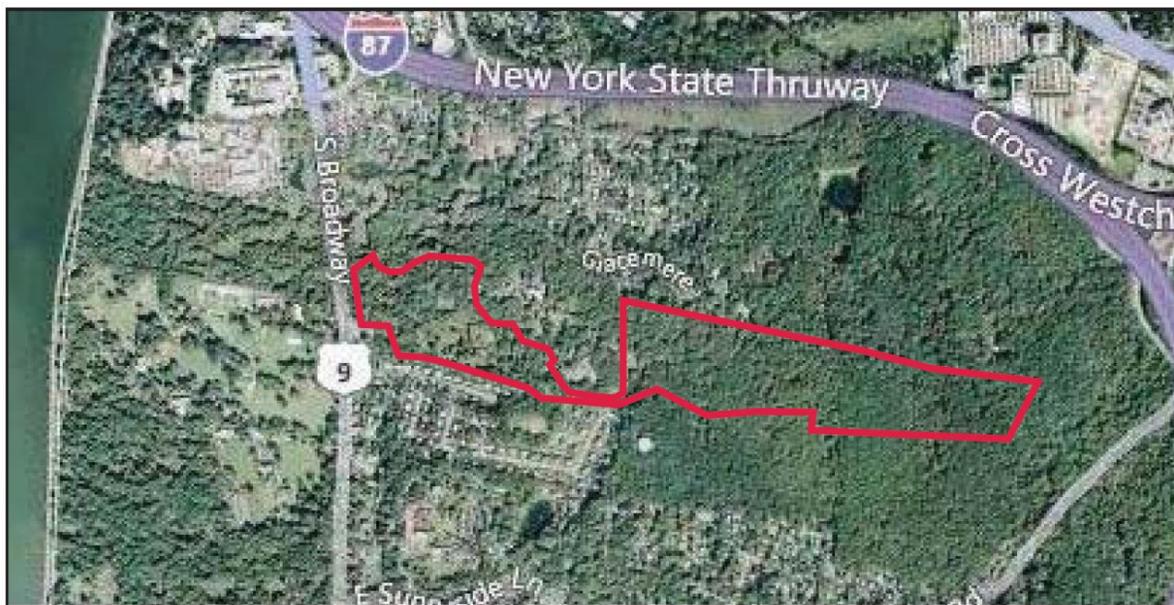


DRAFT ENVIRONMENTAL IMPACT STATEMENT

GREYSTONE ON HUDSON RESIDENTIAL SUBDIVISION

**Village of Tarrytown/Town of Greenburgh NY
(612 South Broadway, Tarrytown, NY)**



**Lead Agency:
Village of Tarrytown Planning Board
Westchester County, New York**

**Project Sponsor:
Broadway and Hudson Estates LLC & River Towns Estates LLC
c/o Andy Todd
15 Faulkner Lane
Dix Hills, NY 11746
516-652-2195
Andytodd1@gmail.com**

February 21, 2012

DRAFT ENVIRONMENTAL IMPACT STATEMENT

GREYSTONE ON HUDSON RESIDENTIAL SUBDIVISION

Village of Tarrytown/Town of Greenburgh
Westchester County, New York
(612 South Broadway, Tarrytown, NY)

PREPARATION OF DEIS REQUIRED BY:

Village of Tarrytown Planning Board – LEAD AGENCY
Village Hall
1 Depot Plaza
Tarrytown, New York 10591

DEIS Posted: http://www.tarrytowngov.com/pages/tarrytownny_bcomm/Planning

FURTHER INFORMATION AVAILABLE FROM:

Dr. Stanley Friedlander
Village of Tarrytown Planning Board
1 Depot Plaza
Tarrytown, New York 10591
914-631-1487

DEVELOPER: Broadway and Hudson Estates LLC

c/o Andy Todd
15 Faulkner Lane
Dix Hills, NY 11746
Andyodd1@gmail.com

AGENCY ACCEPTANCE DATE:

PUBLIC HEARING DATE

COMMENTS REGARDING THIS
DEIS SHOULD BE SUBMITTED

BY: _____

DEIS Preparers:

Overall Coordination and Report Preparation

Parish & Weiner, Inc.
297 Knollwood Road
White Plains, NY 10067
(914) 997-7200

C.M.Pateman Development & Consulting Corp.
59 Main Street
Irvington, New York 10533
Ph: (914) 231-9603

Engineering

Hudson Engineering & Consulting PC
55 South Broadway
Tarrytown, NY 10591

Michael Stein, PE
William Lackenauer

Environmental: Wetlands, Vegetation and Wildlife Survey

Ecological Analysis, Inc.
633 Rt. 211 East, Suite 4, Box 4
Middletown, NY 10941

James Bates

Traffic Engineering

VHB Engineering, Surveying and Landscape Architecture, P.C.
445 Hamilton Avenue, Suite 404
White Plains, NY 10601

John Canning, PE

Landscape Architecture and Aboriculture

Charles P May & Associates
367 Windsor Highway
New Windsor NY 12553
845-567-3030

Charles May

Table of Contents

	<u>Page</u>
I. <u>Executive Summary</u>	
A. Introduction	1
B. Description of Project Site Location.....	3
C. Description of Proposed Action.....	4
D. Summary of Significant Impacts & Identified Mitigation Measures.....	5
E. Descriptions of Alternatives Analyzed.....	6
F. Involved and Interested Agencies	7
G. Local County, State and Other Required Project Approvals.....	9
II. <u>Description of Proposed Action</u>	13
III <u>Environmental Studies</u>	
A. Land Use.....	20
B. Zoning	25
C. Socio-Economic; Population, Employment	28
D. Schools, Impacts and Cost/Revenues	30
E. Fire Services/Police Services	34
F. Public Works.....	37
G. Recreation and Parks.....	38
H. Fiscal	41
I. Wildlife	43
J. Stormwater	51
K. Wetlands	58
L. Soil Resources, Topography.....	62
M. Domestic Water, Sanitary Sewer, Solid Waste.....	77
N. Utilities to Adjoining Properties.....	82
O. Solid Waste.....	83
P. Noise and Air Quality.....	85
Q. Traffic.....	93
R. Historic/Visual Resources	97
S. Cultural Resources.....	101
T. Vegetation	103
U. Declaration Of Covenants, Restrictions, Easements, Charges And Liens and Typical Deed	113
V. Site History.....	114
W. Alternatives	116
X. Irreversible and Irretrievable Commitment of Resources.....	117
Y. Growth Inducement.....	118
Z. Energy Consumption and Conservation.....	119
AA. Environmental Impacts Which Cannot Be Avoided.....	120

Appendices

- A. Stormwater Report
- B. Traffic Studies
- C. Wildlife Reports
- D. History of Greystone
- E. Phase IA/IB – Archeological Investigation
- F. Historic/Visual Resources
- G. Wetlands Report
- H. Tree List
- I. Renderings and Photographs
- J. Benefits to Tarrytown
- K. Declaration of Covenants, Restrictions, Easements, Charges and Liens
and Typical Deed
- L. Custom Soils Resource Report
- M. 11” x 17” Reduction of Full Size Maps and Surveys

I. EXECUTIVE SUMMARY

a. Introduction

The Applicants Broadway on Hudson Estates LLC and River Towns Estates LLC (the “Applicant”) is the owner of 79.8 acres in 3 parcels of land, 2 of which are in the Village of Tarrytown and one in the Town of Greenburgh. For purposes of attaining a more environmentally sensitive internal road system, the Applicant has entered into an agreement to purchase 4.9 acres of additional land, in the Village of Tarrytown, from an adjacent property owner.

The Applicant is seeking to develop 20 single family homes within an approximately 84 acre site located in the Village of Tarrytown and Town of Greenburgh. Eight of the homes will be developed in the Village of Tarrytown and twelve of the homes will be developed in the Town of Greenburgh. In addition one approximately 21.7 acre lot will be donated to the Town of Greenburgh as open space in perpetuity to be added to Taxter Ridge Park and another lot will be donated to the Village of Tarrytown as open space to connect the Old Croton Aqueduct which currently dead ends at the applicants parcel when exiting Lyndhurst.

The State Environmental Quality Review Act (SEQRA) review will be performed in accordance with 6NYCRR Part 617 regulations. The Village of Tarrytown has issued a Notice of Intent to be Lead Agency and no objection was stated from any of the involved agencies.

The Village of Tarrytown as Lead Agency has determined that the proposed actions are classified as a Type 1 Action and that a full Environmental Impact Statement is required to be prepared.

Subdivision approvals will be subject to the review and approval respectively of the Village of Tarrytown Planning Board and the Town of Greenburgh Planning Board. Following completion of the SEQRA review additional approvals will be required from other agencies such as the Westchester County Board of Health, NYS DOT, NYS DEC, Tarrytown Board of Trustees...

While this action will be reviewed and approved independently by the respective Planning Boards, it is expected that the reviews will be generally concurrent and each Board will be provided with all of the relevant information for both projects.

b. Description of the Project Site

The land fronts on the easterly side of South Broadway (Route 9) in Tarrytown and is immediately adjacent to the Tarryhill community which lies along the southerly boundary, and it extends easterly into the Town of Greenburgh with its easterly boundary adjacent to the Town of Greenburgh Taxter Ridge Park. (See Maps #1 and #2)

c. Description of the Proposed Action

The proposed action includes:

- The development of an 8 lot single family home subdivision in the Village of Tarrytown including an internal road system and underground utilities needed to serve the houses.
- The development of a 12 lot single family home subdivision in the Town of Greenburgh including an internal road system connecting from the road in Tarrytown and underground utilities needed to serve the houses.
- The donation of approximately 21.7 acre parcel to be donated to the Town of Greenburgh as open space to be added to Taxter Ridge Park.
- The donation of a parcel to the Village of Tarrytown to serve as a gateway entrance to the portion of the Old Croton Aqueduct Trail which extends to the north of the property along South Broadway.
- The development of a parking lot on Taxter Ridge Road to serve the Taxter Ridge Park.
- The development of a trail to connect the Open Space Parcel in the proposed Jardim Estates East Subdivision to the Applicants 21.7 acre donated parcel and ultimately to the existing Taxter Ridge Park. This connection begins at Sheldon Ave and if one were walking west on Sheldon Ave they would ultimately connect to the Old Croton Avenue and Gracemere Park effectively making a connection from Taxter Ridge Park to the Old Croton Aqueduct which doesn't currently exist.
- The implementation of a storm drainage plan which will reduce potential flooding impacts on South Broadway.

d. Summary of Significant Impacts and Identified Mitigation Measures

These impacts are discussed in detail under each environmental impact subject in this DEIS.

A summary follows:

- Potential impacts to wetlands in Greenburgh are mitigated by avoidance of disturbance to Wetlands and establishment of protective buffer areas.
- Potential impacts to steep slopes are mitigated by creating low density lots that are far larger than the Zoning Ordinances of the Village of Tarrytown and the Town of Greenburgh, and by careful siting of the development to avoid disturbance of steep slopes to the maximum extent feasible.
- Potential impacts to wildlife and botanic resources are mitigated by the donation of an approximate 21.7 acre open space parcel to be added to Taxter Ridge Park.
- Potential stormwater impacts are mitigate by an internal stormwater protection system that will result in post development flow being less than pre development current flow.
- Potential construction impacts are mitigated by a detailed sediment and erosion control plan and detailed construction activity measures to control noise and air pollution.

e. Descriptions of Alternatives Analyzed

- One alternative is to take no action and leave the site as it is. This alternative is not considered feasible, since the site is zoned for residential use, and its location in a residential neighborhood makes it an appropriate and desirable site for residential development. The property is privately owned, and the owner has no intention to retain it as an undeveloped open space.
- We considered a plan our predecessor, Esposito Equities, had engineered and were ready to submit for 13 lots in Tarrytown and 33 lots in Greenburgh. Such a plan would result in larger property tax revenues, but has been deemed to have less favorable impacts on the natural environment and on restoration of historic resources than that of the proposed plan presented in this DEIS.
- The Applicant has considered the development of an alternative plan that would result in the development of 15 homes in Tarrytown and 60 homes in Greenburgh as projected for the site in the Comprehensive Plan prepared for Tarrytown in 2007, and using the existing site driveway access to South Broadway. Such a plan would result in larger property tax revenues, but has been deemed to have less favorable impacts on the natural environment and on restoration of historic resources than that of the proposed plan presented in this DEIS.

f. **Involved and Interested Agencies**

Lead Agency

Village of Tarrytown Planning Board
One Depot Plaza, Tarrytown, NY 10591

Involved Agencies

Town of Greenburgh Planning Board
177 Hillside Avenue, White Plains, NY 10607

Village of Tarrytown Board of Trustees
One Depot Plaza, Tarrytown, NY 10591

NYS Department of Environmental Conservation
625 Broadway, Albany, NY 12233
Region 3, 21 South Putt Corners Rd, New Paltz, NY 12561

NYS Department of Transportation, Region 8
4 Burnett Boulevard, Poughkeepsie, NY 12603

Westchester County Department of Health
145 Huguenot Street, New Rochelle, NY 10801

NYS Dept of State Division of Coastal Resources
41 State Street Albany NY12231

Interested Agencies

Irvington Union Free School District
Assistant Superintendent for Business, 40 No. Broadway, Irvington, NY 10533

Westchester County Planning Board
148 Martine Avenue, Room 432, White Plains, NY 10601

New York State Office of Parks Recreation and Historic Preservation.
Linda G. Cooper, Regional Director
Taconic Region P. O. Box 308, 9 Old Post Road Staatsburg, NY 12580

Lyndhurst
635 South Broadway, Tarrytown, NY 10591-6499

Old Croton Aqueduct State Park
15 Walnut Street, Dobbs Ferry, NY 10522

Neighbors

The following neighbors will be provided copies of all documents that have been filed with the respective Boards.

East Irvington Civic Association
Atten: Dan Gold

Tarryhill Homeowner's Association
Atten: Alan Zeiss President

Gracemore Neighbors, Village of Tarrytown
Atten: Linda Viertel

g. Local County, State and Other Required Project Approvals

Tarrytown Parcel:

List of Required Approvals:

- a) Village Planning Board - Subdivision Approval
- b) Village Board of Trustees – Dedication of Open Space Parcel
- c) New York State Department of Environmental Conservation SPDES Permit - General Permit # GP-0-10-001
- d) Westchester County Department of Health – Water and Sewer extensions
- e) New York State Department of Transportation Highway Work Permit
- f) Village Architectural Review Board Approval
- g) Village Board of Trustees – extend water and sewer district to include Greenburgh parcel of Greystone on Hudson.
- h) NYS Dept of State Division of Coastal Resources – Coastal Zone Consistency Review

List of Waivers/Permits

- a) Waiver to put Applicants entrance in the Broadway buffer to use the existing roadways and to create less overall disturbance to the site.
- b) Waiver to disturb steep slopes in the 50' Right of Way to use the existing roadways to create less overall disturbance to the site
- c) Waiver for approximately 516 linear feet of our proposed roadway to be 18' wide to save the existing tree line along the hisoric tree lined road
- d) Waiver for the proposed roadway in a few places to have an above 10% grade with a maximum 12% grade to allow Applicant to use reuse existing roadway which creates less overall disturbance to the site.
- e) Permit to encroach in the intermittent water course buffer to create less overall disturbance to the site.
- f) Tree removal permit
- g) Building Permits

Greenburgh Parcel:

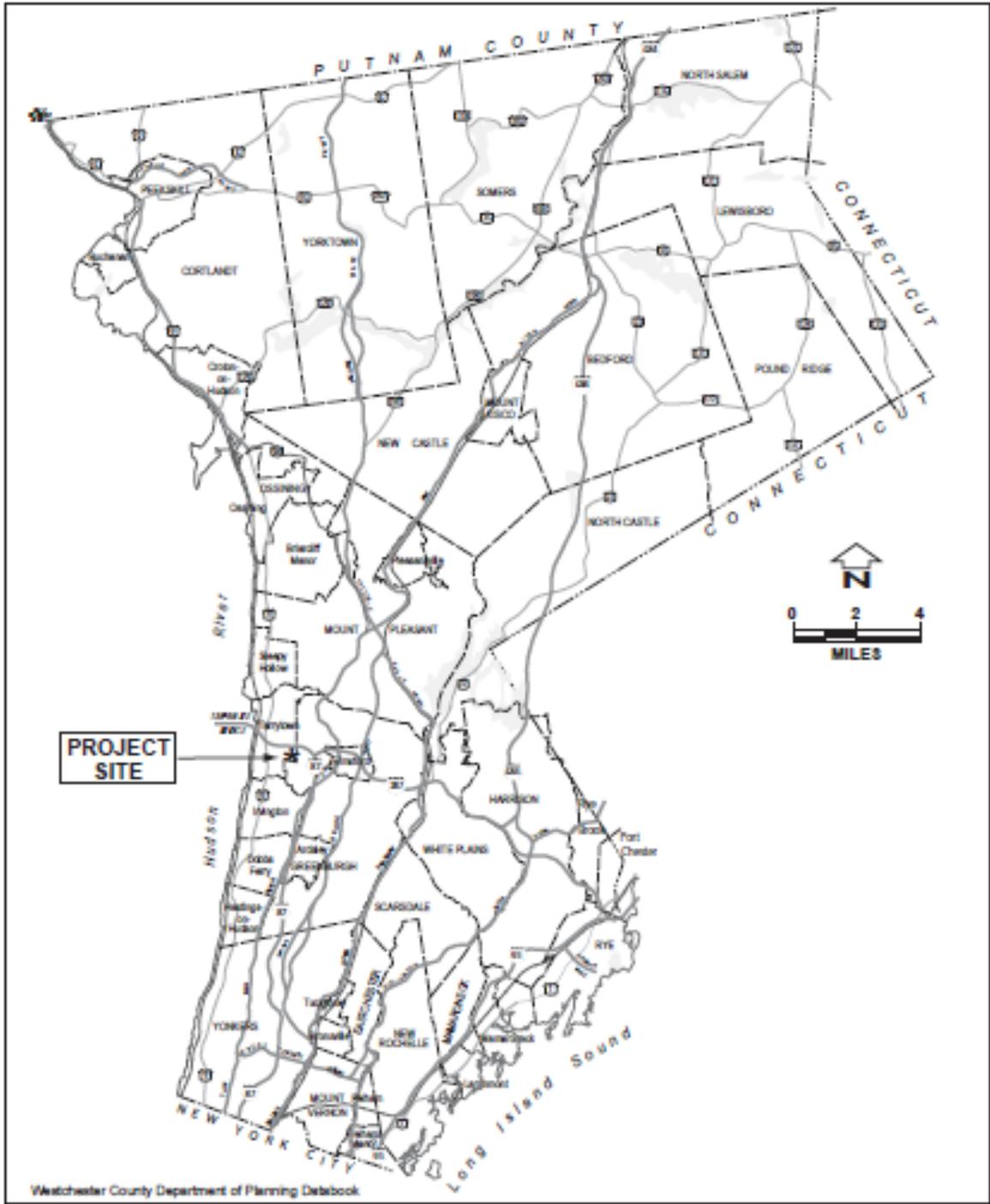
List of Required Approvals:

- a) Town Planning Board - Subdivision Approval
- b) New York State Department of Environmental Conservation SPDES Permit - General Permit # GP-0-10-001

- c) Westchester County Department of Health – Water and Sewer Extensions
- d) Building Permits
- e) Village of Tarrytown Street Opening Permit - for Roundabend Road Water

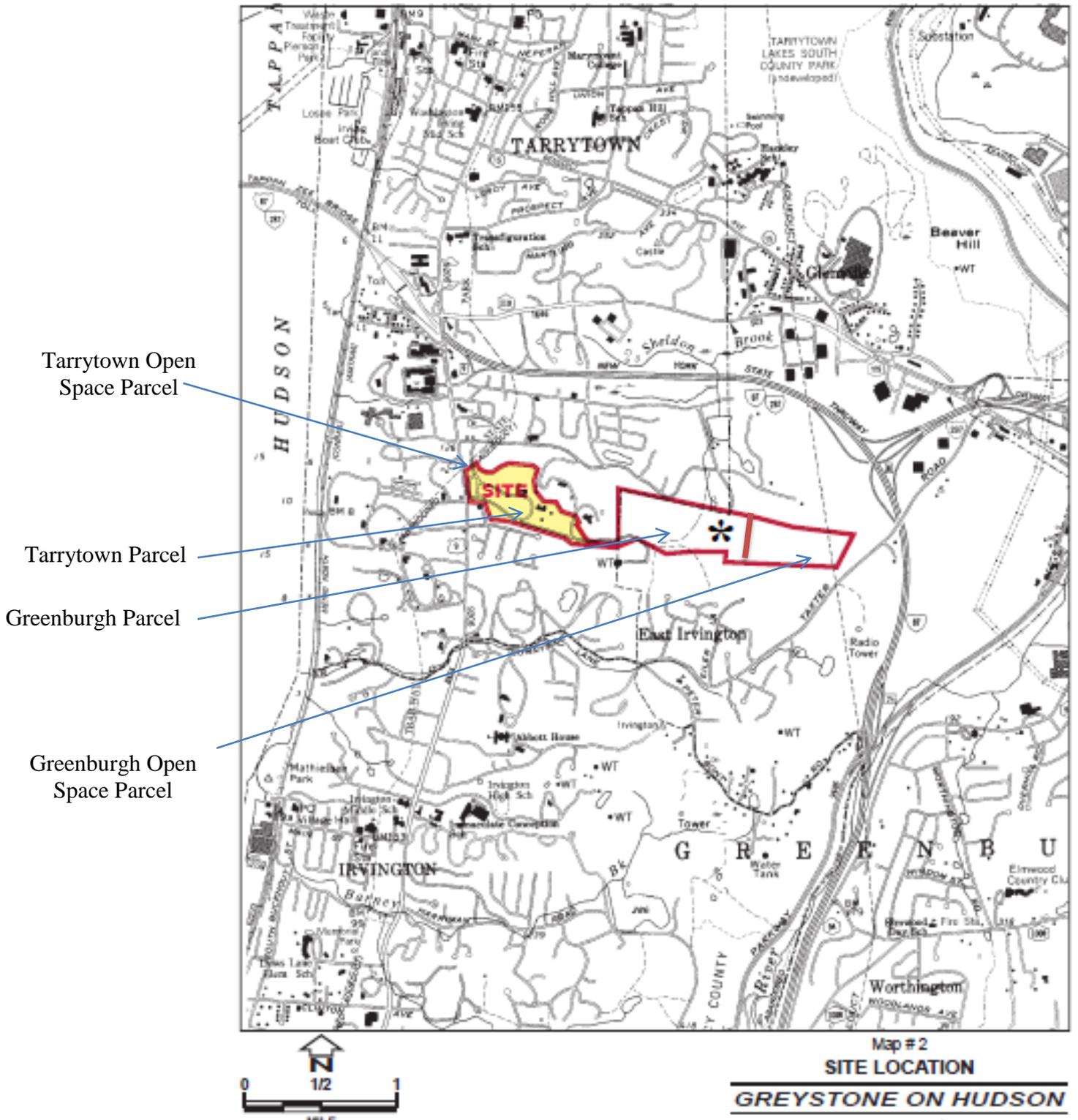
List of Waivers/Permits

- a) Waiver for proposed roadway to be 22' wide to create less impervious surface with less overall disturbance to the site.
- b) Permit to encroach in the wetland C buffer to install forebays and exfiltration ponds to protect the wetland.
- c) Permit to encroach into intermittent water course buffer that is caused by the Tarrytown Water Tower overflowing onto Greystone property. Since Tarrytown is updating its Telemetry the water tower will no longer overflow therefore the water course will be inactive. As a precaution Applicant proposes piping the water tower overflow in case of a dual power failure at the time the water tower is overflowing.
- d) Waiver to encroach on steep slopes to create less overall disturbance to the site
- e) Tree removal permit
- f) Building Permits



Westchester County Department of Planning Databook

Map #1
REGIONAL LOCATION
GREYSTONE ON HUDSON



II. DESCRIPTION OF PROPOSED ACTION

- This DEIS examines the proposed actions which will result in the development of 20 single family homes within an approximately 84 acre site located in the Village of Tarrytown and Town of Greenburgh. 8 of the homes will be developed in the Village of Tarrytown and 12 of the homes will be developed in the Town of Greenburgh. In addition 1 lot will be donated to the Village of Tarrytown and 1 lot will be donated to the Town of Greenburgh as open space.
- The table below provides the proposed use of each of the parcels in the Town of Greenburgh and Village of Tarrytown, lot number, lot size, range of bedrooms, range of square footage of the houses on the site... The table also lists the parcels to be donated for open space.
- The site is located on the easterly side of South Broadway (Route 9) in Tarrytown and is immediately adjacent to the Tarryhill community which lies along the southerly boundary, and it extends easterly into the Town of Greenburgh with its easterly boundary adjacent to the Town of Greenburgh Taxter Ridge Park. (See Maps #1 and #2)
- The site presently has access to South Broadway (Route 9). The current roadway access will be abandoned upon approval of an alternate access in order to preserve the historic Carriage Road.
- The proposed roadway access in Tarrytown largely follows and restores an existing historic carriage trail road measuring 22' in width except for a small area that will remain 18' wide to save the tree line. The revised access will also serve to avert any traffic and noise impacts to the Tarryhill community which would have been experienced if the existing driveway had been upgraded and utilized.
- The continuation of the proposed roadway into Greenburgh will provide traffic access and utility access to South Broadway by passing through this proposed Tarrytown subdivision. These impacts and cumulative school and drainage impacts are examined in this DEIS.

- The proposed action will result in 20 homes to be created on lots which vary in size from 88,183 square feet to 239,413 square feet, and are far larger than the minimum 60,000 square foot size required by the Tarrytown Zoning Ordinance and 40,000 sf required by the Greenburgh Zoning Ordinance. A total of 15 homes could be built in Tarrytown and 60 homes could be built in Greenburgh under the assumptions in the 2007 Tarrytown Comprehensive Plan. The development proposes only 20 homes which is significantly less than were contemplated in the Tarrytown Comprehensive Plan or as of right.
- The proposed action layout takes advantage of the natural beauty and topography of the site. Lots and houses are strategically placed to create the least amount of disturbance while maintaining the natural beauty of the site. Driveways generally meander to the house following the contours of the land and where possible existing driveways were reused.
- A detailed traffic study included in this report projects that the cumulative traffic generated by the 20 homes will be 36 vehicles in the AM peak hour and 43 vehicles in the PM peak hour. The study finds that this amount of traffic will not change the level of service at nearby directly affected intersections. This traffic study already takes into account the cumulative impact of the proposed Jardim Estates East subdivision for which an application is under review by the Village of Tarrytown.
- Deeds transferring properties to the 20 lots shall contain a restriction stating “there shall be no further subdivision of the subject lots in perpetuity.”
- In 1988 an FEIS was accepted by the Village Planning Board for the Carlisle Tarrytown Corporation for a proposed 49 lots on the Applicants Tarrytown parcel and 42 lots on the Applicants Greenburgh parcel. Prior to final approval subdivision Carlisle Tarrytown Corporation went bankrupt due to the recession
- The subject site was up-zoned by the Board of Trustees of the Village of Tarrytown in 2000 to an R-60 zone.

- A DEIS prepared by Calibur Builders for a subdivision in the Village of Tarrytown was submitted in the spring of 2003 for 13 buildable lots and was accepted by the Village. In 2006 Calibur Builders sold the site to Esposito Builders.
- The Applicant purchased the site In April 2011 from Esposito Builders who sold the Tarrytown Parcel to Broadway on Hudson Estates LLC and the Greenburgh Parcel to River Towns Estates LLC.
- It is expected that some 85 persons will occupy these 20 homes.
- The homes are expected to have a market sales price in the \$5 million range and that the following annual property tax revenues would be generated:

To the Village of Tarrytown:	\$ 245,712
To the Irvington Union Free School District:	\$1,681,700
To the Town of Greenburgh:	\$ 299,544
To the Town of Greenburgh (Tarrytown Parcel)	\$ 16,336
To the Glenville Fire District:	\$ 38,508
To the County Refuse District (Tarrytown)	\$ 11,224
To the County Refuse District (Greenburgh)	\$ 16,836

- It is expected that about 17 public school students would be generated by the 20 homes. These could be easily absorbed by the system inasmuch as the School District projects that its enrollment will decrease by approximately 200 students during the 2011 to 2018 period. The proposed Jardim Estate East Subidvision is projected to generate 4.5 to 6 school children yielding a cumulative impact of 21.5 to 23 school children from both projects.
- Projections show that a comparison of the School District tax revenues to be generated, to the marginal costs of educating 17 pupils, will result in an annual surplus of about \$1,350,000 from the 20 homes.

- The development will be served by a public water system (Village of Tarrytown) and a public sanitary sewer system (Village of Tarrytown lines connecting with the Westchester County Sanitary Sewer System). The collection lines will be installed by the developer within the internal roadways to be constructed to serve the individual homes.
- The streets and utility lines will be the property of, and maintained by, a Homeowners Association to be created.
- A storm drainage system will be installed which will assure that off-site post development peak storm flow will be significantly less than, pre-development flow. The system will reduce peak storm flooding impacts previously experienced on portions of South Broadway (Route 9) which border the project site.
- A 21.7 acre parcel in Greenburgh will be donated to the Town of Greenburgh for permanent open space and will be added to the adjacent Taxter Ridge Park. This parcel is owned by an entity which is controlled by the same principals as that of the Tarrytown parcel.
- A parcel of land will be donated to the Village of Tarrytown to provide a Historic gateway that will reconnect the Old Croton Aqueduct in perpetuity. This trail currently dead ends at our property when leaving Lyndhurst.
- There is a small amount of the proposed roadway that encroaches on steep slopes. This encroachment is mostly due to the Applicant's plan to reuse existing roadways on the site thus mitigating the disturbance of the site. The preservation of the parcels to be donated together with the reduction in the number of homes to be constructed will mitigate any impacts from some unavoidable excavation of steep slopes and will contribute to preserving the open space character of the area and provide a safer roadway than presently exists.

The post-development characteristics of the Tarrytown site:

Impervious Development Areas: 4.55 acres – 16.3%

Disturbed Re-landscaped Areas:	18.30 acres –	65.6%
Preserved in Natural State:	<u>5.04</u> acres –	<u>18.1%</u>
Total:	27.9 acres –	100.0%

Thus, about 82% of the Tarrytown site will, after development, be either preserved in its natural state or landscaped following construction disturbance.

The post development characteristics of the Greenburgh site:

Impervious Development Areas:	3.69 acres,	6.5%
Disturbed Re-landscaped Areas:	<u>13.68</u> acres,	<u>24.2%</u>
Preserved in Natural State:	<u>39.19</u> acres,	<u>69.3%</u>
Total:	56.56 acres –	100.0%

Thus, about 93% of the Greenburgh site will, after development, be either preserved in its natural state or landscaped following construction disturbance.

- The homes and internal roads have been designed to avoid disturbance of steep slopes to the maximum extent feasible.
- Construction stage impacts will be addressed and mitigated by a detailed Sedimentation and Erosion Plan and noise and dust control measures discussed in detail in the included reports and large size maps accompanying the submission.
- The plans provide for extensive landscaping of the site (see landscaping plan for typical plantings). The plan will screen abutting neighbors and South Broadway using both native and non native non invasive plantings and will be designed in full cooperation with the Village and Town Arborist to provide appropriate plantings that are as deer resistant as possible and that use a diverse species of plantings to maintain the natural look to the property in line with the rest of the area.

Purpose, Public Need and Benefits of the Proposed Action

- The purpose is the private development of land for single family residential homes under a plan that is protective of the environment.
- The public need is: The provision of homes which will enhance the economic diversification of the Village of Tarrytown and Town of Greenburgh; the provision of additional tax revenues to the Village and Town and to the Irvington School District; the provision of construction jobs and potential construction period revenues to the local retail and services businesses.
- The public benefits are: Addition to the Taxter Ridge Park; Provision of land for a gateway to the Old Croton Aqueduct trail; Property tax revenues increases to the Village, Town, and the Irvington School District; A high quality residential area whose residence expenditures will be an asset to the area's retail and services economy; Provision of an emergency access road for the Tarryhill community and the Nigerian Embassy; Provision of a safe internal road to replace an inadequate road that had some adverse impacts on the Tarryhill community; Provision of a pedestrian trail that would connect the Gracemere and Emerald Woods East communities to Taxter Ridge Park; Provision of a parking lot on Taxter Road for Taxter Ridge Park; Implementation of a storm drainage plan that will address existing peak storm flooding on South Broadway reduction of off-site peak storm drainage; Implementation of a cleanup program of Gracemere Park.

TABLE

Lots	Parcel Location	Lot Number	Proposed Use	Approximate Lot Size	Approximate Range of Bedrooms	Range of Sq Ft of House Excluding Basement, Attic, Garage	Comments
1	Tarrytown	1	Residential	146,081	5 to 7	5000 to 10,000	
2	Tarrytown	2	Residential	106,912	5 to 7	5000 to 10,000	
3	Tarrytown	3	Residential	101,751	5 to 7	5000 to 10,000	
4	Tarrytown	4	Residential	118,912	5 to 7	5000 to 10,000	
5	Tarrytown	5	Residential	123,379	5 to 7	5000 to 10,000	
6	Tarrytown	6	Residential	102,230	5 to 7	5000 to 10,000	
7	Tarrytown	7	Residential	102,885	5 to 7	5000 to 10,000	
8	Tarrytown	8	Residential	114,246	5 to 7	5000 to 10,000	
9	Tarrytown	9	Open Space	725			Donation of Approximately 725 sf Including Historic Gateway to the Village of Tarrytown as Open Space in Perpetuity to Connect the Old Croton Aqueduct
10	Greenburgh	1	Residential	92,712	5 to 7	5000 to 10,000	
11	Greenburgh	2	Residential	93,762	5 to 7	5000 to 10,000	
12	Greenburgh	3	Residential	89,961	5 to 7	5000 to 10,000	
13	Greenburgh	4	Residential	91,435	5 to 7	5000 to 10,000	
14	Greenburgh	5	Residential	99,714	5 to 7	5000 to 10,000	
15	Greenburgh	6	Residential	93,597	5 to 7	5000 to 10,000	
16	Greenburgh	7	Residential	87,903	5 to 7	5000 to 10,000	
17	Greenburgh	8	Residential	88,183	5 to 7	5000 to 10,000	
18	Greenburgh	9	Residential	239,415	5 to 7	5000 to 10,000	
19	Greenburgh	10	Residential	223,887	5 to 7	5000 to 10,000	
20	Greenburgh	11	Residential	98,316	5 to 7	5000 to 10,000	
21	Greenburgh	12	Residential	104,049	5 to 7	5000 to 10,000	
22	East	13	Open Space	21.7 acres			Donation of Approximately 21.7 Acres to the Town of Greenburgh as Open Space in Perpetuity

A. LAND USE

Existing Conditions

The proposed action is located in 2 municipalities on 2 parcels each being owned by a separate corporation but by the same developer made up of two vacant wooded lots totaling 23.2 acres in the Village of Tarrytown with access from South Broadway, and a 56.6 acre parcel in the Town of Greenburgh. The two parcels will be connected by acquiring a portion (4.9 acres) of the intervening 14.9 acre property in the Village of Tarrytown which now contains a single-family house to be retained. The property to be acquired has access to South Broadway (Route 9) via a private roadway immediately south of the project site in Tarrytown. There is also an emergency access through an existing easement from the private roadway to the cul-de-sac of Roundabend Road in the Tarryhill subdivision.

a. Village of Tarrytown

The area surrounding the project site in Tarrytown east of Broadway includes primarily single-family houses on lots ranging from 7,500 to 20,000 square feet with a few larger properties. Immediately north of the site is: Village open space, Emerald Woods Subdivision, the Nigerian Embassy property, and the proposed Jardim Estates East subdivision, and some single-family houses. Across South Broadway to the west are several large parcels including Lyndhurst, the Kraft General Foods property, the Doubletree Hotel and the Jewish Community Center, which has proposed an addition of 75,000 square feet on the site of the former General Motors Training Center. North of the site on the east side of South Broadway is a gas station, a diner, a Honda dealership and a church. (See Map #3).

In 2001 the Village of Tarrytown prepared a Draft Local Waterfront Revitalization Program (LWRP). The portion of the site in the Village of Tarrytown is located within the LWRP area. However, the Draft LWRP was never formally approved by the NYS Dept of State Division of Coastal resources.

b. Town of Greenburgh

The project site in the Town of Greenburgh is surrounded by the Taxter Ridge Preserve on 2 sides in its entirety as well as the Coppola Parcel to the west and a few residential areas to the north. (See Map #3)

Project Impacts

The proposed development of 20 single-family houses on very large lots (from 88,183 square feet to 239,413 square feet) on the vacant site will be compatible with the surrounding land uses that are mostly also single-family houses at a much higher density. The creation of a limited number of large lots exceeding the requirements of the R-60 District in Tarrytown and the R-40 district in Greenburgh (which would permit, as of right, 14-15 lots at 60,000 square feet in Tarrytown and 49 buildable lots in Greenburgh as of right on the entire Greenburgh Parcel and re-using the existing carriage roads will enable the preservation of much of the site in its natural state and reduce the amount of impervious roadway to be added. The houses will be sited to disturb as little of the lot as possible with driveways that follow the natural contours of the site, thus blending into the surrounding wooded open space and preserving the visual character of the site.

The Tarrytown Comprehensive Plan (March 2007) did a build out analysis that included the portion of the site of the Greystone on Hudson proposed development that is in the Village. After reducing the overall acreage appropriate for development by land with constraints (steep slopes and wetlands) and further reducing the acreage by 10% for infrastructure (roads and stormwater systems), it determined that the potential development was 15 houses in Tarrytown and 60 in Greenburgh for a total of 75 lots. The actual proposal is for only 20 lots, significantly less than the potential determined in the Comprehensive Plan leaving much more of the land area undisturbed and the Applicant's Plan will effectively upzone the property from an R-60 to R-90 in Tarrytown and from an R-40 to an R-85 in Greenburgh. The Comprehensive Plan also refers to various proposed projects in the Village, including several subdivisions proposing new homes, stating "these will add significantly to the economic development of Tarrytown".

The current private roadway from South Broadway along the southern border of the property is adjacent to many houses in the Tarryhill subdivision. This private drive will be eliminated and replaced by a new Private Road from South Broadway along the existing original historic Greystone tree lined road that led to Greystone main house and outbuildings on the northern portion of the property. This will reduce any potential impact on the Tarryhill homes. The houses in Greenburgh would be accessed by a private road connecting to the new private road on the Tarrytown portion of the site which in turn then accesses South Broadway. Maintenance of the private roads within the subdivision will be the responsibility of the Homeowners Association and not the Village of Tarrytown or Town of Greenburgh. An emergency exit will connect the new private road across an existing easement to the cul-de-sac of Roundabend Road and outlet to South Broadway. This connection will only be used in emergencies and will be gated. The Nigerian Embassy also has an emergency access over the existing Coppola roadway which will be replaced by emergency access over the Applicants proposed roadway once it is complete.

The Applicants will donate the historic gateway and land for access from South Broadway to the Old Croton Aqueduct. This will follow the perimeter of the portion of the applicant's property which adjoins the Aqueduct. It will link the path from its current exit point at Lyndhurst to the portion of the path which is to the north of South Broadway Route 9. (See map attached to Historical Resources report (Appendix F). Currently the Aqueduct dead ends at the Applicants property when leaving Lyndhurst. This donation will connect the trail in perpetuity.

The developer proposes to donate the eastern 21.70 acres of the site to the Town of Greenburgh to be added to the Taxter Ridge Preserve as open space in perpetuity. Additional access will be provided to the Gracemere section of Tarrytown to the donated area to the existing Taxter Ridge Park through a path that will connect through Jardim Estates East. This trail will lead all the way through the donated 21.7 acres to the existing Taxter Ridge Park.

While the Village's LWRP was never officially approved by the Dept of State the State Coastal Zone Policies that the LWRP indicated were relevant to the Village will not be negatively impacted by the proposed action.

The project proposals are compatible with the land use character of the area.

Mitigation

The proposed action is compatible with the surrounding area. While not required, mitigation is provided by: reducing the number of lots from the number permitted by Zoning in both the Village of Tarrytown and Town of Greenburgh; making the lots in both municipalities larger than required and donating 21.70 acres to be added to the Taxter Ridge Preserve and a connection to the Old Croton Aqueduct in Tarrytown; and relocating an existing private roadway which reduces impacts on the Tarryhill subdivision. No additional mitigation is to be deemed to be necessary. The project will not have a significant adverse impact.

B. ZONING

Existing Conditions

a. Village of Tarrytown

The zoning for the portion of the site in the Village of Tarrytown was changed in 2000 from R-20 (1/2 acre) to R-60 (1.37 acres). The goal was to preserve open space and reduce any potential impacts from the development of vacant land.

The surrounding area is zoned R-15 and R-20 to the south, HC (Historic Commons), OB (Office Building) and LB (Limited Business) west of South Broadway, and R-7.5, R-10, R-15, R-60, and NS (Neighborhood Shopping) north of the site. The adjoining Tarryhill subdivision ranges in size from 7,500 sf to 15,000 sf. (see Map 4).

b. Town of Greenburgh

The portion of the site in the Town of Greenburgh is zoned R-40 (one acre) with an overlay of CD (Conservation District). The CD District provides performance criteria for the conservation of the natural site features by preserving at least 50% of the area undisturbed. This CD requirement in effect results in cluster development. The surrounding area is also zoned R-40/CD. (See Map #4) In its Comprehensive Plan the Village of Tarrytown says it wishes to petition the Town of Greenburgh to upzone the Applicant's Greenburgh parcel to R-60. The Applicant has effectively upzoned the parcel to R-80 by creating large lots (87,903 to 239,415 square feet) which is lower density than the R-60 upzone the Village was looking for.

Project Impacts

a. Village of Tarrytown

The proposed action is for development of 8 home lots ranging in size from 96,195 to 141,338 square feet in Tarrytown. The impact is significantly reduced from that which would result from the 15 lots the Village projected in the Tarrytown Comprehensive Plan "as of right" lots at minimum lot sizes permitted by the R-60 district. Also applicable to the site are the Special Old Croton Aqueduct Setback and the Special Broadway Setback requirements.

The proposed site development will require no zoning changes or variances. A waiver will be requested for the Special Setbacks to permit minimal disturbance and allow the use of the existing Carriage Trail Road and to recreate an entrance filled with old world charm by preserving and restoring the historic Greystone carriage gate at the front of the property. In addition, the developer will donate the historic gateway to the Old Croton Aqueduct to connect the Aqueduct to its historic past in perpetuity.

b. Town of Greenburgh

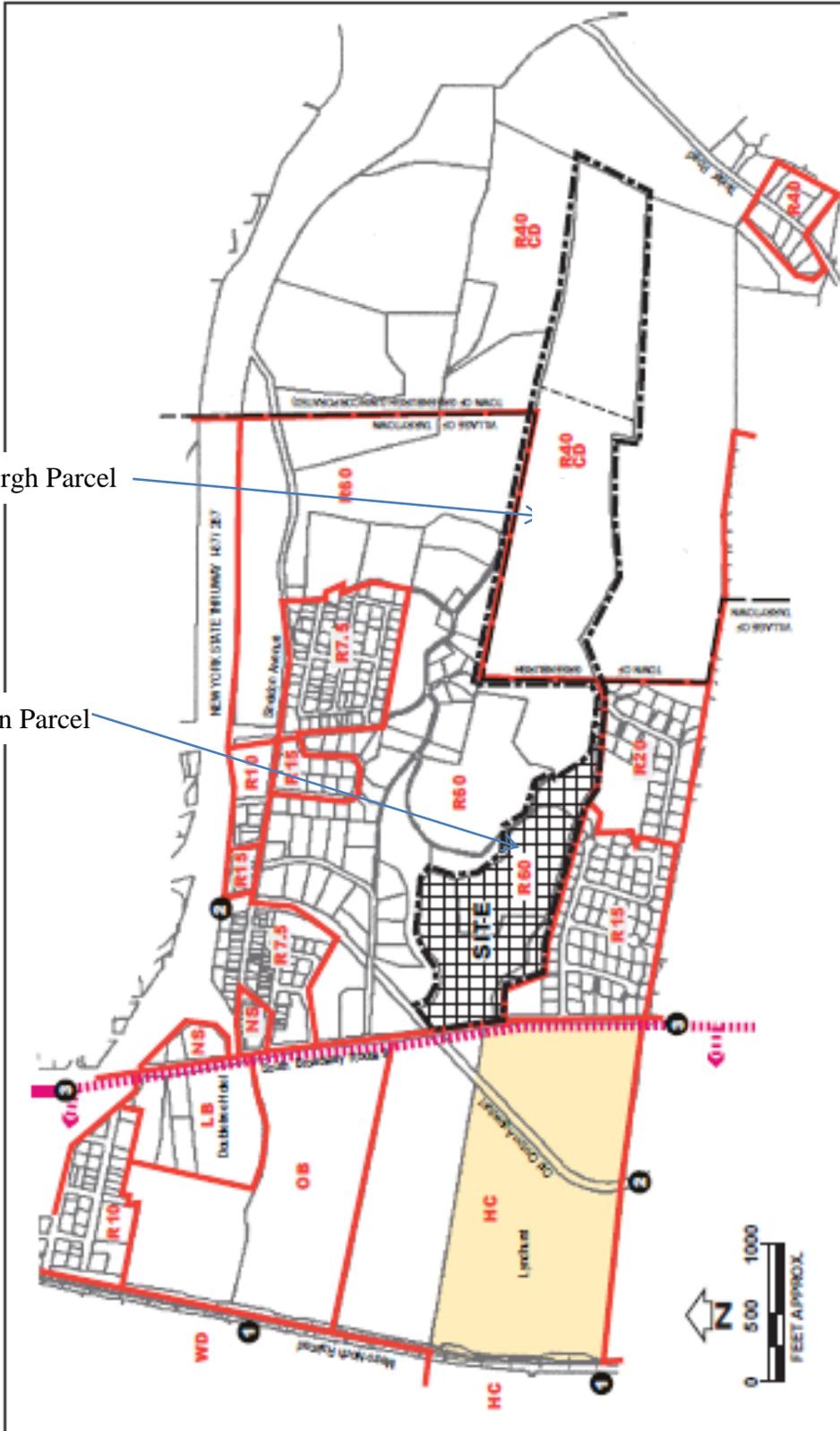
The proposed action is for the development of 12 homes in the Town of Greenburgh with lots ranging in size from 87,903 to 239,415 square feet. The development is less than what could be developed on the site inasmuch as the Tarrytown Comprehensive Plan suggests the Applicant can build 60 homes with a minimum lot size of 40,000 square feet. In addition, the developer proposes to donate a lot of 21.7 acres to the Town of Greenburgh to be added to the Taxter Ridge Preserve. This donation, in addition to the undisturbed natural areas within the residential lots, will substantially exceed the 50% conservation performance criteria of the CD district.

Mitigation

The proposed action meets and exceeds all zoning regulations and will not result in any adverse impacts requiring mitigation therefore no further mitigation is required. In addition, deeds transferring properties to the 8 lots shall contain a restriction stating “there shall be no further subdivision of the subject property in perpetuity.”

Greenburgh Parcel

Tarrytown Parcel



Map # 4
ZONING MAP

GREYSTONE ON HUDSON

Town of Greenburgh Zoning Districts

- R40 One-Family Residence
- CD Conservation District

- ① Special Railroad Setback
- ② Special Old Croton Aqueduct Setback
- ③ Special Broadway Setback

✧ Proposed Greenburgh Subdivision

Village of Tarrytown Zoning Districts

- R60 One-Family Residence - 60,000 s.f.
- R40 One-Family Residence - 40,000 s.f.
- R20 One-Family Residence - 20,000 s.f.
- R15 One-Family Residence - 15,000 s.f.
- R10 One-Family Residence - 10,000 s.f.
- R7.5 One-Family Residence - 7,500 s.f.
- LB Limited Business
- NS Neighborhood Shopping
- WD Waterfront
- HC Historic Commons
- Critical Environmental Areas
- South Broadway Historic District
- OB Office Building

C. SOCIO-ECONOMIC; POPULATION AND EMPLOYMENT

POPULATION

Existing Conditions

According to the 2010 Census the Town of Greenburgh had a population of 42,863, an increase of 2.5% from the 2000 population of 41,828. The Village of Tarrytown had a 2010 population of 11,277, an increase of 1.7% from the 2000 population of 11,090. Therefore, both the Town of Greenburgh and the Village of Tarrytown had only slight growth from 2000 to 2010.

The Town of Greenburgh had 17,181 housing units in 2010, an increase of 4.3% or 714 units from 2000. The Village of Tarrytown had 4,768 housing units in 2010, an increase of 1.7% or 80 units from 2000. In terms of occupied housing units, the Town of Greenburgh had 16,424 occupied housing units in 2010, an increase of 423 occupied or 2.6% units from 2000. The Village of Tarrytown had 4,410 occupied housing units in 2010, a decrease of 123 or 2.7% occupied units from 2000.

The difference between the increase in population in the Town of Greenburgh of 2.5% compared to the increase in occupied housing units of 2.6% implies that the average household size stayed the same from 2000 to 2010. The difference between the increase in population in the Village of Tarrytown of 1.7% compared to the decrease in occupied units of -2.7% implies that the average household size increased slightly in the Village from 2000 to 2010.

During the 2000-2010 period, the number of vacant units increased from 466 to 757 in the Town of Greenburgh, and from 155 to 358 in the Village of Tarrytown. The April 2010 data was taken at the height of the national “bursting of the housing bubble” and probably explains the reason for the increase in vacant units. In general, the housing market in Westchester, and in this sub-area is deemed to be fairly stable and housing prices and vacancies have remained fairly stable.

Project Impact

The following estimate of population to be generated by the 20 lot subdivision is based on the Rutgers University Center for Urban Policy Research Residential Demographic Multipliers (June 2006) The multiplier for 5-bedroom detached single family houses at the highest sales price category is 4.23 persons per house. Therefore, it is projected that the 20 houses in the Town of Greenburgh will generate 85 persons. The potential increase in population from Greystone on Hudson in the Town of Greenburgh will be 0.1%, and in the Village of Tarrytown it will be 0.3%. In neither case, nor viewed together, will the impact be significant.

Mitigation

The proposed actions will not result in any adverse demographic impact.

EMPLOYMENT

The homes are expected to sell for \$5 million. Thus, assuming about 25% of sales price will be on site construction labor, and the average annual construction wage and benefits at \$50,000, for the 20 homes there will be a projected 500 person years of jobs created during the construction period.

D. SCHOOLS, IMPACTS AND COST/REVENUES

Existing Conditions

All of the 20 houses will be located in the Irvington Union Free School District (IUFSD), which includes the Village of Irvington, a portion of southern Tarrytown and part of the unincorporated area of the Town of Greenburgh. The School District serves a 4.5 square mile area with a total resident population of approximately 7,000. The District is bordered on the north by Route 119, on the south by the Village of Dobbs Ferry, on the west by the Hudson River, and on the east by the Saw Mill River Parkway. The School District is served by four schools: Dows Lane Elementary School (K-3), Main Street School (4-5), Irvington Middle school (6-8), and Irvington High School (9-12).

The table below summarizes the 2011-12 grade distribution and enrollment of the schools within the District.

<u>School</u>	<u>Grades</u>	<u>Enrollment</u>
Dows Lane Elementary School	K-3	456
Main Street School	4 – 5	256
Irvington Middle school	6 – 8	418
Irvington High School	9 – 12	<u>598</u>
Total:		1,728

The attached Table from the School District shows the projected enrollment from 2010/11 to 2018/19. The enrollment is projected to decrease by 232 students from 2011/12 to 2018/19.

Project Impact

In order to evaluate the impact on the IUFSD, it is professional best practice to utilize a comparable development within the same School District. While there is no exact comparison to the houses at Greystone on Hudson, since there are no new developments in the District with houses selling for \$5 million, it was determined that the Legend Hollow development would be most comparable to Greystone on Hudson. Legend Hollow contains a total of 69 houses on large lots built in the 1990’s. The recent sales prices range from \$1.5-\$2.5 million.

The IUFSD data informed that 59 public school children are currently living in houses in Legend Hollow, 0.855 per house – 11 attend Dows Lane Elementary School (grades K-3); 8 attend Main Street School (grades 4 & 5); 14 attend Irvington Middle School (grades 6-8); and 26 attend Irvington High School (grades 9-12). Both Dows Lane and Main Street Schools have 6 sections per grade.

The total number of public school students for the 2011-2012 school year as of August 9, 2011, based on data from IUFSD is 1,728: 456 at Dows Lane; 256 at Main Street 418 at Middle School; and 598 at High School. Based on the IUFSD Preferred (most probable) Projection, total enrollment will decrease over the next 7 years by over 200 students from the current 2011-12 level of 1,728 to 1,522 in 2018-19, a decrease of 12%. Dows Lane (K-3) is projected to decrease from 456 to 439; Main Street (4-5) from 256 to 225; Middle School (6-8) from 418 to 346; and High School (9-12) from 598 to 512.

Applying the public school generation rate of 0.855 public school students per house found at Legend Hollow to the 20 houses proposed at Greystone on Hudson yields a projected total of 17.1 public school students.

The proposed Jardim Estates East subdivision is located adjacent to and north of the Greystone on Hudson Greenburgh portion of the site. The revised DEIS that was submitted for Jardim Estates East proposes 7 new house lots. The DEIS projects a total of 4.5 new school children based on multipliers (0.6445) developed by the Urban Land Institute. Utilizing the multiplier from Legend Hollow (0.855), Jardim Estates East would generate 6 school children. Therefore the cumulative impact of Greystone on Hudson and Jardim Estates East on the Irvington School District would be 21.5 to 23 school children.

Clearly such a small number of public school students (1.3% of the current enrollment), particularly when the District projects a decrease of over 200 students by 2018-19, will have a miniscule impact on the School District's capacity and cost structure.

Based on a projected sales price of \$5 million per house, each house would have an Assessed Value (AV) of \$142,500 based on the Town Residential Assessment Ratio of 2.85%. Applying the 2011-12 IUFSD property tax rate of \$590.07/\$1,000 AV, yields an annual school property tax of \$84,085 per house or \$1,681.700 for all 20 houses.

The 2011-2012 IUFSD budget is \$50,324,892 of which \$44,938,632 (89.3%) comes from the property tax levy. Based on a total of 1,728 public school students, the average cost per student from the property tax levy would be \$26,000. However, in evaluating the cost of educating a proportionately small number of additional students, it is necessary to do a marginal cost analysis. The marginal cost of educating an additional student is less than the average cost because many items in the school budget are not directly affected by the additional students. Costs such as debt service, operation and maintenance, central administration, insurance, etc. are basically fixed and will not be affected by a small number of additional students. In addition, based on the current IUFSD budget, program or instructional costs represent about 74.3% of the total budget. Therefore, program costs represent a marginal cost of about \$19,300 per student from the property tax levy. Even this marginal cost per student would only be applicable if additional grade sections or programs are required. It is unlikely that 17 public school students from Greystone on Hudson (an average of 1.3 per grade) would require additional sections with additional teachers or programs requiring additional staff. Grades K-5 have six sections each, for a total of 36 sections, and could easily absorb the additional students as could the Middle School and High School. However to be heavily conservative, applying the marginal cost of \$19,320 per student from the property tax levy to the 17 public school students projected to be generated by Greystone on Hudson yields an estimated annual cost of \$328,440 to the IUFSD. Since the estimated annual school property tax from the proposed 20 houses is \$1,681,700, there would be an annual net plus in property taxes to the IUFSSD of \$1,353,300. As stated above, this is a conservative number since it is likely that the actual costs to the IUFSD of 17 additional students would hardly be measurable, yielding a larger net plus to the IUFSD. Currently, the undeveloped site pays \$8,882.84 in property taxes to the IUFSD.

Mitigation

Only 17 additional students are projected to attend Irvington Public Schools from Greystone on Hudson and another 4-6 school children from Jardim Estates East and the District's own demographic projection is for a decrease in enrollment of 232 students by 2018/19; and since the 20 houses at Greystone on Hudson will annually pay \$1,313,300 more in school property taxes than a conservative estimate of the marginal costs to be incurred by the District to educate the projected 17 additional students from Greystone on Hudson, there will be no adverse impacts on the school district which would require mitigation.

TABLE FIVE
Irvington Union Free Schools
Projected Enrollment 2010/11 - 2018/19
Preferred (Most Probable) Projection

	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
Kind.	116	108	116	96	107	106	106	106	106	106
1	127	120	112	120	99	111	110	110	110	110
2	128	129	122	114	122	101	113	112	112	112
3	118	127	128	121	113	121	100	112	111	111
4	119	119	128	129	122	114	122	101	113	112
5	133	120	120	129	130	123	114	123	101	113
6	153	135	122	122	131	132	125	116	125	102
7	139	154	136	123	123	132	133	126	117	126
8	159	140	156	137	124	124	133	134	127	118
9	163	155	137	152	134	121	121	130	131	124
10	150	163	155	137	152	134	121	121	130	131
11	153	153	166	158	139	155	136	123	123	132
12	141	156	156	169	161	142	158	138	125	125

K-3	489	484	478	451	441	439	429	440	439	439
4-5	252	239	248	258	252	237	236	224	214	225
6-8	451	429	414	382	378	388	391	376	369	346
9-12	607	627	614	616	586	552	536	512	509	512
K-12	1,799	1,779	1,754	1,707	1,657	1,616	1,592	1,552	1,531	1,522

Source: Irvington Union Free School District.

E. FIRE SERVICES/POLICE PROTECTION

FIRE SERVICES

Existing Conditions

The portion of the site within the Village of Tarrytown is served by the Tarrytown Fire Department, an all volunteer Department that consists of about 180 volunteer members. The Tarrytown Fire Department has six fire companies working from five stations. The closest station to the site is Consolidated Engine #1, with an estimated response time of less than 5 minutes. The Tarrytown Fire Department participates in a mutual aid program with surrounding Fire Departments.

The portion of the site in the Village of Tarrytown currently pays \$61,155 in annual property taxes to the Village of Tarrytown for Village services including fire services. The site is currently vacant.

The portion of the site within the Unincorporated Town of Greenburgh is in the Glenville Fire District. The Glenville District contracts with the Village of Tarrytown Fire Department, an all volunteer department consisting of 180 active members. The Tarrytown Fire Department has six fire companies working from five stations. The closest station to the Greenburgh portion of the site is Consolidated Engine #1, with an estimated response time of 5 minutes. The Tarrytown Fire Department participates in a mutual aid program with surrounding Fire Departments.

The portion of the site in the Town of Greenburgh currently pays \$337.81 in annual property taxes to the Glenville Fire District. The site is currently vacant.

Project Impact

A total of 8 houses will be constructed in the Village of Tarrytown with proposed road access from South Broadway. There will be a secondary emergency access with a breakaway gate to Roundabend Road in the Village of Tarrytown. The houses will be designed with advanced fire protection features including a sprinkler system in accordance with Village codes.

Based on the projected sales price of \$5 million, each house would have an Assessed Value (AV) of \$118,000 based on the Village Residential Assessment Ratio of 2.36%. Applying the 2011 Village tax rate of \$260.29/\$1,000 AV, yields an annual total Village tax payment of \$30,714 per house and a total annual total Village tax payment of \$245,712 from all 8 houses.

It is assumed that no additional equipment or facilities will be required to service this site, and that no measurable additional costs would be incurred by the Fire District in the service of this site.

A total of 12 houses will be constructed in Greenburgh with proposed road access from South Broadway in Tarrytown. The houses will be designed with advanced fire protection features including a sprinkler system in accordance with Town codes.

Based on the projected sales price of \$5 million, each house would have an Assessed Value (AV) of \$142,500 based on the Town Residential Assessment Ratio of 2.85%. Applying the 2011, Glenville Fire District tax rate of \$22.4286/\$1,000 and the Firemen Exemption Surcharge tax rate of \$0.0919/\$1,000 yields an annual total tax payment of \$3,209 per house to the Glenville Fire District for an annual total payment of \$38,508 from all 12 houses.

It is assumed that no additional equipment or facilities will be required to service this site, and that no measurable additional costs would be incurred by the Fire District in the service of this site.

Mitigation

Each house in the Village of Tarrytown and Town of Greenburgh as per Village and Town code will have a sprinkler system and there will be no impact on Fire Services therefore no other mitigation measures are required.

POLICE PROTECTION

Existing Conditions

The portion of the site in the Village of Tarrytown is served by the Village Police Department. The Village Police Department has headquarters at Depot Plaza and has 35 sworn officers and 8 civilian employees.

The portion of the site in the Town of Greenburgh is served by the Town Police Department. The Department is located on White Plains Road. The Greenburgh Police Department provides police protection, emergency medical service and ambulance service for the Town's unincorporated areas 24 hours a day, 7 days a week. The Department currently has 116 sworn and 42 civilian members, including 23 certified paramedics and 19 emergency medical technicians.

Project Impact

The 8 houses in Tarrytown would generate about 34 persons in the Village of Tarrytown. The houses will have state of the art security systems.

While, over the course of time, it is possible that the homes to be developed will generate some police calls, the order of magnitude is likely to be very small, and would not require additional police staff or equipment. Police are already regularly patrolling the existing Greystone roadways as it is their access to check the Village Water Tower and Police Repeater Tower.

The 12 houses in the Town of Greenburgh would generate about 51 persons. The houses will have state of the art security systems.

While, over the course of time, it is probable that the homes to be developed will generate some police calls, the order of magnitude is likely to be very small, and would not require additional police staff or equipment.

Mitigation

There will be no significant adverse impacts so no mitigation is required.

F. PUBLIC WORKS

Existing Conditions

The portion of the site in the Village of Tarrytown is currently vacant and requires no services from the Village Department of Public Works. The Department provides curbside garbage pick-up twice a week and curbside recycling pick up once a week.

The portion of the site in the Town of Greenburgh is currently vacant and requires no services from the Town Department of Public Works. The Department provides curbside garbage pick-up twice a week and curbside recycling pick up once a week.

Project Impact

All of the roads in the subdivision will be private requiring no cleaning, snow plowing, or maintenance services from the Village Department of Public Works. Garbage pick up will be the only Department of Public Works service required by the 20 houses in both municipalities.

Mitigation

Garbage pick up will not have a significant impact on the Village or Town Department of Public Works and any marginal costs will be more than covered by property taxes from the 8 houses, which will generate about \$245,712 in annual tax revenues to the Village and the 12 houses which generate about \$300,000 in annual tax revenues to the Town. Therefore, no mitigation is deemed necessary.

G. RECREATION/PARKS

Existing Conditions

The site in the Village of Tarrytown and Town of Greenburgh is bordered on the north by the Village open space and the Old Croton Aqueduct and on the east by the Taxter Ridge Preserve. The vacant site has not been used as a public recreational facility.

The Village has an extensive park and recreation system of 10 major facilities with tennis courts, playgrounds, ball fields, picnic areas, and waterfront parks, trails/walkways. The Old Croton Aqueduct trail runs through the Village and is adjacent to the Greystone on Hudson site.

The Town has an extensive Park and Recreation system of 22 facilities with Tennis Courts, Playgrounds, Ball Fields, Picnic Areas, Senior Center, Indoor and Outdoor Swimming pools...

There are several parks in the immediate vicinity of the subdivision.

Old Croton Aqueduct - Less than 1% of the Tarrytown parcel borders the Old Croton Aqueduct. However, the portion that is to be subdivided into homes will not be adjacent to the Old Croton Aqueduct, as the Applicant is donating a buffer parcel that will separate the remaining residential development from the currently existing Aqueduct. Currently, the Aqueduct dead ends at the Applicant's Tarrytown parcel when leaving Lyndhurst and hikers don't know where to go. With the donation of a historic gateway by the applicant as well as signage (as permitted by the DOT) the Old Croton Aqueduct will be connected in perpetuity. There are no adverse effects to the Aqueduct which will be positively impacted by the donation of the historic gateway. No further mitigation is required.

Gracemere Park Behind Emerald Woods - There is also a narrow strip of parkland that borders our Tarrytown property to the Northwest just north of the Old Croton Aqueduct that is owned by the Village of Tarrytown. The applicant is proposing to eliminate its invasive vines and shrubs and to chip away any dead trees. As a result there are no adverse effects to the Tarrytown Park which will be positively impacted by the applicant cleaning it up. No further mitigation is required.

Taxter Ridge Park – The Applicant’s Greenburgh parcel is currently adjacent to Taxter Ridge Park. However, the Applicant’s donation of approximately 21.7 acres will act as a buffer to much of Taxter Ridge Park that will separate much of the remaining residential development from the currently existing Park, and also positively impacts the park as the applicants donation grows the park by almost 10%. The Tarrytown Comprehensive Plan says the Village wanted to purchase the applicants Greenburgh parcel. The donation brings Tarrytown residents on the south side significantly closer to the park thru the trail that will be provided by the Applicant. The Village will have no upkeep costs to the donated portion and is effectively receiving 40% of the parcel they wanted to purchase for free. No further mitigation is required.

As per Sara Mascia (Village of Tarrytown Historian) of Historical Perspectives report dated January 2012 (Appendix F) which conforms with SHPO standards there are NO adverse environmental impacts to any of the above mentioned parks/buildings. In fact her report shows that Taxter Ridge Park, Gracemere Park and the Old Croton Aqueduct will have positive impacts with our respective donations to the parks.

Project Impact

All of the 20 houses will have large lots and private swimming pools. A connection to the Old Croton Aqueduct will be provided through a strip of donated land and the entrance gate to improve access to the trail. The Gracemere Park will undergo a cleaning of dead trees and invasive vines to improve access. A parcel totaling approximately 21.70 acres will be donated to the Town to be added to the Taxter Ridge Preserve.

It is not anticipated that the development of this project will have a measurable impact on Village or Town recreation resources nor would additional recreation program costs be incurred as a result of development of this project.

Mitigation

There will be no significant impact on the Village's or Town's recreation facilities. In addition to the donation of 21.7 acres as open space and the donation of land to improve connection to the Old Croton Aqueduct, the 8 houses in Tarrytown will generate \$245,712 in annual property tax revenues to the Village and the 12 houses in Greenburgh will generate approximately \$300,000 in revenue. Therefore, no mitigation is required.

H. FISCAL

VILLAGE OF TARRYTOWN:

Existing Conditions

The portion of the site in the Village of Tarrytown – Lots 32-29-P42B and Lot 32-29- P42B2 – currently pay \$61,155 in annual property taxes to the Village and \$1,174 to the Town of Greenburgh.

Project Impact

The projected sales price of each of the 8 houses in this Village of Tarrytown is \$5 million. Each house would have an Assessed Value (AV) of \$118,000 based on the current Village Residential Assessment Ratio of 2.36%. The 2011-2012 Village Property Tax Rate is \$260.29/\$1,000 AV. Therefore, each house would pay \$30,714 in annual Village property tax. The total annual Village property Tax revenue for the 8 houses would be \$245,712. The net increase in annual Village property tax revenue over the current undeveloped property is \$184,557.

Each house would have an Assessed Value (AV) of \$142,500 based on the current Town Residential Assessment Ratio. The 2011 Town General Property Tax Rate for property in the Village of Tarrytown is \$14.3327/\$1,000 AV. Therefore, each house would pay \$2,042 in annual General Town property tax. The total annual General Town property tax for the 8 houses would be \$16,336. The net increase in and General Town property tax revenue over the current undeveloped property is \$15,162.

Mitigation Measures

The only identifiable impact on Village costs would be for solid waste removal. This would no doubt be far less than the increased Village annual property tax revenue to be provided. The 8 houses will also generate \$11,224 in annual property tax to the County Refuse District. No further mitigation is required.

TOWN OF GREENBURGH

Existing Conditions

The portion of the site in the Town of Greenburgh is Lot 7,300 – 142-3 and currently pays \$2,627.58 in annual property taxes to the Town.

Project Impact

The projected sales price for each of the 12 houses in the Town of Greenburgh is \$5 million. Each house would have an Assessed Value (AV) of \$142,500 based on the Town Residential Assessment Ratio of 2.85%. The 2011 Property Tax Rate in the unincorporated portion of the Town of Greenburgh is \$175.17/\$1,000 AV. Therefore, each house would pay \$24,962 in annual Unincorporated Town Property Tax. The total annual Town property tax revenue for 12 houses would be \$299,544. The net increase in annual property tax revenue over the current undeveloped property is \$296,917.

Mitigation

The only identifiable impact on Town costs would be for solid waste removal. This would no doubt be far less than the increased annual property tax revenue to be provided. The 12 houses will also generate \$16,836 in annual property taxes to the County Refuse District. Therefore, no mitigation is to be required.

I. WILDLIFE

a. Village of Tarrytown

The following is a summary of a detailed report, Wildlife Habitat Assessment for New York State Threatened, Endangered Species and Species of Special Concern, per James Bates, Ecological analysis, LLC, December 2011, which report is attached as Appendix C. The report reflects the results of site studies conducted in the spring, summer and fall months of 2011.

Also reviewed for this report was the Taxter Ridge Management Plan completed by Michael Klemens et.al dated 2008. This report covers a much larger area than just the subject property. The Taxter Ridge Management Plan (Klemens Report) is attached in Appendix C behind the EA report. This report takes into account the possible development of the Jardim Estates East Subdivision which borders the Greenburgh Parcel to the North.

Existing Conditions

The Tarrytown portion of the site features one habitat/ecosystem type: Upland woods, which cover about 17 acres (63%) of the site, which are a northern hardwood forest with beech as the dominant species mixed with sugar maple, red maple, black birch, yellow birch and black cherry. The canopy cover is quite dense, resulting in low light intensities on the forest floor and hence a relatively sparse ground layer. Due to the dense canopy of these overstory trees, limited shrub and herbaceous layer vegetation was noted in those areas.

A letter from the NYS Natural Heritage Program, dated April 20, 2011, stated that there were “no known records of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of your site.” The letter is attached at the end of this report.

To confirm this information, site visits were conducted to determine whether there was habitat potential for species classified as rare, endangered or protected (“ETR Species”) by New York State DEC. Those species which are not known to be located in Westchester County or for which there was no potential suitable habitat on the site were not evaluated for habitat potential.

Excluded were: Bog Turtle, Wood Turtle, Spotted Turtle, Mud Turtle, Marbled Salamander, Jefferson Salamander, Blue Spotted Salamander, Northern Cricket Frog, Indiana Bat, Worm Snake, and Timber Rattlesnake.

Those which were evaluated for possible habitat potential were:

- Eastern Box turtle
- Eastern Hognose Snake

The findings of the site evaluation were:

Turtles

There may be a habitat for the Eastern Box Turtle in the densely wooded areas on the parcel, and the extensive wooded areas in the adjacent areas. No Eastern Box Turtles were found during the site surveys.

The species is identified as a “Species of Special Concern” by New York State Department of Environmental Conservation.

Snakes

The Eastern Hognose Snake may potentially utilize rock outcroppings and wooded areas on the site for cover and feeding. None were observed during the site surveys.

The species is identified as a Species of Special Concern by the New York State Department of Environmental Conservation.

Project Impacts

The identified “species of special concern” included two species, that if present, are likely to utilize the wooded upland portions of this site.

The Eastern Box Turtle is a mobile turtle that may use any portion of this property. While construction on a small percentage of the site may temporarily alter some patterns of movement,

there will be significant areas of undisturbed land (12.9 acres; 47% of site) for turtle foraging. This temporary disturbance could potentially impact an individual in the development area, but is unlikely to impact the population as a whole. No Eastern Box Turtles were observed on the site.

The Eastern Hognose Snake is known to be adaptable to new suburban areas. Thus, the proposed residential development should not result in a significant adverse impact to the Hognose Snake, if in fact it is present on this site. No Hognose Snakes were observed on the site.

On the proposed site, there are no curbs or other obstructions that would impede the existing wildlife's migration through the property. Also, the availability of large, undeveloped properties in the surrounding and nearby areas, including the Taxter Ridge Preserve, offer continued opportunity for these species.

There may be a temporary displacement of the different wildlife species on the property; however, a wildlife corridor will remain that connects to the large off-site tracts of land. This will allow the free movement of the different species through the site. The Applicant is also donating approximately 21.7 acres of land to the Town of Greenburgh to remain undeveloped in perpetuity. A wildlife corridor exists from the Tarrytown parcel, through the proposed development on the Greenburgh parcel which would connect with the donated parcel being added to the Taxter Ridge Preserve. This should off-set any impacts on wildlife, as this area will not be disturbed and any displaced animal can find refuge there.

Mitigation

1. The limitation of density reduces site disturbance and the potential disturbance of any protected wildlife that may exist on the site.
2. The donation of the 21.7 acres, from the Town of Greenburgh parcel, for permanent open space to be added to the Taxter Ridge Preserve assures that a large area of both wooded and wetland related potential habitat will be totally undisturbed.

3. In total, 27.9 acres, 16% of the site will be retained as undisturbed natural habitat for the species of concern, and another 10.6 acres, 66% of the site, will be open landscaped area which will, in part, be available as habitat for the Species of Special Concern.

As mitigated, there will be no significant adverse impact on the site's potential wild life habitat.

b. Town of Greenburgh

The following is a summary of a detailed report for the Town of Greenburgh, Wildlife Habitat Assessment for New York State Threatened, Endangered Species and Species of Special Concern, per James Bates, Ecological analysis, LLC, June 2011, which report is attached as Appendix C. The report reflects the results of site studies conducted in the spring months of 2011. Also reviewed for this report was the Taxter Ridge Management Plan completed by Michael Klemens et.al dated 2008. This report covers a much larger area than just the subject property. The Taxter Ridge Management Plan (Klemens Report) is attached in Appendix C behind the EA report. This report takes into account the possible development of the Jardim Estates East Subdivision which borders the Greenburgh Parcel to the North.

Existing Conditions

The site features four habitat/ecosystem types:

1. Wetlands-wooded, found near the northwest end of the parcel. This drains off the parcel to the north.
2. Pond-emergent, a small shallow pond found in the north-central portion of the parcel, which drains off the parcel to the north.
3. Steam channels: there are two streams and a watercourse that run through the property from south to north. The watercourse appears to have been created by the over flow from the Village of Tarrytown water tank. This watercourse conveys water to wetland C, and appears to flow only when the water tank is overflowing. The two streams on the property appear to be intermittent in nature. The streams and watercourse are shown on the large scale maps included in this transmittal.

4. Upland woods, which cover the remainder of the site, is a northern hardwood forest with beech as the dominant species mixed with sugar maple, red maple, black birch, yellow birch and black cherry. The canopy cover is quite dense, resulting in low light intensities on the forest floor and hence a relatively sparse ground layer. Due to the dense canopy of these overstory trees, limited shrub and herbaceous layer vegetation was noted in those areas.

A letter from the NYS Natural Heritage program dated April 20, 2011 stated that there were “no known records of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of your site.” The letter is attached at the end of this report.

To confirm this information, site visits were conducted to determine whether there was habitat potential for species classified as rare, endangered or protected (“ETR Species”) by New York State DEC. Those species which are not known to be located in Westchester County or for which there was no potential suitable habitat on the site were not evaluated for habitat potential. Excluded were: the Mud Turtle, Tiger Salamander, Northern Cricket Frog, Indiana Bat, and Worm Snake.

Those which were evaluated for possible habitat potential were:

- Spotted Turtle
- Eastern Box turtle
- Eastern Hognose Snake
- Marbled Salamander
- Jefferson Salamander
- Blue Spotted Salamander

The findings of the site evaluation were:

Mole Salamanders

Breeding opportunities may exist within the on-site wetland to be retained. No egg masses or adults were observed during the field review.

Turtles

There may be marginal habitat for the Eastern Box Turtle in the densely wooded areas, and for the Spotted Turtle in the wetland area, which is to be donated to the Town of Greenburgh.

The Eastern Box Turtle would potentially utilize the wooded areas on the site and the stream beds or shallow ponds during hot summer months.

Snakes

The Eastern Hognose Snake may potentially utilize rock outcroppings and wooded areas on the site. None were observed on the site.

Project Impacts

The identified “species of special concern” included three species, that if present, are likely to utilize the upland portions of this site, and two species that are generally restricted to the wetlands on the property.

The Eastern Box Turtle is a mobile turtle that may use any portion of this property. While construction on a small percentage of the site may temporarily alter some patterns of movement, there will be significant areas of undisturbed land for turtle foraging. This temporary disturbance could potentially impact an individual in the development area, but is unlikely to impact the population as a whole.

Spotted Turtles do not typically travel far from wetland corridors and are not expected to be impacted long term by this proposal. The wetland corridors on this site will remain preserved, since no wetland disturbances are proposed. There should be no adverse impact to the Spotted Turtle, if in fact it is present on this site. No spotted Turtles were observed on site.

The Hognose Snake is known to be adaptable to new suburban areas. Thus, the proposed residential development should not result in a significant adverse impact to the Hognose Snake, if in fact it is present on this site. No Hognose Snakes were observed on the site.

The Mole Salamanders, if they exist on this site, are most likely to utilize the wetland corridors of the site with some seasonal or temporary standing water for most of its activities. Mole Salamanders tend to remain underground for most of their life cycles, with some movement above ground during breeding season and occasional foraging. The leaf litter, decaying logs and stumps within the wetlands on this site support all of the species that this salamander is likely to use as food, including slugs, earthworms and insects. As mentioned above, spring observations were done and no marbled, Blue-spotted or Jefferson Salamanders, salamander egg masses, or larvae were observed in the on-site wetlands. With no proposed impacts to the wetlands and no observations of salamanders utilizing pools in the wetlands, there should be no adverse impact.

On the proposed site, there are no curbs or other obstructions that would impede the existing wildlife's migration through the property. Also, the availability of large, undeveloped properties in the surrounding area, including the Taxter Ridge Preserve, offer continued opportunity for these species.

There may be a temporary displacement of the different wildlife species on the property; however, a wildlife corridor will remain that connects to the large off-site tracts of land. This will allow the free movement of the different species through the site. The Applicant is also donating approximately 21.7 acres of land to the Town to remain undeveloped in perpetuity; this should off-set any impacts on wildlife, as this area will not be disturbed and any displaced animal can find refuge there.

Mitigation

1. The limitation of density reduces site disturbance and the potential disturbance of any protected wildlife that may exist on the site.
2. The donation of the 21.7 acres for permanent open space to be added to the Taxter Ridge Preserve assures that a large area of both wooded and wetland related potential habitat will be totally undisturbed.

3. In total, 39.19 acres, 69.3% of the site will be retained as undisturbed natural habitat for the species of concern.

As mitigated, there will be no significant adverse impact on the site's potential wild life habitat.

c. Adjoining Properties

The proposed Jardim Estates East residential subdivision is located directly north of the Greenburgh portion of the site. There will be an uninterrupted corridor from the proposed open space parcel in the southeastern corner of the Jardim Estates East parcel into an undisturbed portion of the Greenburgh Parcel that connects to the 21.7 acre parcel to be donated to the Town of Greenburgh as an open space edition to the approximately 200 acre Taxter Ridge Reserve. In addition the wetlands on the Greenburgh parcel will not be impacted so any amphibians or reptiles living in the wetlands will not be disturbed. Therefore, there will be no wildlife habitat fragmentation occurring as a result of the cumulative impact of the 2 projects being developed in the future.

J. STORMWATER

a. Village of Tarrytown:

The following is a summary of a comprehensive report prepared by Hudson Engineering & Consulting PC (Appendix A) with soil information from the Westchester County Soil Survey (Appendix L).

Existing Conditions

This is a 27.896 acre currently undeveloped parcel¹ which generally drains from east to west and includes seven watershed areas which are the subject of the analysis.

The existing soil characteristics are:

ChB - Charlton Loam, 2 to 8 percent slopes

ChC - Charlton Loam, 8 to 15 percent slopes

CrC - Charlton – Chatfield Complex, rolling very rocky, 3-15% slopes

CrD - Chatfield – Charlton Complex, hilly, very rocky, 15-35% slopes

The predominant soil type is the CrC, Charlton Complex.

An analysis was performed to deliver pre-development run-off volumes for selected design storm frequency periods. A summary is shown in table G-1 (see Mitigation section), which compares the runoff for pre- and post-development periods.

A series of percolation tests were performed at deep test hole and steel rod probe sites to determine the filtration characteristics of the soils on the home-sites and their suitability for ex-filtration measures. The tests revealed that the porosity of the soil is suitable for such measures.

There are flooding impacts to South Broadway (Route 9), as a result of flows through this site which emanate from five adjacent off-site properties.

Project Impacts

¹ Approximately 3.4 acres of impervious area exists as a result of previous development.

The subdivision plan proposes the development of 8 homes each with swimming pools and patio areas served by an internal circulation road system which accesses driveways to each home.

In terms of storm drainage impacts the subdivision plan will result in the creation of 4.5 acres of impervious areas. The post-development drainage impacts are identified and quantified on Map C-32 (Appendix K).

In order to properly serve the home-sites and create an efficient internal road system, some topographic changes are required. These are shown on large Maps C-6 and C-7.

A hydraulic analysis was performed taking into account soil types, the impervious areas and topographic changes together with the mitigation measures discussed below.

Mitigation Measures

In order to assure that storm run-off during peak periods of design storms would in the post-development scenario not exceed the pre-development flow, and also to assure that water quality will be protected, a number of mitigation measures have been incorporated in the plan:

- As per Ecological Analysis report dated August 3, 2011 there are no wetlands located on the property. There is an existing man-made swale on the Tarrytown parcel along the existing Coppola roadway and Tarryhill border where a series of many pipes run underground from the Nigerian Embassy, Coppola residence, Min Ding residence (former Cherie Gaines property), Tarryhill, and Old Greystone Mansion Road. These underground pipes transport water to the swale and the water eventually ends up in the Tarryhill Pond. This intermittent water course is completely caused by pipes terminating around the high point of the swale. There are no springs bringing the water to the swale. The swale is failing and there are drainage issues with water running out onto South Broadway which has caused hazardous conditions in the past. The flow from these adjacent properties that causes the flooding is to be addressed by the project's Stormwater Management Plan. This Plan provides for a pipe to carry the water from the existing underground pipes to the Tarryhill Pond, thus creating a safer environment for the community and mitigating the dangerous existing drainage problem of water running out to South Broadway. The Planning Board has already given the

Applicant permission to repair the swale by piping the water to the Tarryhill pond over the winter months. The Applicant is in the final stages of drawing up the required engineering plans and as soon as permission is granted from the Village engineer the repairs will be undertaken.

The proposed plan will result in substantial mitigation of peak storm flooding impacts on Route 9.

- A swale with a 30-minute detention time to protect water quality and reduce flow velocity, thus reducing sedimentation and erosion impacts.
- Six ex-filtration basins (ponds) which are designed to allow stormwater run-off from the watersheds served to percolate into the ground for up to and including a 100-year storm event.
- One attenuation pond is designed to detain all storm events, and attenuate peak rates of runoff and lower discharge velocities. The runoff is routed through a filter for water quality protection prior to discharge to the basin
- Continuous Deflection Separation units (concrete structures) to provide pre-treatment of run-off in areas where pre-treatment swales cannot be located.
- Rain gardens, as feasible, within individual lots as part of final detailed landscaping plan for each lot which will be provided during site plan approval of the individual lots.
- Storm tank exfiltration systems will be installed to contain the run-off from five roof areas, residential driveways, terraces and pool surface areas. These are designed to accommodate 100-year storm events and will allow the detained run-off to percolate to the soil.

The proposals described above are shown on large maps C-19 -- C-21 and C-30 -- C-32.

Taken together, these mitigation measures will, as is shown in the table below, result in a post development run-off scenario which is significantly less than that which now occurs in the pre-development conditions.

Table G-1
Summary of Discharges from Seven Watersheds

Storm Frequency (Years)	Pre-developed Condition (Acre - Feet)	Developed Condition (Acre - Feet)
100	10.396	4.429
25	6.685	2.637
10	4.49	1.587
2	1,777	0.394
1	0.858	0.165

Of particular importance is that the piping of the east-west swale and the other mitigation measures will result in the mitigation of the flooding which currently occurs on Route 9 (Broadway) during peak storms.

In addition, the following will be provided prior to construction:

- A Storm Water Protection Plan (SWPP) which will detail plans for monitoring and maintenance of the stormwater management system described above.
- It will also contain a construction sequencing plan which will include erosion control measures during construction and after completion of each sequence. See description on large size Map C-30.
- Drainage control plans which are, or will be, shown and described in large size Maps C-11 -- C-14.

The mitigation measures described above will assure that there will be no significant adverse stormwater impacts either during or after construction.

b. Town of Greenburgh:

The following is a summary of a comprehensive report prepared by Hudson Engineering & Consulting PC (Appendix A) with soil information from a USDA Soil Resource Report (Appendix L).

Existing Conditions

This is a 56.56 acre undeveloped parcel which generally drains from south to north and includes six watershed areas which are the subject of the analysis located in the Town of Greenburgh.

The existing soil characteristics considered in a run-off analysis are:

Charlton Loam, 2 to 8 percent slopes	30.8%
Charlton – Chatfield Complex, rolling very rocky	50.5%
Chatfield – Charlton Complex, hilly, very rocky	18.7%

There are three small wetlands on the site.

The analysis revealed the following pre-development run-off volumes for the selected design storm frequency periods.

<u>Storm Frequency (Years)</u>	<u>Run-off Volumes (Acre Feet)</u>
100	11.61
25	7.29
10	4.77
2	1.76

A series of percolation tests were performed at deep test hole and steel rod probe sites to determine the filtration characteristics of the soils on the home-sites and their suitability for ex-filtration measures. The tests revealed that the porosity of the soil is suitable for such measures.

Project Impacts

The subdivision plan proposes the development of 12 homes each with swimming pools and patio areas served by an internal circulation road system which accesses driveways to each home.

In terms of storm drainage impacts the subdivision plan will result in the creation of 3.69 acres of impervious areas. The post-development drainage impacts are identified and quantified on Map C-31 (see large map binder concurrently submitted).

In order to properly serve the home-sites and create an efficient internal road system, some topographic changes are required. These are shown on large Maps C-8 and C-9.

A hydraulic analysis was performed taking into account the impervious areas and topographic changes together with the mitigation measures discussed below.

Mitigation Measures

In order to assure that storm run-off during peak periods of design storms would in the post-development scenario not exceed the pre-development flow, and also to assure that water quality will be protected, a number of mitigation measures have been incorporated in the plan:

- A swale with a 30-minute detention time to protect water quality and reduce flow velocity, thus reducing sedimentation and erosion impacts.
- Two ex-filtration basins which are designed to allow stormwater run-off from the watersheds served to percolate into the ground for up to and including a 100-year storm event.
- Two wet ponds which will attenuate run-off rates to below storm events. These will also include one forebay which will address water quality and the other with two forebays that will detail the 10% of run-off which will protect water quality.
- CDS units to provide pre-treatment of run-off in areas where pre-treatment swales cannot be located.
- Rain gardens, as feasible, within individual lots as part of final detailed landscaping plan for each lot.

- Storm tank exfiltration systems will be installed to contain the run-off from eight roof areas, five residential driveways and four pool surface areas. These are designed to accommodate 100-year storm events and will allow the detained run-off to percolate to the soil.

The proposals described above are shown on large maps C-13, C-14, C-24 and C-25.

Taken together, these mitigation measures will, as is shown in the table below, result in a post development run-off scenario which is less than that which now occurs in the pre-development conditions.

Storm Frequency (Years)	Pre-developed Condition (Cubic Ft. per Second)	Developed Condition (Cubic Ft. per Second)
100	73.92	62.61
25	43.98	35.66
10	26.68	20.84
2	7.13	5.14

In addition, the following will be provided prior to construction:

- A Storm Water Protection Plan (SWPP) which will detail plans for monitoring and maintenance of the stormwater management system described above.
- It will also contain a construction sequencing plan which will include erosion control measures during construction and after completion of each sequence. See description on large size map C-29.
- Sediment and erosion control plans which are shown and described in large size maps C-28 and C-29.

The mitigation measures described above will assure that there will be no significant adverse stormwater impacts either during or after construction.

K. WETLANDS

a. Village of Tarrytown

(See Appendix G for a detailed wetlands report prepared by Ecological Analysis, LLC, August 3, 2011 (“EA Report”).

Existing Conditions

The EA Report reviewed the site using field investigations, and review of aerial, soils and wetland map sources, as well as previous DEIS studies for this site.

The site was evaluated using the criteria of the Draft Interim North Central and Northeast Regional Supplement to the U.S. Army Corps of Engineers 1987 manual.

The analyses found:

- That the vegetation on the site was not found to fall within wetlands criteria.
- That using the Westchester County Soil survey and the U.S. Department of Agriculture Soil survey, no soils were found which would be classified as hydric (wetlands).
- That there were no soils on site which exhibited wetland hydrology.

The report concludes that no portion of the site meets the definition of jurisdictional wetlands or regulated wetland transitional areas as currently applied by the U.S. Army Corps of Engineers.

Project Impacts

Inasmuch as there are no wetlands on the site there are no related project impacts.

Mitigation

Inasmuch as there are no wetlands on the site and therefore no project impacts, no mitigation is required.

b. Town of Greenburgh:

The following is a summary of a report which was prepared by Ecological Analysis LLC, James A. Bates, CPESC, CPSWG, which report is attached as Appendix G.

Existing Conditions

A field survey was performed on May 1, 2011 by Ecological Analysis, LLC. Wetlands found on the site were flagged, the location of flags were mapped by a licensed surveyor, and the wetland boundaries are shown on large size maps C-9 and C-10.

The area of the wetlands:

Wetland A – 9,363 square feet (in donated parcel)

Wetland B – 20,032 square feet (not in developed area)

Wetland C – 53,799 square feet (in developed area)

Wetlands A & B appear to be fed by hillside run off (sheet flow) and spring seepages. Wetland C is fed by hillside runoff and intermittent overflow from the Village of Tarrytown’s elevated water storage tank.

All of the site wetlands are regulated by the Town of Greenburgh wetlands law, which also requires a 100 foot natural buffer area surrounding the wetlands.

Project Impacts

With respect to the Wetland A, which is primarily a watercourse, or intermittent drainage channel which passes south to north through the parcel to be dedicated to the Town of Greenburgh Taxter Ridge Park, this wetland will not be disturbed and a 100 foot wetland buffer will be maintained (see large scale map C-10).

With respect to the Wetland B that is found in the mid-section of proposed lots 9 and 10: This wetland will not be disturbed and will be protected by a 100 foot natural buffer, which will not be disturbed. (See large scale map C-9)

With respect to the Wetland C which is in the northeasterly portion of proposed lots 2 and 3, the northerly portion of proposed lots 5, 6 and 7: the wetland will not be disturbed by any development; a minimum natural buffer area of 35 feet will remain undisturbed; the portion of the buffer areas which is between 35 feet and 100 feet will be temporarily disturbed for installation of stormwater lines, and permanently disturbed for installation of two forebays and an attenuation pond which are required for implementation of the stormwater protection plan. The intermittent drainage channel, which feeds Wetland C, results primarily from the overflow of the Village of Tarrytown off-site water storage tank. This channel will be eliminated as a result of improvements to the tank. Portions of the former drainage channel will be replaced by home and driveway construction. While shown on map C-12 as a buffer area, the buffers will not be maintained since the former water course is replaced by an underground storm drainage pipe. (The wetland boundary and project proposals are shown on large scale maps C-15 and 16.)

Mitigation Measures

1. The plan has been designed to avoid any disturbance to the two important wetlands on the site.
2. Wetland buffers of a minimum of 35 feet and up to 100 feet are to be maintained without disturbance along the perimeter of wetland areas A, B and C, that will be retained. This will provide substantial protection of water quality. Since there is no protected wildlife found in the area, larger buffers to meet their needs are not needed.
3. Where 100 foot buffer areas are to be disturbed temporarily for construction, they will be promptly restored and planted with dense native woody plant species.
4. Where portions of 100 foot buffer areas are to be permanently disturbed, the storm drainage system has been designed to assure continued water flow, which is to be pre-treated in the water quality facilities to be installed. Additional mitigation will be provided by improving the density and diversity of native woody plant species within natural buffer areas which will not be disturbed.
5. The intermittent water course caused by the Village of Tarrytown water storage tank overflow, which will be removed, will not diminish the ecological characteristics of the site. This area does not serve as a habitat for protected wildlife or vegetation, does not serve

marine wildlife, and does not serve water quality functions. Its only function was to channel some runoff and some over flow from the water storage tank. This function is to be replaced by a stormwater pipe system. The principal mitigation for removal of this wetland/water course is the donation by the Applicant of a 21.7 acre natural open space parcel which will be added to the adjoining Taxter Ridge Park and will remain as a totally undisturbed natural open space.

With the mitigation proposed, there will be no significant adverse wetlands impacts as a result of implementation of the proposed plan.

L. SOIL RESOURCES, TOPOGRAPHY

Village of Tarrytown:

The description of project soil types is summarized below from the Westchester County, Soil Survey Identification Legend (1989). Text on Existing Conditions utilizes information in the Draft Environmental Impact Statement, Manor Ridge, Village of Tarrytown, Parish & Weiner, January 1990, Additionally, the Custom Soil Resource report for Westchester County, is attached as Appendix L.

Existing Conditions

The soil types found on the site:

	<u>Type</u>	<u>% of Area</u>
70 BC CrC, Charlton-Chatfield complex, rolling very rocky	3-15% slope	55.9
70 DE Csd, Chatfield-Charlton complex, hilly, very rocky	15-35% slopes	19.4
63 C Chc, Charlton Loam	8 to 15% slopes	<u>24.7</u>
	Total:	100.0%

These are shown on the attached Map 5.

The CrC, Charlton-Chatfield complex, soil type is largely within the mid-site and easterly portions. It is the dominant soil type on the site.

The ChC Charlton Loam soil type is primarily within the area of the site which borders south Broadway Route 9.

The Csd soil type is primarily within the northerly mid-section of the site.

There are small rock outcroppings scattered throughout the site.

- The Charlton-Chatfield complex, rolling, very rocky soils (70 BC and 70 DE or CrC and CsD) cover the largest portion (75%) of the project site. These soils are very deep and

moderately deep, well-drained and somewhat excessively drained, medium-textured and moderately coarse-textured rocky soils formed in gravelly and stony glacial till deposits. Occasionally rock outcroppings can be found in this soil association and bedrock is from two to five feet below the surface.

- Charlton Loam (63C or ChC) consists of deep, well drained, medium-textured and moderately coarse-textured soils formed in gravelly and stony glacial till deposits. Usually the surface layer is about two inches thick with very dark brown loam and the subsurface from two to eight inches below the surface is dark brown loam. The subsoil from 8 to 24 inches deep is comprised of dark brown yellowish brown sandy loam; the substratum from 24 to 60 inches, consists of dark grayish-brown sandy loam with thin lenses of loamy sand. The water table associated with Charlton Loam is generally more than six feet beneath the surface throughout the year.

Table A summarizes the basic properties of each of the soils on the project site. The hydrologic group is a system of classifying soils according to water infiltration and transmission rates. Hydrologic group B represents soils with moderate infiltration and transmission rates and hydrologic group C represents soils with slow infiltration and transmission rates.

Slight: Where the proposed use is feasible with few or no corrective measures.

Moderate: Where the proposed use is feasible with some readily applicable corrective or preventive measures.

- 63C or ChC Charlton Loam (8-15%)
- 70BC or CrC Charlton-Chatfield Complex, Rolling, Very Rocky (3-15%)
- 70DE or CsD Charlton-Chatfield Complex, Hilly Slopes, Very Rocky (15-35%)

SOURCE:
 Westchester County Soil & Water Conservation District,
 Westchester County Soil Survey—Interim Report (Oct. 1978)
 and Westchester County Soil Survey Identification Legend (1988)

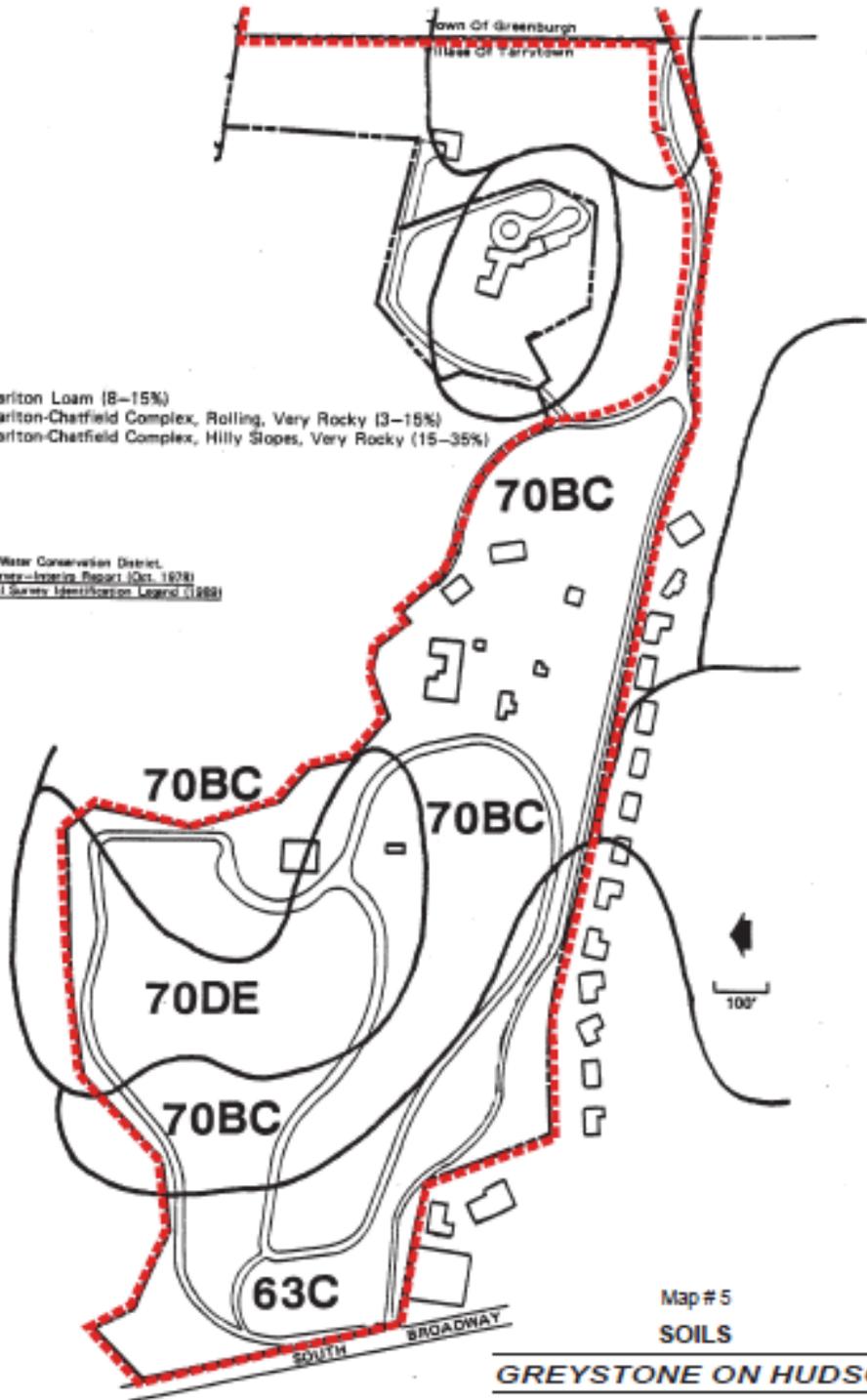


TABLE A
SOIL PROPERTIES

Map Unit	Soil and Slope	Parent Materials	Permeability	Erosion Hazard	Hydrologic Group	Surface Runoff	Depth to Bedrock
63C (ChC)	Charlton Loam (8-15%)	Glacial till	Moderate-moderately rapid	Moderate	B	Medium	5' +
70BC (CrC)	Charlton-Chatfield Complex, Rolling, Very rocky (3-15%) - Charlton Part - Chatfield Part	Glacial till Glacial till	Moderate-moderately rapid Moderate-moderately rapid	Moderate Moderate	B B	Medium Medium	5' + 20"-40"
70DE (CsD)	Chatfield-Charlton Complex, Hilly Slopes, Very Rocky (15-35%) - Charlton Part - Chatfield Part	Glacial till Glacial till	Moderate-moderately rapid Moderate-moderately rapid	Severe Severe	B B	Rapid Rapid	5' + 20"-40"

Source: Westchester County Soil and Water Conservation District, Westchester County Soil Survey Identification Legend, 1989.

Severe:Where the proposed use, while feasible, may require extensive corrective or preventive measures. While the rating should in no way be interpreted to imply that the indicated soil may not be utilized for the use under consideration, it does indicate the nature and degree of problems which must be overcome.

The slopes on the site:

<u>Slope Range (%)</u>	<u>Area (Acres)</u>	<u>% of Total</u>
0 – 25	15.56	55.7
25 – 100	<u>12.34</u>	<u>44.3</u>
Total:	27.90	100.0%

Large scale maps C-15 and C-16 show the various slope areas for each range. The steeper areas are primarily in the southerly and easterly portions of the development site.

Project Impacts

Eight homes, including swimming pools, patio and driveways, will be developed. They will be served primarily by two roads.

The development will result in the following:

	<u>Acres</u>	<u>% of Total</u>
Impervious Area	4.6	16.3
Landscaped	18.3	65.6
Preserved in Natural State	<u>5.0</u>	<u>18.1</u>
Total	27.9 acres	100.0%

Thus, about 84% of the site will, after development, be either preserved in its natural state, or landscaped following construction disturbance.

For the most part, the homes, swimming pools and access roads are placed in the areas which are not steep. (See large scale maps C-15 and C-16)

Excavation will be required for the house sites and roads:

Volumes of Cut:	41,746 cubic yards
Volumes of Fill:	15,594 cubic yards

It is expected that the majority of the excess cut material will be used on the site during the construction of the individual homes.

Some of the excavation may require removal of rock.

There will be potential noise and dust impacts during construction.

Mitigation Measures

1. The development on the site has been limited to 8 houses, which is a sharp reduction from the 15 houses which are calculated to be permitted under the Tarrytown Comprehensive Plan. The reduction results in far less impervious areas, far less excavation, and less disturbance of slopes in excess of 25%.
2. The houses and roads have been carefully sited so as to minimize disturbance of slopes in excess of 25%. No houses are sited on slopes in excess of 25% and a small part of the proposed roadway is sited on slopes of 25% in order to reuse the existing historic tree lined carriage trail road, and to save specimen trees.
3. A Stormwater Protection Plan (SWPP) and a Sedimentary and Erosion Plan will be implemented as described in Section II.F. of these reports and fully described on large scale map C-30.
4. Outdoor construction activities which would generate potential noise or dust impacts would be limited to 7 AM to 8 PM weekdays and 9 AM to 6 PM on Saturdays.

No such work will be performed on New Years Day, President's Day, Martin Luther King Birthday, Memorial Day, Independence Day, Thanksgiving, Christmas Day, and New Years Day.

5. Noise Mitigation

There are a number of noise abatement measures that reflect standard engineering practices, guidelines, and requirements for construction-related activities that will be utilized to minimize or reduce potential noise impacts during construction. The following steps will be taken as appropriate to minimize sound levels generated during construction:

- Maintain exhaust silencers on mobile equipment (such as bulldozers, trucks, and cranes) in working condition.
- Maintain mechanical equipment such as trucks, compressors, and cranes in good working condition and shut equipment down when it is not in use (i.e., instead of unnecessary idling).
- Keep noisy equipment as far from site boundaries as possible.
- Utilize noise attenuated air compressors.
- If rock crushers are to be utilized, manufacturer recommendations for best management practices for noise suppression will be followed.

6. Dust Mitigation

Construction activities may generate fugitive dust which may temporarily increase localized levels of total suspended particulates.

- If the level of rock crushing activity will exceed applicable US Environmental Protection Agency (EPA) limits, the operation will require adherence to the EPA, AP-42 emission factors for rock crushing, National Ambient Air Quality Standards for inhalable

particulates, PM-10. These standards require that there shall not be more than 150 micrograms of PM-10 particles per cubic meter at the property line measured on a 24-hour basis. The applicant will, in any event, operate the crushers under a system that will not exceed these limits.

- Rock crushing may also fall within the requirements of the New York State Ambient Air Quality Standards for total suspended particulates (TSP) and for settleable particulates (“dust fall”).
- Wherever possible, equipment and conveyors are to be covered by a tarp; or a dry dust collection system will be installed which involves use of a vacuum with hoods and duct work that will direct dry dust particles to a bag house which is periodically emptied.
- Alternately, there will be wet suppression technology where water under very high pressure will produce a mist either into the inlet of the crusher, on top of the screen, or at conveyor transfers.

7. Blasting

Blasting requiring rock excavation will be avoided to the maximum extent possible. If required, the following mitigation measures will be implemented.

All blasting operations will adhere to New York State ordinances governing the use of explosives. Proper program guidelines will be established to follow Tarrytown regulations and other applicable State and federal regulations prior to the undertaking of this activity. In addition to obtaining applicable blasting certifications, and complying with all blasting safety requirements, a Blasting Plan will be implemented. The elements of the Plan will include, but are not limited to the following:

- Pre-Blast Survey
- Precise engineering determinations of the depth and location of on-site blasting.

- Evaluation of the location of property lines and the structural nature of nearby buildings for determination of the maximum blast velocity for charges to be used.
- Use of a seismograph to monitor each blast attempt and evaluate the blast velocity of the charges used.
- Use of blast matting as may be necessary to minimize lifting of rock and debris during blasting.
- All pertinent safety regulations and standards shall be applied as required for safety, security, and other related details, for any blasting deemed necessary. Applicable safety regulations are:
 - U.S. Army Corps of Engineers Safety Manual EM 385-1-1
 - Code of Federal Regulations A.T.F. Title 27
 - Institute of Makers of Explosives Safety Library Publications No. 22
- Storage of all explosive materials shall be located on the site at a location approved by the Blasting Inspector. Caps, or other detonating devices, will not be stored with Class A explosives. The security for explosives and blasting materials stored on-site will be in accordance with engineer-approved requirements.
- Delivery and transportation of explosives to the blast area will be by vehicles specifically designed for this use by the criteria outlined in the safety requirements. Only authorized persons will transport and handle the explosives as designated by the authority of those licensed for this purpose. At all times Federal, State, and Local ordinances will be followed concerning the transportation and storage of explosives.
- Appropriate signs shall be erected in the area of blasting activities.

As mitigated, there will be no significant adverse environmental impacts on soil and topography.

Town of Greenburgh

The description of project soil types is summarized below from the Custom Soil Resource Report for Westchester County, New York, Tarry Grand Soils Report, United States Department of Agriculture, Natural Conservation Service, June 24, 2011 and is attached as Appendix A.

Existing Conditions

The soil types found on the site:

<u>Type</u>	<u>% of Site</u>
ChB, Charlton loam, 2 to 8 percent slopes	30.8
CrC, Charlton-Chatfield complex, rolling very rocky	50.5
Csd, Chatfield-Charlton complex, hilly, very rocky	<u>18.7</u>
	100.0%

The ChB soil type is primarily within the northern portion of the site and includes most of the site’s wetland areas.

The Csd soil type is primarily within the easterly portion of the site within the parcel which will be dedicated to the Town of Greenburgh Taxter Ridge Park.

The CrC soil type is within the remainder of the site, largely mid-site and southerly portions.

The site generally slopes from south to north with wetland areas generally along the northerly border. The slope characteristics are presented in the following table.

<u>Slope Range (%)</u>	<u>Area (Acres)</u>	<u>% of Total</u>
0 – 15	15.7	45.1
15 – 25	12.5	36.0
25 – 35	4.1	11.7
35 – 100	<u>2.5</u>	<u>7.2</u>
Total:	34.8 acres	100.0%

(Note: Data does not include the 21.7 acres parcel to be donated to the Town.)

Large scale maps C-19 and C-20 show the various slope areas for each range. The steeper areas are primarily in the southerly and easterly portions of the development site.

Project Impacts

Twelve homes, including swimming pools, patio and driveways, will be developed. They will be served primarily by two roads.

The development will result in the following:

	<u>Acres</u>	<u>% of Total</u>
Impervious Area	3.69	6.5
Landscaped	13.68	24.2
Preserved in Natural State	<u>39.19</u>	<u>69.3</u>
Total	56.56 acres	100.0%

Thus, about 93% of the site will, after development, be either preserved in its natural state, or landscaped following construction disturbance.

For the most part, the homes, swimming pools and access roads are placed in the areas which are not steep (mostly 0-15% slopes). (See large scale maps C-19 and C-20)

Excavation will be required for the house sites and roads:

Volumes of Cut:	56,149 cubic yards
Volumes of Fill:	16,709 cubic yards

The excess cut material will be carted from the site as it is excavated and made available to other construction sites in the region requiring fill material.

Some of the excavation may require removal of rock.

There will be potential noise and dust impacts during construction.

Mitigation Measures

1. The development on the site has been limited to 12 houses, which is a sharp reduction from the 33 houses which are permitted under the Town's Zoning Ordinance. The reduction results in far less impervious areas, far less excavation, and less disturbance of slopes in excess of 15%.
2. A 21.7 acre parcel (38.3% of the site area) is being donated to the Town of Greenburgh for permanent open space to be added to the Taxter Ridge Park.
3. The houses and roads have been carefully sited so as to minimize disturbance of slopes in excess of 15%.
4. A Stormwater Protection Plan (SWPP) and a Sedimentary and Erosion Plan will be implemented as described in Section II.F. of these reports and fully described on large scale map C-30.
5. Outdoor construction activities which would generate potential noise or dust impacts would be limited to 7 AM to 8 PM weekdays and 9 AM to 6 PM on Saturdays.

No such work will be performed on: New Years day, Memorial Day, Independence Day and Christmas Day.

6. Noise Mitigation

There are a number of noise abatement measures that reflect standard engineering practices, guidelines, and requirements for construction-related activities that will be utilized to minimize or reduce potential noise impacts during construction. The following steps will be taken as appropriate to minimize sound levels generated during construction:

- Maintain exhaust silencers on mobile equipment (such as bulldozers, trucks, and cranes) in working condition.
- Maintain mechanical equipment such as trucks, compressors, and cranes in good working condition and shut equipment down when it is not in use (i.e., instead of unnecessary idling).
- Keep noisy equipment as far from site boundaries as possible.
- Utilize noise attenuated air compressors.
- If rock crushers are to be utilized, manufacturer recommendations for best management practices for noise suppression will be followed.

7. Dust Mitigation

Construction activities may generate fugitive dust which may temporarily increase localized levels of total suspended particulates.

- If the level of rock crushing activity will exceed applicable US Environmental Protection Agency (EPA) limits, the operation will require adherence to the EPA, AP-42 emission factors for rock crushing, National Ambient Air Quality Standards for inhalable particulates, PM-10. These standards require that there shall not be more than 150 micrograms of PM-10 particles per cubic meter at the property line measured on a 24-hour basis. The applicant will, in any event, operate the crushers under a system that will not exceed these limits.

- The rock crushing operation may also fall within the requirements of the New York State Ambient Air Quality Standards for total suspended particulates (TSP) and for settleable particulates (“dust fall”).
- Wherever possible, equipment and conveyors are to be covered by a tarp; or a dry dust collection system will be installed which involves use of a vacuum with hoods and duct work that will direct dry dust particles to a bag house which is periodically emptied.
- Alternately, there will be wet suppression technology where water under very high pressure will produce a mist either into the inlet of the crusher, on top of the screen, or at conveyor transfers.

8. Blasting

Blasting requiring rock excavation will be avoided to the maximum extent possible. If required, the following mitigation measures will be implemented.

All blasting operations will adhere to New York State ordinances governing the use of explosives. Proper program guidelines will be established to follow Town of Greenburgh regulations and other applicable State and federal regulations prior to the undertaking of this activity. In addition to obtaining applicable blasting certifications, and complying with all blasting safety requirements, a Blasting Plan will be implemented. The elements of the Plan will include, but are not limited to the following:

- Pre-Blast Survey
- Precise engineering determinations of the depth and location of on-site blasting.
- Evaluation of the location of property lines and the structural nature of nearby buildings for determination of the maximum blast velocity for charges to be used.
- Use of a seismograph to monitor each blast attempt and evaluate the blast velocity of the charges used.

- Use of blast matting as may be necessary to minimize lifting of rock and debris during blasting.
- All pertinent safety regulations and standards shall be applied as required for safety, security, and other related details, for any blasting deemed necessary. Applicable safety regulations are:
 - U.S. Army Corps of Engineers Safety Manual EM 385-1-1
 - Code of Federal Regulations A.T.F. Title 27
 - Institute of Makers of Explosives Safety Library Publications No. 22
- Storage of all explosive materials shall be located on the site at a location approved by the Blasting Inspector. Caps, or other detonating devices, will not be stored with Class A explosives. The security for explosives and blasting materials stored on-site will be in accordance with engineer-approved requirements.
- Delivery and transportation of explosives to the blast area will be by vehicles specifically designed for this use by the criteria outlined in the safety requirements. Only authorized persons will transport and handle the explosives as designated by the authority of those licensed for this purpose. At all times Federal, State, and Local ordinances will be followed concerning the transportation and storage of explosives.
- Appropriate signs shall be erected in the area of blasting activities.

As mitigated, there will be no significant adverse environmental impacts on soil and topography.

M. DOMESTIC WATER, SANITARY SEWER, SOLID WASTE

DOMESTIC WATER

a. Village of Tarrytown:

Existing Conditions

The Village of Tarrytown owns and maintains two existing mains contiguous to the project. An existing 16” water main is located near the Town of Greenburgh Village of Tarrytown boundary line near the Eastern Property line of the subject parcel and an existing water main is located within South Broadway.

There are no existing internal water system facilities serving the undeveloped site.

Project Impacts

The proposed water demand for the 8 residences is estimated to be 400 gallons per day per residence with a total demand of 3,200 gallons per day.

The project site will be served by a connection to an existing 16” water main is located near the Town of Greenburgh Village of Tarrytown boundary line near the eastern property line of the subject parcel and by a connection to the Village’s existing water main located within South Broadway.

The Village of Tarrytown water system is deemed to have adequate pressure and capacity to serve this new demand.

Mitigation

No mitigation is deemed to be necessary inasmuch as the project will not generate any significant adverse impacts.

b. Town of Greenburgh

Existing Conditions

There is an existing 16” water main near the intersection of two proposed roads (Carriage Trail and Northern Path). The main is owned and maintained by the Village of Tarrytown and connects with Village’s system serving the adjacent Tarryhill community.

There are no existing internal water system facilities serving the undeveloped site.

Project Impacts

The proposed water demand for the 12 residences is estimated to be 400 gallons per day per residence with a total demand of 4,800 gallons per day.

The homes will be served by a total of 2,073 linear feet of 8-inch diameter water line which will be constructed in the proposed new roads along with 5 fire hydrants.

The water lines will be connected to the Village of Tarrytown’s existing 16 inch main. The residences will be charged for their water use at out-of-Village water rates which are 50% more than in Village water rates.

The Village of Tarrytown water system is deemed to have adequate pressure and capacity to serve this new demand.

Mitigation

No mitigation is deemed to be necessary inasmuch as the project will not generate any significant adverse impacts.

SANITARY SEWER SERVICES

a. Village of Tarrytown

Existing Conditions

The project site will be connected to the existing Village of Tarrytown sanitary sewer located in Route 9 (South Broadway). The system connects to the system maintained and owned by the

Westchester County Department of Environmental Facilities (WCDEF) Saw Mill Valley Sewer District that is tributary to the WCDEF Joint Yonkers Treatment Plant.

There are no existing sanitary sewer facilities within the undeveloped site.

Project Impacts

The 8 residences to be constructed are each estimated to generate 400 gallons per day of effluent for a total effluent discharge of 3,200 gallons per day.

A total of 3,366 linear feet of 8-inch diameter gravity line sanitary sewer pipe will be located within the new roadways. The sanitary sewage will then enter into the Village of Tarrytown's sewer system.

The County Yonkers Treatment Plant and the sewer mains to that plant are deemed to have adequate capacity for distribution and treatment of the project effluent.

Mitigation

The Village of Tarrytown requested that sanitary sewer monitoring be performed at the Village's existing sanitary sewer manhole at the intersection of Walter Street and Route 9. The 30-day monitoring commenced on November 2, 2011. At the end of the 30-day period, the data was collected which showed adequate capacity for the 20 lot subdivision.

No additional mitigation is deemed necessary. As mitigated per the above, the project will not generate a significant adverse environmental impact.

The project will generate \$16,476 in annual property taxes to the Saw Mill Valley Sewer District.

b. Town of Greenburgh:

Existing Conditions

There is an existing 400 linear foot, 8-inch diameter, sewer main located in Roundabend Road, which is adjacent to the project site. This main connects with the adjacent gravity system owned and maintained by the Village of Tarrytown. The system connects to the system maintained and owned by the Westchester County Department of Environmental Facilities (WCDEF) Saw Mill Valley Sewer District that is tributary to the WCDEF Joint Yonkers Treatment Plant.

There are no existing sanitary sewer facilities within the undeveloped site.

Project Impacts

The 12 residences to be constructed are each estimated to generate 400 gallons per day of effluent for a total effluent discharge of 4,800 gallons per day.

Individual low pressure grinder pumps will service each residence. The individual pumps will discharge into 1½” to 2½” force mains that will connect at a sanitary sewer manhole at the end of the existing 400 linear foot gravity line extension. A total of 1,951 linear feet of force main is proposed and will be located within the new roadways.

The sanitary sewage will then enter into the Village of Tarrytown’s sewer system. The Applicant will apply to the Town of Greenburgh for the establishment of a sanitary sewer district and said action will require the approval of both the Town of Greenburgh and the Village of Tarrytown. The sanitary sewer district will then enter into an agreement with the Village of Tarrytown for the use of its system.

The County Yonkers Treatment Plant and the sewer mains to that plant are deemed to have adequate capacity for distribution and treatment of the project effluent.

Mitigation

The Village of Tarrytown requested that sanitary sewer monitoring be performed at the Village’s existing sanitary sewer manhole at the intersection of Walter Street and Route 9. The 30-day monitoring commenced on November 2, 2011. At the end of the 30-day period, the data was collected which showed adequate capacity for the 20 lot subdivision.

No additional mitigation is deemed necessary. As mitigated per the above, the project will not generate a significant adverse environmental impact.

N. UTILITIES TO ADJOINING PROPERTIES

Existing Conditions

Currently the adjoining Coppola property has its utilities under their existing driveway. The Min Ding/Sabrina Shue residence currently has easements for its utilities running through the Greystone site.

Project Impacts

Upon completion of all road and utility improvements on the Greystone site, the Coppola's existing driveway will be demolished and all utilities will be disconnected and re-connected to the newly installed Greystone utilities (water, sewer, gas, electric, telephone) on the Greystone site.

Also, upon completion of all road and utility improvements on the Greystone site, the Ding/Shue residence will discontinue use of the existing utilities and hook into the newly installed Greystone utilities which will be brought to the property line at the same place of the current connection.

Mitigation

No mitigation is necessary.

O. SOLID WASTE

a. Village of Tarrytown

Existing Conditions

The existing undeveloped site does not generate any solid waste.

The site will be served by the Village of Tarrytown's Department of Public Works which collects solid waste and carts the waste to the Westchester County Waste Disposal Plant in Peekskill.

Project Impacts

The 8 homes to be developed will generate each week an estimated 5.3 cubic yards of waste, for a total project generation of about 42 cubic yards per week.

The additional waste will require additional collection trips by the Tarrytown Public Works Department and will add to the waste load of the County Plant in Peekskill. Both the Village and County are deemed to have sufficient resources to accommodate the small amount of additional waste generation.

Mitigation

Inasmuch as the project will generate an estimated \$245,710 of property taxes a year to the Village and \$11,224 per year to the County Refuse District, and will require little else in services from either entity it is reasonable to assume that the marginal costs incurred for solid waste services will be more than adequately offset by the additional property tax revenues.

No additional mitigation is to be deemed to be necessary. The project's solid waste generation will not have a significant adverse environmental impact.

b. Town of Greenburgh

Existing Conditions

The existing undeveloped site does not generate any solid waste.

The site will be served by the Town of Greenburgh's Department of Public Works which collects solid waste and carts the waste to the Westchester County Waste Disposal Plant in Peekskill.

Project Impacts

The 12 homes to be developed will generate each week an estimated 5.3 cubic yards of waste, for a total project generation of about 64 cubic yards per week.

The additional waste will require additional collection trips by the Greenburgh Public Works Department and will add to the waste load of the County Plant in Peekskill. Both the Town and County are deemed to have sufficient resources to accommodate the small amount of additional waste generation.

Mitigation

Inasmuch as the project will generate an estimated \$299,544 of property taxes a year to the Town and \$16,836 per year to the County Refuse District, and will require little else in services from either entity it is reasonable to assume that the marginal costs incurred for solid waste services will be more than adequately offset by the additional property tax revenues.

No additional mitigation is to be deemed to be necessary. The project's solid waste generation will not have a significant adverse environmental impact.

P. NOISE AND AIR QUALITY

a. Village of Tarrytown

Existing Conditions

The site is presently undeveloped and does not generate any noise or air quality pollutants. The site is surrounded by permanent open space and a residential community and as a result is not affected by any external noise or air quality factors.

Project Impacts

Eight single-family homes are proposed for the site. In their completed state they will have no significant adverse impacts on adjacent and nearby areas.

There will be construction period impacts which are to be mitigated as discussed below.

Mitigation Measures

The following mitigation measures will be taken with respect to construction period impacts:

- a. A Stormwater Protection Plan (SWPP) and a Sedimentary and Erosion Plan will be implemented as described in Section II.F. of these reports.
- b. Outdoor construction activities which would generate potential noise or dust impacts would be conducted in accordance with the Village code.
- c. Noise Mitigation

There are a number of noise abatement measures that reflect standard engineering practices, guidelines, and requirements for construction-related activities that will be utilized to minimize or reduce potential noise impacts during construction. The following steps will be taken as appropriate to minimize sound levels generated during construction:

- Maintain exhaust silencers on mobile equipment (such as bulldozers, trucks, and cranes) in working condition.

- Maintain mechanical equipment such as trucks, compressors, and cranes in good working condition and shut equipment down when it is not in use (i.e., instead of unnecessary idling).
- Keep noisy equipment as far from site boundaries as possible.
- Utilize noise attenuated air compressors.
- If rock crushers are to be utilized, manufacturer recommendations for best management practices for noise suppression will be followed.

d. Dust Mitigation

Construction activities may generate fugitive dust which may temporarily increase localized levels of total suspended particulates.

- If the level of rock crushing activity will exceed applicable US Environmental Protection Agency (EPA) limits, the operation will require adherence to the EPA, AP-42 emission factors for rock crushing, National Ambient Air Quality Standards for inhalable particulates, PM-10. These standards require that there shall not be more than 150 micrograms of PM-10 particles per cubic meter at the property line measured on a 24-hour basis. The applicant will, in any event, operate the crushers under a system that will not exceed these limits.
- The rock crushing operation may also fall within the requirements of the New York State Ambient Air Quality Standards for total suspended particulates (TSP) and for settleable particulates (“dust fall”).
- Wherever possible, equipment and conveyors are to be covered by a tarp; or a dry dust collection system will be installed which involves use of a vacuum with hoods and duct work that will direct dry dust particles to a bag house which is periodically emptied.

- Alternately, there will be wet suppression technology where water under very high pressure will produce a mist either into the inlet of the crusher, on top of the screen, or at conveyor transfers.

e. Blasting

Blasting requiring rock excavation will be avoided to the maximum extent possible. If required, the following mitigation measures will be implemented.

All blasting operations will adhere to New York State ordinances governing the use of explosives. Proper program guidelines will be established to follow Village of Tarrytown regulations and other applicable State and federal regulations prior to the undertaking of this activity. In addition to obtaining applicable blasting certifications, and complying with all blasting safety requirements, a Blasting Plan will be implemented. The elements of the Plan will include, but are not limited to the following:

- Pre-Blast Survey
- Precise engineering determinations of the depth and location of on-site blasting.
- Evaluation of the location of property lines and the structural nature of nearby buildings for determination of the maximum blast velocity for charges to be used.
- Use of a seismograph to monitor each blast attempt and evaluate the blast velocity of the charges used.
- Use of blast matting as may be necessary to minimize lifting of rock and debris during blasting.
- All pertinent safety regulations and standards shall be applied as required for safety, security, and other related details, for any blasting deemed necessary. Applicable safety regulations are:

- U.S. Army Corps of Engineers Safety Manual EM 385-1-1
- Code of Federal Regulations A.T.F. Title 27
- Institute of Makers of Explosives Safety Library Publications No. 22
- Storage of all explosive materials shall be located on the site at a location approved by the Blasting Inspector. Caps, or other detonating devices, will not be stored with Class A explosives. The security for explosives and blasting materials stored on-site will be in accordance with engineer-approved requirements.
- Delivery and transportation of explosives to the blast area will be by vehicles specifically designed for this use by the criteria outlined in the safety requirements. Only authorized persons will transport and handle the explosives as designated by the authority of those licensed for this purpose. At all times Federal, State, and Local ordinances will be followed concerning the transportation and storage of explosives.
- Appropriate signs shall be erected in the area of blasting activities.

There will be no significant adverse noise or air quality impacts from the completed 8-home development.

Construction period impacts will be mitigated as described above and as a result there will be no significant adverse noise or air quality impacts during the construction period.

b. Town of Greenburgh

Existing Conditions

The site is presently undeveloped and does not generate any noise or air quality pollutants. The site is surrounded by permanent open space and a residential community and as a result is not affected by any external noise or air quality factors.

Project Impacts

Twelve single-family homes are proposed for the site. In their completed state they will have no significant adverse impacts on adjacent and nearby areas.

There will be construction period impacts which are to be mitigated as discussed below.

Mitigation Measures

The following mitigation measures will be taken with respect to construction period impacts:

- a. A Stormwater Protection Plan (SWPP) and a Sedimentary and Erosion Plan will be implemented as described in Section II.F. of these reports.
- b. Outdoor construction activities which would generate potential noise or dust impacts would be limited to 7 AM to 8 PM on weekdays and 9 AM to 6 PM on Saturdays.

No such work will be performed on New Years Day, Memorial Day, Independence Day and Christmas Day.

c. Noise Mitigation

There are a number of noise abatement measures that reflect standard engineering practices, guidelines, and requirements for construction-related activities that will be utilized to minimize or reduce potential noise impacts during construction. The following steps will be taken as appropriate to minimize sound levels generated during construction:

- Maintain exhaust silencers on mobile equipment (such as bulldozers, trucks, and cranes) in working condition.
- Maintain mechanical equipment such as trucks, compressors, and cranes in good working condition and shut equipment down when it is not in use (i.e., instead of unnecessary idling).
- Keep noisy equipment as far from site boundaries as possible.

- Utilize noise attenuated air compressors.
- If rock crushers are to be utilized, manufacturer recommendations for best management practices for noise suppression will be followed.

d. Dust Mitigation

Construction activities may generate fugitive dust which may temporarily increase localized levels of total suspended particulates.

- If the level of rock crushing activity will exceed applicable US Environmental Protection Agency (EPA) limits, the operation will require adherence to the EPA, AP-42 emission factors for rock crushing, National Ambient Air Quality Standards for inhalable particulates, PM-10. These standards require that there shall not be more than 150 micrograms of PM-10 particles per cubic meter at the property line measured on a 24-hour basis. The applicant will, in any event, operate the crushers under a system that will not exceed these limits.
- The rock crushing operation may also fall within the requirements of the New York State Ambient Air Quality Standards for total suspended particulates (TSP) and for settleable particulates (“dust fall”).
- Wherever possible, equipment and conveyors are to be covered by a tarp; or a dry dust collection system will be installed which involves use of a vacuum with hoods and duct work that will direct dry dust particles to a bag house which is periodically emptied.
- Alternately, there will be wet suppression technology where water under very high pressure will produce a mist either into the inlet of the crusher, on top of the screen, or at conveyor transfers.

e. Blasting

Blasting requiring rock excavation will be avoided to the maximum extent possible. If required, the following mitigation measures will be implemented.

All blasting operations will adhere to New York State ordinances governing the use of explosives. Proper program guidelines will be established to follow Town of Greenburgh regulations and other applicable State and federal regulations prior to the undertaking of this activity. In addition to obtaining applicable blasting certifications, and complying with all blasting safety requirements, a Blasting Plan will be implemented. The elements of the Plan will include, but are not limited to the following:

- Pre-Blast Survey
- Precise engineering determinations of the depth and location of on-site blasting.
- Evaluation of the location of property lines and the structural nature of nearby buildings for determination of the maximum blast velocity for charges to be used.
- Use of a seismograph to monitor each blast attempt and evaluate the blast velocity of the charges used.
- Use of blast matting as may be necessary to minimize lifting of rock and debris during blasting.
- All pertinent safety regulations and standards shall be applied as required for safety, security, and other related details, for any blasting deemed necessary. Applicable safety regulations are:
 - U.S. Army Corps of Engineers Safety Manual EM 385-1-1
 - Code of Federal Regulations A.T.F. Title 27
 - Institute of Makers of Explosives Safety Library Publications No. 22

- Storage of all explosive materials shall be located on the site at a location approved by the Blasting Inspector. Caps, or other detonating devices, will not be stored with Class A explosives. The security for explosives and blasting materials stored on-site will be in accordance with engineer-approved requirements.
- Delivery and transportation of explosives to the blast area will be by vehicles specifically designed for this use by the criteria outlined in the safety requirements. Only authorized persons will transport and handle the explosives as designated by the authority of those licensed for this purpose. At all times Federal, State, and Local ordinances will be followed concerning the transportation and storage of explosives.
- Appropriate signs shall be erected in the area of blasting activities.

There will be no significant adverse noise or air quality impacts from the completed 12- home development.

Construction period impacts will be mitigated as described above and as a result there will be no significant adverse noise or air quality impacts during the construction period.

Q. TRAFFIC

(The following is a summary of the detailed traffic study prepared by VHB Engineering, Surveying and Landscape Architecture, P.C. per John Canning, PE and which is attached as Appendix B.)

The study examines cumulative traffic impacts from the proposed 20 homes (8 in Tarrytown and 12 in Greenburgh). It examines the impacts within the context of a Cumulative Traffic Impact Study for the south end of Broadway (Route 9) in Tarrytown prepared in 2005 for the Village of Tarrytown Planning Board. It also takes into account the possible future development of Jardim Estates.

Existing Conditions

The current site is presently undeveloped and do not generate any vehicular traffic.

The site is served by one external road, Broadway (Route 9) which is a principal State arterial roadway which provides direct access to all of the properties which front on the roadway.

In this area the currently major intersecting roads, and those proximate to the project sites are: Tarryhill Road and Sunnyside Lane.

The peak AM traffic occurs from 7:45 am to 8:45 am; the peak PM traffic occurs from 5 pm to 6 pm. The total traffic volumes on Broadway are slightly higher in the AM peak hour.

A comparison of current traffic volumes at the Broadway/Tarryhill Road and Broadway/Sunnyside Lane intersections with those found in the 2005 Cumulative Traffic Study finds that current volumes are generally lower than those found in 2005.

Project Impacts

The trips to be generated by the project are shown in the following table:

Trip Generation – Single Family Homes – Detached (20 units)

Peak Period	Trip Rate Per Unit	Total Trips	Entering Trips		Exiting Trips	
			Percent	Volume	Percent	Volume
AM Weekday	1.35	27	34%	9	66%	18
PM Weekday	1.30	26	66%	17	34%	9

Source: *Trip Generation, 8th Edition* – Single-family Homes – Detached – ITE LUC 210 and surveys of existing homes on Roundabend Road as well as Tarryhill Road

A capacity analysis was conducted at the intersection of the proposed site entrance and Broadway. The analysis compared existing conditions, no-build conditions and build conditions.

The no-build conditions assumed that existing volumes would increase by 2% per year during the 2011-2013 period (2013 is assumed to be the build year when development is completed) and added the cumulative impact of additional traffic expected from the following developments:

- Lighthouse Landing;
- Ferry Landing (that portion which has yet to be completed);
- 155 White Plains Road (expansion);
- Jardim East;
- JCC Expansion.

The build condition was the sum of the existing traffic, that added in the no-build condition, and that which is to be generated by the 20 homes proposed to be constructed.

A comparison of the analysis results for the three scenarios:

Existing			No Build			Build		
AM			AM			AM		
LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c
C	22.8	0.01	D	27.2	0.01	D	32.9	0.15

Existing			No Build			Build		
PM			PM			PM		
LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c
C	21	0.01	D	25.2	0.01	D	26	0.06

As the tables indicate, the analysis found that both in the AM and PM peak hours there would be no change in the levels of service (LOS in tables) between the no build and build conditions; no significant increase in delays, and that the intersection will operate at a satisfactory level of service during both peak hours.

The analysis also considered the existing sight distances at the site driveway approach to Broadway which found that there is approximately 1,750 feet of sight distance to the left from the site driveway and 535 feet of sight distance to the right. Although the posted speed limit is 35 mph there is sufficient sight distance to see vehicles traveling well in excess of this speed.

Based on an inspection of the intersection of the site access with Broadway, a review of the sight distances and a consideration of projected operating conditions, as indicated by the build capacity analyses, it is concluded that the intersection will adequately be able to accommodate the additional traffic generated by the project.

A supplemental study to the October 2011 traffic study on Gracemere Rd. and the Pennybridge section of Tarrytown concluded that there are no adverse impacts on Gracemere Rd. as a result of this action.

Mitigation Measures

The analyses performed indicate that no mitigation is necessary inasmuch as no significant adverse traffic impacts would result from the development of the proposed projects.

R. HISTORIC/VISUAL RESOURCES

A report and photographs of the site's history is submitted in the attached Appendix E and an analysis of historic resources and visual resources prepared by Historical Perspectives Inc. is attached as Appendix F in accordance with the review standards of the NYS Historic Preservation Office (SHPO).

Existing Conditions/Site History

The site was originally part of the 296 acre Nathaniel Requa Farm. The Requa Farm was established in pre-Revolutionary times and was sold in the 1840's. The 296 acres were subdivided into three estates: The Jay Gould Estate, called Lyndhurst; the Harold Lehman estate, called Pinkstone, which is now the Kraft property; (both now on the westerly side of South Broadway); and on the east side of what is now South Broadway, a third estate named Greystone, which is now the site of the proposed Village of Tarrytown and Town of Greenburgh subdivisions.

The Greystone Estate was first the home of Walter S. Gurnee, a former Chicago Mayor and railroad magnate; then in 1899 became the home of Louis Stern, one of the founding brothers of Sterns Department Store (later merged with Macy's); then sold in 1909 to Robert Dula, President of American Tobacco Company (who called it Hiburton); then sold in 1919 to Dr. Joseph Blake, a renowned surgeon (the main house was then renamed Fortoiseau); then sold in 1942 to Bernard MacFadden, the health and fitness magazine guru who established a boarding school on the site which lasted until his death in 1956; at which time the site was sold to the Yonkers Jewish Community Centre, which established the UJA sponsored Pinsley Day Camp (now relocated to the west side of South Broadway). The property has now been purchased for development into ultra luxury estates on portions of the site in the Village of Tarrytown and the Town of Greenburgh, which together are now to be a 20-home development, Greystone on Hudson.

The original estate featured a 40-room mansion which was designed to resemble the magnificence and splendor of an Italian stone castle with out buildings including a gate house, gardener's cottage, caretakers cottage, greenhouses, ice house, poultry house, dairy building, root

cellar, tennis court, and a stone stable and carriage house with an iconic clock tower built in the gothic revival style. The original main house was destroyed in a fire and in 1919 was rebuilt as a neoclassical mansion with Mediterranean influences, designed by the renowned architect, Albert Bodker. There are within the site remnants of old foundations, portions of a swimming pool and obsolete/abandoned subsurface utilities. None of these have any architectural or historic value. Sadly, none of the architecture treasures remain. What does remain is the long-tree lined roadway, now to be called the Carriage Trail, which is to be restored as part of the Greystone on Hudson plan.

There are two historic resources within the vicinity of the site based on the study by Historical Perspectives Inc. -- The Old Croton Aqueduct and Lyndhurst -- which are described in detail in their report.

There are also two parks within the vicinity of the site – Taxter Ridge Park and Gracemere Park – which are also described in detail in the report.

Project Impacts

Inasmuch as no remaining historic resources have been identified to have been located within the site, the development of 20 homes, appurtenant facilities and driveways, will have no adverse impact on historic resources. The portion of the site in the Town of Greenburgh is located behind the Copolla/Nigerian Embassy ridge and is thus not visible from Lyndhurst, the Old Croton Aqueduct or the Tappan Zee Bridge.

The roadways will include the restored Carriage Trail tree lined road which led to the historic Greystone Mansion and outbuildings. The restoration of the historic trail is deemed to be a positive impact.

Old Croton Aqueduct

“The proposed development within the project site will have no adverse impacts on the National Historic Landmark/National Register listed Old Croton Aqueduct.” The nearest house will be 410 feet from the Old Croton Aqueduct and set back 340 feet from South Broadway. In

addition, the plan includes the donation of a strip of land along the southern border of the Old Croton Aqueduct that includes the existing gateway (see Appendix I). At present there is no break in the stone wall on the east side of South Broadway, so the donated entrance will improve access to the trail.

Lyndhurst

The gatehouse on South Broadway is the closest historic structure to the site, but the majority of the site will be screened by the large trees on the Lyndhurst property. The low density of the proposed development and the large lot sizes, will preserve much of the natural topography and tree lines, resulting in no overwhelming intrusion to the viewscape from the limited portions of the Lyndhurst property that have seasonal (winter) views of the property. “The proposed development within the project site will have no adverse impacts in the National Historic Landmark/National Register listed Lyndhurst property.”

Tappan Zee Bridge

A supplemental report was prepared by Historical Perspectives indicating there is no impact on the viewshed to the site from the Tappan Zee Bridge.

Taxter Ridge Park

The proposed donation of 21.7 acres will substantially augment the Town of Greenburgh Taxter Ridge Park. A trail will lead through the donated area connecting to Jardim Estates East and the Gracemore section of Tarrytown. (See Map 6)

Gracemere Park

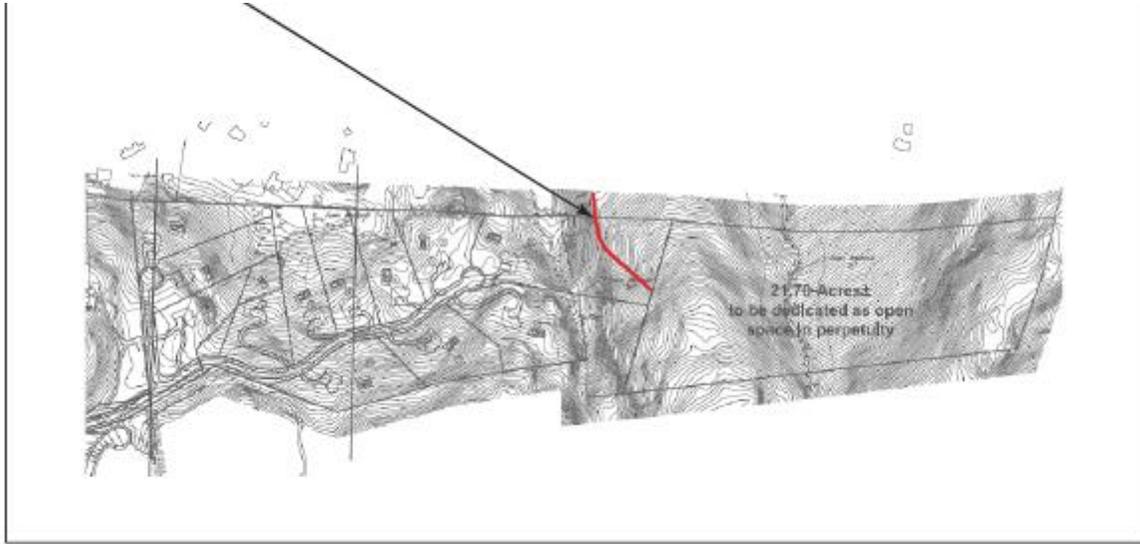
This Village Park will undergo a cleaning of dead trees and invasive vines that crowd out the natural beauty and thus will make the area more accessible.

The historic elements of the project will be recognized and mitigated by the restoration of the Carriage Trail Cart-way and the site entrance design.

Mitigation

As mitigated, the project will have a positive impact on the environment.

The development of a trail to connect the Open Space Parcel in the proposed Jardim Estates Est Subdivision to the 21.7 acre donated parcel and ultimately the existing Taxter Ridge Park. This connection begins at Sheldon Ave and if one were walking west on Sheldon Ave they would ultimately connect to the Old Croton Avenue and Gracemere Park effectively making a connection from Taxter Ridge Park to the Old Croton Aqueduct which doesn't currently exist.



Map #6
EXISTING TRAIL
GREYSTONE ON HUDSON

S. CULTURAL RESOURCES

The description of cultural resources below is summarized from the Phase IA/IB Archaeological Investigation for the Greenbgh and Tarrytown sites prepared by Historical Perspective Inc., November 2011, and is attached as Appendix I.

Existing Conditions

a. Pre-Contact Sensitivity

The Phase IA Sensitivity Assessment states that “documentary research has found that there is limited to no potential for the presence of significant intact pre-contact cultural resources on the project site. The project site would not have provided the preferred environment for pre-contact occupation because of the presence of steep slopes, exposed bedrock, the limited amount of well-drained soils, and the distance to a fresh water source. In addition, the absence of pre-contact resources on the property immediately to the north of the project site supports the finding that the site was not likely exploited by pre-contact peoples for settlement or resource extraction.”

b. Historical Period Sensitivity

The Phase IA Sensitivity Assessment states that “because documentary evidence does not securely constitute “ground truth,” Phase IB archaeological testing is designed to verify or deny the conclusions of the initial assessment by establishing the actual presence or absence of cultural resources on the site through the excavation of a series of shovel tests (STs) within the locations deemed archaeologically sensitive. Phase IB testing is recommended in the locations identified as sensitive for the presence of historical cultural materials relating to the use of the property during the historic era. Testing is not recommended in areas of excessive slope (over 12%).”

Historical Perspective Inc. (HPI) recommended Phase IB field testing for portions of the site they identified as sensitive for historic period archaeological resources. The tests included systematic shovel testing in the identified Areas of Potential Effect (APE) that have not been disturbed and the further investigation of historical period feature that are found.

Project Impact

a. Pre-Contact Sensitivity

Due to the limited to no potential for the presence of significant pre-contact cultural resources on the site, HPI found that “no further archaeological consideration is recommended for pre-contact era cultural resources”. Therefore, the proposed 8 lot subdivision will have no significant impact.

b. Historical Period Sensitivity

“The testing phase of the project found that much of the site had been disturbed during multiple episodes of construction, demolition, and grading during the site’s history. Some areas contained artifacts. However, none of the artifacts were found in intact archaeological contexts and most dated to the Twentieth Century...HPI recommends no further archaeological investigation for the Greystone project site.” Therefore, the proposed 8 lot subdivision will have no significant impact.

Mitigation Measures

Since there is no potential for the presence of significant pre-contact cultural resources on the site, and no historical artifacts found of significance, no mitigation is necessary.

T. VEGETATION

a. Village of Tarrytown:

Existing Conditions

General Site Description

The site primarily consists of upland woods. Additionally there are several small fields. A letter was sent requesting information regarding the presence of any documented, endangered or threatened species of plants on or in the vicinity of the site (see Attachment)

In general the topography is hilly with some relatively level areas. The land is mostly surfaced with soils but does have intermittent rock outcrops. The slopes vary from fairly level to intermediate to occasionally steep.

A full topographic survey and survey of trees regulated by the Village of Tarrytown were recently completed. The topographic survey and the tree survey encompassed the entire site. All trees over 4" were numbered and tagged. The survey is included in the packet of large scale maps which accompany this submission and the tree list is included as Appendix H. The species of trees found within the site and common to the area are those found in the table at the end of this section. The number of Village regulated trees on the entire parcel is provided in the vegetation section of this report (pages 53-56) and shown on the Tree survey and landscape plan included in the plan set. The number of potential specimen trees is estimated to be 92. Specimen trees are discussed in greater detail below.

Upland Woods

The upland woodlands occupy the majority of the property. These areas can be classified as mixed mesophytic deciduous hardwood. They are comprised of understory herbaceous plant material, woody shrubs, minor trees and major trees.

The plants in the understory are fairly sparse reflecting the overbrowsing by deer common in the area. Still there are, most notably, healthy stands and individual occurrences of Sassafras, *Sassafras albidum*, Witchazel, *Hamamelis virginiana*, and Christmas Fern, *Polystichum*

acrostichoides. There are also extensive groupings of Barberry, *Berberis thunbergii*, and Winged Euonymus, *Euonymus alatus*, commonly referred to as invasives.

The major tree species typical of the area include Oak, *Quercus sp.*, Maple, *Acer sp.*, Tulip Tree, *Liriodendron tulipifera*, Hickory, *Carya sp.*, Ash, *Fraxinus americana*, Birch, *Betula sp.*, Cherry, *Prunus sp.*, and Beech, *Fagus grandifolia*. Some of the most prominent species are Birch and Cherry attesting to the intermediate age of portions of the woods.

The health and species diversity of the current forest reflects a wooded stand in evolution. The Birch and Cherry species are clearly nearing the end of their ability to compete with more dominant species. The Oak, Tulip Tree, Hickory and Maple species are establishing domainance. The Oaks are a diversified genera and include Red Oak, *Quercus rubra*, White Oak, *Quercus alba*, and Pin Oak, *Quercus palustris*. The Maples are typically Sugar Maple, *Acer saccharum*, and Red Maple, *Acer rubrum* though there are also Silver Maple, *Acer saccharinum* and Norway Maple, *Acer platanoides*, the latter being a problematic invasive. Tree of Heaven, *Ailanthus altissima*, is an invasive also found on site.

Specimen Trees

Specimen trees on site have been identified largely by several criteria. The following definition has been used in identifying these trees.

A significant tree is one which has noteworthy characteristics and ecological importance including the following: it is a species typical of the climax forest, it is a specimen with special aesthetic value, and it is a tree with a diameter at breast height (dbh) of 36 inches or greater. In select situations, individual species with a dbh of 30-36 inches have also been noted as significant where the individual trees or a grouping of trees is particularly notable. Additionally certain mature ornamental trees may meet this definition such as Japanese Maple, several of which are found on the site in proximity to the existing South Broadway driveway entrance.

Trees of 36 inch (dbh) or greater were specifically targeted as this size generally represents trees that have attained dominance in the forest canopy, and will continue to dominate. Some

exceptions to this rule were made for specific species or groupings of trees. Of interest, for instance, is the presence of two somewhat uncommon trees of significant size in area woodlands. These are the Shagbark Hickory and the American Elm. A 60” beech tree has been identified as a specimen tree as well.

Project Impacts

The overall site is 84.5 acres. Of this an undisturbed 21.7 acre parcel will be donated to the Town of Greenburgh and will remain in its current natural state.

The approximately 27.9 acre development parcel within the Village of Tarrytown will be developed with 8 homes and will include accessory uses such as swimming pools, patios and driveways, and will be served by an internal roadway system. The construction will require removal of trees and other vegetation.

Almost 50% of the overall site will remain in its natural state without disturbance of trees, shrubs, vines and herbaceous plants.

About 38% of the site will be re-landscaped with native plant material used to the maximum extent feasible. Please note that non native plants common in the horticultural trade and not invasive will be used to fill out the landscape palette.

The landscape plan included in the large map packet shows the areas to be disturbed, trees to be removed and those retained, as well as the landscape plantings to be installed. (See Landscape Plan, Sheet L-1)

Mitigation Measures

1. Limiting development to 8 homes compared to the 15 residences that could be built according to the Tarrytown Comprehensive Plan sharply reduces the disturbance of natural site vegetation.

2. The donation of 21.7 acres to expand Taxter Road Park in the Town of Greenburgh for permanent open space preserves important site vegetation.
3. The plan carefully sites development areas to retain specimen trees to the maximum extent feasible.
4. Topsoil and vegetation to be removed will be stored on-site and, to the extent feasible, be used for landscaping within the areas to be restored.

An April 20, 2011 letter from the New York State Department of Environmental Conservation, Division of Fish, Wildlife & Marine Resources, per Jean Pietrusiale to James Bates, Ecological Analysis, advises:

“In response to your recent request, we have reviewed the New York Natural Heritage Program database, with respect to an Environmental Assessment for the proposed 12-Lot Subdivision Development, area as indicated on the map you provided, located on Roundabend Road, Town of Greenburgh, Westchester County.

We have no records of rare or state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of your site...” (copy of letter attached)

Thus, no detailed studies of protected vegetation species is deemed to be needed.

b. Town of Greenburgh

Existing Conditions

General Site Description

The site primarily consists of upland woods interspersed with wetland woods along the northern site boundary and a stream corridor, and one open field in a disturbed area on the western

property extremis. In general, the topography is hilly with some more level areas. The land is mostly surfaced with soils but does have intermittent rock outcrops. The slopes vary from fairly level to intermediate to steep.

A full topographic survey and partial survey of trees regulated by the Town of Greenburgh were recently completed, as well as an updated wetland delineation. The topographic survey encompassed the entire site. The tree survey encompassed most of the development parcel with the exception of the easterly portion. All trees were numbered and tagged. The survey is included in the packet of large scale maps which accompany this submission and the tree list is included as Appendix H. The easterly area will remain undisturbed and is generally east of the 100 foot watercourse setback of a stream which flows in a northerly direction across the site. The trees, which were not surveyed, are outside any proposed development area, and mostly within a 21-acre parcel to be donated to the Town.

A portion of the census of existing trees, including specimen trees, was conducted on three acres within the undeveloped area of the watercourse described above. This census has been used to generate an average regulated and specimen tree density for forested areas of the site. The figures have been used to approximate the trees in the remaining easterly portions of the property that were not surveyed. The analysis found average regulated tree density in the sample wooded areas to be approximately 85 trees per acre and specimen trees density in wooded areas to be approximately 4 per acre.

The species of trees found within the site and common to the area are those found in the table at the end of this section.

Development Parcel

The number of Town regulated trees on the entire parcel is estimated to be 4,751. Of these, 1,313 would be removed due to the development proposal. The number of potential specimen trees is estimated to be 81. Specimen trees are discussed in greater detail below.

Upland Woods

The upland woodlands occupy the majority of the property. These areas can be classified as mixed mesophytic deciduous hardwood. They are comprised of understory herbaceous plant material, woody shrubs, minor trees and major trees.

The plants in the understory are fairly sparse reflecting the overbrowsing by deer common in the area. Still there are, most notably, healthy stands and individual occurrences of Sassafras, *Sassafras albidum*, Witchazel, *Hamamelis virginiana*, and Christmas Fern, *Polystichum acrostichoides*. There are also extensive groupings of Barberry, *Berberis thunbergii*, and Winged Euonymus, *Euonymus alatus*, commonly referred to as invasives.

The major tree species typical of the area include Oak, *Quercus sp.*, Maple, *Acer sp.*, Tulip Tree, *Liriodendron tulipifera*, Hickory, *Carya sp.*, Ash, *Faxinus Americana*, Birch, *Betula sp.*, Cherry, *Prunus sp.*, and Beech, *Fagus grandifolia*. Some of the most prominent species are Birch and Cherry attesting to the intermediate age of portions of the woods. It is likely that the site was harvested for lumber in the past and may have been clear cut at one time for wood and/or pasture.

Whatever the past land management practices, the health and species diversity of the current forest reflects a wooded stand in evolution. The Birch and Cherry species are clearly nearing the end of their ability to compete with more dominant species. The Oak, Tulip Tree, Hickory and Maple species are establishing domainance. The Oaks are a diversified genera and include Red Oak, *Quercus rubra*, White Oak, *Quercus alba*, and Pine Oak, *Quercus palustris*. The Maples are typically Sugar Maple, *Acer saccharum*, and Red Maple, *Acer rubrum* though there are also Silver Maple, *Acer saccharinum* and Norway Maple, *Acer platanoides*, the latter being a significant invasive. Tree of Heaven, *Ailanthus altissima*, is an invasive also found on site.

Wetlands

Wetland areas on the site are characterized by hudrophytic soils and associated vegetation types. The wetlands are jurisdictional to the U.S. Army Corps of Engineers (USACOE) but not to the NYS Department of Environmental Conservation (NYSDEC) which regulates wetlands of 12.6

acres or larger. As there is no disturbance of wetlands, no usage permits or approvals are required.

Wetland areas are readily identified by herbaceous skunk Cabbage, *Symplocarpus foetidus*, in the wettest areas, with less obvious wetland species further away. The shrub, minor tree and major tree species in these areas are also indicative of wetlands and include Spicebush, *Lindera benzoin*, Willow, *Salix sp.*, and Red Maple, *Acer rubrum*. ACOE jurisdictional wetlands will be minimally impacted by the development proposal.

Wetland jurisdiction is also imposed by Town of Greenburgh regulations. The Town regulations also include a 100 foot buffer with impacts subject to the review of the municipality.

Wetlands impacts and mitigation are discussed in an earlier section of these reports.

Specimen Trees

Specimen trees on site have been identified largely by several criteria. The following definition has been used in identifying these trees.

A significant tree is one which has noteworthy characteristics and ecological importance including the following: it is a species typical of the climax forest, it is a specimen with special aesthetic value, and it is a tree with a diameter at breast height (dbh) of 36 inches or greater. In select situations, individual species with a dbh of 30-36 inches have also been noted as significant where the individual trees or a grouping of trees is particularly notable.

Trees of 36 inch (dbh) or greater were specifically targeted as this size generally represents trees that have attained dominance in the forest canopy, and will continue to dominate. Some exceptions to this rule were made for specific species or groupings of trees. Of interest, for instance, is the presence of two somewhat uncommon trees of significant size in area woodlands. These are the Shagbark Hickory and the American Elm. Two representatives of these species have been identified as specimen trees to preserve.

Open Space Parcel

The Greystone proposal includes donation of 21.7 acres of undisturbed woodlands to the Town of Greenburgh to be appended to the Taxter Ridge Nature Preserve. This parcel consists of a diversified, mostly deciduous upland tree forest with interspersed stream and wetland plant communities. This important woodland will add a significant amount of preserved open space to the Town's inventory.

The diversity of flora on this property is similar to that of the adjacent property proposed for development. Therefore, similar plant community associations can be expected to be found with the exception that this parcel is entirely wooded, therefore, the open field herbaceous plants noted in the plant survey are not expected to be present.

Using the regulated and specimen tree multipliers discussed in the *General Site Description* above, the anticipated number of regulated trees is 1,845, and the anticipated number of specimen trees is 107.

The tree survey is included in the plan set and the tree list is included. A list of plants, woody and herbaceous, found on the site is attached.

Project Impacts

The 21.7 acre parcel to be donated to the Town will not be disturbed and will remain in its current natural state.

The approximately 35 acre development parcel will be the site of construction of 12 homes appurtenant swimming pools, patios and driveways, and served by an internal roadway system. The construction will require removal of trees and other vegetation. A quantitative summary of the project impacts, for the entire 56.45 acre parcel:

<u>Post Development</u>	<u>Acres</u>	<u>% of Total</u>
Impervious	3.69	6.5
Disturbed and re-landscaped	13.68	24.2
Preserved natural state	<u>39.19</u>	<u>69.3</u>

Total: 56.56 acres 100.0%

Thus, almost 70% of the site will remain in its natural state without disturbance of trees, shrubs, vines and herbaceous plants.

About 25% of the site will be re-landscaped with native landscaping used to the maximum extent feasible.

The landscape plan included in the large map packet shows the areas to be disturbed, trees to be removed and those retained, and the vegetation to be retained as well as the landscaping to be installed. (See Landscape Plan, Sheet 1-1, prepared by Stephen Lopez, Landscape Architect, dated November 2011.)

Mitigation Measures

5. The limiting of development to 12 homes as against the 33 houses that would be permitted under local zoning sharply reduces the disturbance of natural site vegetation.
6. The donation of 21.7 acres (almost 40% of the parcel) for permanent open space preserves important site vegetation.
7. The plan carefully sites development areas to retain specimen trees to the maximum extent feasible.
8. Topsoil and vegetation to be removed will be stored on-site and, to the extent feasible, be used as landscaping within the areas to be restored.

An April 20, 2011 letter from the New York State Department of Environmental Conservation, Division of Fish, Wildlife & Marine Resources, per Jean Pietrusiale to James Bates, Ecological Analysis, advises:

“In response to your recent request, we have reviewed the New York Natural Heritage Program database, with respect to an Environmental Assessment for the proposed 12-Lot Subdivision Development, area as indicated on the map you provided, located on Roundabend Road, Town of Greenburgh, Westchester County.

We have no records of rare or state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of your site...” (copy of letter attached)

Thus, no detailed studies of protected vegetation species is deemed to be needed.

U. DECLARATION OF COVENANTS, RESTRICTIONS, EASEMENTS, CHARGES AND LIENS AND TYPICAL DEED (“DECLARATION”)

Attached Appendix K is a typical Declaration of Covenants, Restrictions, Easements, Charges and Liens (“Declaration”) as well as a typical Deed for the Greystone on Hudson Subdivision. In the Declaration on Page 23 (gg) a Deed Restriction is included which states:

“Each lot shown on the subdivision plat will be subject to a deed restriction in perpetuity prohibiting further subdivision.”

A review of the Deed and Declaration indicates the many safeguards implemented by the developer benefitting for the Village of Tarrytown, Town of Greenburgh as well as the homeowners.

V. SITE HISTORY

In 1988 Carlisle Tarrytown Corporation had an accepted FEIS with the Village for a proposed 49 lots on the Applicants Tarrytown parcel and 42 lots on the Applicants Greenburgh parcel. Prior to final subdivision Carlisle Tarrytown Corporation went bankrupt due to the recession

The subject site was up-zoned by the Board of Trustees of the Village of Tarrytown in 2000 to an R-60. Accompanying that re-zoning was a generic Environmental Impact Statement, provided in accordance with SEQRA. The environmental review concluded that the upzoning was beneficial and that it had no significant adverse effects on the environment.

Calibur Builders Application for subdivision to the Village of Tarrytown was submitted in the spring of 2003 for 13 Buildable lots. In 2006 Calibur Builders sold the site to Esposito Builders. During the Planning Board review of the Calibur Builders Subdivision (Tarry Grand Estates) many questions and issues were received during the Public Hearings and Scoping Sessions by concerned residents. Attached is Appendix M with our answers to all the questions that were raised as they relate to this project.

In April 2011 Esposito Builders sold the Tarrytown Parcel to Broadway on Hudson Estates LLC and the Greenburgh Parcel to River Towns Estates LLC.

Because the Applicant plans on utilizing the existing Greystone carriage road already existing on the Tarrytown parcel there is much less environmental impact when building the proposed roadway as 77% of the roadway already exists. In fact there will be less roadway when the new proposed roadway is completed than exists on the site today. See Attached map depicting use of the current roads.

The Tarrytown Comprehensive plan projects 15 buildable lots on the Applicants Tarrytown parcel and 60 Buildable lots on the Greenburgh parcel. However the development of the Tarrytown parcel will be limited to 8 homes and the development of the Greenburgh parcel will be limited to 12 homes for a total of 20 homes. These estate lots of 2 to 5 acres will provide an exceptional low density setting which greatly mitigates site disturbance by producing only 27%

of the projected buildable lots in the Tarrytown Comprehensive Plan. This is in addition to the approximately 21.7 acres of land being donated to the Town of Greenburgh to be added to Taxter Ridge Park as open space in perpetuity. There will also be a deed restriction stating no further subdivision of the subject lots will be permitted in perpetuity.

W. ALTERNATIVES

No Action

One alternative is to take no action and leave the site as it is. This alternative is not considered feasible, since the site is zoned for residential use, and its location in a residential neighborhood makes it an appropriate and desirable site for residential development. The property is privately owned, and the owner has no intention to retain it as an undeveloped open space.

Esposito Equities Plan

We considered a plan our predecessor, Esposito Equities, had engineered and were ready to submit for 13 lots in Tarrytown and 33 lots in Greenburgh. Such a plan would result in larger property tax revenues, but has been deemed to have less favorable impacts on the natural environment and on restoration of historic resources than that of the proposed plan presented in this DEIS.

Alternative from Comprehensive Plan

The Applicant has considered the development of an alternative plan that would result in the development of 15 homes in Tarrytown and 60 homes in Greenburgh as projected for the site in the Comprehensive Plan prepared for Tarrytown in 2007, and using the existing site driveway access to South Broadway. Such a plan would result in larger property tax revenues, but has been deemed to have less favorable impacts on the natural environment and on restoration of historic resources than that of the proposed plan presented in this DEIS.

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Construction of the proposed 20 houses will be on an approximately 84 acre site. In Tarrytown 8 houses will be on a 27.9 acres site. A total of 5.7 acres will be undisturbed; 17.6 acres will be disturbed and re-landscaped, and 4.6 acres will be impervious surfaces (houses, roads, driveways, etc.). In Greenburgh 12 houses will be on an approximate 55 acres site. A total of 69.3 acres will be undisturbed; 24.2 acres will be disturbed and re-landscaped, and 6.5 acres will be impervious surfaces (houses, roads, driveways, etc.).

Construction of the proposed houses will involve the commitment of a variety of natural resources. These include, but are not necessarily limited to, concrete, macadam, steel, timber, water, paint and topsoil. The operation of construction equipment will involve the consumption of fossil fuels, while the completed houses will require water, electricity and the use of fossil fuels.

Construction of the proposed houses will require a substantial commitment of labor resources. However, this need for construction workers is viewed as a beneficial impact to the construction industry. Other labor resource commitments will include the services of education, police, fire, and other municipal department personnel to provide services for the completed development.

As mitigation to governmental cost impacts, this DEIS provides information which establishes that the property tax revenues to be generated will substantially exceed the additional cost impacts.

As mitigation to loss of open space resources, the developer has agreed to donate for permanent open space a 21.7 acre site on the adjacent property in Greenburgh as well the donation of the historic gate to the Old Croton Aqueduct which currently dead ends at the applicants property when leaving Lynhurst.

Y. GROWTH INDUCEMENT

The proposed 20 houses are not expected to have any growth inducement impacts.

Z. ENERGY CONSUMPTION AND CONSERVATION

Energy consumption will occur during the construction and operation of the proposed 20 houses. During construction, energy will be used for power equipment and various construction vehicles. Once construction is completed and the improvements are in use, energy will be required for heating, air conditioning, and the provision of electricity. All buildings will meet or exceed the standards of the New York State Energy Code.

There are no known deficiencies in the capacity of electric and gas resources currently provided by the Con Edison utility company.

AA. ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED

The construction of 20 new homes will result in some unavoidable short term impacts such as the construction phase of the project. Though these impacts are temporary and slight, they cannot be avoided, and they are all to be mitigated to the maximum extent feasible.

Mitigation proposals are provided in the text of this document under each of the applicable impact subjects.

Short-term construction-related impacts which cannot be avoided will include the presence of construction and delivery vehicles on the site and on area roads and a slight localized change in air quality due to dust and emissions from construction vehicles. There will also be a slight localized increase in noise levels due to the operation of construction vehicles and equipment. Very little blasting is anticipated on the Tarrytown Parcel. Applicant will try to do all excavation mechanically with small machines first and will blast only if necessary. The site was carefully analyzed and the roads and homes were placed to cause the least amount of disturbance. Some vibration may be expected if blasting is needed. As vegetation is removed and soil is exposed, and during site preparation activities such as grading, there may be a short term increase in runoff and erosion, which is mitigated by the sediment and erosion plan.

There will also be some long term impacts that can't be avoided such as a very slight increase in traffic as a result of the development which will generate slightly higher levels of noise and automobile emissions. The increase in population will result in a slight increased demand on community facilities and services.