DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

PROPOSED 1000 TAYLORS LANE SUBDIVISION
Village of Mamaroneck
Westchester County, New York

Revised July 19, 2012

State Environmental Quality Review Act (SEQRA) Lead Agency:

Village of Mamaroneck Planning Board
123 Mamaroneck Avenue, Mamaroneck, New York 10543
Contact Person: Mr. Michael Ianniello (Chairman)
914 777 7731

Applicant:

Caroline and Richard Alter
1000 Taylors Lane, Mamaroneck, New York 10543

Contact person representing applicant/preparer of DEIS:

Elizabeth Evans
Evans Associates Environmental Consulting, Inc.
205 Amity Road, Bethany, Connecticut 06524
203 393 0690

Date of Acceptance: July 25, 2012
Date of Public Hearing: September 12, 2012
End of Public Comment Period: TBD
(Comments may be submitted up to ten (10) days following the close of the hearing.)

Other consultants involved in the project:

Cultural Resources:

CITY/SCAPE: Cultural Resource Consultants
166 Hillair Circle
White Plains, NY 10605

Project Attorney:

Martha Sokol McCarty, Esq.
Law Office of Martha Sokol McCarty, PC
910 East Boston Post Road
2d Floor
Mamaroneck, NY 10543

TABLE OF CONTENTS

LIST OF EXHIBITS

LIST OF TABLES

I. INTRODUCTION/EXECUTIVE SUMMARY

This Draft Environmental Impact Statement (DEIS) examines the potential impacts associated with a proposed residential subdivision in the Village of Mamaroneck, called 1000 Taylors Lane Subdivision. The project site is located on the west side of Taylors Lane, opposite the intersection of Taylors Lane and Barrymore Drive.

The 1000 Taylors Lane Subdivision project consists of the subdivision of an existing 225,144 square foot (5.169 acres) lot into 3 parcels compliant with the requirements of the R-15 zone in which it is located. The applicant resides at 1000 Taylors Lane. At present, there is an existing house in the central portion of the property. The subdivision will create two new lots, one located to the southwest, the other located to the northeast, of the existing residence. At the present time, the property is being proposed to be subdivided; construction of homes on the new lots is not being proposed.

Site plans for each of the two new lots have been developed to assess the environmental impact of the build-out of two new homes. The two new homes are being modeled as 4 bedroom houses. Access to each of the two new houses would be from new driveways from Taylors Lane. The site plan for each of the lots demonstrates that construction of two new houses, along with driveway access and amenities, such as decks and patio spaces, can be built without directly impacting the Village and State-regulated freshwater wetland or its 100-foot buffer, or the tidal wetland.

As there is an existing single family house on the subject property, a portion of the 1000 Taylors Lane Subdivision site is presently in residential land use, and contains the typical land cover types, such as lawn and landscaped areas, as well as impervious and partially impervious surfaces, such as the house roof, driveway, walkways, and deck. The remainder of the property is mostly wooded, although the portion of the property corresponding to the tidal wetland is vegetated with common reed (*Phragmites australis*).

Land uses surrounding the property are single family residential to the east and north. To the west and northwest are Otter Creek and Magid Pond, where the land is either wooded, tidal marsh vegetation, or open water. Immediately west of Otter Creek, the land use is also single family residential. Commercial land use on East Boston Post Road (U.S. Route 1) is present within a quarter mile of the site to the north and west of the property. The former Taylors Lane landfill is located to the northwest of the project site, across Taylors Lane.

A. SUMMARY DESCRIPTION OF PROPOSED ACTION

The proposed action involves the subdivision of an existing 5.169-acre lot into three residential house lots compliant with the requirements of the R-15 zone. One residence is currently established on the property. This existing single-family home will remain on the central lot of the proposed subdivision and will be bounded on the northeast and southwest by two proposed new lots. No new streets are proposed; each of the three lots would have driveway access off of Taylors Lane.

The property is zoned R-15 which requires a minimum lot size of 15,000 s.f. The subdivision of the property would create three new lots as follows:

- Lot 1 - 108,111 s.f. (2.482 acres)
- Lot 2 - 49,541 s.f. (1.137 acres), which would contain the existing single family house.
- Lot 3 - 67,492 s.f. (1.549 acres)

Construction of the proposed two new houses and associated infrastructure would involve approximately 1.01 acres of site development and vegetation removal, in addition to the 0.67 acre of the site that is currently developed. However, the remaining 3.49 acres of the site would remain undeveloped. No construction of any kind is proposed to occur within the Village or state 100-foot freshwater wetland buffer or tidal wetland buffer, or within any wetlands.

B. Summary of Significant Impacts and Proposed Mitigation Measures

Currently, the application is for the subdivision of land into three separate lots and no development is proposed. However, if development of the new residential lots should occur in the future, certain impacts will be unavoidable. Fully detailed site plans have been prepared to demonstrate that development of the new lots can be accomplished with no disturbance to the tidal wetland, tidal wetland buffer, New York State Department of Environmental Conservation (DEC) Freshwater wetland J-2, nor the 100-foot DEC adjacent area. Development of the two new lots would require removal of approximately 1.01 acres of the vegetation (in addition to the 0.67 acre of the site that is currently developed), but the remaining 3.49 acres of the site would remain undeveloped.

Mitigation measures include stormwater management facilities, sediment and erosion control measures, and use of construction and conservation Best Management Practices (BMP's).

C. Summary of Alternatives

Alternatives to the proposed project include: a no action alternative, full build-out of the proposed three-lot subdivision, a two-lot subdivision, and a three-lot subdivision which incorporates limits to the area of disturbance. Alternatives are discussed in detail in Section V. Alternatives to the Proposed Project.

D. List of Involved and Interested Agencies

- Village of Mamaroneck Harbor and Coastal Zone Management Commission (HCZM)
- New York State Department of Environmental Conservation (DEC)
- NYS Department of State (DOS)
- NYS Office of Parks, Recreation & Historic Preservation (OPRHP)

E. List of Permits and Approvals Required

- Village of Mamaroneck Planning Board Subdivision Approval and

Wetland Permit
- Village of Mamaroneck Building Department
- DEC Tidal Wetland Permit (including NYS DOS Coastal Consistency Concurrence)
- DEC SPDES General Permit for Stormwater Discharges from Construction Activities
- OPRHP (Archaeological Resources Determination)
- HCZM Recommendation/approval to implement the policies of the Village of Mamaroneck Local Waterfront Revitalization Program/Coastal Consistency Determination

II. DESCRIPTION OF PROPOSED ACTION

A. REGIONAL LOCATION

The property is located in the Village of Mamaroneck, Westchester County, in a mainly residential area near the west-central boundary of the City of Rye (see Exhibit II. A. 1, Site Location Map). The address is 1000 Taylors Lane, which is on the west side of the street, near the intersections of Taylors Lane and Barrymore Lane. Otter Creek and Magid Pond are located immediately to the west and northwest of the property. Route 1 (East Boston Post Road) is located to the north of the property, and Van Amringe Millpond is located to the southeast. Neither Route 1 nor Van Amringe Millpond is immediately adjacent to the property.

B. SITE DESCRIPTION

At present, there is an existing residence in the central portion of the property. The property in the vicinity of the residence consists mainly of lawn and landscaping, and the remainder is mainly wooded. The property is zoned R-15 One Family Residential. The site is currently accessed by a semi-circular driveway that enters and exits onto Taylors Lane. The property slopes from east to west, with the highest elevation (approximately 30') along Taylors Lane, and the lowest elevation (approximately 6') in the southwest corner of the property.

C. DESCRIPTION OF PROPOSED ACTION

The 1000 Taylors Lane Subdivision project consists of the subdivision of an existing 225,144 square foot (5.169 acres) lot into 3 parcels. One residence is currently established on the property. This existing single-family home will remain on a 52,051-square-foot lot, bounded on the northeast by a 106,980-square-foot lot and on the southwest by a 66,114-square-foot lot. No new streets are proposed; each of the three lots would have driveway access off of Taylors Lane.

The property is zoned R-15 which requires a minimum lot size of 15,000 s.f. The subdivision of the property would create three new lots compliant with this zoning and established as follows:
- Lot 1 - 108,111 s.f. (2.482 acres).
- Lot 2 - 49,541 s.f. (1.137 acres), which would contain the existing single family house.
- Lot 3 - 67,492 s.f. (1.549 acres)

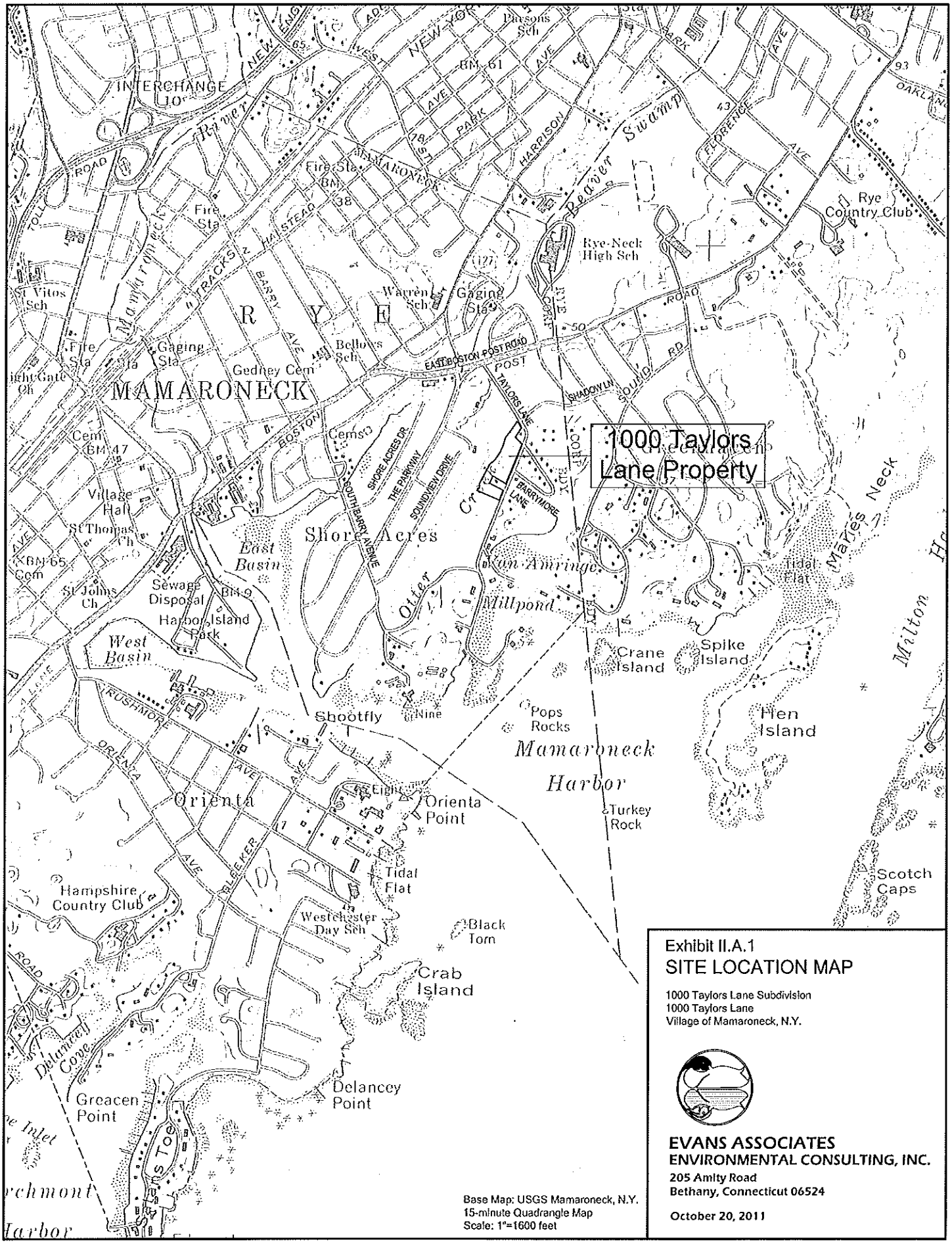


Exhibit II.A.1

SITE LOCATION MAP

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

See Exhibit II. C. 1, Proposed Action, for a figure depicting the proposed subdivision.

Currently, the application is for the subdivision of land into three separate lots and no development is proposed. Site plans for each of the lots were prepared and evaluated to demonstrate that construction of two new, 4-bedroom houses and amenities, along with driveway access from Taylors Lane, can be built without directly impacting the Village and State-regulated freshwater wetland or its 100-foot buffer, or the tidal wetland. Construction of the proposed two new houses and associated infrastructure would involve approximately 1.01 acres of site development and vegetation removal, in addition to the 0.67 acre of the site that is currently developed. However, the remaining 3.49 acres of the site would remain undeveloped. See Exhibit II. C. 2, Proposed Action with Potential Development.

III. PURPOSE AND NEED FOR PROPOSED ACTION

A. BACKGROUND AND HISTORY

The current owners originally purchased the property at 1000 Taylors Lane in 2004, and built a single family residence on the 5.169 acre site, leaving the remainder of the property undeveloped and wooded. In 2009, the owners filed an application to subdivide the property into three building lots, all of which are well in excess of the minimum lot area. Upon review of the proposed subdivision, the Planning Board asked the applicant to prepare an Environmental Impact Statement.

B. NEED AND BENEFITS OF PROPOSED ACTION

The owners of the property wish to subdivide the property in order to have the potential to sell the other two residential lots or to build a smaller home on one of the lots and sell the current residence.

IV. EXISTING ENVIRONMENTAL CONDITIONS/ANTICIPATED IMPACTS AND MITIGATION

A. LAND USE

1. Existing Conditions

- Description of existing site usage and survey of surrounding land uses within 1/4-mile of the project site.

Single-family residential lots comprise the majority of land use within 1/4 mile to the east and south of the property, east of Taylors Lane. The two smaller properties abutting the subject property on the west side of Taylors Lane are also single-family residential. Further to the southeast, beyond the residences that are located on Barrymore Lane and on the east side of Taylors Lane, there is an area of tidal marsh that is associated with Van Amringe Millpond. Tidal marsh is also found to the west and southwest of the property, in association with Otter Creek, and Magid Pond is located at the north end of the creek. Located approximately 500 feet to the north of the location of a proposed house on Lot 3 and at the northernmost extent of Otter Creek (on the northeast side of Taylors Lane and the northwest side of Shadow Lane) is the

Exhibit II C.1

PROPOSED ACTION

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

PROPOSED LOT 1: 2.456 ACRES

PROPOSED LOT 2: 1.195 ACRES

PROPOSED LOT 3: 1.518 ACRES

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

2 1/2 Story Frame & Stone w/ Basement

Taylors Lane

Barrymore Lane

Colonial Court

North

0 35' 70 140'

Scale: 1 inch = 70 ft.

Exhibit II.C.2

PROPOSED ACTION WITH POTENTIAL DEVELOPMENT

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

former Taylors Lane landfill. According to the NYSDEC, the site was used as a landfill between the 1950's and 1970's. Prior to that the land was mined for gravel, and the open pits were reportedly filled with industrial wastes. Since the late 1970's, the southern 6 acres of the site was used for composting leaves, tree trunks and wood chips. Further discussion of the remediation work that has been on-going at this property may be referenced in Appendix E of this document. Single-family residences are located to the west of Otter Creek and Magid pond, and a homeowner's association, consisting of condominiums, is located to the northeast of the homes, between Magid Pond and Route 1. Commercial areas are also located on Route 1, north of the former Taylors Lane Landfill. See Exhibit IV. A. 1-1, Surrounding Land Use.

- Discussion of designated Critical Environmental Areas (CEA) on/within the vicinity of the site.

The property is located within the Long Island Sound Critical Environmental Area (CEA), as designated by Westchester County, effective January 31, 1990. This CEA covers a large area, spanning the entire length of the Long Island Sound coastline within Westchester County, including upland and wetland areas. Two more CEA's, as designated by the Village of Mamaroneck, effective December 25, 1980, are located adjacent to the property. Magid Pond CEA is located to the west and northwest of the property and consists of the freshwater pond and its surrounding wetlands. Otter Creek CEA is located to the west and southwest of the property and consists of the creek and its associated tidal wetlands. The CEA's are shown in Appendix E.

According to the Nature Conservancy website, Otter Creek is a productive tidal marsh, providing essential habitat for migratory birds, stabilizing the shoreline, protecting the land against erosion, and filtering pollutants from waters that drain into Long Island Sound. The Otter Creek tidal wetlands feature more than 100 species of plants, abundant marine and terrestrial life, and more than 100 species of birds. Marsh vegetation is composed primarily of two related grasses: salt marsh cordgrass and salt meadow grass, a similar, smaller species. Giant reed, or phragmites, forms a dense border around the marsh. Black crowned night herons, osprey, yellow warblers, great blue herons, white egrets and northern harriers are commonly seen at Otter Creek. A wide variety of waterfowl and other migratory birds make use of the rich marsh and estuary throughout the year. Otter Creek tidal wetlands were designated a Geologic Area of Particular Concern (GAPC) by the NY State Department of Environmental Conservation.

According to the Village of Mamaroneck Local Waterfront Revitalization Program (LWRP), passed in 1984, Magid Pond and Otter Creek were designated as CEAs due to their wetland/wildlife habitat. In the 1981 Phase One Report, Magid Pond was listed as containing major freshwater wetland habitats "for resident, overwintering, and migratory waterfowl and birds; open space and winter recreation. Concentration of wildlife, including many rare species." Otter Creek Salt Marsh was described as a "Tidal estuary, tidal wetlands; habitat for resident, overwintering, and migratory waterfowl, birds, fish, shellfish, and mammals; being considered by New York State for designation as a Significant Fish & Wildlife Habitat." The May 2011 Preliminary Working Draft of the LWRP still included the three areas in the listing of Critical Environmental Areas, but stated "development that has occurred in Mamaroneck since the first LWRP was adopted in 1984 has likely affected the number of wildlife species present in the Village." Information on the LWRP can be found at the Village of Mamaroneck website at: http://www.village.mamaroneck.ny.us/pages/mamaroneckny_webdocs/LWRP UPDATE

Exhibit IV.A.1-1

SURROUNDING LAND USE

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

1000 Taylors Lane Property

1/4 Mile Radius Around 1000 Taylors Lane Property

Source of Aerial Photographs: New York State NY Orthos Online (http://www.orthos.dhses.ny.gov/).
Date of Aairal Photographs, 2009.

2. Potential Impacts

- Analysis of project's relationship to, and consistency with, existing zoning regulations and land development patterns.
- Analysis of project compatibility with existing study area land uses.

The areas surrounding the property are currently residential or open space. As discussed above, the property is zone R-15, with virtually all of the surrounding properties the same, or zone R-10. The proposed 3-lot subdivision would create lower-density residential properties compared with most of the surrounding patterns of development. The wetlands and wetland buffers on the properties will not be impacted or cleared, thereby retaining the character of the nearby tidal wetlands and their surrounding areas. Therefore, the proposed subdivision and potential subsequent development would be consistent with both the residential and open space properties surrounding the site.

Potential impacts to archaeological sites were evaluated because the OPRHP reported that a site was located on or near the property. In response to this requirement, CITY/SCAPE: Cultural Resource Consultants were hired to conduct a Phase 1A Literature Review & Sensitivity Analysis. The report, which was completed in July of 2011, determined that of the 5 archaeological sites in the Village of Mamaroneck, none are located on or adjacent to the property, and therefore none would be impacted by the proposed subdivision. In addition, no buildings listed on, or eligible for listing on, the National Register of Historic Places are located in the vicinity of the project. The Phase 1A report concluded that there is no potential for historic resources on the property, however there was a moderate potential to contain prehistoric cultural resources. In response to this finding, a Phase 1B Archaeological Field Reconnaissance Survey was conducted for the property. The testing results include a determination that no prehistoric sites exist on the property and no cultural resources of any kind were recovered. Therefore, no cultural resources will be impacted by the proposed project, and the proposed subdivision may be allowed without further concern for archaeological resources. Both the Phase 1A and Phase 1B reports are included in Appendix G.

- Analysis of project's consistency with the Village's Local Waterfront Revitalization Project (LWRP)

The Village of Mamaroneck Local Waterfront Revitalization Program (LWRP) Working Draft (September 2011) was developed to be a "comprehensive, realistic program for the beneficial use, revitalization and production of [Mamaroneck]'s waterfront resources." The development policy of the LWRP is to "Foster a pattern of development within the Village that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a coastal location and minimizes adverse effects of development." The proposed subdivision and potential subsequent development meet the goals of this policy in several ways. As discussed above, the project would be consistent with the residential community character of the area. In addition, open space would be preserved while adverse environmental effects of development would be avoided through the protection of the wetlands and wetland buffers on and near the property. Finally, because the street is already developed, efficient use of the existing infrastructure would be possible.

The original LWRP document (dated 1984) discusses several policies which have been reviewed in connection with the proposed project. These policies are grouped under the following headings: Development Policies, Fish and Wildlife Policies, Flooding and Erosion Hazards Policies, General Policy, Public Access Policies, Recreation Policies, Scenic Quality Policies, and Water & Air Resources Policies. All of the policies are discussed below as they pertain to the subject property, with the exception of the Public Access and Recreation Policies, as those policies do not directly pertain to a residential subdivision and/or development. In addition, the subject property has no scenic resources of Statewide or local significance; therefore the Scenic Quality Policies do not apply.

Most of the Development Policies appear to relate to direct waterfront property, with waterfront views and recreational facilities. The property in discussion is a residential-zoned property that is not located directly on the waterfront, and waterfront views will not be created nor altered for the proposed project, therefore most of the development policies do not apply. Policy 5, however, states "Encourage the location of development in areas where public services and facilities are adequate." As stated above, infrastructure is available and more than adequate to support the proposed project. In addition, Policy 6 states "Expedite permit procedures in order to facilitate the siting of development activities at suitable locations. Continued development, where possible and appropriate, is desirable." Subdivision and any future residential development are very possible and appropriate for this property, as care has been taken in preparing potential development scenarios, meeting zoning and development guidelines, analyzing their potential impacts, and avoiding or mitigating those impacts.

The Fish and Wildlife Policies have been addressed in detail in Section IV. D. Wetlands and Watercourses, and Section IV. E. Vegetation and Wildlife of this document. Detailed discussions of on and off-site habitats have been prepared, and potential impacts and mitigation have also been discussed. In the Applicant's opinion, the overall goal of these policies, which is to protect and preserve habitat from being lost or degraded, will be met by the proposed project.

The Flooding and Erosion Hazards Policies are discussed in detail in Section IV. F. Surface Water Resources and Stormwater Management, including on and off-site existing conditions, along with potential project impacts and mitigation. The main goals of these policies will be met, including minimizing damage to property, people, and natural resources from flooding and erosion, and preventing an increase in erosion and/or flooding from the proposed project. An erosion and sediment control plan has been developed, as has an SWPPP to address these concerns.

The General Policy states "To safeguard the vital economic, social, and environmental interests of the State and Village of Mamaroneck....give full consideration to those interests, and to the safeguards which the State and this Village have established...." In the Applicant's opinion, the proposed subdivision and potential future development documented in this DEIS were created, then amended, in accordance with the guidelines, regulations, and suggestions of the Federal, State, and Local governments.

Finally, the Water and Air Resources Policies that are applicable to a residential subdivision

and/or development involve the installation of Best Management Practices (BMP's) in order to protect and preserve natural resources. Specifically, BMP's are required to control stormwater runoff, minimize non-point discharge of excess nutrients, organics, and eroded soils, protect the quality and quantity of surface and groundwater, and preserve and protect tidal and freshwater wetlands. BMP's for the proposed project are discussed in Section IV.F.3 Proposed Mitigation. In addition, Section IV.F.1. Existing Conditions, and 2. Potential Impacts offer in-depth analysis of surface water and stormwater management on the property. Section IV. D. Wetlands and Watercourses address how impacts to on and off-site wetlands and their functions will be avoided.

- Analysis of project's consistency with the Village's existing Comprehensive Plan

The vision of The Village of Mamaroneck Comprehensive Plan was developed based on four themes: quality of life, small-town character, diversity, and environment. More specifically, some of the goals and objectives of the plan include: preserving the character of existing neighborhoods, plan transition areas between higher and lower-density zones, encourage conservation and strict development regulations on the waterfront, floodplains, and wetlands, and protect water quality in Long Island Sound. The proposed project would meet these objectives in several ways. The project would be consistent with the character of the existing neighborhood and would provide a transition area between areas of higher and lower-density housing. Proposing a potential 3-lot subdivision would keep a lower-density buffer between the open space (Otter Creek) and the more-thickly settled areas to the east of Taylors Lane, which are also residential. Wetlands and wetland buffers will not be developed, and a stormwater management plan has been developed in accordance with state and local regulations to protect the water quality of Otter Creek and Long Island Sound.

- Cross-sections of proposed structures, including retaining walls, to indicate anticipated height differences of structures due to site slopes.

A set of cross-sections were prepared to show the layout of the future houses on the new lots relative to slopes and other regulated areas. These cross-sections demonstrate that the development of these lots will be consistent with other residential parcels nearby, and are included as Exhibit IV. A. 2-1, Cross Sections.

3. Proposed Mitigation

The property, which is 5.17 acres in size, is zoned R-15, which permits residential single family houses on lots which are at least 15,000 square feet in size. The proposed lots will be larger than the minimum of what is required for a subdivision. Therefore, with no zoning or land use impacts being anticipated with the subdivision, no mitigation measures are necessary.

Aspects of the proposed project will ensure that it will blend in well with the surrounding land uses and preserve the character of the community. The eventual future placement of houses on the two new lots and their relationship to the street and public right-of-way is typical of other houses in the area. In addition, the preservation of the freshwater wetland and its 100-foot

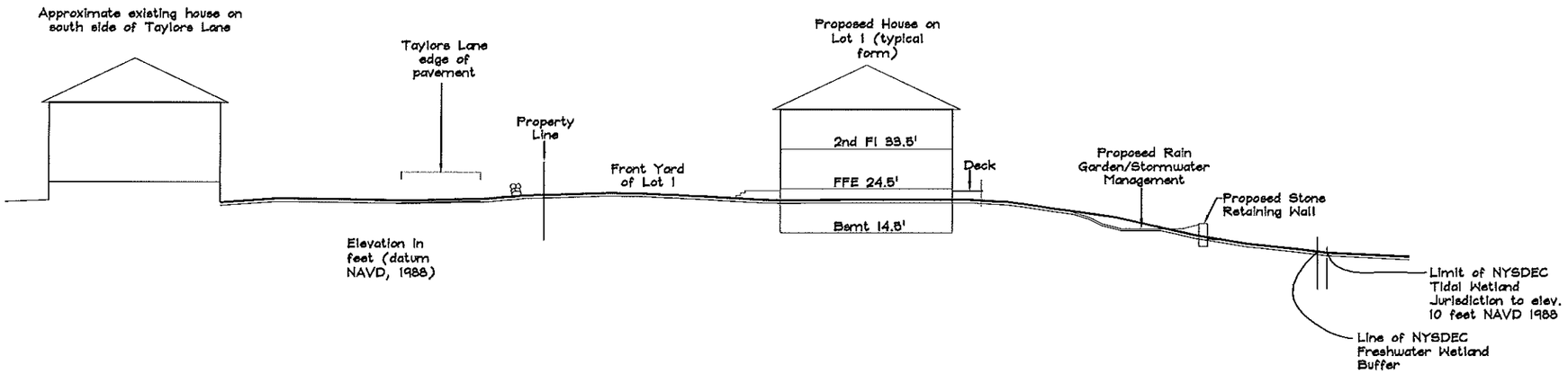
Exhibit IV.A.2-1

CROSS-SECTIONS

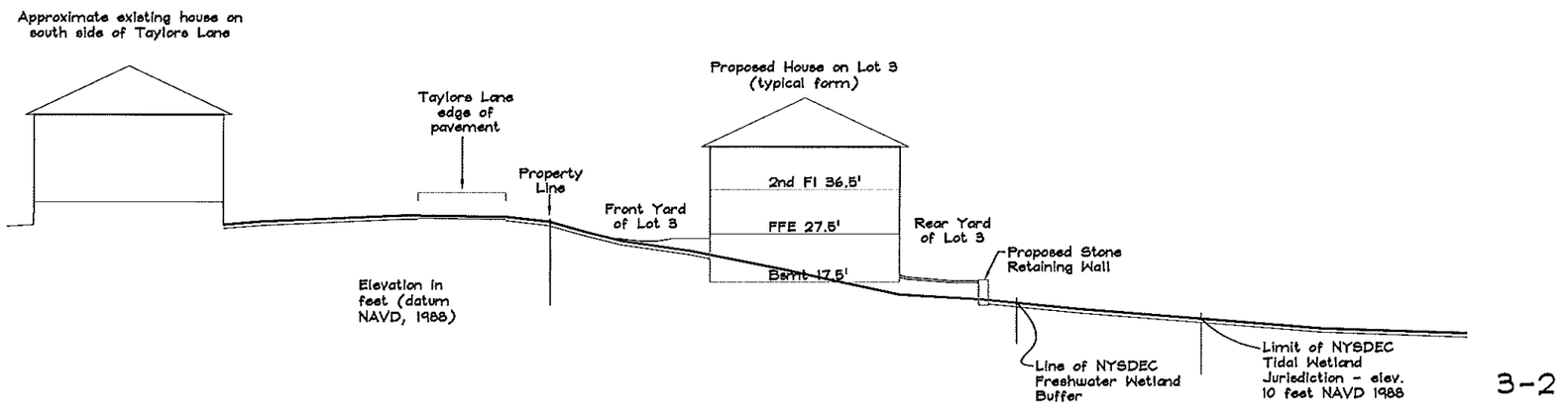
1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011



SECTION THROUGH LOT 1



SECTION THROUGH LOT 3

3-2

0 15' 30' 120'

Scale: 1 inch = 30 ft.

buffer, as well as the tidal wetland and its buffer area, will preserve the visual conditions of the surrounding area.

- Restrictions on Building Envelopes to Move Potential Buildings as Close to Taylors Lane as Consistent with the Zoning Ordinance

The potential buildings have been located as close to Taylor's Lane as possible while respecting Zoning setbacks. As shown, the potential houses would be consistent with other homes in the neighborhood.

B. SOILS

1. Existing Conditions

- Mapping of on-site soils and description of each soil type's properties.

Preliminary identification and distribution of the soils on the site were determined by referencing information from on-line and printed sources, Web Soil Survey, and Soil Survey of Putnam and Westchester Counties, New York, referenced at the end of this report. The soils maps from the above-referenced sources are generalized, and are suitable for reviewing large areas and general land uses. The soils on the site were further examined by a Certified Soil Scientist of Evans Associates Environmental Consulting, Inc. (Evans Associates) in order to better clarify the soils information in relation to current on-site conditions. The generalized soils maps were adjusted by Evans Associates based on data collected during on-site soils observations and investigations, including review of delineated wetlands, along with the information resulting from deep hole and percolation testing. Historical and current site uses, topography, and hydrology were also evaluated in order to better describe specific on-site soils conditions. Wetland soil areas were adjusted to fit the actual wetland delineation boundaries and upland soil areas were adjusted according to slope.

Seven soil types are found on the site; five are upland soils, and two are wetland soils. Soils in the uplands include Charlton, Chatfield, Hollis, and Sutton loams, with areas of Udorthents, smoothed in the developed and/or altered areas. Wetland soils consist mainly of Ipswich mucky peat, located mainly off site, with an area of Leicester loam between the tidal Ipswich soils and the uplands on the property. Charlton, Chatfield, and Hollis loams occur in the higher, steeper areas of the property, and are complexed with each other, Sutton loam, and with rock outcrops. Sutton loam is found on the lower portions of the landscape, closer to the wetlands. The wetland soils are found in association with the tidal wetlands of Otter Creek, and the freshwater wetlands closest to the edge of the property. The upland and wetland soils on the property are described below, and locations of the soils on the property are shown on Exhibit IV. B. 1-1, Soils Map.

Following the soils descriptions, physical and hydrologic properties of the on-site soils are shown on Table IV. B. 1-1, Soil Seasonal High-Water Table and Hydrologic Soil Group, and Table IV. B. 1-2, Soil Depth to Bedrock and Saturated Hydraulic Conductivity. Potential development constraints of the soils are discussed and/or shown on Table IV. B. 1-3, Potential Building Construction Development Limitations, and Table IV. B. 1-4, Potential Landscape and Road Construction Development Limitations. Because Udorthents, smoothed are variable in their make-up, their properties cannot be accurately assessed and are therefore not evaluated. Soil descriptions and information in the tables are based on data from the Natural Resources

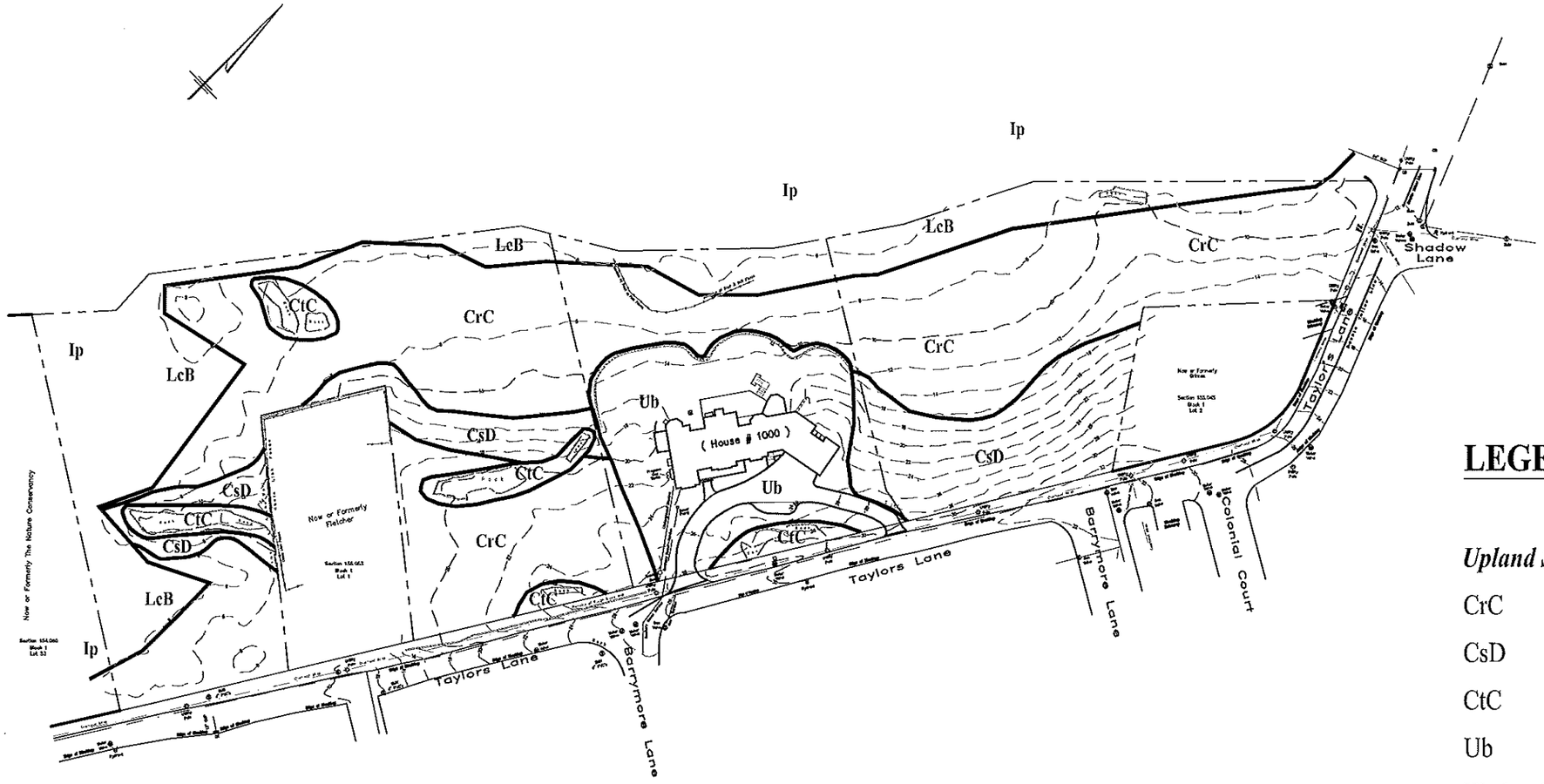
Exhibit IV. B. 1-1

SOILS MAP

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

JUNE 28, 2010



LEGEND

Upland Soils

CrC	Charlton-Chatfield complex, 2-15% slopes
CsD	Chatfield-Charlton complex, 15-35% slopes
CtC	Chatfield-Hollis complex, 3-15% slopes
Ub	Udorthents, smoothed

Wetland Soils

Ip	Ipswich Mucky Peat
LcB	Leicester Loam, 0-8% slopes

NOTES:

1. Property boundary, topographical and existing utilities information obtained from a drawing prepared by The Munson Company last revised on March 11, 2009. Datum: Topographic Information is based on the Village of Mamaroneck Sanitary Sewer Datum.

2. Wetlands on the property were field delineated in accordance with Chapter 192, "Freshwater Wetlands" in the Code of the Village of Mamaroneck, Article 24 of the New York State Department of Environmental Conservation (DEC) Environmental Conservation Law, and the technical criteria in the 1987 Army Corps of Engineers (ACOE) Wetland Delineation Manual (TR-Y-87-1). The field delineation was originally conducted on August 28, 2001 by a field biologist and a soil scientist from Evans Associates Environmental Consulting, Inc. (Evans Associates). The wetlands boundary was re-set by the surveyors and reconfirmed by Evans Associates on March 12, 2009.

3. Soil information from Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at and http://soildatamart.nrcs.usda.gov/, accessed 6/11; United States Department of Agriculture, Soil Conservation Service, in cooperation with Cornell University Agricultural Experiment Station, and Soil Survey of Putnam and Westchester Counties, New York, U.S. Government Printing Office, 1994; and on-site field evaluation by Evans Associates.

0 50 100 200
Scale: 1 inch = 100 ft.

Conservation Service.

SOILS DESCRIPTIONS

Upland Soils

Charlton-Chatfield complex (CrC) or Chatfield-Charlton complex (CsD) consists of mainly Charlton and Chatfield loams, often including areas of Hollis loam and/or rock outcrops. Charlton, Chatfield, and Hollis loams are described below. Charlton-Chatfield complex is hilly and very rocky. Slopes for this soil type range from approximately 2 to 15% for soils designated CrC, and 15 to 35% for soils designated CsD. Small areas of Sutton loam (described below) may occur within these complexes, generally near wetlands.

Charlton loam is formed in glacial till. This soil is very deep (>6') to bedrock, and is very well drained. Charlton loam is found on glaciated plains, hills, and ridges.

Charlton loam typically contains a surface layer with a hue of 7.5YR to 10YR, a value of 2-4, and a chroma of 1-4. Textures in this layer are sandy loam, fine sandy loam, or loam, with a weak or moderate granular structure. The surface layer is friable or very friable, with rock fragments comprising 5-35%. The typical subsoil of Charlton loam contains a hue of 7.5YR through 2.5Y, a value of 4-6, and a chroma of 4-6. Textures in this layer are loam, fine sandy loam, or sandy loam, with a weak granular or subangular blocky structure, possibly massive. The subsoil is friable or very friable, with rock fragments comprising 5-35%. The typical substratum of Charlton loam contains a hue of 10YR to 5Y, a value of 4-6, and a chroma of 2-6. Textures in the substratum can be loam, fine sandy loam, or sandy loam, with pockets or thin lenses of loamy sand. The structure is massive, or appears to have thin plates. The substratum is friable or very friable, though sometimes firm. Rock fragments comprise 5-35%, with up to 50% below 40 inches.

Chatfield loam is formed in glacial till. This soil is moderately deep (20-40") to bedrock, and is well drained and somewhat excessively drained. Chatfield loam is found on glaciated plains, hills, and ridges.

Chatfield loam typically contains a surface layer with a hue of 7.5YR through 2.5Y, a value of 2-4, and a chroma of 1-4. Textures in this layer are sandy loam through loam, with a granular structure. The surface layer is friable or very friable, with rock fragments comprising 5-50%. The typical subsoil of Chatfield loam contains a hue of 7.5YR through 2.5Y, a value of 3-6, and a chroma of 4-6. Textures in this layer range from sandy loam through silt loam, with a granular or subangular blocky structure. The subsoil is friable or very friable, with rock fragments comprising 5-35%. The typical substratum of Chatfield loam, where present, contains a hue of 7.5YR through 5Y, a value of 4-5, and a chroma of 2-4. Textures in the substratum range from sandy loam to silt loam, and may have pockets or thin lenses of loamy sand. The structure is massive, or appears to have thin plates. The substratum is friable or firm, with rock fragments comprising 5-35%.

Hollis loam is formed in glacial till. This soil is shallow (10-20") to bedrock, and is well drained and somewhat excessively drained. Hollis loam is found on bedrock-controlled hills and ridges.

Hollis loam typically contains a surface layer with a hue of 7.5YR or 10YR, a value of 2-4, and a chroma of 1-3. Textures in this layer are sandy loam, fine sandy loam, or loam, with a granular structure. The surface layer is friable or very friable, with rock fragments comprising 5-35%. The typical subsoil of Hollis loam contains a hue 7.5YR through 2.5Y, a value of 4-5, and a chroma of 4-8. Textures in this layer are sandy loam, fine sandy loam, or loam, with a granular or subangular blocky structure. The subsoil is friable or very friable, with rock fragments comprising 5-35%. A thin substratum may occur, with a description similar to the subsoil, but including the color hue of 5Y.

Sutton loam is formed in glacial till. This soil is very deep (>6') to bedrock, and is moderately well drained. Sutton loam is found on plains, low ridges, and on lower, concave hillside slopes. Slopes range from 0-15%.

Sutton loam typically contains a surface layer with a hue of 10YR to 7.5YR, a value of 2-4, and a chroma of 1-4. Textures in this layer are sandy loam, fine sandy loam, or loam, with a weak or moderate granular structure. The surface layer is friable or very friable, with rock fragments comprising 5-35%. The typical subsoil of Sutton loam contains a hue of 7.5YR to 5Y, a value of 4-6, and a chroma of 4-6, with iron depletions and accumulations within 24 inches. Textures in this layer are sandy loam, fine sandy loam, or loam, with a weak, platy, granular, or subangular blocky structure, or possibly a massive structure. The subsoil is friable or very friable, with rock fragments comprising 5-35%. The typical substratum of Sutton loam contains a hue of 10YR to 5Y, a value of 4-6, and a chroma of 2-4, with redoximorphic features in the upper part. Textures in the substratum range from sandy loam to very fine sandy loam, with potential for pockets or thin lenses of silt loam, loamy sand, or sand. The structure is massive, or it has weak plates. The substratum is friable or very friable, though sometimes firm. Rock fragments comprise 5-35%, with up to 50% below 40 inches.

Udorthents, smoothed (Ub) are soils that have been altered in the past by cutting and filling. Properties of these soils are variable and on-site evaluations are required to fully describe this soil as it is represented on the property. The Udorthents, smoothed are located in the central portion of the property, associated with the residence, lawn, and driveway.

Wetland Soils

Ipswich mucky peat (Ip) is formed in thick, organic deposits that are subject to tidal flooding. This soil is very deep (>6 feet) to bedrock, and very poorly drained. Ipswich mucky peat is found on level tidal marshes.

Ipswich mucky peat loam typically contains a surface tier with a hue of 7.5YR to 5Y, a value of 2-5, and a chroma of 0-3. Unrubbed fiber content ranges from 35-100%; rubbed fiber content

ranges from 20–75%. The typical subsurface tier of Ipswich mucky peat is neutral or contains a hue of 5YR to 5Y, a value of 2-5, and a chroma of 0-3. Unrubbed fiber content ranges from 20-85%; rubbed fiber content ranges from 20–40%. The typical bottom tier of Ipswich mucky peat is neutral or contains a hue of 5YR to 5Y, a value of 2-4, and a chroma of 0-3. Unrubbed fiber content ranges from 10-70%; rubbed fiber content is less than 40%.

Leicester loam (LcB) is formed in glacial till. This soil is very deep (>6') to bedrock, and is poorly drained. Leicester loam is found on nearly-level or gently sloping areas in and near drainageways and in low-lying positions. Slopes range from 0-8%. Leicester loam typically contains a surface layer with a hue of 10YR, a value of 2-3, and a chroma of 1-3. Textures in this layer are fine sandy loam, very fine sandy loam, or loam, with a weak or moderate granular structure. The surface layer is friable or very friable, with rock fragments comprising 5-35%. The typical subsoil of Leicester loam contains a hue of 10YR to 5Y, a value of 4-6, and a chroma of 1-4, with distinct or prominent redoximorphic features. Textures in this layer are fine sandy loam, loam, or sandy loam, with a weak granular, or subangular blocky structure, or possibly a massive structure. Rock fragments comprise 5-35%. The typical substratum of Leicester loam contains a hue of 7.5YR to 5Y, a value of 4-6, and a chroma of 1-4, with abundant redoximorphic features that decrease with depth. Textures in the substratum are fine sandy loam or sandy loam, with potential for pockets or thin lenses of silt loam, loamy sand, or sand. The structure is massive, or it has weak plates. The substratum is friable or very friable, though some lenses may be firm. Rock fragments comprise 5-35%, with up to 50% below 40 inches.

SOIL PHYSICAL AND HYDROLOGIC PROPERTIES

Table IV. B. 1-1 Soil Seasonal High-Water Table and Hydrologic Soil Group

Soil Type and Symbol		Seasonal High-Water Table or Ponding/Flooding (depth to water in feet)	Hydrologic Soil Group
Upland Soils	**Soil Portion**		
Charlton-Chatfield complex (CrC, CsD)	Charlton	>6.0	B
	Chatfield	>6.0	B
	Hollis	>6.0	C/D
Sutton loam		1.5 - 2.5, apparent, (Nov. – Apr.)	B
Udorthents, smoothed (Ub)		--	--
Wetland Soils			
Ipswich mucky peat (Ip)		0 – 1.0, ponding/flooding (all year)	D
Leicester loam (LcB)		0 – 1.0, apparent, (Nov. - May)	C

"Water Table" refers to a saturated zone in the soil, which may be seasonally high during certain months of the year. A saturated zone that lasts for less than a month is not considered a water table. High water table is represented as depth to high ground water in feet below grade, and if the high water table is seasonal, months are listed. All of the soils on the property have apparent water tables, meaning that they are all part of the ground water table, and none are perched above an unsaturated zone.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to a group according to the rate of water infiltration when the soils are thoroughly wet, are not frozen, and receive precipitation from long-duration storms. The slope and the kind of plant cover are not considered for this measurement. Drained soils may present different infiltration rates than undrained soils, and the ratings listed represent undrained soils. The four hydrologic soil groups are A, B, C, and D. Hydrologic soil Group A has a high infiltration rate, and a low runoff potential, while Group D has a very slow infiltration rate, and a high runoff potential. Group B and Group C soils fall respectively between Group A and Group D. Group A soils often have soil properties that can increase infiltration rates such as containing deep to bedrock, excessively drained sand and gravel. Group B soils, which have a moderate infiltration rate, often have moderately deep or deep, moderately well drained, or well drained soils that have moderately fine to moderately coarse textures. Group C soils, which have a slow infiltration rate, often contain a restriction that impedes the downward movement of water, such as a moderately fine, or fine-textured soil layer. Group D soils also contain restrictions, though they are more severe than in Group C, and they are often located closer to the surface. Restrictions in Group D soils can include a permanent high water table, a clay layer, or shallow depth to bedrock.

Table IV. B. 1-2 Soil Depth to Bedrock and Saturated Hydraulic Conductivity

Soil Type and Symbol		**Depth to Bedrock (in inches)**	**Saturated Hydraulic Conductivity in Limiting Layer (inches/hour)***
Upland Soils	**Soil Portion**		
Charlton-Chatfield complex (CrC, CsD)	Charlton	>60	0.57-5.95 moderately high - high
	Chatfield	20-40	0.57-5.95 moderately high - high
	Hollis	10-20	0.57-5.95 moderately high - high
Sutton loam		>60	0.57-5.95 moderately high - high
Udorthents, smoothed (Ub)		--	--
Wetland Soils			
Ipswich mucky peat (Ip)		>60	0.57-19.98 moderately high – very high

Leicester loam (LcB)	>60	0.57-5.95 moderately high - high

*applies only to mineral soil layers

Saturated hydraulic conductivity measures the ability of a saturated soil to transmit water. This property is also often referred to as soil permeability. The saturated hydraulic conductivity of the most limiting layer of the soil is shown in the table above. A reading of 14.17 or more inches/hour is very high, 1.417 to 14.17 inches/hour is high, 0.1417 inch to 1.417 inches/hour is moderately high, 0.01417 to 0.1417 is moderately low, 0.001417 to 0.01417 is low, and less than 0.001417 inches/hour is very low.

- Description of soil suitability for construction.

Ratings for specific types of site development, along with the main limiting soil feature or features, where applicable, are shown below. While the ratings are for very specific types of development, which may not occur on the property, these ratings present a good estimate of which soils are conducive to development and which are not. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soils have one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected. The information provided is not site specific, however, and does not eliminate the need for on-site investigation and analysis specific to the proposed project by professionals experienced in engineering.

Table IV. B. 1-3
Potential Building Construction Development Limitations

Soil Type and Symbol		Site Development		
		Dwellings without basements	**Dwellings with basements**	**Small commercial buildings**
Upland Soils	**Soil Portion**			
Charlton-Chatfield complex (CrC)	Charlton	*somewhat limited* slope	*somewhat limited* slope	*very limited* slope
	Chatfield	*somewhat limited* DT bedrock slope	*very limited* DT bedrock slope	*very limited* slope DT bedrock
	Hollis	*very limited* DT bedrock slope	*very limited* DT bedrock slope	*very limited* DT bedrock slope
Chatfield-Charlton complex (CsD)	Chatfield	*very limited* too steep DT bedrock	*very limited* too steep DT bedrock	*very limited* slope DT bedrock
	Charlton	*very limited* (too steep)	*very limited* (too steep)	*very limited* (slope)
	Hollis	*very limited* too steep DT bedrock	*very limited* too steep DT bedrock	*very limited* slope DT bedrock
Sutton loam		*somewhat limited* DT sat. zone	*very limited* DT sat. zone	*somewhat limited* slope DT sat. zone
Udorthents, smoothed (Ub)		varies	varies	varies
Wetland Soils				
Ipswich mucky peat (Ip)		*very limited* ponding flooding DT sat. zone OM content	*very limited* ponding flooding DT sat. zone OM content	*very limited* ponding flooding DT sat. zone OM content
Leicester loam (LcB)		*very limited* DT sat. zone	*very limited* DT sat. zone	*very limited* DT sat. zone

DT = depth to; sat. zone = saturated zone; OM = organic matter; -- = unrated

Table IV. B. 1-4
Potential Landscape and Road Construction Development Limitations

Soil Type and Symbol		Site Development		
		Paths and Trails	**Local roads and streets**	**Lawns and landscaping**
Upland Soils	**Soil Portion**			
Charlton-Chatfield complex (CrC)	Charlton	*not limited*	*somewhat limited* slope	*somewhat limited* slope
	Chatfield	*not limited*	*somewhat limited* frost action DT bedrock slope	*somewhat limited* DT bedrock droughty slope
	Hollis	*not limited*	*very limited* DT bedrock frost action slope	*very limited* DT bedrock droughty slope
Chatfield-Charlton complex (CsD)	Chatfield	*very limited* slope	*very limited* too steep frost action DT bedrock	*very limited* too steep DT bedrock droughty
	Charlton	*very limited* slope	*very limited* too steep	*very limited* too steep
	Hollis	*very limited* slope	*very limited* DT bedrock too steep frost action	*very limited* too steep DT bedrock droughty
Sutton loam		*not limited*	*very limited* frost action; DT sat.zone	*somewhat limited* DT sat. zone; large stones
Udorthents, smoothed (Ub)		varies	varies	varies
Wetland Soils				
Ipswich mucky peat (Ip)		*not rated*	*very limited* ponding DT sat. zone flooding	*not rated*
Leicester loam (LcB)		*very limited* DT sat. zone	*very limited* DT sat. zone frost action	*very limited* DT sat. zone

DT = depth to; sat. zone = saturated zone; -- = unrated

Based on the descriptions, properties, and limitations of the soils, listed in the above two tables, much of the upland portions of the property appear to be suitable for the proposed potential development. Shallow depth to bedrock, slope, and high water table in some areas of the property may need to be considered during planning. Wetland soils are not suitable for most development activities, however no activity is proposed in or near the wetlands.

Charlton soils are generally suitable for development, provided that considerations are made for slope, if development occurs in areas with slopes 8% and greater, with special concern for areas with slopes greater than 15%. Sutton loams may be suitable for development provided the effects of the high water table are taken into consideration. Considerations for depth to bedrock will be necessary if moderate or shallow depth to bedrock Chatfield and Hollis soils (as well as rock outcrops) are found within areas to be developed. Areas of Udorthents, smoothed may consist of a variety of soils and possibly other materials, however because they are already altered or developed, further development is likely feasible. Overall, the soils on the property in the areas proposed for development will likely be well suited for many development activities, if considerations are made for their limitations. However, all soils in potential construction areas should be evaluated with deep hole and other diagnostic tests by qualified engineers to confirm their suitability for the proposed development. Historical soil data on previously developed areas should also be reviewed, if available.

- Results of percolation and deep hole testing of soils conducted on the property.

Deep hole testing was performed on the property on September, 2, 2009, and percolation tests were run on December 7 and 8, 2009. Four deep holes were dug with a backhoe within the areas proposed for use as stormwater treatment facilities on each proposed new lot (Lot 1 and Lot 3). Results from the deep hole testing showed that the soils within Lot 1 are upland soils with textures of sandy loam and loamy sand, with bedrock beginning at approximately 3' below grade. Soils within Lot 3 were completed to 7' below grade without encountering bedrock. Some boulders were present beginning at about 3' below grade. No groundwater was encountered within any of the holes.

Percolation tests were performed in undisturbed soils within the same two areas in which the deep hole tests were dug. Testing showed soil percolation rates of approximately 4.33 minutes per inch and 1.67 minutes per inch for Lot 1 and Lot 3, respectively. Details of the soil percolation testing are shown on the standard Westchester County Department of Health data sheet. Results from both the deep hole testing and the percolation testing determined that the soils are suitable for stormwater treatment facilities, and the systems were designed using this information. Stormwater treatment systems, including management design criteria and stormwater analysis, are detailed in the Stormwater Management Report, revised November 4, 2010 (see Appendix D), and are shown on Exhibit IV. B. 2-1, Stormwater Management.

Exhibit IV.B.2-1

STORMWATER MANAGEMENT

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

OPOSED LOT 1:
2.456 ACRES

Design Line for Stormwater Management Calculations on Lot 1

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

PROPOSED RAIN GARDEN FOR STORMWATER MANAGEMENT PURPOSES

Rain Garden outlet control

Deep hole test #1

Deep hole test #2

Inv. 16.1

Inv. 16.3

6" CPDP

CB #5
Top 20.0
Inv. 17.83

GRASSED SWALE

PROPOSED SINGLE FAMILY HOUSE
F.F. ELEV 24.5
BASEMENT ELEV. 14.5

PROPOSED GARAGE
FLOOR ELEV. 21.15

C.O. #1
Top 23.0
Inv. 21.5

Remains of Rough Stone Wall

EX. STONE WALL

Meet existing road pavement Elev. 19.4'

Edge of Blacktop

Water Valve

SMH
4" PVC's
Rim=11.47
Top of PVC=10.47
Bottom of PVC=9.37

SMH
4" PVC's
Rim=25.12
Bottom of PVC=22.12

Taylors Lane

Curb

Edge of Blacktop

LOT 1

Edge of Reeds

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

PROPOSED LOT 3:
1.518 ACRES

Recharger Field #2
18 Cultec 330XHD chambers
Top of Chambers 16.79'
Bottom of Chambers 14.25'
Bottom of Stone 13.75'
Inv. into/out of chambers 15.25'

Design Line for Stormwater Management Calculations on Lot 3

CB #2/Pre-Treatment Facility -- 16 l.f. of 48" diameter CPDP pipe
Top 18.4
Inv. 16.75

CB #2
Top 17.3
Inv. 15.5

OCS/CB #1
Top 18.0
Inv. 15.25

Wetland Buffer Line

Deep hole test #3

Deep hole test #4

CB #3
Top 18.5
Inv. 16.85

Freshwater Wetland Buffer Line

C.O. #1
Top 20.0
Inv. 18.0

PROPOSED SINGLE FAMILY HOUSE
F.F. ELEV 27.5
BASEMENT ELEV. 17.5

PROPOSED GARAGE
FLOOR ELEV. 27.0

CB #4
Top 28.5
Inv. 26.5

CB #5
Top 26.5
Inv. 24.8

WALK

4" PVC

Utility Pole

Gas Valve

Overhead Wires

MEET ROAD @ ELEV. 31.0

Edge of Blacktop

LOT 3

0 15' 30' 120'
Scale: 1 inch = 30 ft.

North

LEGEND

- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- PROPOSED SUBSURFACE STORM PIPE
- PROPOSED RECHARGER FACILITY
- PROPOSED GRASSED SWALE

2. Potential Impacts

- Description of the general extent of soil disturbance caused by construction of the proposed residences.

Although no actual site construction on the two new lots is presently proposed, a grading plan for the potential future development of the two lots has been prepared. Grading impacts (i.e. disturbance of soils) would be limited to upland areas outside of the freshwater wetland buffer. The freshwater wetland buffer line runs essentially in a north-south direction across the middle of the property. To the west of that line, no soil disturbance would be permitted. To the east of the wetland buffer line, there would be disturbance to most of the ground. A limit of disturbance line, which would consist of an orange geogrid construction fence and parallel lines of silt fence, would be installed on the upgradient side of the wetland buffer line in order to ensure that there is no disturbance beyond this limit. No disturbance is proposed on Lot 2, the lot which will be where the existing house is located. On both of the new lots, prior to the start of construction, and as depicted on the erosion and sediment control plans and the construction narrative, the above-noted orange geogrid fabric fence would be installed at the limit of disturbance in order to prevent any ground disturbance beyond this point.

- Analysis of anticipated cuts and fills.

On Lot 1, the principal cut (excavation) would be to construct the footings, install the foundation and construct the basement for this house. This would involve excavation to a depth up to 8 feet. The front yard, driveway and side yards are essentially at grade, with cuts and fills of less than 2 feet. In the rear yard, the floor of the rain garden/stormwater management facility is essentially at grade. The berm forming the west side of the rain garden would require some fill, which would be derived from the soil excavation for the house. It is also anticipated that the construction of the footings, foundation and basement would require some rock removal. Some of this rock could used to create the stone wall that is depicted on the west side of the rain garden.

On Lot 3, where the existing grade slopes toward the west, a house that would be constructed on this property would have its first floor elevation constructed a couple of feet above the existing grade, and the rear of the house would open from the basement onto the existing grade. As a result, the excavation for the foundation and basement of the house would generate less fill than Lot 1. Additional fill would be generated during the construction of a small, relatively level area to the north of the house and during the excavation needed for the recharger field installation. The fill generated by both of these excavations could also be used under the driveway and in the rear yard of the house. Some of the soil material generated from the foundation and basement would be used as fill for the driveway to the house. Rock that is generated from construction, either from this lot or Lot 1, could be used to construct the low retaining wall (less than 4 feet of grade change from the finished grade at the top of the wall to the existing grade below the wall) to the west side of the house.

3. Proposed Mitigation

- Description of proposed Soil Erosion and Sedimentation Control Plan.

The installation of erosion and sedimentation control practices, which have been designed and would be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment, would reduce the potential erosion during the potential future construction activities on the lots. A detailed erosion control plan has been prepared for the property. The Erosion and Sediment Control Plan (See Exhibit IV. F. 3-1, and Appendix F) incorporates a variety of measures to prevent erosion from occurring during construction and to stop sediments from impacting downgradient areas of the property and off-site in the event there is erosion of disturbed soils. These measures include: (i) installation of silt fences at the limit of disturbance, (ii) use of inlet protection to reduce the risk of sediment entering catch basins and the storm drainage system, (iii) use of vegetated swales, where feasible, to trap sediment, (iv) use of stone check dams to block sediment conveyed in vegetated swales, (v) stabilization of construction entrances for both of the two new lots to reduce the possibility of sediment being conveyed onto Village streets.

The Erosion and Sediment Control Plan also provides a detailed sequence of construction activities to be followed by the contractor. The narrative describes the construction activities to build the houses on the 2 new lots, along with the erosion controls. Since it is best to stabilize disturbed areas as soon as possible to prevent erosion from occurring, during construction, the narrative describes that the contractor is required to take steps to limit the area of disturbance and to take measures to stabilize the ground surface within 7 days of achieving the finished grade and/or the date the soil disturbance has ceased. Movement of vehicles and storage of building materials and vehicles beyond the designated construction areas will also be avoided by the installation of orange geogrid fence along the entire grading and clearing limit line.

C. TOPOGRAPHY AND SLOPES

1. Existing Conditions

- Inventory of existing slopes (0-15%, 15-25%, 25-35%, 35% +) and description of notable topographic features.

Areas of steeper slopes (greater than 15%) are found to the northeast and southwest of the existing residence. There are also slopes greater than 15% on the south side of the property, between the out-parcel and the wetland boundary. Rock outcrops are generally in association with these steeper portions of the property, however, outcrops also occur in other areas of the property, near Taylors Lane and in and near the wetlands. See Exhibit IV. C. 1-1, Existing Slopes Map, showing the distribution of the slope categories on the property as well as the locations of the rock outcrops.

- Description of surrounding topography.

The surrounding topography is mainly level to sloping. Level areas are in association with the tidal wetlands and floodplains, including Otter Creek. A few, small areas with slopes greater than 15% occur along the west side of Otter Creek and Magid Pond, within the property

Exhibit IV.C.1-1

EXISTING SLOPES MAP

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

March 21, 2012

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Sterling Way

Garden Road

Playground

Magid Pond

Shadow Lane

Taylors Lane

Barrymore Lane

Colonial Court

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

Flooded Area

2 1/2 Story Frame & Stone Residence (Above Grade)

Garage under 2½ Story

4430

LEGEND

- Slope 0%-15%
- Slope 15%-25%
- Slope 25%-35%
- Slope Over 35%

North

0 40' 80' 160'

Scale: 1 inch = 80 ft.

(discussed above), and in association with the north end of Van Amringe Pond.

2. Potential Impacts

- Quantification of acres of disturbance for each slope category.

Table IV. C. 2-1
Areas of Disturbance by Slope

Slope Range	Area of Disturbance	Lot 3 Area of Disturbance
0-15%	0.4756 ac.	0.1191 ac.
15-25%	0.1155 ac.	0.2801 ac.
25-35%	0.0104 ac.	0.0246 ac.
> 35%	0 ac.	0.0003 ac.

- Discussion of disturbance, if any, to steep (25%+) slopes.

The majority of disturbance for the eventual construction of the two new house lots would occur on slopes that are less than 25%. In all, less than 1% of the area of disturbance on Lot 1 would take place on slopes greater than 25%; on Lot 3, about 6% of the area of disturbance would be on slopes over 25%.

On Lot 1, the steep slopes over 25%, which cover only about 455 s.f., would occur within the area of the proposed rain garden and in an existing bedrock outcrop area. On Lot 3, the disturbance of slopes over 25%, which covers about 1,085 s.f., would be limited to areas close to the street flanking the driveway, on the eastern (or street) side of the house, and in the side yard area to the north of the house. The grading of these steeper slope areas would result in a ground surface that is significantly less sloping, and a reduced risk of erosion once these areas are stabilized with vegetation.

- Discussion of any potential need for blasting.

On Lot 1, there is shallow bedrock and/or a rock outcrop immediately to the west of the location of the house as shown on the site plans. It is therefore anticipated that the construction of a house on this lot would require some rock removal. The amount of anticipated rock removal would depend on the design of the house and its basement. If the house were to be constructed with a full basement then up to 6 feet of rock removal may be needed. Alternatively, if a house on Lot 1 were to be constructed with a partial basement or a crawl space, the amount of likely rock removal would be reduced accordingly. On Lot 3, the deep hole tests that were conducted to the north of the proposed house location did not encounter any bedrock to a depth of 7 feet, the extent of the reach of the backhoe. On this lot, there is no evidence of bedrock outcrops or ledge. As a result, no bedrock removal is anticipated with the construction on this lot.

Whether blasting is required depends on the type of rock that is encountered and whether or not it exhibits significant fracturing. If the rock is massive with little fracturing, then blasting is the quickest, most efficient and environmentally sound method to remove it. If highly fractured, then the rock may be readily removed with conventional earth excavation equipment, assisted as

may be needed with a hoe ram.

3. Proposed Mitigation

- Description of Soil Erosion and Sedimentation Control Plan as it relates to mitigation of steep slope impacts.

Article II, Section 186-9 of the Village Code, Erosion and Sediment Control, notes that "[d]evelopment shall reflect the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible. In the design of cut and fill slopes, consideration must be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions, and other applicable factors."

On Lot 1, the steeper slopes are present in the lowermost reaches of the disturbance area in the vicinity of the proposed rain garden. Mitigation of the impact of ground disturbance of the steeper slopes on this lot would be done by constructing a low stone wall to form the western side of the berm where the rain garden/stormwater management facility will be constructed. The areas of steeper slopes to the north and south of the rain garden will not be graded, and the stone wall will limit the impacts of the ground disturbance to the immediate area.

- Conformance with Village blasting law, if applicable

If blasting of rock is required for the potential future construction of either the house on Lot 1 or 3, then the contractor shall be required to comply with the Chapter 120 of the Code of the Village of Mamaroneck.

In summary, if blasting of rock is to be utilized by the contractor, the Village requires the following be completed prior to authorization:
Written notice, as approved by the Village Engineer, is to be given by the blasting contractor to property owners, at their addresses as shown on the latest assessment roll of the Village of Mamaroneck, for all improved properties within an area designated by the Building Inspector or the Village Engineer. The notice shall state the date on which blasting is proposed to commence and the estimated date when blasting will be completed. The notice will be mailed by certified mail, return receipt requested, at least ten (10) calendar days before the proposed commencement of blasting and shall be placed at each property in a conspicuous place at least three (3) days before commencement of blasting. An affidavit of mailing or delivery of the notice, designating the name and address of each property owner notified, shall be filed by the blasting contractor with the Village Engineer before commencement of blasting.

Before any blasting can begin, the blasting contractor shall make an in-depth inspection of all homes, structures or facilities within a minimum distance of one thousand (1,000) feet of the center line of the site to note the interior and exterior condition, including foundation walls, sidewalks, pools and the like. The inspection and written report shall be conducted by an independent firm experienced in this type of work. The Village Engineer may require that a pre-blasting inspection report is necessary for any area not listed above but within the proximity of the blasting, and advise the blasting contractor of this requirement.

A copy of the inspection report, when it is completed, covering each house, structure or facility inspected, shall be delivered to the Village Engineer. This report must be conducted and delivered prior to any detonation of explosives. The blasting contractor shall provide continuous blast monitoring during construction. Blast monitoring shall be performed by an independent testing agency at the blasting contractor's expense.

Additional requirements in the code of the Village cover the requirements for the storage and use of any blasting materials on the subject property, as well as additional details on the regulations regarding the detonation of explosives in the Village of Mamaroneck.

D. WETLANDS AND WATERCOURSES

1. Existing Conditions

- Description and mapping of on-site wetlands and watercourses, including delineation methodology. Description of off-site wetlands and watercourses, including Otter Creek and Magid Pond.

Wetland Field Delineation

Wetlands on the property were field delineated in accordance with Chapter 192, "Freshwater Wetlands," in the Code of the Village of Mamaroneck, Article 24 of the New York State Department of Environmental Conservation (DEC) Environmental Conservation Law, and the technical criteria in the 1987 Army Corps of Engineers (ACOE) Wetland Delineation Manual (TR-Y-87-1). The field delineation was originally conducted on August 28, 2001 by a field biologist and a soil scientist from Evans Associates Environmental Consulting, Inc. (Evans Associates). The wetland boundary was re-set by the surveyors and reconfirmed by Evans Associates on March 12, 2009. The eastern boundary of the wetland was identified along the west side of the site. The wetland/upland boundary was originally flagged with sequentially-numbered, orange flagging depicting the words "Wetland Boundary." The flags were numbered B-1 through B-22 and C-1 to C-11. Locations of the wetland flags are shown on Exhibit IV. D. 1-1, Wetlands Map.

Wetland Description

A fringe of forested wetlands along an emergent marsh is located to the west of the site property. A portion of the forested wetland extends onto the property. Vegetation in the wooded portion of the wetland includes red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), silver maple (*Acer saccharinum*), and pin oak (*Quercus palustris*) trees and saplings along with soft rush (*Juncus effusus*) and sensitive fern (*Onoclea sensibilis*). The open marsh portion of the wetland is dominated by the invasive species common reed (*Phragmites australis*). The wetland soils consist mainly of Ipswich mucky peat, which is formed in thick, organic deposits that are subject to tidal flooding. Leicester loam is present within the freshwater portions of the wetlands, along the edge of the property.

Magid Pond is located off site and to the west and northwest of the subject property. Otter Creek

LEGEND

Tidal Wetland

Limit of Tidal Wetland Adjacent Area

Freshwater Wetland

Limit of Freshwater Wetland Adjacent Area

Exhibit IV.D.1-1

WETLANDS MAP

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

PROPOSED LOT 1: 2.456 ACRES

PROPOSED LOT 2: 1.195 ACRES

PROPOSED LOT 3: 1.518 ACRES

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

Taylors Lane

Barrymore Lane

Colonial Court

Wood Deck

2½ Story Frame & Stone w/ Basement

Garage 2 Under 2 Story

Flooded Area

Rock

0 40 80 160

Scale: 1 inch = 80 ft.

flows approximately 3700 feet from Magid Pond to Mamaroneck Harbor. The tidal wetlands associated with the Otter Creek watercourse extend onto the western side of the property. Otter Creek and Magid Pond are discussed further in Section F. Surface Water Resources and Stormwater Management, 1. Existing Conditions.

- Functional assessment for each identified wetland and watercourse.

Wetland Functions

The functions and relative values of wetlands are determined by biological and physical characteristics, including the position of the wetland in the landscape, the geology and hydrology of the site, and the substrate and vegetation comprising the wetland. Several functions are provided by Magid Pond, Otter Creek, and the tidal and freshwater wetlands associated with the creek, which extend onto the property. These functions include hydrologic support and storage, water quality maintenance, along with provision of vegetation and wildlife habitat.

All of the wetlands and watercourses play a role in hydrologic support, or drainage continuity within the watershed. Specifically, Otter Creek serves to convey groundwater and surface water discharge from Magid Pond downstream. In addition, tidal surface water intermittently floods the creek and the tidal wetlands, which provide water storage. Because Magid Pond is ponded, it can provide storm and flood water storage. In addition, the ponded and tidal waters associated with the pond, creek, and tidal wetlands may be slowed and retained long enough for some sediment, particulates, and dissolved elements to settle out and/or be filtered by the wetland, thereby helping to maintain water quality. Magid Pond appears to remain ponded and to have permanent water flow, which provides a good capacity to support wetland vegetation. The tidal wetlands also provide ideal wetland habitat for tidal wetland plants. The ponded water in Magid Pond, and within Otter Creek and its tidal wetlands, allows for the establishment of animal species that need permanent sources of water to survive. The freshwater wetlands do not appear to provide a permanent source of water, and are therefore habitat that is better suited to animal species that can tolerate a greater fluctuation in wetland hydrology.

- Identification of pertinent regulatory agencies (Federal, state, local) and discussion of various regulations/ordinances relating to site wetlands and watercourses.

Army Corps of Engineers Wetland Regulations The ACOE is the federal agency that regulates wetlands under the Clean Water Act. They regulate wetlands based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology as defined in the 1987 ACOE Wetland Delineation Manual (TR Y 87 1). The ACOE regulates wetlands that are associated with hydrologic features that are connected to interstate waters. The on-site wetland drains to the Long Island Sound and is therefore regulated by the ACOE. The ACOE does not regulate wetland buffers.

New York State Department of Environmental Conservation Wetland Regulations The DEC regulates wetlands in accordance with the New York State Freshwater Wetlands Act (Article 24 of the New York State Environmental Conservation Law). The DEC regulates wetlands that are

12.4 acres or greater, primarily based on the presence of hydrophytic vegetation, that are shown on, or are vegetatively connected to wetlands shown on, the New York State Freshwater Wetlands Maps. The on-site wetland is part of DEC Freshwater Wetland J-2 and is therefore regulated by the DEC. In addition to the wetland itself, the DEC also regulates a 100-foot adjacent area.

Local Regulations The Village of Mamaroneck regulates wetlands that are greater than 2,500 square feet based on the presence of hydric soils, wetland hydrology, and hydrophytic vegetation as defined in Chapter 192, "Freshwater Wetlands" in the Village Code. In addition to regulating the wetland, the Village also regulates a wetland adjacent area of 100 feet. The wetland and adjacent area comprise the "controlled area" that is regulated by the Village. The wetlands on the site are greater than 2,500 square feet and are regulated by the Village.

2. Potential Impacts

- Description and quantification of disturbance in regulated wetlands, watercourses and buffers, based on the proposed limit of disturbance line.

No disturbance is proposed within any regulated wetlands or in any Village or DEC 100- foot freshwater wetland buffer or tidal wetland buffer.

- Description of potential impacts to wetland or watercourse functions.

No direct impacts are proposed to wetlands, watercourses, or buffers/adjacent areas, and indirect impacts to the wetlands will be minimized or avoided.

Untreated stormwater runoff during and after potential future construction has the potential to reduce the water quality of downgradient wetlands and watercourses. Development of the subject property would increase the impervious surfaces on the site, which could cause an associated increase in stormwater peak flow rates and an increase in nutrient and contaminant loads discharging to wetlands and surface waters.

In order to minimize potential water quality impacts to the downstream waterbodies and wetlands, a Stormwater Pollution Prevention Plan has been prepared by the project engineer. This plan is discussed in detail in Section F. Surface Water Resources and Stormwater Management. In addition, erosion and sedimentation control practices, which have been designed and would be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment, would reduce the potential erosion during construction. A detailed erosion control plan has been prepared for the property, and is discussed above, in Section B. Soil, 3. Proposed Mitigation. Post-construction monitoring would include the monitoring and maintenance of the stormwater basins and other stormwater treatment features.

- Analysis of project's consistency with the Village's wetlands regulations.

According to Chapter 192, Freshwater Wetlands, "Wetland Protection Law" of the Code of the

Village of Mamaroneck., the "...Board of Trustees of the Village of Mamaroneck hereby finds that wetlands play a fundamental role in the environment of the Village of Mamaroneck. Wetlands provide a natural habitat for many forms of wildlife; aid flood control and storm drainage by absorbing and storing excess precipitation; protect subsurface water resources and recharge groundwater supplies; protect water quality by functioning as sedimentation and filtration basins; facilitate recreational and educational activities; and offer natural open spaces where such open spaces are in very short supply. Therefore, the Board of Trustees of the Village of Mamaroneck, pursuant to Article 24 of the Environmental Conservation Law of the State of New York, declares that it is the intent of this chapter to promote these public purposes through the creation of procedures to ensure the preservation, restoration, enhancement and proper utilization of wetlands and the natural resources and processes attendant thereto."

Accordingly, the proposed project was developed to avoid wetland, watercourse, and buffer/adjacent area impacts to the maximum extent practicable. No direct impacts are proposed to any of these areas, and protections are proposed to ensure the minimization of indirect adverse impacts during and after construction. None of the proposed activities will produce any prohibited activities (as listed in § 192-3. Prohibitions). The project is designed to avoid effects on wetland and watercourse functions and habitat. Therefore, the project is consistent with the Village wetland regulations.

- Identification of wetland/watercourse permits required, if any.

A DEC Tidal Wetland Permit will be required for the subdivision that is proposed to occur partially within the tidal wetland adjacent area. Under 6NYCRR Part 661, Tidal Wetlands, Section 661-4, (ee) a regulated activity includes "any portion of a subdivision of land located in any tidal wetland or adjacent area." Since the proposed subdivision of the property will occur, at least in part, within the area regulated by the DEC under the tidal wetlands regulations, a permit is required, even though there is no proposed direct impact to the tidal wetland or the tidal wetland buffer area.

Accordingly, a Joint Application for Permit was filed with the New York State Department of Environmental Conservation on July 29, 2010. The processing of the application for permit is dependent on the resolution of the State Environmental Quality Review Act (SEQRA) as it pertains to the property.

A Federal Consistency Assessment Form was submitted to the New York State Department of State (DOS) Coastal Management Program in support of a request for a Coastal Consistency Determination. A response letter from the DOS, dated March 4, 2011, in regard to this project, states "The proposed activity does not appear to require a federal permit, license or other form of authorization. Therefore, further review of this property by the Department of State, and concurrence with your consistency certification, are not necessary." A copy of the DOS letter is included in Appendix B. NYS DEC will seek a determination of Coastal Consistency from the Department of State as part of the Tidal Wetland Permit review.

In that the applicant is not proposing any direct impacts to the tidal wetland or the area that is regulated by the NYSDEC under 6NYCRR Part 661, the Village of Mamaroneck wetlands

regulations apply only to the subdivision of this property.

3. Proposed Mitigation

As no impacts are proposed to regulated wetlands or wetland buffer areas, no additional mitigation is proposed.

E. VEGETATION AND WILDLIFE

1. Existing Conditions

- Description of vegetative communities found on the site.

The upland vegetative communities on the property include species from both the successional southern hardwoods and successional northern hardwoods communities in the forested areas, and mowed lawn, paved road/path, and urban structure exterior in the developed areas. Information on the ecological communities is taken from the Draft Ecological Communities of New York State (Second Edition, 2002) and is discussed below.

Successional hardwoods are hardwood or mixed forests that have become established on previously cleared or otherwise disturbed sites. Aerial photos from 1976 show the property virtually devoid of trees, indicating that the site had been cleared at some point prior to that time. Therefore, trees on the property are less than 50 years old, which is a general characteristic of successional forests. On-site trees that are characteristic of the southern community were identified as red maple (*Acer rubrum*), black locust (*Robinia pseudoacacia*), and eastern red cedar (*Juniperus virginiana*). On-site trees that are characteristic of the northern community were identified as red maple, black cherry (*Prunus serotina*), cottonwood (*Populus deltoides*), and white pine (*Pinus strobus*). Other vegetation found on the property includes sweetgum (*Liquidambar styraciflua*), Norway maple (*Acer platanoides*), American beech (*Fagus grandifolia*), crab-apple (*Malus sp.*), and mulberry (*Morus rubra*) trees and saplings, multiflora rose (*Rosa multiflora*) and winged euonymous (*Euonymous alatus*) shrubs, poison ivy (*Toxicodendron radicans*) and Virginia creeper (*Parthenocissus quinquefolia*) vines, along with garlic mustard (*Alliaria petiolata*).

The currently-developed upland areas are described as terrestrial cultural ecological areas and include mowed lawn (for the lawn and landscape plantings), paved road/path (for the driveway), and urban structure exterior (for the residence).

The edge of the Otter Creek tidal marsh encroaches on the western and southwestern property boundaries. The wetland vegetative communities within this area include brackish tidal marsh, and some palustrine forested wetlands closest to the uplands. However, because the edges of the marsh are dominated by common reed (*Phragmites australis*), the on-site portion of the marsh is called a reedgrass marsh, which is considered a cultural community (created by anthropogenic disturbance). The reedgrass marsh may also be called a palustrine cultural community in areas where the tidal influence is minimal or non-existent. The palustrine forested wetlands are forested mineral soil wetlands that include seasonally and permanently flooded forests or saturated swamps. These wetlands have at least 50% canopy of trees.

Off site, the brackish tidal marsh (Otter Creek Tidal Wetlands) consists of an area of the marsh that is exposed to changes in depth with the tides, and contains a mixture of both salt and fresh water. According to the Nature Conservancy, the Otter Creek tidal wetlands feature more than 100 species of plants, abundant marine and terrestrial life, and more than 100 species of birds. Marsh vegetation is composed primarily of two related grasses: salt marsh cordgrass *(Spartina alternifolia)* and salt meadow grass *(Spartina patens)*, a similar, smaller species. Common reed forms a dense border around the marsh. Black crowned night herons *(Nycticorax nycticorax)*, osprey *(Pandion haliaetus)*, yellow warblers *(Dendroica petechia)*, great blue herons *(Ardea herodias)*, white egrets *(Ardea alba)*, and northern harriers *(Circus cyaneus)* are commonly seen at Otter Creek. A wide variety of waterfowl and other migratory birds make use of the rich marsh and estuary throughout the year.

- Description of wildlife species and habitat types present on the site.

The two main habitat types present on the site include second-growth forests (upland and wetland), and common-reed dominated marsh, as described above. None of these on-site habitat types are considered unique or rare.

Wildlife species that may commonly be present in these types of habitats, on a seasonal or year-round basis, are shown below in Table IV. E. 1-1. The list consists of species that are potentially found in Westchester County.

Table IV. E. 1-1
Wildlife Species Potentially Occurring in Westchester County

Common Name	Scientific Name
MAMMALS	
Virginia opossum	*Didelphis virginiana*
Masked shrew	*Sorex cinereus*
Water shrew	*Sorex palustris*
Short-tailed shrew	*Blarina brevicauda*
Eastern mole	*Scalopus aquaticus*
Star-nosed mole	*Condylura cristata*
Little brown myotis	*Myotis lucifugus*
Big brown bat	*Eptesicus fuscus*
Eastern cottontail	*Sylvilagus floridanus*
Eastern chipmunk	*Tamias striatus*
Woodchuck	*Marmota monax*
Gray squirrel	*Sciurus carolinensis*
Beaver	*Castor canadensis*
White-footed mouse	*Peromyscus leucopus*
Meadow vole	*Microtus pennsylvanicus*
Muskrat	*Ondatra zibethicus*
Norway rat	*Rattus norvegicus*
House mouse	*Mus musculus*
Coyote	*Canis latrans*
Red fox	*Vulpes vulpes*
Raccoon	*Procyon lotor*

Table IV. E. 1-1
Wildlife Species Potentially Occurring in Westchester County

Common Name	Scientific Name
Ermine	*Mustela erminea*
Long tailed weasel	*Mustela frenata*
Mink	*Mustela vison*
Striped skunk	*Mephitis mephitis*
River otter	*Lontra canadensis*
White-tailed deer	*Odocoileus virginianus*
BIRDS	
Double crested cormorant	*Phalacrocorax auritus*
Great blue heron	*Ardea herodias*
Green heron	*Butorides striatus*
Canada goose	*Branta canadensis*
Wood duck	*Aix sponsa*
Mallard	*Anas platyrhynchos*
Turkey vulture	*Cathartes aura*
Osprey	*Pandion haliaetus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
Wild turkey	*Meleagris gallopavo*
Mourning dove	*Zenaida macroura*
Eastern screech owl	*Otus asio*
Great horned owl	*Bubo virginianus*
Chimney swift	*Chaetura pelagica*
Belted kingfisher	*Megaceryle alcyon*
Red-bellied woodpecker	*Melanerpes carolinus*
Downy woodpecker	*Picoides pubescens*
Northern flicker	*Colaptes auratus*
Pileated woodpecker	*Dryocopus pileatus*
Eastern phoebe	*Sayornis phoebe*
Eastern kingbird	*Tyrannus tyrannus*
Red-eyed vireo	*Vireo olivaceus*
Blue jay	*Cyanocitta cristata*
American crow	*Corvus brachyrhyncos*
Tree swallow	*Tachycineta bicolor*
Black-capped chickadee	*Parus atricapillus*
Tufted titmouse	*Parus bicolor*
White-breasted nuthatch	*Sitta carolinensis*
Carolina wren	*Thryothorus ludovicianus*
House wren	*Troglodytes aedon*
Ruby-crowned kinglet	*Regulus calendula*
Eastern bluebird	*Sialia sialis*
Veery	*Catharus fuscescens*
Hermit thrush	*Catharus guttatus*
Wood thrush	*Hylocichla mustelina*
American robin	*Turdus migratorius*
Gray catbird	*Dumetella carolinensis*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Black and white warbler	*Mniotilta varia*
American redstart	*Setophaga ruticilla*

Table IV. E. 1-1
Wildlife Species Potentially Occurring in Westchester County

Common Name	Scientific Name
Yellow warbler	*Dendroica petechia*
Common yellowthroat	*Geothlypis trichas*
Northern cardinal	*Cardinalis cardinalis*
Eastern towhee	*Pipilo erythrophthalmus*
Chipping sparrow	*Spizella passerina*
Song sparrow	*Melospiza melodia*
Red-winged blackbird	*Agelaius phoeniceus*
Common grackle	*Quiscalus quiscula*
Brown-headed cowbird	*Molothrus ater*
Baltimore oriole	*Icterus galbula*
House finch	*Carpodacus mexicanus*
American goldfinch	*Carduelis tristis*
House sparrow	*Passer domesticus*
AMPHIBIANS AND REPTILES	
Redback salamander	*Plethodon cinereus*
Red-spotted newt	*Notophthalmus v. viridescens*
Eastern American toad	*Bufo a. americanus*
Northern spring peeper	*Pseudacris c. crucifer*
Bullfrog	*Rana catesbeiana*
Green frog	*Rana clamitans melonota*
Pickerel frog	*Rana palustris*
Eastern box turtle	*Terrapene c. carolina*
Common snapping turtle	*Chelydra s. serpentina*
Painted turtle	*Chrysemys picta*
Spotted turtle	*Clemmys guttata*
Northern water snake	*Nerodia s. sipedon*
Northern brown snake	*Storeria d. dekayi*
Eastern garter snake	*Thamnophis s. sirtalis*

Source: NYS DEC and McGowan and Corwin (2008)

- Information concerning presence of rare, endangered, threatened, or special concern species on or near the subject property based on contact with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service (USFWS).

A request was made by Evans Associates to the New York Natural Heritage Program (NYNHP) regarding any known occurrences of endangered, threatened or special concern species of plants or animals or significant habitats on, or in the vicinity of, the site. The response letter from the DEC Division of Fish, Wildlife & Marine Services dated June 9, 2010 indicates that the NYNHP database had 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 the site. A copy of the response letter from the NYNYP is included in Appendix B of this document.

In accordance with the current policy of the New York and Long Island Field Offices of the U.S. Fish and Wildlife Service (USFWS), individual project reviews for projects which do not have Federal agency involvement are no longer undertaken unless it is determined that the project

could impact a protected species. Project sponsors are directed to the agency website, where the project location (County) is entered to obtain a list of protected species. A copy of the list for Westchester County is included in Appendix B of this document. None of the species listed are found on the project site.

2. Potential Impacts

- Quantification of areas of various vegetative cover types to be disturbed based on proposed limit of disturbance line.

The proposed action would result in an additional 1.01 acres of young second growth hardwood forest being converted to residential amenities and lawn / landscaped areas. The remainder of the second growth hardwood forest and the edges of the wetland habitats, some 3.49 acres in total, would remain undisturbed.

- Discussion of potential impact on identified rare, endangered, or threatened wildlife species and their habitats, including indirect impacts to existing vegetation resulting from any disturbance and use of the portions of the lots beyond the limit of disturbance.

As stated above, the NYNHP indicated that they have 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 the site. Clearing will not be permitted beyond the proposed limit of disturbance during construction.

The osprey (*Pandion haliaetus)* is a state-listed Special Concern species that has been documented in the area. The osprey is a large bird that feeds almost exclusively on live fish and prefers to build a large stick nest on the top of a dead tree. Man-made structures such as buildings, towers, poles and platforms are also used as locations to build nests, as are occasionally rocks on the ground. The osprey is found along coastal and inland waterways with abundant fish populations. The stream channel of Otter Creek is located off the property and would not be impacted by the potential activities proposed for the property. Avoidance of impacts to vegetation and wildlife has been carefully taken into consideration for the proposed project, and mitigation is discussed in Section 3, below. Therefore, the habitat of the osprey, including nesting and hunting areas, would not be compromised by the proposed subdivision.

3. Proposed Mitigation

- Discussion of proposed mitigation measures for impacts to vegetation and wildlife.

The proposed project was developed to reduce and avoid impacts to the vegetation and wildlife on the property. The envelope of development for each of the lots has been minimized to the maximum extent practicable, and clearing beyond the limit of disturbance will not be permitted during construction. Permanent mitigation measures that will protect and enhance the vegetation and wildlife on and off the properties are also proposed, and are detailed in Section F. 3. (Surface Water Resources and Stormwater Management, Proposed Mitigation.)

Vegetated buffers consisting of the existing upland wooded areas will be retained between the limit of proposed disturbance of each lot and the freshwater wetland. To the rear of Lot 1, this buffer is about 110 feet in depth; for Lot 3, this buffer is just over 100 feet in depth.

Vegetated buffers serve many functions. A vegetated buffer can serve many useful purposes, including:

Protection of adjacent wildlife habitat, wetlands, and water bodies from human activities.

Prevention of soil erosion through soil stabilization, and removal of sediment in runoff. In the case of the subject property, this would limit the impact of sediment on the downgradient freshwater and tidal wetland.

Improve the quality of runoff, by promoting infiltration into the soils where adsorption and biological uptake of nutrients will occur.

Providing wildlife habitat by providing forage sites, nesting and breeding areas, and by serving as migration corridors for fauna.

Enhancing the landscape by providing an aesthetically appealing open space.

Finally, the vegetated buffer to the southwest of Lot 1 and to the north of Lot 3 will remain. Unfortunately, the existing neighboring house lot to the north and northeast of Lot 3 has extended its lawn area significantly into the subject property by an average of 30 feet. This existing residential property to the northeast of the subject property has created an area of lawn on the subject property that would have remained forested. This has reduced the wooded buffer between the lawn and the boundary of the freshwater wetland to around 45 to 50 feet. Once the subdivision occurs, the property lines will be survey located and monuments installed to clearly delineate the property boundary. The area where the encroachment has occurred will be allowed to return to forest and will be monitored for potential invasive species.

F. SURFACE WATER RESOURCES AND STORMWATER MANAGEMENT

1. Existing Conditions

- Description of existing surface water resources and existing drainage patterns.

The entire property lies within the drainage area of Otter Creek (see Exhibit IV. F. 1-1, Otter Creek Watershed). All runoff from the subject property is eventually conveyed to Otter Creek. Otter Creek is about 3,700 feet in length from Mamaroneck Harbor to Magid Pond. Otter Creek flows in a south-southwesterly direction, eventually being crossed by South Barry Avenue before discharging into Mamaroneck Harbor.

The watershed of Otter Creek, which covers approximately 123 acres, is bounded by roughly Taylors Lane on the east, the Parkway on the west, Mamaroneck Harbor on the south, and U.S. Route 1 to the north. Within this area, the precipitation that falls is directed to Otter Creek.

There are no surface water features on the subject property. Otter Creek lies at its closest point about 45 feet to the west of the property, but in general is between 50 and 65 feet to the west of

Exhibit IV.F.1-1

OTTER CREEK WATERSHED

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

Source of Aerial Photographs: New York State NY Orthos Online (http://www.orthos.dhses.ny.gov/). Date of Aeiral Photographs, 2009.

0 300' 600' 2,400'
Scale: 1 inch = 600 ft.

the western property line.

Magid Pond, which was formed by creating an impoundment at the northern end of Otter Creek lies to the west and northwest of the property. Aerial photographs from the Westchester County Geographic Information Service show that in 1947 Magid Pond had not yet been created. The area seems to have been a wetland with what appear to be drainage channels cut through the wetland to improve the flow of water. By 1976, the aerial photographs show that the dam impoundment to create Magid Pond had been constructed; the wetland that once was present at the upper end of Otter Creek had been flooded and the pond created. Therefore, Magid Pond was created at some point between 1947 and 1976.

Magid Pond has a surface area of about 3.5 acres. The southern edge of Magid Pond is approximately 20 feet from the property line of the northernmost portion of the property. The flow from Magid Pond is conveyed in a south-southwesterly direction into Otter Creek.

The runoff from the subject property is conveyed generally in a westerly direction toward the freshwater and tidal wetlands associated with Otter Creek.

- Provision of drainage study calculating existing rates of runoff for statistical 1, 2, 10, 25, and 100-year and 24-hour storm events.

Since the two potential future lots are separated by over 200 feet, for purposes of hydrologic analysis, both lots were considered separately for hydrological modeling. See Exhibit IV. B. 2-1.

To quantify the runoff from each of the two new lots in the existing condition, a design line was established at the western extent of the future disturbance limit on the two new lots. The design line is upgradient of the 100-foot Village and State freshwater wetland buffer line; no site disturbance is proposed within the 100-foot wetland buffer. Areas to the west of design line, from the wetland buffer line to Otter Creek, will therefore not be disturbed from any site construction, and therefore the hydrologic characteristics of these areas will not directly change.

In order to model the existing hydrologic conditions from the future Lots 1 and 3, three drainage areas were delineated on the overall property, two on Lot 1 and one on Lot 3, as follows:

Existing Condition Drainage Area 1a (XDA-1a) is 14,460 s.f. in size and consists of the portion of the property that discharges to design line on Lot 1. Most of this drainage area is presently wooded. Runoff from this drainage area flows west to the design line.

Existing Condition Drainage Area 1b (XDA-1b) is 12,235 s.f. in size and consists of that portion of the property which discharges runoff to Design Point 1B. Most of this drainage area is also presently wooded. Runoff from this drainage area eventually flows southward into the existing property to the south of the future Lot 1. For modeling purposes, the runoff from this drainage area was included as being directed to the Lot 1 design line.

Existing Condition Drainage Area 3a (XDA-3a) is 19,495 s.f. in size and consists of that portion of the property which discharges runoff to the design line on Lot 3.

Table IV. F. 1-1, Existing Condition Peak Rates of Runoff, provides the peak rate of runoff to the design lines on Lots 1 and 3.

Table IV. F. 1-1 Existing Condition Peak Rates of Runoff

Drainage Area/Storm Interval	1 year	2 year	10 year	25 year	100 year
Existing Condition Flows to Design Line on Lot 1	0.05	0.18	0.70	1.14	1.88
Existing Condition Flows to Design Line on Lot 3	0.02	0.08	0.42	0.72	1.24

Note: All flows are in cubic feet per second.

- Identification of 100-year floodplain.

According to the Federal Emergency Management Agency (FEMA), the 100-year floodplain is at an elevation of 13 feet (NAVD, 1988). The boundary of the floodplain runs in a northeast to southwest direction for the entire length of the property. The 100-year floodplain is shown on Exhibit IV. F. 1-2.

2. Potential Impacts

- Performance of stormwater analysis identifying post-development rates of runoff for the 1, 2, 10, 25, and 100 year storm events. Calculations shall be in accordance with the procedures specified in the 2010 New York State *Stormwater Management Design Manual* and with compliance for a NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (Permit GP-0-10-001).

The New York State Department of Environmental Conservation publication Stormwater Management Design Manual requires that an analysis be performed for: (1) the 1 year storm – Stream Channel Protection Volume Requirements (Cpv), (2) the 10 year storm – Overbank Flood Control (Qp), and (3) the 100 year storm – Extreme Flood Control Criteria (Qf). In addition to these storms, the 2 and 25 year recurrence intervals were also modeled.

- Description of post-development drainage patterns.

As noted above, all of the runoff from the property is conveyed westward to Otter Creek. In the future condition, runoff from the individual lots will be conveyed in a westward direction to stormwater management facilities on each of the lots. Following water quality treatment and peak rate attenuation in the stormwater management facilities, the runoff will be discharged to the ground surface where it will be conveyed toward the freshwater and tidal wetlands that are associated with Otter Creek.

LEGEND

Area of Site Subject to 1% Flood (100 year storm)

Exhibit IV.F.1-2

100-YEAR FLOODPLAIN

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

AREA OF SITE SUBJECT TO 100-YEAR FLOOD (ELEV. 13', NAVD 1988 & BELOW)

PROPOSED LOT 1:
2.456 ACRES

PROPOSED LOT 2:
1.195 ACRES

PROPOSED LOT 3:
1.518 ACRES

100 YEAR FLOOD ELEVATION 13.0

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

2 1/2 Story Frame & Stone w/ Basement

Taylors Lane

Barrymore Lane

Colonial Court

0 40 80 160

Scale: 1 inch = 80 ft.

The drainage areas that were modeled on the two new lots are as follows:

Lot 1

Future Condition Drainage Area 1a.1 (FDA-1a.1) is 19,125 s.f. in size and would consist of the majority of the lands which would be impacted by new impervious surfaces. This drainage area includes the new house and driveway, as well as most of the front yard. All of the runoff from this drainage area would be treated and peak rate attenuation accomplished in a proposed rain garden in the rear yard of the property.

Future Condition Drainage Area 1a.2 (FDA-1a.2) is 3,405 s.f. in size and would consist of the portion of the property which would contribute runoff to the design line on Lot 1, but not, due to topography, to the rain garden. This drainage area is mostly lawn, but includes a portion of the low retaining wall in the rear yard.

Future Condition Drainage Area 1b (FDA-1b) is 4,255 s.f. in size and consists of lands to the south of the driveway which would contribute runoff to the design line to the south of the property. This area would consist of mostly lawn and with some woods.

Lot 3:

Future Condition Drainage Area 3a (FDA-3a) is 14,345 square feet in size and would consist of the proposed house and driveway on Lot 3. Runoff from this drainage area would be conveyed from roof drain leaders and catch basins into subsurface pipes to a proposed infiltration facility to be located in the rear yard.

Future Condition Drainage Area 3b (FDA-3b) is 5,135 square feet in size and would consist of the portion of the property which would contribute runoff to Design Point 3, but not, due to topography, to the infiltration facility. This drainage area is mostly lawn, but includes some wooded areas and retaining walls on the site.

- Comparison of existing and proposed peak flows at design points.

Table IV. F. 2-1, Comparison of Existing and Future Condition Peak Rates of Runoff, provides the peak rates of runoff to the design line on Lots 1 and 3 for the modeled storm events.

Table IV. F. 2-1 Comparison of Existing and Future Condition Peak Rates of Runoff

Drainage Area/Storm Interval	1 year	2 year	10 year	25 year	100 year
Existing Condition Flows to Design Line on Lot 1	0.05	0.18	0.70	1.14	1.88

Future Condition Flows to the Design Line on Lot 1	0.03	0.09	0.33	0.81	1.74
Existing Condition Flows to Design Line on Lot 3	0.02	0.08	0.42	0.72	1.24
Future Condition Flows to the Design Line on Lot 3	0.02	0.06	0.19	0.50	1.12

Note: All flows are in cubic feet per second.

The results in the table show that peak rates of runoff would be reduced if the two lots were developed in the future with the stormwater management mitigation measures proposed, as compared to current peak runoff rates.

- Description of potential effects to water quality of receiving water body and post development pollutant loading, based on criteria in the 2010 New York State *Stormwater Management Design Manual* and the above noted NYSDEC SPDES General Permit.

To ensure that the project will have minimal impact on surface waters of the State, the stormwater management plan has been designed to capture and treat the Water Quality Volume (WQv) in accordance with the 2010 New York State *Stormwater Management Design Manual.* The stormwater management plan for the property has been designed to meet the requirements of the Village of Mamaroneck. The Village requires that stormwater management plans meet the DEC Phase 2 Storm Water Pollution Prevention Plan (SWPPP) regulations. In addition, treatment of 100% of the Water Quality Volume is required.

In the 2010 New York State *Stormwater Management Design Manual*, it states that "the Water Quality Volume is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume." The inherent assumption of the State Department of Environmental Conservation is that if the stormwater management measures capture and treat 90% of the annual runoff from a property (i.e. the water quality volume), then the water quality of the runoff will be improved.

In order to assess the benefits of the proposed stormwater treatment facilities, the Simple Method was employed to determine the existing condition and future condition pollutant loading. The Simple Method, which was developed by Schueler (1987), is a method to simply and easily calculate a pollutant loading from a site. The methodology was presented in Appendix A of the 2001 New York State *Stormwater Management Design Manual.* Table IV. F. 2-2 presents the pollutant loading for total nitrogen and total phosphorus, which are the principal potential pollutants of concern in freshwater and saline environments, in the existing and future conditions calculated using the Simple Method. Detailed calculations can be found in Appendix D.

Table IV. F. 2-2
Comparison of Existing and Future Condition Total Nitrogen and Phosphorus

	Existing Condition	Future Condition Proposed Development	Future Condition Full Build Out
Total Nitrogen (lbs/yr)	19.38	7.71	9.22
Total Phosphorus (lbs/yr)	3.32	0.87	1.05

Pollutant loading for total nitrogen and total phosphorus was obtained from the Stormwater Manager Resource Center web site, which is managed by the Center for Watershed Protection (www.stormwatercenter.net). Pollutant removals were obtained from suggested values from Appendix A of the 2001 New York State *Stormwater Management Design Manual.* A rain garden is considered a filtering practice; the rechargers are an infiltration practice. The calculations using the Simple Method show that there is a benefit to treating the stormwater from the future potential redeveloped lots when compared to the present condition, as there would be a reduction in the amount of total nitrogen and total phosphorus that would be discharged to Otter Creek and Long Island Sound.

- Analysis of potential surface water quality impacts from the two proposed house lots.

On Lot 1, the site constraints of relatively shallow bedrock and the proximity of the freshwater wetland buffer favor the use of a stormwater management practice such as a rain garden, which can provide water quality improvement if there is at least a few feet of unsaturated soil below the bottom of the facility. The site plans depicting a typical development on Lot 1 therefore show a rain garden which would be used to capture and treat the water quality volume and provide peak rate attenuation for all of the modeled storms, from the 1 through 100 year recurrence interval storms.

The rain garden has been designed so that the entire 1-year storm is captured in the facility. A 1-year storm (2.8 inches of precipitation) falling on the property would not generate any runoff. There would be no surface outflow from the rain garden. All of the runoff generated by the developed house site would be infiltrated into soils below the rain garden. For the 2 through 100-year storm events (3.5 inches to 7.5 inches of precipitation), a portion of the runoff will exit the rain garden through an outlet control structure which is to consist of a 45-degree V-notch weir and rectangular weir. Runoff so discharged would be conveyed via overland flow across the wooded area within the freshwater wetland buffer, where there is additional opportunity for treatment by infiltration into the soils.

With the deeper soils that are present on Lot 3, infiltration is feasible. For the typical lot development depicted on Lot 3, the stormwater management facility would consist of 18 Cultec 330XLHD chambers arranged in 3 rows of 6 chambers placed end to end. This recharger facility has the capacity to capture and treat all of the runoff up to the 1-year storm event (i.e. there will be no runoff from the house and driveway exiting the rechargers during the 1-year storm, except for that which infiltrates into the soils beneath the recharger chambers). In the event of a precipitation event that is in excess of the 1 year storm, the treated runoff would be discharged to a level spreader, and conveyed via overland flow across the wooded area within the freshwater wetland buffer.

With regard to the existing house on the future Lot 2, in the year 2003 during the approvals process before the Village, the applicant's architect submitted calculations which quantified the volume of runoff from the new impervious surfaces. Percolation tests were also performed to determine the ability of the site's soils to accept runoff. To mitigate the impact of the development of 1000 Taylors Lane, the existing house on the property has 3 infiltration facilities, each one consisting of 8 recharger chambers. These facilities provide both water quality improvement and some peak rate attenuation of the runoff.

The proposed subdivision of the subject property will not create any new impervious surfaces on the future Lot 2, the existing house on the subject site. The infiltration facilities which were installed at the time of the development of the house at 1000 Taylors Lane were designed to meet the standard of no increase in runoff from the property for all storms up to the 25 year storm event. Calculations for sizing the stormwater management facilities that were installed on the future Lot 2 were submitted to the Village as part of the approvals process for the house.

- Description of potential flood impacts, construction methods, and compliance with Village permit requirements.

According to the Federal Emergency Management Agency, the 100-year flood elevation at the property is 13 feet (NAVD, 1988). A portion of the property does lie within FEMA Zone AE. The 100-year flood is not necessarily related to the 100-year precipitation event (i.e. 7.5 inches of precipitation in 24 hours). Since Otter Creek is tidal, the 100-year flood can also occur during a cyclonic storm, as a result of low barometric pressure and prolonged strong easterly winds.

The topography of the property is depicted in the same North American Vertical Datum, 1988. The plans show that the two new lots can readily be developed without impacting the areas of the property subject to the 100-year flood.

With regard to the Village's requirements for construction, the following standards are applicable to subdivisions:

a) Proposals shall be consistent with the need to minimize flood damage.
b) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage.
c) Adequate drainage shall be provided to reduce exposure to flood damage.

Within Zones A1-A30 and AE, on streams without a regulatory floodway, no new construction, substantial improvements or other development (including fill) shall be permitted unless:

a) The applicant demonstrates that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any location.

b) The Village of Mamaroneck agrees to apply to the Federal Emergency Management Agency (FEMA) for a conditional FIRM revision, FEMA approval is received and the applicant provides all necessary data, analyses and mapping and reimburses the

Village of Mamaroneck for all fees and other costs in relation to the application. The applicant must also provide all data, analyses and mapping and reimburse the Village of Mamaroneck for all costs related to the final map revision.

With regard to the project as depicted on the site plans, no portion of the proposed construction is planned within the area of the site subject to the 100-year flood (the base flood elevation for all lots is 13 feet). Specifically, the basement and first floor of the house on Lot 1 is shown at a finished floor elevation of 14.5 feet and 24.5 feet, respectively. The basement elevation is fully 1.5 feet above the base flood elevation. On Lot 3 the basement and first floor finished floor elevations are 17.5 feet and 27.5 feet, respectively. In the event there is the 100-year flood, the maximum extent of flooding will not directly impact the dwelling. In addition, the site work in the rear yards of both houses are set at a grade that is above the elevation of the 100-year flood.

As was noted above, the site plan for the property shows that all structures on the property can be readily placed so that the finished floor elevation of the houses, including basements and garages, will be well above the 100-year flood elevation. Furthermore, the grading of the property can be done (as is demonstrated in the site plans) without impacting the flood storage of the Otter Creek floodplain. Therefore, no Floodplain Development Permit would be required for construction of the houses on either of the two new lots.

- Discussion of any anticipated impacts to flooding or stormwater management from the effects of climate change.

It is the applicant's opinion that climate change is not "settled science" and remains controversial. Clearly there have been changes in the climate of the earth in its recent past. For example, the last glacial period in the North American continent ended approximately 10,000 years ago; the glacial ice was at its maximum extent about 21,000 years ago. At its maximum extent, the glacial ice covered the northern half of the North American continent. The levels of the oceans were considerably lower during the glacial period. Neither the cause of the most recent continental-wide glaciation, nor the changes that resulted in the gradual warming of the earth since that time are well understood. What the overall temperature of the earth will be during the next 10,000 years is certainly subject to speculation and conjecture, as there are many factors that could influence the temperature of the planet, including, but not limited to greenhouse gases in the atmosphere, such as carbon dioxide and water vapor, dust and other atmospheric pollutants, and the overall energy output of the sun, to name just a few.

The Village of Mamaroneck draft LWRP and its Comprehensive Plan both discuss the potential effects of climate change in relation to sea level rise, based on state and federal reports. If the sea level in Long Island Sound rises from its current range, changes in flooding patterns could occur and stormwater management could be affected. Currently, all structures, including basements, garages, and stormwater management facilities on the proposed lots would be located above the 100-year flood elevation. Furthermore, the grading of the property could be done without impacting the flood storage of the Otter Creek floodplain.

According to the LWRP Working Draft, a task force created by the New York State Legislature released a report on sea level rise stemming from climate change. Sea level rise could lead to inundation and flooding above current levels. Impacts to the proposed project could include

flooding in the basements of the residences, should they be constructed. The basement of the residence on Lot 1 would likely flood if levels were to occur at 1.5 feet or greater above current 100-year flood levels. Flooding in the basement of the residence on Lot 3 would not occur until 4.5 feet or greater above current 100-year flood levels. And flooding would have to occur at levels 10 feet higher than those discussed above in order to impact the living spaces (above the basements) of the residences. Stormwater management facilities may be temporarily impacted by flooding and inundation of the property. Infiltration within the stormwater basin may be temporarily limited until the flooding subsides. However, there is no septic system on the property, so the pollutants associated with waste treatment systems would not be released in to the surrounding habitat.

3. Proposed Mitigation

- Description of permanent mitigation measures to manage quantity and quality of stormwater runoff.
- Description of Best Management Practices (BMPs).

In order to comply with the DEC Phase 2 Storm Water Pollution Prevention Plan (SWPPP) regulations and the regulations of the Village of Mamaroneck, each of the proposed new lots would have its own stormwater management facilities. The stormwater management facilities would ensure that: (1) the peak rate of runoff from each of the two new lots is no greater following their development than at present, and (2) the water quality volume is captured and treated in accordance with the 2010 New York State *Stormwater Management Design Manual.*

The 2010 New York State *Stormwater Management Design Manual* does require the use of green infrastructure techniques in the design of stormwater management measures. The site plans for the two new lots illustrate the use of green infrastructure in the design in order to provide a level of pre-treatment of the runoff from the new impervious surfaces and to reduce the volume of runoff by providing opportunities for infiltration into the site soils and through biological uptake by vegetation.

Methods that are readily incorporated into the design include: (1) conservation of natural areas – the preservation of the entire freshwater wetland buffer as a wooded area, (2) sheet flow from roof drains and other impervious surfaces to vegetated swales, (3) the use of a vegetated swale to convey runoff from the new impervious surfaces to the stormwater management facility on the lot, (4) tree planting adjacent to new impervious surfaces, (5) disconnection of roof runoff to pervious areas of the lots, (6) rain gardens to manage and treat the runoff from the developed lot, and (7) sheet flow of treated and managed runoff from the rain gardens and subsurface rechargers to the wooded wetland buffer area where there would be additional opportunity for infiltration into the site's soils and biological uptake from vegetation.

A variety of erosion and sediment control measures would be installed on both of the new house lots prior to construction in order to assure that the impacts to the wetland buffer, and the tidal and freshwater wetlands, will be minimized or avoided.

The plans depict various erosion and sediment control measures that would be installed prior to and during construction of the house lots including: (1) silt fence at the downgradient limit of

disturbance to trap sediment while permitting runoff water to pass through the fabric, (2) construction fencing as an added measure at the limits of disturbance to ensure that construction does not impact areas of the site to be left in their current state, such as the wooded wetland buffer, (3) stabilized construction entrances to both lots to minimize the tracking of mud and soil from the disturbed areas of the site to the public streets, (4) check dams in vegetated swale to minimize the transport of sediment in the swale, (5) inlet protection surrounding catch basins to minimize the amount of sediment that would be conveyed into the storm drainage piping. See Exhibit IV. F. 3-1, Erosion and Sediment Control Plan. The construction sequence for lot development is located in Appendix F.

Following the construction of the house lots, the sites would be stabilized with vegetation. The disturbed ground surfaces would be spread with a minimum of 4" of topsoil from the stockpiles. Lawn areas would be established. Trees and shrubs would be planted which would further stabilize the ground surface. Plants would also be installed in the rain garden on Lot 1. The plants would stabilize the rain garden while providing opportunities for biological uptake of nutrients, such as nitrogen and phosphorus.

V. ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with the Scope and discussions with the Village of Mamaroneck Planning Board, several alternatives to the proposed project are presented:

Alternative A – No Action (required under SEQRA)
Alternative B – Two Lot Subdivision
Alternative C – Limits to Area of Disturbance
Alternative D – Maximum Build-Out of Three Lot Subdivision

A. ALTERNATIVE A - NO ACTION

Under this alternative, the property would not be subdivided but would remain a single 5.17 acre property. No new houses would be constructed on the property. See Figure V. A. 1, No Action.

However, additional amenities could still be constructed on the property. Depicted is a regulation size tennis court to the south of the existing house, and a 36' x 18' swimming pool, to the north of the house. Also shown is a pool house or cabana to the north of the pool, and a 20' x 12' garden shed to the southwest of the house.

The tennis court and pool would be located within the side yard and building setbacks, outside of the freshwater wetland and tidal wetland buffers, as well as outside of the lands subject to the 100-year flood. Additional landscape screening would be installed to the south and east of the tennis court, and to the east and north of the pool, in order to screen these amenities from the street and neighbors.

Building coverage calculations for the principal building, garden shed, tennis court, and pool, pool terrace, and pool house are shown below.

Exhibit IV.F.3-1

EROSION & SEDIMENT CONTROL PLAN

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

October 20, 2011

PROPOSED LOT 1:
2.456 ACRES

PROPOSED LOT 3:
1.518 ACRES

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

PROPOSED RAIN GARDEN FOR STORMWATER MANAGEMENT PURPOSES

Rain Garden outlet control

PROPOSED SINGLE FAMILY HOUSE
F.F. ELEV 24.5
BASEMENT ELEV. 14.5

PROPOSED GARAGE FLOOR ELEV. 21.15

PROPOSED GARAGE FLOOR ELEV. 27.0

PROPOSED SINGLE FAMILY HOUSE
F.F. ELEV 27.5
BASEMENT ELEV. 17.5

Recharger Field #2
18 Cultec 330 HD chambers
Top of Chambers 16.79'
Bottom of Chambers 14.25'
Bottom of Stone 13.75'
Inv. into/out of chambers 15.25'

CB #2/Pre-Treatment Facility – 16 l.f. of 48" diameter CPDP pipe
Top 18.4
Inv. 16.75

CB #2
Top 17.3
Inv. 15.5

CB #3
Top 18.5
Inv. 16.85

CB #4
Top 28.5
Inv. 26.5

CB #5
Top 20.0
Inv. 17.83

CB #5
Top 26.5
Inv. 24.8

C.O. #1
Top 23.6
Inv. 21.5

C.O. #2
Top 20.0
Inv. 18.5

DCS/CB #1
Top 18.0
Inv. 16.2

Inv. 16.1

Inv. 16.3

Inv. 13.0

Inv. 20.0

Inv. 22.0

Inv. 27.5

LIMIT OF DISTURBANCE

GRASSED SWALE

Edge of Reeds

Limit Line

Remains of Rough Stone Wall

Rock

Curb

Edge of Blacktop

Water Valve

Gas Valve

Utility Pole

Overhead Wires

SMH 4" PVC's

MEET ROAD @ ELEV. 31.0

N 51°29'20" W

S 31°27'46" W

N 26°54'40" E 102.70'

S 34°16'30" E 559.96'

Taylors Lane

Barry Drive

North

0 15' 30' 120'

Scale: 1 inch = 30 ft.

LEGEND

- LMIIT OF DISTURBANCE
- SF — SILT FENCE
- IP — INLET PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- RR — 5'x5' RIP RAP APRON
- CF — ORANGE GEOGRID CONSTRUCTION FENCE
- CD — STONE CHECK DAM

Exhibit V.A.1

NO ACTION

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

June 13, 2012

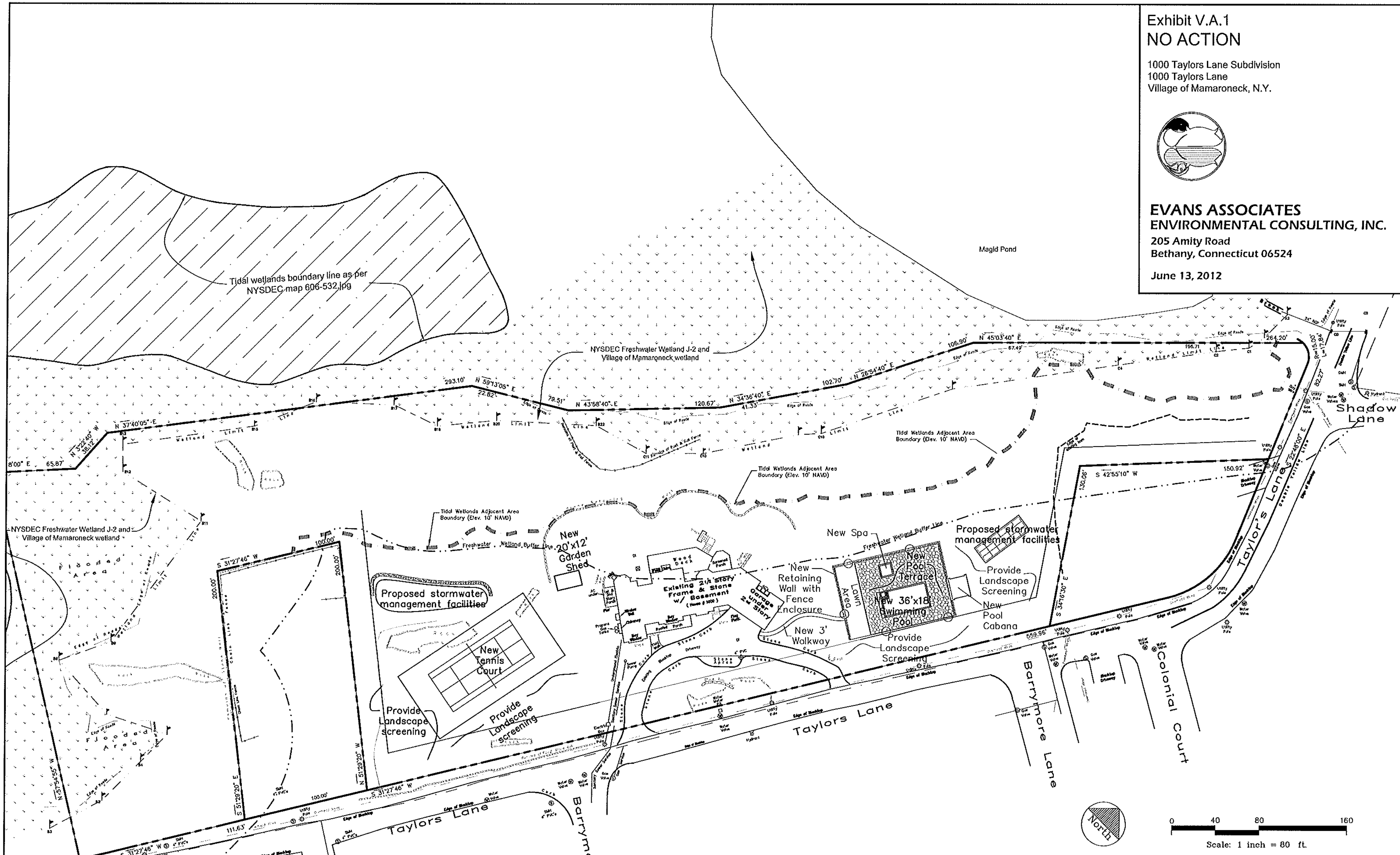


Table V. A. 1 Building Coverage Calculations for No Action Alternative

Building or Structure	Applicable Area (in square feet)
Principal building	6,280 s.f.
Garden Shed (20'x12')	240 s.f.
Tennis Court	7,200 s.f.
Pool, Pool Terrace, and Pool House	4,310 s.f.
Total	18,030 s.f.

Building coverage would be (18,030 s.f./225,144 s.f.) 8.01%, well below the maximum permitted 35%. The floor area ratio for this alternative would be 0.057 (12,385 s.f./225,146 s.f.), also well below the maximum permitted 0.35.

B. ALTERNATIVE B - TWO LOT SUBDIVISION

Under this alternative, the property would be subdivided into two lots. Two versions of this alternative are considered. In Alternative B.1, Lot 1 would include the existing house and would be 3.65 acres in size. Lot 2, which would be created in the northern portion of the property, would be 1.52 acres. See Figure V. B. 1, Two Lot Subdivision.

Additional amenities could still be constructed on Lot 1, such as a tennis court (as is depicted on the figure). Also shown is a 20' x 12' garden shed to the southwest of the house.

The tennis court would be located within the side yard and building setbacks, outside of the freshwater wetland and tidal wetland buffers, as well as outside of the lands subject to the 100-year flood. Additional landscape screening would be installed to the south and east of the tennis court to screen it from the street and neighbors.

Building coverage calculations for the principal building, garden shed, and tennis court would be (13,720 s.f./159,031 s.f.) 8.63%, well below the maximum permitted 35%. The floor area ratio for this alternative would be 0.057 (12,385 s.f./159,031 s.f.), also well below the maximum permitted 0.35. Building coverage for Lot 2 would be (3,750 s.f./66,114 s.f.) 5.67%, well below the maximum permitted 35%. The floor area ratio for Lot 2 would be 0.166 (11,000 s.f./66,114 s.f.), also well below the maximum permitted 0.35.

In Alternative B.2, Lot 2 would include the existing house and would be 2.71 acres in size. Lot 1, which would be created in the southern portion of the property, would be 2.46 acres in size. See Figure V. B. 2, Two Lot Subdivision. Additional amenities could still be constructed on Lot 2, such as a swimming pool (as is depicted on the figure), as well as the required stormwater management facilities. The pool, pool terrace, and pool cabana would be located within the side yard and building setbacks, outside of the freshwater wetland and tidal wetland buffers, as well as outside of the lands subject to the 100-year flood. Additional landscape screening would be installed to the north and east of the pool to screen it from the street and neighbors.

Exhibit V.B.1

TWO LOT SUBDIVISION

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

June 13, 2012

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

New Property Line

Building Setback Line (typ.)

New 20'x12' Garden Shed

New stormwater management facility

New tennis Court

Provide Landscape screening

LOT 1: 159,031 s.f.

LOT 2: 66,114 s.f.

Existing 2½ STORY Frame & Stone w/ Basement

Garage under 2½ story

New Single Family House

Garage

Driveway to New Single Family House

New Walkway

New stormwater management facility

Taylors Lane

Barrymore Lane

Colonial Court

Flooded Area

North

0 35' 70' 140'

Scale: 1 inch = 70 ft.

Exhibit V.B.2

TWO LOT SUBDIVISION

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

June 13, 2012

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

New Property Line

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

LOT 1: 106,980 s.f.

LOT 2: 118,166 s.f.

Proposed Stormwater Management Facility

New Single Family House

New Driveway to House

Existing 2½ Story Frame & Stone w/ Basement (Home # 1000)

Garage Under 2½ Story

New Retaining Wall & Fence Enclosure

Lawn Area

New 36'x18' Swimming Pool

New Cabana

Provide Landscape Screening

New 3' Walkway

Taylors Lane

Barrymore Lane

Colonial Court

Taylor's Lane

North

0 35' 70' 140'

Scale: 1 inch = 70 ft.

Building coverage calculations and floor area ratio for this alternative are again well below the maximum permitted 35% and 0.35. Lot 1 would have a building coverage of (2,950 s.f. / 106,980 s.f) 2.76% and a floor area ratio of (9,595 s.f. / 106,980 s.f.) 0.09. Lot 2 would have a building coverage of (10,590 s.f./ 118,166 s.f) 9.0% and a floor area ration of (12,385 s.f. / 118,166 s.f.) 0.10.

C. ALTERNATIVE C - LIMITS TO AREA OF DISTURBANCE

- Relinquishment of Property Rights Within Wetland Buffer (by transfer to Nature Conservancy or Village, or by use of Conservation Easement)
- Creation of a 4th Lot to Consist of the Area Within Wetland Buffer

Under the first alternative, a conservation easement would be placed over most of the property that lies within the State 100-foot freshwater wetland adjacent area. See Figure V. C. 1, Limits to Area of Disturbance. On Lots 1 and 3, the conservation easement would be drawn about 1 to 2 feet on the upland side of the limit of the 100-foot adjacent area. On Lot 2, the conservation easement would be drawn essentially 5 feet away from the existing serpentine retaining wall, so as to permit sufficient space for the maintenance of the wall by personnel and equipment.

Under the second alternative, the subject property would be divided into 4 lots, consisting of three building lots and one open space lot that essentially would be nearly coincident with the wetland buffer line. See Figure V. C. 2, Limits to Area of Disturbance.

Lot 1, the southernmost lot, would be 28,847 square feet in size. The rear lot line would be nearly coincident with the 100-foot wetland buffer line; the side lot lines would be the same as the other subdivision alternatives presented herein. A new single family house would be constructed on this lot. Lot 2 would consist of the existing single family house on the property. This lot would be 36,149 square feet in size. The rear lot line would extend past the freshwater wetland buffer line to include the existing serpentine retaining wall in the yard. Finally, Lot 3, which would be created in the northern portion of the property, would be 21,842 square feet in size, and would also contain a new single family house.

Accordingly, under this alternative the house on Lot 1 would have a footprint of 2,950 s.f. With a full walk-out basement (2,220 s.f.), a first and second floor (2,950 s.f.), plus attic space (at 50% of the footprint size, 1,475 s.f.), the house would have a floor area of about 9,595 s.f. The floor area ratio of this house would be 0.333 (9,595 s.f./28,847 s.f.). Building coverage would be 10.2% (2,950 s.f./28,847 s.f.). Both building coverage and FAR would be less than the maximum of what is permitted in the R-15 district zone.

The existing house on new Lot 2 has a footprint of 5,266 s.f., including all porches. The floor area of the house is 12,385 s.f. The floor area ratio of this house would be 0.342 (12,385 s.f./36,149 s.f.). Building coverage would be 14.6% (5,266 s.f./36,149 s.f.). Both building coverage and FAR would be less than the maximum of what is permitted in the R-15 district zone.

The new house on Lot 3 would have a footprint of 2,100 s.f. With a full walk out basement (1,400 s.f.), a first and second floor (2,100 s.f. each), plus attic space (at 40% of the 2,100 s.f.

Exhibit V.C.1

LIMITS TO AREA OF DISTURBANCE

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

June 13, 2012

Conservation Easement

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

PROPOSED CONSERVATION EASEMENT AREA (78,458 S.F.)

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

LOT 1
106,979 SQ FEET

LOT 2
52,051 SQ FEET

LOT 3
66,115 SQ FEET

Existing 2½ Story Frame & Stone w/ Basement

Garage under 2 st Story

New Single Family House

New Driveway to House

Proposed Stormwater Management Facility

Taylors Lane

Barrymore Lane

Colonial Court

Taylor's Lane

North

0 35' 70' 280'

Scale: 1 inch = 70 ft.

Exhibit V.C.2

LIMITS TO AREA OF DISTURBANCE

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

July 17, 2012

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

LOT 4: 138,307 sq feet

LOT 1: 28,847 sq feet

LOT 2: 36,149 sq feet

LOT 3: 21,842 sq feet

New Property Line

Freshwater Wetland Buffer Line

Proposed Stormwater Management Facility

New Single Family House

New Driveway to House

Existing 2½ Story Frame & Stone Basement w/ (Name # 1408)

Garage 2 Under 1 Story

Taylors Lane

Barrymore Lane

Colonial Court

Flood Area

North

0 35' 70' 140'

Scale: 1 inch = 70 ft.

footprint, the floor area would be 6,440 s.f. The floor area ratio of this house would be 0.295 (6,440 s.f./21,842 s.f.). Building coverage would be 9.6% (2,100 s.f./21,842 s.f.). Both building coverage and FAR would be less than the maximum of what is permitted in the R-15 district zone.

D. ALTERNATIVE D – MAXIMUM BUILD-OUT OF THREE LOT SUBDIVISION

Under this alternative, as requested by the Planning Board, the houses on the two additional lots (Lots 1 and 3) would be built out to the maximum permitted by zoning (see Figure V. D. 1, Maximum Build-Out of Three Lot Subdivision). Under the R-15 One Family District Zone, the maximum coverage that is permitted for all buildings is 35%, and the maximum floor area ratio (FAR) that is permitted is 0.35.

Accordingly, this alternative shows a maximum build-out on the two new lots. The house on Lot 1 would have a footprint of 9,450 s.f. With a full walk-out basement, a first and second floor, plus attic space, the house would have a floor area of about 35,438 s.f. The floor area ratio of this house would be 0.331 (35,438 s.f./106,980 s.f.). Building coverage would be 8.83% (9,450 s.f./106,980 s.f.). Both building coverage and FAR would be less than what is permitted in the R-15 district zone.

The new house on Lot 3 would have a footprint of 6,180 s.f. With a full walk out basement, a first and second floor, plus attic space, the house would have a floor area of about 23,100 s.f. The floor area ratio of this house would be 0.349 (23,100 s.f./66,115 s.f.). Building coverage would be 9.32% (6,180 s.f./66,115 s.f.). Both building coverage and FAR would be less than what is permitted in the R-15 district zone.

E. COMPARISON OF ALTERNATIVES TO PROPOSED ACTION

All of the alternatives discussed in this section have been developed in accordance with the existing zoning and environmental regulations of the Village of Mamaroneck. The following table compares the various alternatives to the proposed three lot subdivision.

Table V. A. 2 Comparison of Proposed Action and Alternatives

Alternative	Building Coverage	Floor Area Ratio
	Lot 1 Lot 2 Lot 3	Lot 1 Lot 2 Lot 3
Proposed Action	2.86%, 12.07%, 5.37%	0.08, 0.24, 0.19
A.1 No Action	8.01%	0.06
B.1 Two Lot – North	8.63%, 5.67%	0.06, 0.17
B.2 Two Lot – South	2.76%, 9.0%	0.09, 0.10
C.1 Conservation Easement	2.86%, 12.07%, 5.37%	0.08, 0.24, 0.19
C.2 Open Space Lot	10.2%, 14.6%, 9.6%	0.33, 0.34, 0.29
D.1 Maximum Build-Out	8.83%, 12.07%, 9.32%	0.33, 0.24, 0.35

Note: Maximum permitted building coverage in R-15 district zone is 35%.
Maximum FAR in R-15 district zone is 0.35

Exhibit V.D.1

MAXIMUM BUILD-OUT OF THREE LOT SUBDIVISION

1000 Taylors Lane Subdivision
1000 Taylors Lane
Village of Mamaroneck, N.Y.

EVANS ASSOCIATES
ENVIRONMENTAL CONSULTING, INC.
205 Amity Road
Bethany, Connecticut 06524

June 13, 2012

Tidal wetlands boundary line as per NYSDEC map 606-532.jpg

NYSDEC Freshwater Wetland J-2 and Village of Mamaroneck wetland

Magid Pond

PROPOSED LOT 1: 2.456 ACRES

PROPOSED LOT 2: 1.195 ACRES

PROPOSED LOT 3: 1.518 ACRES

Tidal Wetlands Adjacent Area Boundary (Elev. 10' NAVD)

Freshwater Wetland Buffer Line

New Property Line

Proposed Stormwater Management Facility

New Single Family House

Existing 2½ Story Frame & Stone Basement w/ (Name # 1008)

Garage Single 2.4 Story

New Driveway to House

New wall

Taylors Lane

Barrymore Lane

Colonial Court

Taylor's Lane

Flooded Area

North

0 35' 70' 140'

Scale: 1 inch = 70 ft.

VI. OTHER ENVIRONMENTAL EFFECTS

A. ADVERSE IMPACTS THAT CANNOT BE AVOIDED

- Identification of significant long-term and short-term construction impacts (including construction noise) that cannot be avoided.

Currently, no development is proposed for the property subdivision. However, if development should occur in the future, certain adverse impacts would be unavoidable. The potential development of the property would have certain long- and short-term impacts as would any development of the property. All significant adverse impacts resulting from the proposed development will be mitigated to the maximum extent practicable. Some of these impacts and mitigation are discussed within previous chapters of this document.

The potential long- and short-term impacts are listed below:

Short-Term Impacts

Short-term impacts are generally related to construction activities occurring on site that cannot be avoided, such as: traffic generation from construction workers and deliveries, noise impacts from construction equipment and traffic, air quality impacts from construction activities and equipment (including exhaust, emissions, and dust), potential erosion, and possible blasting. Best management practices (BMP's) would be followed to minimize the short-term impacts that may occur on the property. These BMP's are followed in accordance with the sediment and erosion control plan developed for the potential homes. The potential erosion control/construction sequence narrative for lot development is shown in Appendix F.

Long-Term Impacts

Potential long-term impacts could result from operational activities on the project site. The long-term impacts listed below are unavoidable, but not necessarily significant. They include: Tree removal within approximately 1.01 acres for the eventual construction of the 2 new houses; soil disturbance, and increase in impervious surface (the 2 new proposed lots will not contain impervious surfaces, however development of the lots with residences and driveways could produce up to about 12,000 square feet of new impervious surfaces). Runoff from impervious surfaces would be treated in a stormwater management system as detailed in Section F, and in the Stormwater Management Report in Appendix D.

B. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Currently, no development is proposed, and therefore no commitment of resources will occur. However, if development should occur in the future, certain resources would be consumed, converted, or made unavailable for future use. These resources include: consumption of gasoline, oil, and electricity to be used in the operation and maintenance of construction equipment; commitment of resources for building materials (such as wood, brick, stone, concrete, paint, and topsoil); use of water, electricity, and natural gas and/or oil by potential future residents; possible use of solid waste disposal, and police and fire protection during and

after construction.

C. USE AND CONSERVATION OF ENERGY

If the 2 lots are developed, during construction, energy would be used for construction vehicles, equipment, and related uses. Once potential construction is completed, the 2 single-family homes would utilize similar energy resources as the surrounding neighborhood. Energy resources that would be used include, but are not limited to: electricity, natural gas, fossil fuels, and water.

D. GROWTH-INDUCING CUMULATIVE AND SECONDARY ASPECTS

- Identification of the cumulative impact of development of the site, including the existing house and associated infrastructure.

No growth-inducing aspects would occur if the 2 lots were developed as single-family residences. No zoning changes are proposed, and sewer and water infrastructure would be connected to sewer and water lines that are already established along Taylor Lane. Any further subdivision of the property in the future beyond the currently-proposed 3-lot subdivision would also presumably follow zoning regulations and use existing infrastructure. Therefore, if permitted by the Village, this additional subdivision of the property would similarly not contain any growth-inducing aspects.

REFERENCES

Bochnik, Michael. A Guide to the Birds of Westchester County (Revised 2011). Available online at http://www.hras.org/birdguide.html. Published and updated by Hudson River Audubon Society of Westchester.

DeGraaf, Richard M., and Mariko Yamasaki. *New England Wildlife: Habitat, Natural History and Distribution*, University Press of New England, Hanover, NH, 2001.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. (Draft for review). New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Klemens, Michael W., PhD. *Amphibians and Reptiles of Connecticut and Adjacent Regions*, State Geological and Natural History Survey of Connecticut, 1993.

McGowan, Kevin J., and Kimberly Corwin, ed. *The Second Atlas of Breeding Birds in New York State*, New York State Department of Environmental Conservation, 2008.

New York State Department of Environmental Conservation. *List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State*. Available online at http://www.dec.ny.gov/animals/7494.html.

New York State Department of Environmental Conservation. *New York State Amphibian and Reptile Atlas Project*. Available online at http://www.dec.ny.gov/animals/7140.html

New York State Department of Environmental Conservation, *Osprey Fact Sheet*, NYS DEC Endangered Species Unit. Albany, NY.

New York State Department of Environmental Conservation. *New York State Stormwater Management Design Manual*, Albany, NY, 2001.

New York State Department of Environmental Conservation. *New York State Stormwater Management Design Manual*, Albany, NY, 2010.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/

United States Department of Agriculture, Soil Conservation Service, in cooperation with Cornell University Agricultural Experiment Station. *Soil Survey of Putnam and Westchester Counties, New York*. U.S. Government Printing Office, 1994.