures are proposed.

17. NYS Route 306 and Grandview Avenue: Grandview Avenue intersects with NYS Route 306 at a signalized intersection. Capacity analyses for the 2013 Build conditions, both with and without the proposed Minisceongo Park project and the Tartikov Development indicate that the

intersection will continue to operate at an overall level of service "C" or better during both the AM and PM peak hour periods. No mitigation measures are proposed.

Saturday Traffic Conditions

In order to assess Saturday traffic conditions**,** John Collins Engineers compared the weekday peak PM existing traffic volumes analyzed in the November 7, 2008 Traffic Impact Study with the Saturday peak hour traffic counts at four key locations. Based upon this comparison, it was found that the Saturday traffic volumes were significantly lower than those during the weekday peak PM hour. For example, at the U.S. Route 202/NYS Route 306 intersection, the total intersection traffic volume for the weekday PM peak hour is 1170 vehicles while the Saturday peak hour traffic volume is 895 vehicles.

The proposed project will generate less traffic during the Saturday Peak Hour then during the weekday peak PM hour. Thus, the Saturday traffic conditions will be less critical than the weekday peak PM hour. Satisfactory levels of service will be experienced during the Saturday Peak Hour period.

Sight Distance

Stopping sight distance is the distance a vehicle would require to be able to stop on wet pavement to avoid a collision with a vehicle entering the traffic stream. Intersection sight distance provides an additional margin of safety above stopping sight distance.

Intersection sight distance is defined as the sight distance that is necessary for a vehicle to safely enter the traffic stream requiring only minor speed adjustments by vehicles in the traffic stream. Table 8 shows the Stopping and Intersection Sight Distances recommended by the American Association of State Highway and Transportation Officials (AASHTO).

Prevailing Speed

As part of this traffic analysis, a prevailing vehicle operating speeds were identified in March 2009. The speed limit on US Route 202 is 45 miles per hour. The 85th percentile observed speed is the most frequently used measure of operating speeds associated with a location. The 85th percentile observed vehicle operating speed on US Route 202 is 55 miles per hour. The 85th percentile of observed vehicle operating speeds on NYS Route 306 is 50 miles per hour.

The proposed project will have one main access onto US Route 202 and a second main access onto NYS Route 306. These access locations have sufficient sight distance to meet the AASHTO recommended intersection sight distances for the prevailing operating speeds on both US Route 202 and NYS Route 306.

Impact of Summer Day Camps

The Traffic Study is based on typical traffic conditions and includes the effect of school bus traffic, commuter traffic and the peak hour site generated traffic. The Scoping Document requested a sensitivity analysis of summer conditions, while area day camps are in session. It should be noted that the Weekday AM Peak Summer Hour (8:15AM –9:15AM) occurs after the Weekday Peak AM Highway Hour (7:30AM – 8:30AM) and the Weekday PM Peak Summer Hour (3:30PM - 4:30PM) occurs before the Weekday Peak PM Highway Hour (5:00PM –

6:00PM). However, for comparison purpose the Traffic Impact Study compared each of these peak hours.

The Weekday Peak AM and Weekday Peak PM Highway Hour Traffic Volumes with school in session (typical conditions) are higher than Summer Conditions. Based upon a review of the capacity analysis, the overall Levels of Service during the summer hours would be similar to the Levels of Service under typical conditions (when school is in session).

Traffic from Construction Activity

The on-site earthwork has been balanced to eliminate the need for fill to be either imported or exported from the project site. The greatest volume of construction traffic is expected to occur at the beginning of the construction when rough grading is conducted, and when asphalt and building materials are transported to the site.

It is anticipated that most construction trips would travel to and from the site via US Route 202. All construction vehicles will use the proposed main access points to US Route 202 and NYS Route 306 for ingress and egress. Construction vehicles and employees will park on-site at all times. Materials and equipment will be stored on site to minimize vehicle trips.

Mitigation

According the results of the *Traffic Impact Study* (Appendix I), there are certain existing traffic delays occurring during peak periods. With the completion of the proposed left turn lanes as the project site access locations on US Route 202 and NYS Route 306 in addition to anticipated completion of the improvements underway at the PIP/Thiells-Mt. Ivy Road intersections by NYS DOT, and the installation of a traffic signal at the proposed site access of the proposed Minisceongo Park Project, the traffic to and from Patrick Farm can be accommodated and mitigated. Traffic flow and public safety along the frontage of the site will be provided as a result of the proposed road improvements and project mitigation measures.

1.4.6 Community Facilities and Services

Demography - Potential Impacts

The 497 dwelling units are projected to add 1,932 residents to the Town of Ramapo. Approximately 609 school age children are estimated from the development. All students would be eligible to attend the East Ramapo Central School District, however in this school district approximately 67 percent of students attend private schools.

The 2006 projected population for the Town of Ramapo is 112,347 persons. The addition of 1,932 persons to this population represents a 1.7 percent increase. The Rockland County Comprehensive Plan projects continued population growth within the County, with an additional 17 percent population increase anticipated over a 10-year period. The level of growth associated with the Patrick Farm development is consistent with this anticipated level of growth.

Police Protection - Potential Impacts

Based on standards contained in the Development Impact Assessment Handbook (Urban Land Institute, 1994), two police officers and 0.6 police vehicles are required per 1,000 population.

The increase in population of 1,932 persons in the Town of Ramapo could potentially generate a need for 4 additional police personnel in the Town and approximately 1.2 police vehicles. It is noted that the increased demand placed on the Police Department from the Patrick Farm development would represent an incremental increase in demand on existing services, rather than demand for new services in this area which the ULI rates assess.

According to Lieutenant Gravina of the Town of Ramapo Police Department, the proposed development would not result in a need for additional manpower to provide services to the proposed development.

Police Protection - Mitigation Measures

The Town of Ramapo Police Department has indicated that, no significant demands would be placed on police services as a result of the proposed project. Additionally, the project would generate tax revenues estimated to be $620,832 annually to the Town of Ramapo Police Department. Based on the foregoing, no mitigation measures are proposed.

Moleston Fire District

The project site is located in the Moleston Fire District. The Hillcrest Fire Company No. 1 serves the Moleston Fire District. A letter was sent to the fire district regarding fire protection services. Hillcrest Fire Co. No. 1 protects over 10,000 residences and businesses in an area of about 36 square miles serving a population of 35,000 to 40,000 people. The company operates out of three stations with 16 pieces of apparatus which include four engines, two ladder trucks, one rescue, one combination rescue engine, one brush truck, three utility vehicles, one fire prevention vehicle, and three Chief vehicles. The all volunteer department currently averages 850 calls per year.

Fire - Potential Impacts

Based on planning standards contained in the Urban Land Institute's 1994 Development Impact Handbook, it is estimated that 1.65 fire personnel per 1,000 population is required to serve a new population. The anticipated increase in population of up to 1,932 persons would generate a demand for 3.2 additional fire personnel. Again, the ULI multipliers assume no existing services, thus the actual demand for personnel is expected to be somewhat lower.

According to the response letter received by Chief Kear, in the last year, there have been numerous proposed and pending large scale projects within the Moleston Fire District and the vast majority of them have been located along NYS Route 306, including the proposed Patrick Farm development. The Chief states that because of the Patrick Farm project and other proposed developments within the area, the Department will have to conduct an evaluation of apparatus and response as well as contact Insurance Services Office (ISO) regarding their insurance rating and to inquire about whether or not these proposed projects would have an effect on their overall rating.

Patrick Farm is anticipated to generate property tax revenues to the Moleston Fire District of approximately $115,111 annually. This additional revenue can be used to augment the Hillcrest Fire Company's capabilities as necessary.

Ambulance Service

The Ramapo Valley Ambulance Corps would serve the project site.

The Ramapo Valley Ambulance Corps is a volunteer ambulance corps. The Corps provides basic life support ambulance service primarily to the Town of Ramapo, and provides mutual aid service throughout the entire county. The Corps, headquartered along Route 59 in the Village of Airmont, consists of approximately 50 active members and operates three ambulances and one emergency response vehicle.

Ambulance - Potential Impacts

The standard for Emergency Medical Services, according to the Urban Land Institute's 1994 Development Impact Handbook, is 4.1 full-time personnel and 1 vehicle per population of 30,000. The introduction of up to 1,932 persons in the Town of Ramapo results in potential added demand for 0.26 health care personnel and 0.064 vehicles. The proposed project is not expected to have a measurable impact on emergency services. Additionally, the Ramapo Ambulance District would receive $54,903 annually in revenues. This additional revenue can be used to augment the Corps' capabilities as necessary. The applicant has offered to donate a parcel of land for the future construction of an ambulance corp. building adjacent to the emergency service worker apartments in proximity to the Hillcrest Fire Station on NYS Route 306.

Ambulance - Mitigation Measures

No adverse impacts to ambulance services are anticipated as a result of the proposed development. Therefore, no mitigation measures are proposed.

Solid Waste Disposal

The Town of Ramapo Public Works Department provides municipal refuse collection and disposal services within the Town of Ramapo, including the project site. The Town of Ramapo has a closed landfill. Currently municipal solid waste generated in the Town is sent to a transfer station and then to the Ontario County landfill. Solid Waste collection and disposal will occur at Patrick Farm in a manner consistent with current practice in the Town of Ramapo.

Solid Waste - Potential Impacts

The per household rate for solid waste generation according to the Urban Land Institute's 1994 Development Impact Handbook, is .00175 tons per person per day. The proposed development projects an increase in population by 1,932 persons, resulting in an estimated solid waste generation of 3.4 tons per day.

Dumpsters and solid waste storage areas are proposed for the multifamily residential buildings and the recreational complex. All refuse storage areas would be screened from view of public roads. Solid waste will be collected according to the schedules applicable to the Town.

All properties within the Town of Ramapo are taxed for solid waste disposal. The current tax rate is 1.06 per $1,000 of the assessed value for the Town of Ramapo. The proposed development is projected to generate $33,086 annually in taxes to pay for solid waste disposal.

Solid Waste - Mitigation

No significant impacts to solid waste disposal services are anticipated and no mitigation measures are proposed.

Water Supply

Water from the Valley-Fill Aquifer is the source of all of the Town of Ramapo potable water via both individual and United Water New York (UWNY) wells. The Valley-Fill aquifer is part of the larger Ramapo River Basin sole source aquifer system, as designated by the Environmental Protection Agency (EPA). The water supply to the project site would be supplied by United Water New York (UWNY).

Water Supply - Potential Impacts

The total water usage has been projected to be approximately 198,800 gpd to assess the potential impacts of the proposed development on water supply (497 units at 400 gallons per day). A Willingness to Serve letter relative to the Patrick Farm project has been received from United Water New York. In addition the Rockland County Department of Health Allocation of water supply indicates there are 2.35 MGD available to provide water service to new projects in Rockland County.

Water Supply - Mitigation Measures

United Water New York has adequate resources to serve the project. United Water New York has indicated their willingness to serve the proposed project in a letter dated August 25, 2008. Water infrastructure upgrades may be required, and the applicant will install these improvements as per UWNY conditions stipulated.

Sewer Services

The Town of Ramapo Public Works Department and Rockland County Sewer District #1 (RCSD #1) both have jurisdiction over sanitary sewer infrastructure in the Town of Ramapo. The Town maintains most of the 8" diameter sewers and RCSD #1 maintains the major interceptor sewer lines and the pumping stations located along the major interceptors. The Town and RCSD #1 both regulate new construction, maintenance, repair and inspection of sanitary sewers and pumping stations within the Town of Ramapo. They handle new sewer extensions, remove blockages, and inspect new sanitary sewer installations.

Sewage is treated at the Rockland County Sewer District #1 Wastewater Treatment Plant located in Orangeburg, New York. Treated, chlorinated effluent is discharged into the Hudson River at Piermont, New York through an outfall sewer. Sludge is concentrated and aerobically digested, dewatered and the sludge cake is composted and the combustible gas produced is captured and used for electric power.

Flow monitoring of existing sanitary sewers is one component of a program currently underway by the RCSD #1 to identify and eliminate inflow sources. RCSD #1 is currently implementing rehabilitation projects directed at identifying areas for addressing peak wet weather flow and reducing wet weather infiltration and inflow in the interceptor sewer system that lead to the elimination of sanitary sewer overflow discharges.

No known sanitary sewer problems exist at the vicinity of Patrick Farm.

Sewers - Potential Impacts

Sanitary sewer flow generated from Patrick Farm is estimated at 198,800 gallons per day based upon an average rate of 400 gallons per day per home. The RCSD #1 Wastewater Treatment Plant has adequate capacity to treat the Patrick Farm sewage. Sanitary discharges from Patrick Farm will enter the public sewer system at the RCSD #1 Route 202 Pump Station. The pump station is currently operating near capacity and does not have adequate capacity to convey sewer discharges generated by Patrick Farm. The Route 202 Pump Station and local sanitary sewer infrastructure located "down-gradient" of the Pump Station will require improvements.

Annual taxes generated to the Sewer District would be $145,613.

Sewers - Mitigation Measures

The following improvements to local sanitary sewer infrastructure are anticipated as part of this project: Replacement of the Route 202 Pump Station, Construction of a new Force Main discharge line from the new pump station to the Scenic Drive vicinity, replacement of gravity sewer lines which run from Scenic Drive to the Wilder Road vicinity, Upgrade of the pump station at Wilder Road. The scope and conceptual design of these required improvements is being coordinated with RCSD #1. In a letter dated January 20, 2009, RCSD indicated their approval of the scope and design parameters for sewer improvements proposed by the Patrick Farm project. The Applicant's Engineer shall prepare construction plans for the requisite improvements to the local sanitary sewer infrastructure for review and final approval by RCSD #1.

Construction Near High Voltage Wires

An easement to the Orange and Rockland Utility company traverses the property. There are several towers which hold high voltage transmission wires which cross the property. Accidental contact with overhead electric lines can result in substantial damage, serious injury or death. It is important, therefore, to use extreme caution when near overhead power lines.

High Voltage Wires - Potential Impacts

There are no residences proposed within the utility right-of-of way. Disturbance in the utility right-of-way is limited to road crossings. There are no towers located in the area proposed for project roadways and the road grading and profiles were specifically designed to accommodate the location of the towers.

High Voltage Wires - Mitigation Measures

Construction safety measures will be utilized to insure the safety of workers during construction in the vicinity of the wires. Orange & Rockland Utilities, Inc., is a wholly owned subsidiary of

Consolidated Edison, Inc. and as such is guided by Chapter 5.3 of the Con Edison Safety Manual, General Protection Requirements, which specifies safety procedures to be followed to insure safety when working around electrical systems equipment. No grading work shall be done within 25 feet of the transmission towers and no work shall be done without an approved Orange & Rockland Work Permit.

1.4.7 Fiscal Resources

Potential Impacts

The Patrick Farm development would result in the conversion of predominantly vacant land to a mixed density residential development. The increased market value of the project site, with these improvements, would result in an increase in property tax revenues.

The current conditions in the U.S. economy are unusual and have altered the nature of the real estate industry in the United States. Certain areas of the country have been harder hit than others. There have been multiple failures of financial institutions, restrictions on lending, a reduced flow of money in the economy and a high rate of housing foreclosures. The recent difficulty in getting mortgages has slowed real estate sales in the area and has interfered with the closing of pending real estate transactions.

The New York region maintains substantial diversity of businesses and industries in comparison to other areas of the country. New York housing prices have escalated over the past decade because of the availability of easy mortgage money and the great economic engine that is New York City, however mortgage money is no longer as easy to secure and the impacts on Wall Street have had a ripple affect in the region. It is expected that there will be an adjustment in the housing market in reaction to the changes in lending practices and the lower demand that has accompanied the economic climate in the past year. Given the diversity of the economy in the NY metropolitan region, there is less likelihood that the NY metropolitan area will experience the degree of housing foreclosures or vacancies which have occurred in other areas of the country. Housing prices have dropped and demand is also lower. The length of time for this area to recover is not known, however, the applicant believes that the forces that have always been in place, population growth and immigration and a robust economic base, will continue to occur in the New York metropolitan area.

The tax revenues to be generated by the Patrick Farm development were determined by projecting the market value of the residential units to be built. For the single family homes the market value is the average sales price, projected to be approximately $800,000 per unit.

According to New York State real property tax law, the market value of a condominium is derived based upon the potential income value of the unit. For this fiscal analysis the value of the market rate townhouses is projected to be approximately $504,400. The projected income value of the workforce condominium flats is approximately $295,000 and the income value of the emergency service worker apartments is approximately $162,000. The taxable assessed value of the project was then calculated by multiplying the sum of the market values for each use, and multiplying by the 2008 equalization rate applicable to the Town of Ramapo, currently 12.38 percent. The total assessed value of the Patrick Farm development is projected to be $31,319,419. DEIS Table 3.7-3 summarizes the assessed value of the proposed development.

Town of Ramapo

Table 2 estimates the annual property tax revenues that would be generated by 87 single family homes, and 410 multifamily units composed of 314 market rate townhomes, 72 workforce condominium flats and 24 emergency service worker apartments to be located on the Patrick Farm site, in the Town of Ramapo.

Table 2
Patrick Farm
2008 Projected Property Tax Revenues

Taxing Jurisdiction	Current Property Tax Revenues	Projected Property Tax Revenues
Rockland County	$15,141	$313,194
Town of Ramapo Police	$30,013	$620,832
General Town	$13,530	$279,873
Unincorporated Town	$7,483	$154,781
Ramapo Ambulance District	$2,654	$54,903
Moleston Fire District	$4,107	$115,111
Tallman Fire District	$927	$0
Ramapo Lighting District	$1,057	$21,861
Sewer District RR	$7,039	$145,613
County Solid Waste	$1,599	$33,086
Misc. Fees	$1,963	$40,715
Total Town of Ramapo	**$70,373**	**$1,426,061**
East Ramapo Central	$150,409	$3,190,268
Finkelstein Library	$7,125	$151,119
ERCS Town Fee	$1,535	$33,414
Total East Ramapo Central	**$159,069**	**$3,374,801**
TOTAL	**$244,622**	**$5,114,056**

Source: Town of Ramapo, Tax Receiver's Office;
Tim Miller Associates, Inc., 2008

The Town of Ramapo would receive property tax revenues of $1,426,061 annually that would accrue to the Town General Fund, Part Town, and the Ramapo Police Department. The various utility districts and service providers would receive tax revenues to pay for solid waste, sewer, and water services provided to the development. The Town of Ramapo charges sewer and solid waste disposal fees on a per unit basis. As informed by the tax receivers office of the Town of Ramapo, the unit charge is based on the number of residences in the development. Once the number of residents is determined, the Town of Ramapo would receive additional fees for sewer and water service.

Rockland County

Rockland County would receive $313,194 annually in property tax revenues. Additional revenues would accrue to the County sewer district for the portion of the project in the Town of Ramapo as shown in Table 1.

Other Special Districts

The total annual tax revenues to the Moleston Fire District would be $115,111. As discussed, effective January 6, 2009 the entire site is serviced by the Hillcrest Fire Company #1, all fire tax revenue will go to the Moleston Fire District. The Ramapo Ambulance Corps would receive $54,903 annually in project-generated tax revenues.

East Ramapo Central School District

Patrick Farm would generate annual property tax revenues of $3,190,268 directly to the East Ramapo Central School District. In addition $151,119 would benefit the East Ramapo Finklestein Memorial Library.

Town of Ramapo Cost of the Proposed Project

An approximate estimate of costs to the Town of Ramapo associated with the proposed residential development may be determined by obtaining a reasonable composite of current costs on a per capita basis and multiplying this amount by the anticipated population of the proposed project.

In this instance, the adopted 2008 municipal budget for the Town of Ramapo including the *General Town Fund, Highway Maintenance, Water, Sewer, Lighting*, *Police Protection and Fire Services* amounts to $68,570,580[5]. The total amount to be raised by taxes is $47,678,379[1]. The tax levy represents 69 percent of the total municipal budget. Based upon the 2006 American Community Service housing survey, which supplements the Decentennial US census, the estimated service area population for the Town is 112,347. Dividing the budget to be raised by taxes by the 2006 population results in a per capita municipal cost of $424 per person for municipal services. This represents a "worst-case" estimate of per capita costs, as the commercial and other land uses in the Town also place demand on the various Town and other governmental services which are not considered in deriving the per capita cost.

The proposed project is projected to generate up to 1,932 persons, including 609 schoolage children. Based on a per capita cost of $424*,* the additional costs to the Town of Ramapo are projected to be approximately $819,168.

As presented in Table 1, the revenues to the Town from the proposed Patrick Farm Development would amount to a total of $1,426,061 compared to a cost of $819,168. Thus, the impact to the Town of Ramapo budget is anticipated to be positive.

[5] Town of Ramapo 2008 Adopted Budget, as presented to the Town Clerk November 20, 2007

East Ramapo Central School District Costs

Patrick Farm would generate annual property tax revenues of $3,190,268 to the East Ramapo Central School District. The budget for the 2008-2009 school year for the East Ramapo Central School District totaled approximately $192,728,148. Of this total, $134,559,794, was raised by the school tax levy; the remainder of the costs are paid through state aid and other revenue sources. Current school district enrollment is approximately 8,000 students. Approximately 70 percent of the budget is met through the property tax levy. Thus, the program cost per student to be raised through property taxes is approximately $11,774 per student.

As noted in Chapter 3.6 of this DEIS, the total number of schoolage children to be generated by the project was calculated based on student multiplier data available from the Rutgers Center for Urban Policy Research, June 2006. Based upon this data approximately 609 students would be projected to live at Patrick Farm. The East Ramapo School District is unique in that approximately 67 percent of the school children that live in the district attend private school. Based upon this proportion, approximately 201 students may be introduced into the East Ramapo Central School District. The district has been suffering with declining enrollment and an influx of publicly-enrolled students to this district would be a beneficial impact.

Based upon the projected cost per student of $11,774 derived above, the 201 additional students that may be introduced to the School District would increase costs to the District by about $2,366,574 annually. In addition to the cost for students enrolled in the public school, the East Ramapo Central School District's Office of Funded programs provides services to approximately 17,000 non-public schools. The per student cost for this service to be paid by the property tax levy is estimated at approximately $625 per student[6]. These costs include bus transportation and nursing services provided to the non-public school population. The increased cost to the school district from 408 Patrick Farm students who may attend private school is projected to be $255,000.

The proposed Patrick Farm development will generate a total of $3,374,801 in annual property tax revenues to the school district, including the Library tax and the Schools Town Fee. After meeting the projected combined costs of school district services to both public and private school students of up to $2,621,574, the overall effect on the district's budget is projected to be positive.

Impact on Adjacent Property Values

The potential impact of large scale medium and high density residential construction, such as the proposed Patrick Farm project, on the property values of adjacent and nearby properties may be assessed through an analysis of similar properties in the market area. Waterstone Real Estate Appraisals, Inc., conducted an assessment of the impact of a similar development, known as Crystal Hills located on the north side of US Route 202, opposite a conventional residential neighborhood. This analysis is included as Appendix K. Based upon a review of the market values of the homes in the adjacent single family neighborhood before and after completion of the Crystal Hills project, the analysis concludes the market values were not impacted by the large scale multiple residence nearby.

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[6] Phone conversation with East Ramapo School Board Treasurer, Mr. Bier on January 8, 2009.

Mitigation Measures

The property tax revenues generated by the project will be adequate to address service demand, and the project is not anticipated to have an impact on the market values of adjacent and nearby properties, thus no mitigation measures are proposed.

1.4.8 Historic and Archaeological Resources

Potential Impacts

Phase I and 2 Archeology Studies were conducted for the Patrick Farm site, and were submitted to the Office of Parks Recreation and Historic Preservation (OPRPH) for review and comment. OPRHP's comment letter dated October 14, 2008 is included in Appendix I. OPRHP reviewed the locations identified by the Phase 1 and 2 investigations for eligibility for the State and National Registers of Historic Places. The results of their review are presented below;

Table 2
State and National Registers of Historic Places Eligibility

Phase 1 Identification	Site Name	Eligibility	Action
Prehistoric Site 1	Patrick Farm Prehistoric Site	Not Eligible	N/A
Cemetery	Conklin Family Cemetery	Eligible	To be left undisturbed
Historic Site 1	J. Mather Farmstead	Eligible	To be left undisturbed
Historic Site 2	Smith Farmstead	Not Eligible	N/A

OPRHP 2008.

The cemetery will be protected and left undisturbed, thus there will be no impact to the cemetery as a result of the Patrick Farm development.

Historic Site 1 appears to be eligible for the State and National Registers of Historic Places as confirmed by OPRHP in their review and comment letter dated, October 14, 2008. Subject to OPRHP approval, the applicant has reconfigured the driveway on lot 51, in the vicinity of the J. Mather Farmhouse foundation to allow the farmhouse foundation to remain undisturbed.

Mitigation Measures

OPRHP concludes that for the majority of the site no historic or cultural resources exist on or near the project parcel and no further investigation is required. The Conklin Family cemetery will be avoided via a deeded conservation easement as shown in Figure 3.8-1. The J. Mather Farmstead would also remain undisturbed as via a conservation easement as shown in Figure 3.8-3. Based on these commitments by the project applicant, no impact on archaeological and historic resources is anticipated as a result of the proposed project.

1.4.9 Visual Resources

Potential Impacts

The proposed project would convert currently vacant woods and fields to a residential development and thereby change the character of the site. Clearing of trees and grading for construction and the addition of two story single family and townhouse dwellings would allow some views of the proposed development from area roadways. New lawns and landscaping would replace existing woods and meadows in developed areas, while preserving some natural buffers and placing single family development around the perimeter of the development. Preservation of the single family development density along the Route 202 and 306 corridors is specifically proposed as a design technique to integrate the development with the existing character of the locale. A Conceptual Landscaping plan has been developed to retain existing forested areas as far as practicable, and to restore vegetation along the scenic road corridor, providing screening of the developed areas within the interior of the site. As shown on the Conceptual Landscape Plan, the land along US Route 202 which contains the stone retaining wall is located within the area to remain undisturbed.

Town of Ramapo Scenic Road District

A significant portion of the project site is situated within the defined limits of the Town of Ramapo Scenic Road District. A checklist of site plan review and approval items taken from Town of Ramapo Local Law No. 7-2004, Scenic Road District Law, is provided in Section 3.9 describing the extent to which the proposed project plan conforms to the district criteria.

Views from the Intersection of NYS Routes 202 and 306

Single family houses are proposed to be constructed around a cul de sac with the backs of the lots towards the intersection of NYS Routes 202 and 306, requiring the clearing of woods at this location. The houses arrayed at the corner of the two roads would have new landscaping combined with existing trees that would be preserved. The landscaping would be in a naturalistic or more manicured style to be determined during the process of the review of this DEIS in order to be compatible with the natural setting.

Views from NYS Route 306

The proposed eastern entrance road, designated Road F on the site plan, runs perpendicular to NYS Route 306. Houses located along this road close to the site entrance would be visible from Route 306, while those farther to the west would be partially screened from view by existing woods, new plantings, and houses in the foreground. Road F forms a tee with Road D, which would branch to the north and south. Houses on the north branch would likely be visible from NYS Route 306 beyond the properties closer to the road. The south branch of Road D would be located behind a wooded wetland, to be preserved, and existing residential development on Route 306. Views of the new development at this location would be obscured due to the density of the tree cover. The electric transmission towers would remain visible from this portion of Route 306 through the foreground trees.

The proposed entrance to the community service worker apartments is located north of the Hillcrest Fire Station on NYS Route 306. The view would include an access road leading to the

parking area for the apartments and community building and a private driveway and residence along the road frontage. The apartments would be set back over 200 feet from the road.

Views from NYS Route 202 at proposed entrance location

The proposed west entrance to the project on NYS Route 202 would include a two way entry drive that would bridge a proposed landscaped pond before crossing Old US Highway 202. A cluster of new residences with associated landscaping and parking areas would be arrayed on the slopes facing west. It is the applicant's intent to pursue de-mapping of the Old Route 202 alignment and utilize this area to provide additional buffer landscape screening of the interior of the project site.

Views from NYS Route 202 south of proposed entrance location

South of the proposed west entrance, single family houses with rear yards on NYS Route 202 are proposed**.** The houses would be set back 90 feet or more from the road and constructed at elevations at least 20 feet higher than the road. Within the setback along the road, portions of the existing woods would be preserved**.** Behind these houses, the townhouses that are proposed to be built on the more level ground towards the center of the property would be situated below the line of sight from Route 202, due to the steeper topography close to the road. In addition to the existing trees along the road frontage south of the site entrance, the existing stone wall would be retained.

At the southwest corner of the property on NYS Route 202, three houses are proposed to be constructed on large lots at the highest point of the property, approximately 100 feet above the level of the roadway. These properties would not be visible from the road due to intervening topography. Houses proposed to be built in the central southern portion of the site would be situated on terrain that slopes eastward towards the lake and meadow on the property, and these also would not be visible from NYS Route 202.

Views from Scenic Drive and Hidden Valley Drive

In the vicinity of Scenic Drive, residences are proposed to roughly encircle the wetland meadow at the southern end of the project site. Two branches of the internal road network would end in cul de sacs north of the existing cul de sac on Scenic Drive. Five houses are proposed with driveway access onto Scenic Drive. This style of development would be comparable with the existing development in this location, where there are five house lots opposite the project frontage. Existing trees along Scenic Drive would be retained to the extent practicable.

The southeastern leg of the internal road would service single family residences that would occupy the perimeter of the site. Inside this, towards the center of the site, groups of townhouses are proposed where the terrain gently slopes inward towards the lake on the property, reaching an elevation approximately 40 feet lower than the elevation of Scenic Drive and Hidden Valley Drive. Because the subject property slopes away from Hidden Valley Drive and the proposed houses would be constructed at lower elevations, it is anticipated that views of the upper portions of the proposed buildings would be possible, while not obstructing the distant view to the Ramapo Mountains over the roofs of the houses in this location.

Views from the Suffern-Bear Mountain Trail

Two points identified as Scenic Views (referred to herein as "overlooks") on the New York-New Jersey Trail Conference Map of Harriman State Park are located immediately west of the project site. Located along the Suffern-Bear Mountain Trail, the two overlooks are on Panther Mountain. A third overlook is identified farther south, southwest of Catamount Mountain.

After construction, the view from scenic overlook A and B on Panther Mountain would include new housing development in the scene. Given its position at a higher elevation, new development on the project site would appear in a relatively small area of the mid ground of an expansive, panoramic view of the valley region, which includes visible housing development and agricultural field clearings in numerous areas beyond the site itself. The new buildings visible in the mid ground of this vast panorama would appear in clusters within the areas of trees to be retained around the project, similar to other development within this view, and would not be expected to impose a significant change to the regional landscape scene. In particular, the locations of the weather balloons flown on the site that generally outline the area of proposed zone change demonstrate the limited area of the densest proposed development within the broad scene. As seen in the photographs from the trail vantage points, intervening foreground tree cover on the mountain would obstruct sight lines toward the site in varying degrees. It is also noted that use of the trail is greatest when leaves are on the trees and the potential for view of the project development is most obscured. A cross section illustrating representative lines of sight toward the proposed development from the vicinity of overlook A and B is shown in Figure 3.9-13 (Section D-D).

Similarly, the line of sight toward the proposed development from the scenic overlook southwest of Catamount Mountain (overlook C) would be obstructed by the dense tree top branches during off leaf conditions, and would be obscured when trees are in leaf.

Mitigation

Site Design

The site design for the proposed development would locate single family residences on the lots with frontage along NYS Routes 202 and 306 and Scenic Drive, while the townhouses would be clustered in the central portion of the property. This layout would allow for the preservation of existing trees, landforms, and characteristic development patterns along the area roads and the screening of denser portions of the development in the center of the property. In this way the site design would conform to the standards in the Town of Ramapo Scenic Road District Regulations. A Conceptual Landscaping plan has been developed to retain existing forested areas as far as practicable, and to restore vegetation along the scenic road corridor, providing screening of the developed areas within the interior of the site. The foregoing discussion and accompanying cross sections demonstrate that the proposed project would not obstruct any existing scenic view.

Architecture

Architecture for the Patrick Farm Development would be developed more fully during the review process to respond to requirements and goals of the Town. Representative architecture is shown in the set of architect's renderings in Figures 3.9-14 through 3.9-21. The project sponsor is committed to selecting residential architectural styles that complement the most pleasing

examples in the community. Colors and materials would be chosen to integrate the buildings with the natural landscape and the character of the locale.

Landscaping

As shown in the Conceptual Landscaping Plan, landscaping for Patrick Farm, including built elements, trees, shrubs and other plantings would adopt a naturalistic and/or a more manicured approach in accord with the overall site design, architectural concept, and the specific standards and goals of the Town.

The project includes an extensive system of walkways to facilitate pedestrian circulation around the project site without vehicles. Figure 2-5 illustrates a portion of the pedestrian system in the area of the existing pond on the site. The project entrance area is designed to include two landscaped ponds with small fountains to provide an aesthetic feature along US Route 202. The architect's renderings shown in Figures 3.9-14 through 3.9-22 illustrate potential landscape plantings to screen views from locations along area roads and decorative landscape plantings using combinations of evergreen and deciduous trees and flowering plants. Figures 3.9-20 and 3.9-21 show typical streetscape views within the multifamily portion of the development. Figure 3.9-22 shows a rendering of the view of the promenade proposed around the existing pond on the property.

1.4.10 Noise and Air Resources

Noise - Potential Impacts

Short Term Effects

Local daytime ambient noise levels will increase both on and off of the project site during construction of the proposed Patrick Farm subdivision. Construction activities and the operation of construction equipment are an expected and required consequence of any new construction project and cannot be avoided. Thus, some 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.

Throughout construction of the project, the grading would involve approximately 225,675 cubic yards (cy) of earth cut and 224,496 cy of fill. Final grades will be adjusted to achieve an earth-work balance for the project. Noise levels associated with the loading and moving of fill will depend on the distance from any receptor.

Noise levels generated by construction activities elsewhere on the site would drop off with increasing distance and would not be readily noticeable to adjacent properties given the existing ambient noise levels at the property line.

Blasting Impacts

Rock removal may be required around areas of rock outcrop primarily in the western portion of the project site. Construction methods, other than blasting will be evaluated, such as cutting, ripping, or chipping. Any blasting required would be done in full conformance with applicable codes. Potential blasting activities would be limited to the times and days noted in the mitigation section below.

Long-Term Noise Effects

Patrick Farm subdivision is a development that will generate noises typical of residential neighborhoods. Sources of noise would include operating vehicles driving through the development, residents involved in recreational activities, and common area maintenance activities (e.g., lawnmowers). The introduction of a residential neighborhood will introduce a noise source to the project site. Residential uses are sensitive receptors and would not be expected to have a significant effect on noise levels.

Noise - Mitigation

Several mitigation measures are proposed to reduce noise to nearby residents. These mitigation measures include planning and operational measures, as well as the construction of physical noise barriers, in conjunction with the project development and construction.

Construction activity will not occur between the hours of 10:00 PM and 8:00 AM on weekdays, or at any time on Sundays or legal holidays in accordance with the Town of Ramapo laws. Typically, construction activities would be expected to cease prior to 6:00 p.m. All construction vehicles and equipment would be expected to be well maintained and operated in an efficient manner.

Should the need arise for blasting, any blasting would be done in full conformance with applicable codes. Prior to blasting, a general blasting schedule would be developed and a blasting permit would be obtained from the Building Inspector covering the specific blasting operation. It is anticipated that rock blasting would occur for short periods of time over a two month interval. All Blasting will be conducted in accordance with the Town of Ramapo Blasting Ordinance.

Air Quality - Potential Impacts

Short Term Effects

Potential short-term adverse air quality impacts that may result from the proposed project include fugitive dust and particulate matter from the project sites, and emissions from construction equipment and vehicles.

The construction of the proposed development will involve grading activities that may result in the release of fugitive dust and particulate matter from the project site. During this period, dust and particulate matter from the project site may be released into the air and carried off-site by wind. Construction-related air emissions will result from the use of diesel fuel as a source of energy for construction vehicles and equipment. Such increases in construction-related dust will be temporary.

Air Quality - Mitigation

Short-term Fugitive Dust Emissions

Construction activities on the project site may generate airborne or fugitive dust during ground clearing and excavation activities. Throughout the construction period, passage of delivery trucks and other vehicles over temporary dirt roads and other exposed soil surfaces could also generate fugitive dust. The anticipated duration of the construction period is approximately 60

months. Construction activity will be limited to the hours set forth in the Town of Ramapo Code. 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 Route 202, Route 306, or Scenic Drive are expected to result from the construction-related dust emissions.

Methods to control dust will include:

- minimizing the area of grading at any one time and stabilizing exposed areas with mulch and seed as soon as practicable;
- minimizing vehicle movement over areas of exposed soil, and covering all trucks transporting soil;
- unpaved areas subject to traffic would be sprayed with water to reduce dust generation;
- truck vehicle washing pads would be constructed at all construction entrances to avoid the tracking of soil onto paved surfaces.

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.

1.5 Summary of Project Alternatives

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a draft environmental impact statement include a description and evaluation of a range of reasonable alternatives to the proposed action that are feasible, considering the objectives and capabilities of the project sponsor. The range of alternatives must include the “No Action” alternative.

The DEIS evaluates the following alternatives;

- No Action.
- A No Zone Change Alternative, evaluating the impacts associated with development of only Single Family homes pursuant to the existing zoning designation.
- An Adult Student Housing Alternative, where the center 12 acres of the project are rezoned to accommodate Adult Student Housing at 16 units per acre.
- A Reduced Build out Alternative, where the proposed project is reduced by approximately twenty five percent.
- Cul-de-sac B-E Roadway Connection
- Cul-de-sac B-E Emergency Access Connection

A summary matrix of the quantifiable impacts associated with each alternative is provided as Table 3 at the end of this section. It should be noted that with the proposed development plan, and with each alternative presented below, the existing wetlands would not be disturbed.

No Action Alternative

The No Action Alternative is the scenario that would occur if the site were to remain substantially undeveloped except for the existing single family homes, which would continue to be occupied and the Hasty Hills stables which would continue to be used. The No Action Alternative would allow for the preservation of the Patrick Farm site in its present condition, but would do nothing to meet the need for diversified housing in this area. Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

Existing traffic conditions would remain the same. There would be no construction of left turn lanes on US Route 202 or NYS Route 306 to improve traffic flows along these corridors.

There would be no increase in market value or property taxes as a result of this alternative. Annual property tax revenues would continue to accrue to various taxing jurisdictions serving the project site but the overall increase in property taxes projected for the proposed project would not occur.

No demand would be placed on community services or utilities under the No Action Alternative. There would be no increase in school enrollment, which is considered a beneficial impact by the East Ramapo Central School District and there would be no increase in tax revenue generated for the District which is anticipated as a result of the proposed development. There would be no additional calls to police, fire, and emergency service providers under the No Action Alternative. There would also be no increase in municipal property tax revenues generated by the project site to fund community services as compared to the significant increase projected from the proposed Patrick Farm development. The Rockland County Sheriff's Department would be able to continue using a portion of the property for the purpose of conducting horse mounted police training exercises.

No Zone Change - Single Family Home Alternative

Sustainability is broadly defined as the level of natural resource use that can be sustained over time. Sustainability is the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs. Under the Single Family Alternative, the Patrick Farm site would be developed in a pattern of typical urban sprawl, which is the least desirable alternative in relation to sustainability and wise use of renewable resources.

Another definition of sustainability relates to the longevity of a community as a whole and it's ability to meet the needs of all members of the community. "To be sustainable over time, a community must include housing types and designs that will be desirable to buyers and renters decades from now. Those residents will be ethnically diverse, older, living in smaller households, and less likely to have children. The sustainable community must have many more housing choices than master planned communities in the past." [7] The single family alternative

[7] A Step-by-Step Guide to Sustainability, Karen Walz, FAICP, July 2007.

does not provide further opportunity for diversity of housing in the Town of Ramapo, as would the proposed project.

Under the Single Family Home Alternative a development consistent with present zoning would be constructed. Alternative A, depicted in Figure 5-1. shows how the site could be developed with 136 single family homes under the existing zoning. Under this alternative there would be no notable change in the diversity of housing options available in the Town of Ramapo. There would not be 72 workforce condominium flats units constructed nor would 24 rentals for community service workers be constructed.

The area of disturbance for this Alternative would be 81.9 acres compared to 113.7 for the proposed action. The differences are largely attributable to the smaller building footprints and associated smaller areas of clearing.

In this alternative, the development would result in a total of 27.9 acres of impervious coverage over the entire project site, compared with 46.1 for the proposed plan. This reduced area of impervious area would result in reduced storm water run-off generated by the site and reduction in the land area that would need to be devoted to stormwater detention and retention. *The recharge basins which allow for no net reduction in the groundwater recharge capability of the site would not be constructed. This is an important consideration given the sites location in proximity to the Ramapo Aquifer.*

There would be no changes in the existing permitted land use of the project site. There would be no zoning map and text amendments to construct multifamily housing on the central portion of the site. There would be no increase in the diversity of housing in the Town of Ramapo. No workforce housing would be available for sale. No community service worker apartments would be available for rent.

This alternative would result in a reduction of 147 peak hour trips due to the smaller number of units--136 versus 497 in the proposed plan. However, the proposed left turn lanes on US Route 202 and NYS Route 306, which designed to improve traffic flow on these roadways would also not be constructed. The direct site access from NYS Route 202 (Road B) would be located at a point south of the access in the proposed plan resulting in a significant earth cut. Proposed Road C would extend only to Old U.S. Highway 202.

The Single Family Homes Alternative would be expected to generate both lower municipal costs and lower tax revenue due to the smaller population projected and the reduced number of units. Under this Alternative the total population projected would be 615 persons and 215 school age children as compared with a total population of 1932 persons and 609 school age children under the proposed plan. The total number of units in this alternative would be lower -- 136 compared with 497 in the proposed plan. Therefore the tax revenue would be reduced compared to the proposed alternative. The reduced population would place a potentially lower demand on police, emergency, and other community services than the proposed action. Demands for water and wastewater generation would be 54,400 gallons compared to 198,800 gallons for the proposed action.

Adult Student Housing Alternative

Figure 5-2 shows the Adult Student Housing Alternative. The applicant wishes to be clear that there is no proposal to construct Adult Student Housing. This is not the preferred alternative. Analysis of this alternative was prepared as a requirement of the adopted Scoping Document for this DEIS.

Adult Student Housing was considered for this parcel several years ago. In this scenario, the central portion of the site would be developed with 192 adult student housing units and a post secondary educational institution occupying at least 10 percent of the project site, as defined in the Town of Ramapo Zoning Law § 376-1215. Access would occur from NYS Route 202. The remainder of the property would be developed with 127 single family residences. This alternative would not provide for a diversity of housing options available in the Town of Ramapo, since the inhabitants are restricted to full time students and faculty and their families. The student tenancy of these units would be limited to a maximum of six years. There would not be 72 affordable condominium flat units constructed nor would 24 apartment rentals for emergency service workers be constructed.

This Alternative would result in a land area disturbance of 81.3 acres and create impervious coverage of 30.7 acres without providing housing for the general population. 113.7
This alternative would require zoning map and text amendments to construct 192 adult student housing units on approximately 12 acres in the central portion of the site. This zone change would not increase the diversity of housing in the Town of Ramapo. Since the residents would be limited to Adult Students the housing would not meet the needs of the general population. This alternative would not include 72 condominium flat units for sale nor 24 emergency service worker apartments for rent adjoining the Hillcrest Fire Station on NYS Route 306.
. This alternative would result in 256 peak hour trips compared to 288 for the proposed project. However, the proposed traffic mitigation measures that would benefit the community would not be constructed.

The total population projected for this alternative would be 1,413 persons compared with 1,932 for the proposed action; therefore this alternative would place a potentially lower demand on police, emergency, and other community services than the proposed action. Demands for water and wastewater generation would be 127,600 gallons compared to 198,800 gallons for the proposed action. *However, this alternative would also result in decreased tax revenue compared to the proposed project.*

Reduced Build-Out Alternative

Alternative C, shown in Figure 5-3, shows how the site might be developed at a density of 75 percent of the proposed project. This alternative would result in the construction of 269 market rate townhouses and 103 single family homes. Under this alternative there would be less diversity of housing options available in the Town of Ramapo compared to the proposed plan. Neither 72 workforce condominium flats nor 24 apartment rentals for community service workers would be constructed.

The area of disturbance for this Alternative would be 76.6 acres compared to 113.7 for the proposed action. The total impervious area for the development would result in a total of 34.6 acres of impervious coverage over the entire project site, compared with 46.1 for the proposed plan.

This alternative would require zoning map and text amendments to construct 269 townhouse units on the central portion of the site to help meet the need for a diversity of housing in the Town of Ramapo. No emergency service worker apartments for rent adjoining the Hillcrest Fire Station would be constructed.

Peak hour trips generated would be 245 compared to 288 trips from the proposed project. However, the proposed transportation mitigation measures may not be constructed. Proposed Road C would extend only to Old U.S. Highway 202 and would not connect with NYS Route 202.

The Reduced Build Out Alternative would be expected to result in both lower costs and less revenue due to the lower population projected and the reduced number of units. Therefore the tax revenues generated by this alternative would be reduced compared to the proposed action.

The total population projected for this alternative would be 1,496 persons compared with 1,932 for the proposed action; therefore this alternative would require less police, emergency, and other community service than the preferred action and there would be less water demand and wastewater generation.

Views of the development in the Reduced Build Out Alternative would be similar to the proposed action on the north and south areas of the site, where single family residences are proposed in both cases. In three locations where townhouses and associated parking areas would be visible in the proposed plan, single family houses are proposed in this Alternative.

Alternatives D and E, shown in Figures 5-4 and 5-5 respectively, show a roadway connection between cul-de-sac B and cul-de-sac E. These alternatives were explored in light of the Town's recommendation to reduce the number of cul-de-sacs wherever feasible. Alternative D provides a full roadway connection between the two cul-de-sacs, built to Town roadway specifications. Alternative E provides an emergency access connection between the two cul-de-sacs. Alternative D increases the overall disturbance by 0.7 acres this results in an increase to woodland disturbance and impervious surface of 0.5 acres. Alternative E increases the impervious surface, overall disturbance and woodland disturbance by up to 0.3 acres. These alternatives would be similar to the proposed project in all other aspects. Table 3 provides a summary of the quantitative comparison of these alternatives compared to the proposed project.

Impact Comparisons

Table 3 below summarizes the quantitative impacts associated with No Action, the Single Family Alternative, the Adult Student Housing Alternative, the Reduced Development Alternative and the Cul-de-sac B-E connections.

Table 3
Alternative Impact Comparisons

Area of Concern	*Proposed Project* Single Family and Multi-family Housing	*No Action*	*Alternative A* No Zone Change Single Family Homes	*Alternative B* Adult Student Housing and Single Family Homes	*Alternative C* Reduced Development	*Alternative D* Cul de Sac B and E Roadway Connection	*Alternative E* Cul de Sac B and E Emergency Access Connection
Residential Units							
Total Units	**497**	**3**	**136**	**319**	**372**	**497**	**497**
Developed Area							
Impervious Surfaces (acres)	46.1	6.7	27.9	30.7	34.6	46.6	46.4
Lawn/Stormwater management (acres)	68.4	0	53.8	50.6	42.0	68.4	68.4
Natural Resources							
Total Site Area	208.5	208.5	208.5	208.5	208.5	208.5	208.5
Total Construction Disturbance (acres)	114.5	60.0	81.9	81.3	76.6	115.2	114.8
Total Undisturbed area	96.2	208.5	125.2	125.8	130.5	95.5	95.9
Woodland Disturbance	69.1	0.0	37.0	49.0	46.0	69.6	69.4
Wetland Disturbance (acres)	0	0	0	0	0	$\leq$ 0.10	0
Steep Slope Disturbance (>25%) (acres)	3.4	0.0	2.9	3.2	3.3	3.4	3.4
Housing Diversity							
Single Family Homes	87	3	136	127	103	87	87
Market Rate Townhouses	314	0	0	192	269	314	314
Workforce Condominium Flats	72	0	0	0	0	72	72
Emergency Service Worker Apartments	24	0	0	0	0	24	24
Total Units	497	3	136	319	372	497	497
Community Resources							
Population	1,932	14	615	1,413	1,496	1,932	1,932
School-age Children	609	10	215	848	483	609	609
Utility Demand							
Sewer/Water Demand (gpd)	198,800	1,400	54,400	127,600	148,800	198,800	198,800
Traffic							
Traffic Generation (Total PM Peak Hour Trips)	288	3	141	256	245	288	288

Source; Leonard Jackson Associates, Tim Miller Associates, 2008.

1.4 Permits and Approvals

As the Lead Agency, the Town of Ramapo Town Board has primary responsibility for review of this application and for determining its conformity with the Town's regulations. The following reviews, permits and approvals would be necessary to implement the action:

Federal

U.S. Army Corps of Engineers

- Nationwide Permit (stormwater discharge point)
- Wetlands Jurisdictional Determination

New York State

New York State Department of Environmental Conservation

- SPDES General Permit for Stormwater Discharges from Construction Activities
- Water Quality Certification
- Permit to Disturb 100-foot Wetland Buffer (discharge point for stormwater basin)
- Dam Permit

New York State Department of Transportation

- Highway Work Permit

New York State Department of Health

- Extension of Public Sewer and Water Service

Rockland County

Rockland County Health Department

- Extension of Public Sewer and Public Water Service

Rockland County Sewer District 1

- Extension of Sewer Service

Rockland County Planning Department

- 239 GML Review

Municipal

Town of Ramapo Town Board

- Adoption of Zoning Map and Text Amendments

Town of Ramapo Planning Board

- Site Plan and Subdivision Review and Approval

Town of Ramapo Architectural Review Board

- Architectural Approval of Building Elevations

Town of Ramapo Tree Commission

- Approval of new tree plantings

Interested Agencies
NYS Office of Parks, Recreation and Historic Preservation
Rockland County Department of Highways
Rockland County Drainage Agency
East Ramapo Central School District
United Water of New York
Town of Ramapo Police Department
Moleston Fire District
Village of Pomona Board of Trustees
Village of Wesley Hills Board of Trustees