

Draft April 15, 2020

## STATE ENVIRONMENTAL QUALITY REVIEW ACT FINDINGS STATEMENT

### *HAMPSHIRE COUNTRY CLUB PLANNED RESIDENTIAL DEVELOPMENT*

---

Pursuant to the State Environmental Quality Review Act ("SEQRA"), Article 8 of the Environmental Conservation Law, and 6 NYCRR Part 617, the Village of Mamaroneck Planning Board (the "Planning Board"), as the SEQRA Lead Agency, makes the following findings:

**Name of Action:** Hampshire Country Club Planned Residential Development (the "Project")

**Description of Action:** The Project is a proposed new, 105-housing unit Planned Residential Development ("PRD") comprised of 44 single-family homes and 61 semi-detached carriage houses (28 two-family and 33 three-family lots) located on a portion of the existing Hampshire Country Club golf course in the Village of Mamaroneck, NY. The Project includes downsizing of the existing 18-hole golf course to a 9-hole course, conversion of 30.6 acres of land into common open space, and introduction of seven new tennis courts that would replace seven existing courts for on-site recreation. Site development requires modification and improvements to three existing access roads, addition of a new internal roadway, grading activities, import of clean fill to cover contaminated on-site soils and to elevate portions of the site above the 100-year tidal floodplain, stormwater management facilities, connection to public water and sewer facilities, and landscaping.

**Project Location:** 1025 Cove Road, Village of Mamaroneck, Westchester County, New York 10543 (the "Site").

**Tax Parcel IDs:** 9-42-568 (Village of Mamaroneck) and 4-14-20 (Town of Mamaroneck)

**Acceptance Date of Final Environmental Impact Statement:** April 6, 2020

**Lead Agency:** Village of Mamaroneck Planning Board

**Address:** 169 Mt Pleasant Avenue  
Third Floor  
Mamaroneck, NY 10543  
Contact: Betty-Ann Sherer, Land Use Coordinator  
(914) 825 – 8758  
Bsherer@vomny.org

**SEQR Classification:** Type I

**Date FEIS Filed:**

## Table of Contents

1. Agency Jurisdiction and Description of SEQRA Process	1
2. Description of Proposed Project	4
3. Existing Environmental Conditions, Anticipated Impacts and Proposed Mitigation	6
A. Land Use, Zoning and Public Policy	6
B. Community Character and Visual Resources	12
C. Geology, Soils, Topography and Steep Slopes	15
D. Groundwater Resources	18
E. Surface Water Courses and Wetlands	19
F. Stormwater Management	22
G. Floodplains	25
H. Water Supply	31
I. Sanitary Sewage	32
J. Solid Waste	34
K. Vegetation and Wildlife	35
L. Critical Environmental Area	38
M. Traffic, Transit and Pedestrians	40
N. Community Demographics, Facilities and Services	47
O. Fiscal and Economic Conditions	52
P. Historic and Cultural Resources	54
Q. Environmental Contamination	55
R. Noise	59
S. Air Quality	61
T. Alternatives to the Project	62
U. Significant Impacts That Cannot Be Avoided	65
V. Growth Inducing Aspects	66

Draft April 15, 2020

W. Effects on the Use and Conservation of Energy	67
X. Irreversible and Irretrievable Commitment of Resources	68
4. Certification to Deny	69

## 1. AGENCY JURISDICTION AND DESCRIPTION OF SEQRA PROCESS

The following agencies have jurisdiction over one or more aspects of the Project.

Agency	Approval/Review
Village of Mamaroneck Planning Board	<ul style="list-style-type: none"><li>• Site Plan</li><li>• Subdivision</li><li>• Special Permit</li><li>• Stormwater Pollution Prevention Plan (SWPPP)</li><li>• Floodplain Variance</li></ul>
Village of Mamaroneck Building Department	<ul style="list-style-type: none"><li>• Floodplain Development Permit</li><li>• Building Permit</li><li>• Excavation Permit</li></ul>
Village of Mamaroneck Board of Architectural Review	<ul style="list-style-type: none"><li>• Building Permit Application Approval</li></ul>
Village of Mamaroneck Department of Public Works (DPW)	<ul style="list-style-type: none"><li>• Street Opening Permit</li></ul>
Village of Mamaroneck Harbor and Coastal Zone Management Commission (HCZMC)	<ul style="list-style-type: none"><li>• Waterfront Revitalization Program consistency review</li></ul>
Westchester County Health Department	<ul style="list-style-type: none"><li>• Water and Sanitary Sewer service</li></ul>
Westchester County Department of Environmental Facilities	<ul style="list-style-type: none"><li>• Sanitary Sewer Permits</li></ul>
Westchester Joint Water Works (WJWW)	<ul style="list-style-type: none"><li>• Water Service Permits</li></ul>
New York State Department of Environmental Conservation (NYSDEC)	<ul style="list-style-type: none"><li>• SWPPP</li><li>• Stormwater Pollution Discharge Elimination System (SPDES) permit</li></ul>
US Army Corps of Engineers (USACOE)	<ul style="list-style-type: none"><li>• Possible permit for filling of drainage ditches</li></ul>

The following outlines the SEQRA process.

7/8/2015	Planning Board circulated Notice of Intent to serve as SEQRA Lead Agency
9/9/2015	Planning Board declared itself SEQRA Lead Agency
9/30/2015	Planning Board issued Positive Declaration
10/28/2015	Scoping meeting held
11/6/2015	Scoping period closed
11/18/2015	Scoping document adopted
2/10/2016	Planning Board discussed letter from Applicant regarding the Draft

	Environmental Impact Statement (DEIS)
2/24/2016	Planning Board authorized Chazen to send letter to applicant's consultants regarding the preparation of the DEIS
3/23/2016	Planning Board announced dates of balloon test
3/30/2016	Balloon test held
4/12/2017	Applicant submitted preliminary DEIS (pDEIS)
4/26/2017	Planning Board reviewed pDEIS; adopted resolution declaring it incomplete and requesting revisions
8/29/2017	Applicant resubmitted pDEIS
9/13/2017	Planning Board reviewed pDEIS; adopted resolution declaring it incomplete and requesting revisions
11/10/2017	Applicant resubmitted pDEIS
12/13/2017	Planning Boards accepted DEIS as adequate for public review and set public comment period
2/14/2018 & 4/11/2018	DEIS public hearing held
5/9/2018	Planning Board held work session to review DEIS comments
5/14/2018	End of Public Comment Period on DEIS
10/10/2018	Applicant submitted draft Final Environmental Impact Statement (FEIS)
10/24/2018	Planning Board acknowledged receipt of FEIS; scheduled work session
11/7/2018	Planning Board reviewed FEIS and agreed to have comments to Chazen by 1/4/2019
12/12/2018	Planning Board held work session on FEIS
1/4/2019	Applicant submitted second draft of FEIS
1/9/2019	Planning Board acknowledged receipt of second draft of FEIS and scheduled work session
1/23/2019	Planning Board held work session on FEIS
4/10/2019	Planning Board held work session on FEIS
5/12/2019	Applicant submitted third draft of FEIS
5/22/2019	Planning Board held work session on FEIS
6/12/2019	Planning Board held work session on FEIS
7/24/2019	Planning Board requested Applicant to provide full size sets of plans
8/9/2019	Applicant submitted fourth draft of FEIS
9/10/2019	Planning Board directed Applicant to provide Word files of the FEIS so that the Planning Board could complete the document
9/11/2019	Planning Board held work session on FEIS
9/25/2019	Planning Board held work session on FEIS

Draft April 15, 2020

11/1/2019	Chazen submitted fifth draft of FEIS to Planning Board
12/3/2019	Planning Board held work session on FEIS
12/11/2019	Planning Board held work session on FEIS
1/22/2020	Planning Board held work session on FEIS
2/26/2020	Planning Board held work session on FEIS
3/25/2020	Planning Board held work session on FEIS
4/6/2020	Planning Board adopts FEIS

## STATEMENT OF FINDINGS AND DETERMINATIONS

The following findings and determinations are made by the Village of Mamaroneck Planning Board, as SEQRA Lead Agency, upon review of the DEIS and FEIS (collectively, the "Environmental Impact Statement" or "EIS"), accompanying Project plans, and the entire record of this proceeding.

### 2. Description of Proposed Project

The Project Site is currently owned by the Applicant, Hampshire Recreation, LLC (the Applicant). The Applicant proposes the development of a Planned Residential Development (PRD) consisting of 105 residential units (comprising 44 single-family detached housing lots and 61 carriage homes, which consist of 28 two-family and 33 three-family semi-detached housing lots) on the Project Site (the "Proposed Action"). The Proposed Action would also include development of seven tennis courts that would replace seven existing courts and 30.6 acres of common open space, which would be kept in a natural state. The open space would be divided into eight distinct areas, portions of which would be landscaped with native species and portions of which would be allowed to revert to a natural state. No development or ground disturbance from the proposed residential buildings or tennis courts is anticipated within a minimum of 100 feet of the wetlands on the Project Site. The existing golf course use would be downsized to a 9-hole, 37.6-acre course to accommodate the development of the PRD. No development is proposed in the MR-zoned area where the existing Hampshire Country Club facilities (including a clubhouse, pool, tennis, and parking areas) are located. These amenities would remain on the Project Site.

Development is limited to the R-20-zoned area in the Village of Mamaroneck. There are 2.91 acres of wetlands in the R-20 zone, including the 100-foot buffer in the golf portion of the zone. There are no wetlands in the non-golf portion of the R-20 zone. The R-20 golf portion of the zone contains 3.45 acres of 15-25% slopes, with no slopes greater than 25%; and the non-golf portion of the R-20 contains 3.3 acres of 15-25% slopes, with no slopes greater than 25%.

Large portions of the Project Site are located within the 100-year tidal floodplain. This floodplain is a result of tidal surge from the Long Island Sound rather than riverine flooding during rainfall events. The Project proposes the import of 81,805 cubic yards (CY) of fill, as well as regrading of the site, to construct a development platform that would elevate all proposed buildings above the 100-year and 500-year floodplains. All new buildings would be built with a minimum finished first floor elevation of 16 feet, which is four feet above the 100-year flood elevation of 12 feet. The technical studies in the DEIS reflect that the Project would not increase overall flood elevations on the Project Site, or on neighboring properties.

Three existing privately owned access roads to the Project Site (Cove Road, Eagle Knolls Road, and Cooper Avenue) would be modified as part of the Proposed Action. The privately-owned portion of Cove Road within the Project Site would be relocated and would form the central corridor for the Project. Cove Road would be elevated to a mean elevation of 14 feet. Eagle Knolls Road would be relocated from its existing location and would intersect with the relocated Cove Road prior to terminating in a cul-de-sac. Eagle Knolls Road would be elevated to a mean elevation of 14.5 feet. Cooper Avenue, which currently extends from Old Boston Post Road to its terminus at the driveway to an existing golf course maintenance facility, would be extended into the Project Site and would intersect with Cove Road. A new internal roadway, "Road A", would intersect with Cove Road and terminate in a cul-de-sac as shown in Figure 2 of Appendix C in the FEIS. Road A would be elevated to a mean elevation of 15 feet.

Cove Road and Eagle Knolls Road would be elevated above both the 100-year and 500-year flood elevations. However, off-site sections of Cove Road and Eagle Knolls Road are now and would continue in the future to be inundated such that they would be impassable during the 100-year tidal flood. Cooper Avenue would be

extended to provide emergency access, and the entire length of Cooper Avenue would be higher than the 100-year flood elevation. Cooper Avenue would be the only means of access or egress to the site during the 100-year flood. Cooper Avenue has a narrow point with a width of 14 feet. Cooper Avenue would have a mean elevation of 14 feet and a low point elevation of 13 feet. Assuming a 28.5 inch sea level rise, which is the 2080 mid-range sea level rise estimate according to NYSERDA, the low point of Cooper Avenue would be inundated with 164.5 inches of water during the 100-year tidal flood. During the 100-year tidal flood, and assuming a 28.5 inch sea level rise, Cooper Avenue, inundated with 164.5 inches of water, would be the only access to the Project Site. The actual amount of sea level rise, which could be higher or lower, would determine the level of inundation of Cooper Avenue.

A Construction Phasing Plan for the Project was provided in the FEIS. Based on the size of the Project Site, work would be performed in phases to minimize the area of disturbance at any given time. Excavation and filling activities would be performed in two steps: establishment of realigned Cove Road and single-family lots; and establishment of three extensions to realigned Cove Road, including the Cooper Avenue extension, realigned Eagle Knolls Road, and Road A. This approach establishes the central spine of the Project, providing the connection between Cove Road and Eagle Knolls Road and establishing the core utilities for the Project within realigned Cove Road.

Construction activity for the Project would be performed by first excavating, grading, and filling to establish development sites for single family and carriage homes. Next, utilities would be installed within the streets, followed by placement of roadbed and sidewalks. The housing would then be constructed on finished lots, followed by surface treatments, including topsoil, seeding, and driveways. Because the residences would be constructed only in response to buyer demand, the Applicant anticipates that about 20 units would be constructed annually. At that rate, the construction period would last 6-7 years. However, since the actual rate of sales is unknown, the construction period could be shorter or longer.

Temporary fill would occupy the basement area for each house before it was built. The main development platform would be first constructed to a rough grade below the final grade. When the foundations are constructed and the basements dug, the excess soil would be displaced in the vicinity of the residence, bringing the surrounding area up to grade. Surface materials such as topsoil and asphalt would be placed after the initial nine months of construction as residences are completed.

The development platforms would be stable during the life-span of the Project. The area of flooding under the Proposed Action would be similar to the existing area of flooding: the low-lying vegetated areas with grass and tree cover. The existing golf course has experienced a number of flooding events without significant erosion issues. In addition, the Project Site is outside the Federal Emergency Management Agency (FEMA) Wave Action limit, meaning wave action would not destabilize the development platforms. The proposed vegetated slopes of the development platform would be sufficient to resist erosion during flooding events.

Stormwater would be managed by a stormwater management system that would utilize portions of the existing golf course stormwater management system.

Water would be obtained by connection to existing public facilities. Sewage would be conveyed and treated in existing public facilities. If natural gas service is unavailable, electric and propane energy would be used to supply power to the houses.

Landscaping is proposed, including improvement to ~~the~~ 20-foot buffer around the Project Site's existing wetlands.



### 3. Existing Environmental Conditions, Anticipated Impacts, and Proposed Mitigation

#### A. LAND USE, ZONING, AND PUBLIC POLICY

The following is a summary of land use, zoning, and public policy on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project and the Planning Board's Findings with respect to the same.

This section has been divided into sub-sections for the three topic areas: land use, zoning, and public policy. Each topic is discussed separately.

#### Land Use

- 1) The Project Site consists of 106.2 acres devoted almost exclusively to fairways, greens, roughs, and water features that compromise the golf course. The parcel is split between the Village and Town of Mamaroneck. The majority of the site, 94.5 acres, is located in the Village's R-20 zoning district, while a small, 4.4-acre portion is located in the Village's MR zoning district. The remaining 7.3-acre portion of the Project Site is located in the Town of Mamaroneck.
- 2) The Project Site is currently owned by the Applicant, Hampshire Recreation, LLC, and operated by Hampshire Club, Inc., a [not-for-profit](#) membership club with an 18-hole golf course with additional amenities, including a clubhouse, swimming pool, seven tennis courts, off-street parking, and other support uses. Other extant buildings on the Project Site include a one-story tennis pavilion, a pool facility that houses a pro-shop, a one-story masonry building used primarily for golf cart storage, and two buildings used for grounds maintenance.
- 3) The proposed 105-unit PRD would be constructed within the 94.5-acre portion of the Project Site located in the Village's R-20 zoning District (the "PRD Parcel"), occupying approximately 29 acres. No development is proposed in the Village's MR zoning district or in the Town of Mamaroneck.
- 4) There are several easements on the PRD Parcel reserving the right of the site owner to operate golf course amenities, such as golf tees and cart paths. A neighboring property owner, Fairway Greens Condominiums, possesses a drainage easement over the pond bordering the two sites, permitting it to discharge stormwater from its property into the pond. There are several covenants covering portions of the Project Site prohibiting manufacturing businesses and hotels/public boarding houses. There is an indenture on a portion of the Project Site on the north side of Eagle Knolls Road permitting the construction of housing for private residences.
- 5) The Project Site is immediately surrounded by residential neighborhoods, including the Fairway Green Condominiums and the Orienta neighborhood. By acreage, residential uses comprise over half (53%) of the land uses surrounding the Project Site. In the vicinity of the Project Site are primarily open space, public, and institutional uses, including Flint Park, Hommocks Conservation Area, Central Elementary School, Hommocks Middle School, Mamaroneck High School, Orienta Beach Club, Beach Point Club and the Hommocks Pool and Ice Rink facilities.

- 6) Lot sizes for the proposed single family homes range from 0.11 acres to 0.52 acres. Lot sizes for the proposed carriage homes range from 0.04 acres to 0.06 acres. Lot sizes are generally consistent with surrounding development.
- 7) Single family houses would be approximately 5,000 square feet (SF) in size. Carriage homes would be 2,000 to 4,000 SF in size.
- 8) The Project is subject to Floor Area Ratio (FAR) limitations. FAR is determined on a lot-by-lot basis, subject to the Planning Board's authority to waive the FAR requirement to the extent it determines necessary. This may require the modification of some proposed lot lines during the subdivision review process. It may also limit the size of the residences that can be built on particular lots.
- 9) The proposed residential use on the Project Site is consistent with permitted uses in the R-20 District, as well as the pattern of development surrounding the site, which is primarily residential. Density of the proposed PRD is discussed in Finding 3.A.17 below.
- 10) The existing private recreation (golf course, tennis courts) use, though downsized, would remain on 37.6 acres of the Project Site in the MR zoning district, with existing ponds and wetlands remaining in their current condition and incorporated into the downsized golf course. The zoning code requires that the membership club be owned by a not-for-profit corporation with its facilities catering to members and/or their guests for recreational, athletic or social purposes; 20% of events may be non-member events. The Applicant has stated that it will continue to own the land on which the membership club is located and will lease that property to the not-for-profit entity.
- 11) 30.6 acres of the PRD Parcel in the Village of Mamaroneck would be converted to shared open space. The open space would be divided into eight distinct areas, some of which would be owned by the Applicant, some of which would be owned by a homeowner's association and some of which would be part of the golf course property leased to the not-for-profit entity. The Planning Board Finds that this open space would not provide meaningful recreational opportunities because, as illustrated by FEIS Figure 5 in Appendix C, portions would be isolated from any other open space, portions are comprised of long, linear areas adjoining roadways, portions comprise the embankments of the development platform, several can only be accessed by crossing the golf course, and much of the remainder would effectively function as golf course rough.
- 12) The Project Site's existing golf course, clubhouse, pool, tennis courts, banquet hall, and other private recreational functions would continue to operate under the Project. The golf course would likely not be operational during some part of the time the Project is under construction. The Planning Board has insufficient information to determine whether downsizing the golf course would adversely affect the Applicant Hampshire Country Club and/or whether introducing residences to the Project Site would positively affect club membership. The Planning Board can therefore not make a Finding with respect to the environmental impacts of the Applicant's future Hampshire Country Club operations if the Project is approved.

## Zoning

- 13) 94.5 acres of the Project Site are located in the Village's R-20 zoning district. 4.4 acres are located in the Village's MR district. 7.3 acres are located in the Town of Mamaroneck. No development is proposed in the Village's MR district or in the Town.
- 14) Allowed uses in the R-20 district are found in the table below.

Zoning District	Permitted Principal Uses	Special Permit Uses	Accessory Uses
Village's R-20 (±94.5-acres)	<ul style="list-style-type: none"> <li>one-family dwellings</li> <li>municipal uses</li> <li>PRDs subject to specific provisions set forth in §342-52</li> <li>family day-care homes</li> </ul>	<ul style="list-style-type: none"> <li>places of worship, schools (i.e. public, private with stipulations, and nursery schools)</li> <li>annual membership clubs (i.e. beach, golf, country, yacht, or similar clubs)</li> <li>transformer stations and customary associated uses</li> </ul>	<ul style="list-style-type: none"> <li>home professional offices or studios</li> <li>customary home occupations with restrictions</li> <li>garden houses, greenhouses, and tool houses</li> <li>tennis or other game courts</li> <li>swimming pools</li> <li>parking facilities and private garages</li> <li>not more than two roomers or boarders</li> <li>the keeping of household pets</li> <li>other uses related to private recreation</li> </ul>

15) The Applicant proposes to develop the Project in accordance with the PRD provisions found at §342-52 of the Village Code. That provision authorizes the Planning Board to approve a PRD in accordance with the requirements for review and approval under the Site Development Plan (Article XI of the Zoning Code) and Subdivision (Chapter A348) requirements and procedures, in order to promote environmental protection, open space preservation and superior design of residential development, encourage the most appropriate use of land, increase recreational opportunities and improve the balance and variety of the Village's existing housing stock. When it approves a PRD, the Planning Board may waive all normally applicable lot area, width, frontage, and depth regulations, as well as floor area, yard, and coverage requirements to the extent it determines to be necessary to achieve the purposes of the PRD zoning. The minimum required setback from all perimeter boundaries of the Project Site must be equal to one and one-half times the applicable yard requirements.

16) The Project complies with all area and parking requirements.

17) The maximum permitted number of residential dwelling units is determined by the Planning Board in two steps. First, the Planning Board determines the lot count in accordance with the requirements of Village Code § 342-52 by dividing the gross area of the subject parcel by the minimum lot size requirements of the zoning district in which it is located and then reducing that number to the extent that it determines that, because of environmental limitations, traffic access, the use and character of adjoining land or other planning considerations, the maximum permitted density would be

inappropriate. Second, the Planning Board determines the permissible lot count under Village Law § 7-738 by determining the number which could be permitted, in its judgment, if the land were subdivided into lots conforming to the minimum lot size and density requirements of the zoning local law and conforming to all other applicable requirements. The maximum permissible lot count is the lower of the two numbers. The Planning Board has not yet made that determination.

18) The environmental limitations of the Project Site, and impacts to those limitations, are as follows:

- a. The 100-year tidal floodplain occupies ~~the majority of~~ acres of the Project Site. 55.6 acres are proposed to be disturbed for development and 29.6 ~~xxx (xxx%)~~ acres are proposed to be filled for the development platform.
- b. The Project Site is designated as a Critical Environmental Area (CEA) in part because it is located in a floodplain and in part because of the open space characteristics of the site. The entire 55.6 acres of development is within the CEA. There would be a loss of 29.6 acres of open space as a result of the Project. 37.6 acres would remain as golf course. 30.6 acres would be shared open space. However, as discussed in Finding 3.A.11 above, this open space is highly fragmented, incorporating in part the banks of the development platform and several slivers of land along roadways; it would not provide meaningful recreation opportunities.
- c. There are a substantial number of mostly mature trees on the Project Site that provide habitat for nesting and migratory birds, 432 of which are proposed to be removed. The Applicant proposes to replace all 432 trees, but the replacement trees would not have the same habitat value as those they are proposed to replace and would take a substantial time to reach maturity (See Finding 3.K.18.)
- d. The Project Site has significant access limitations during the 100-year tidal flood event and assuming a 2080 sea level rise of 28.5 inches (see Finding 3.G.29). This is a significant environmental limitation of the Project Site because it directly affects the health, welfare and safety of the community.
- e. There are 2.91 acres of wetlands, including their 100-foot buffer, in the R-20 zoned portion of the Project Site. The wetlands would not be impacted by the Project, and their quality would be improved by proposed buffer plantings. See Findings 3.E.15 and 20.
- f. There are 3.45 acres of 15-25% slopes in the golf course portion of the Project Site and 3.3 acres of 15-25% slopes in the non-golf course portions of the site. Portions of these steep slopes would be disturbed by the Project. ~~xxx acres of steep slopes would be affected by the Project.~~

19) The Planning Board Finds that the Project does not promote environmental protection, open space preservation and superior design of residential development, encourage the most appropriate use of land, increase recreational opportunities and improve the balance and variety of the Village's existing housing stock, as it must in order to approve a PRD, because it would have significant impacts on the floodplain (see Section 3.G); it would adversely impact open space and the CEA (see Section 3.L); and it would not provide for adequate mitigation for the loss of 432 mature trees (see Section 3.K).

20) The Planning Board further Finds that that the Project would not promote environmental protection or superior design of residential development because it would introduce 105 residences into a site where all access other than Cooper Avenue would be blocked during the future 100-year flood condition.

20)21) The Planning Board further Finds that the Project would not promote environmental protection or superior design of residential development and because Cooper Avenue would be inundated with 164.5" of water assuming a 28.5" sea level rise in 2080 (see Section 3.G).

~~21) The Planning Board Finds that any of the lower density alternatives would have fewer significant, unmitigated environmental impacts than the Project. Although the Applicant asserts that none of the lower density alternatives are reasonable because they are not financially viable, its financial analysis was incomplete and insufficient to establish that the lesser density alternatives are not practicable.~~

## Public Policy

- 22) The *Village of Mamaroneck Comprehensive Plan, February 2012 Update* ("2012 Update") recommends preservation of the entire Project Site and recommends rezoning it to a lower density or to a cluster/open space subdivision or to an open space/recreation classification. The Planning Board Finds that the Proposed Project is inconsistent with this recommendation; however, it has not been implemented through zoning changes and the existing zoning law if the operative law governing the use of the property.
- 23) The *Village of Mamaroneck Local Waterfront Revitalization Plan* (LWRP) was adopted by the Village Board in 1984 and approved by the New York State Department of State (NYS DOS) in 1985.
- 24) The purpose of the LWRP is to permit the "beneficial use of coastal resources while preventing the loss of living marine resources and wildlife, diminution of open space areas or public access to the waterfront, impairments of scenic beauty, or permanent adverse changes to the ecological systems." It establishes policies governing development, fish and wildlife, flooding, public access, recreation, scenic quality, and water and air resources, in addition to proposed land and water uses for the entire waterfront area.
- 25) The LWRP identifies the Project Site as containing tidal and freshwater wetlands; open space and recreation; flood plains; and as a highly sensitive drainage area with potential to impact the Hommocks Conservation Area. The LWRP recommended that the Project Site be designated a Critical Environmental Area. It was subsequently designated a CEA in 1985.
- 26) A 2016 draft LWRP update designated the Hommocks Conservation Area, immediately south of the Project Site, as a Significant Coastal Fish and Wildlife Habitat to protect the site as a vital resource for local species, stating that a proposed action that alters any biological, physical, or chemical parameters beyond the inhabiting organisms' tolerance range is inconsistent with the policy. The 2016 draft LWRP update concurs with the recommended zoning changes in the *2012 Update*.
- 27) The Village of Mamaroneck Harbor and Coastal Zone Management Commission (HCZMC) is responsible for determining whether the Project is consistent with the LWRP.
- 28) The EIS contained a discussion of the Project's consistency with the Village's LWRP policies. The Planning Board makes no Findings with respect to consistency because that is the responsibility of the HCZMC. Findings with respect to the Project Site's habitat value, which is a policy relevant to the LWRP, are found in Section 3.K.
- 29) Adopted by the Westchester County Planning Board in 2008, *Westchester 2025* reviews the County's planning policies in the context of regional challenges faced today. *Westchester 2025* identifies land use policies and emphasizes the importance of planning partnerships between the County and its 45 municipalities. An amended "Context and Policies" section was adopted in 2010 by the Westchester County Planning Board which laid out general policies and goals for regional planning efforts. Those relevant to the Project are as follows:
- a. *Policy 3.* "Assure a diverse and interconnected system of open space to shape development, to provide contrast in the texture of the landscape, to separate developed areas and to provide linkages among open space systems of the region."

- b. *Policy 5.* "Preserve and protect the county's natural resources and environment, both physical and biotic. Potential impacts on water resources (water bodies, wetlands, coastal zones and groundwater), significant land resources (unique natural areas, steep slopes, ridgelines and prime agricultural land) and biotic resources (critical habitat, plant communities and biotic corridors) require careful consideration as part of land management and development review and approval."
  - c. *Policy 10.* "Maintain safe and environmentally sound systems and policies for waste removal, collection and treatment as well as the treatment and distribution of drinking water consistent with the county's land use policies. Programs to reduce and recycle the waste stream, protect water quality, control and treat storm water and mitigate or reduce the impacts of flooding must be strengthened."
  - d. *Policy 13.* "Encourage efforts to define the desired character of each municipality and neighborhoods within the broader, diverse palate of Westchester County. Support initiatives to adapt and establish land use policies and regulations that enhance that character through focus on location, setting, aesthetic design and scale of development as well as the public context of street life, tree canopy and utility placement."
- 30) The Planning Board makes no Finding with respect to consistency with *Westchester 2025* because this plan has not been formally adopted by the Village.
- 31) *Patterns for Westchester – 1995 ("Patterns")* is a broad policy document about the County's physical development. It functions as the Westchester County Planning Board's standard reference for carrying out its three principal County Charter responsibilities: Long Range Planning; advising the County Executive and Legislature on capital spending for infrastructure, land acquisition, and other public facilities; and bringing the County's perspective to bear on planning and zoning referrals from municipal governments. The Land Use Map in *Patterns* designates the Project Site as an "area of open space character," as well as Medium Density Suburban (MDS), proposing a Gross Residential Density of 1 to 3 dwelling units per acre on the Project Site.
- 32) *The Greenprint for a Sustainable Future...the Westchester Way – 2004 ("Greenprint")* is the County's Greenway Compact Plan with the goal of ensuring a sustainable future for Westchester County. It provides participating municipalities the foundation to qualify for incentives granted by New York State Legislation via the Hudson River Valley Greenway Act of 1991 by specifying the County's overall vision in terms of five Greenway criteria for voluntary plans and projects, including: natural and cultural resource protection; regional planning; economic development; public access to the Hudson River, or Long Island Sound; and heritage and environmental education. In 2008, the Village of Mamaroneck adopted Local Law 7-2008 to adopt the *Greenprint* plan as a statement of policies, principles, and guidelines to supplement other established land use policies in the Village.

## B. COMMUNITY CHARACTER AND VISUAL RESOURCES

The following is a summary of the community character and visual resource conditions that currently exist on the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts, and the Planning Board's Findings with respect to the same

- 1) *Neighborhood Character.* The Project Site is located within the Orienta neighborhood, which is the largest of the Village's neighborhoods. Housing stock in the neighborhood is mixed, with single-family homes in R-20, R-15, R-10, R-7.5, and R-5 zoning districts, one- or two-family homes in the R-2F district, and multifamily housing in the RM-1 district. Commercial and multifamily uses are concentrated along Boston Post Road (US Route 1 corridor), which forms the neighborhood's northwestern boundary. Single-family homes are concentrated between Orienta Avenue and Harbor Island Park to the northeast and the Long Island Sound to the south. Multifamily housing is located between the Project Site and US Route 1 along Old Boston Post Road. The neighborhood contains a significant amount of waterfront property, including large single-family homes on Delancey Cove and Satan's Toe peninsula and commercial marina use along Rushmore Avenue. Flint Park is located southwest of the Project Site in the Town of Mamaroneck and contains several active recreation fields. Hommocks Conservation Area, immediately adjacent to Flint Park, is a small marshland and grassland area with walking trails.
- 2) *Project Site Character.* Two existing access roads lead to the Project Site and serve as important components of the neighborhood's character. Orienta Avenue, a collector street, provides access to US Route 1 for most of the neighborhood as a residential street lined with attractive single-family homes. The Project Site does not directly abut Orienta Avenue; it is accessed from local streets and private roads that lead to Orienta Avenue, including Cove Road. In addition to Orienta Avenue, Hommocks Road to the southeast of the Project Site provides access to a US Route 1 intersection; Eagle Knolls Road leads directly to Hommocks Road. The character of Eagle Knolls Road and Hommocks Road is defined by the existing Hampshire Country Club golf course, single-family homes, Hommocks Middle School, and the Hommocks Conservation Area in the Town of Mamaroneck. Between Hommocks Road and Orienta Avenue, directly behind the US Route 1 frontage, is the Fairway Green Condominiums to the north of the Project Site. This is a 54-unit multi-family townhouse development located on 10 acres.
- 3) *GIS Visibility Analysis.* A GIS viewshed analysis (the "GIS Visibility Analysis") was prepared utilizing ESRI ArcGIS Spatial Analyst in combination with LiDAR data to determine areas of potential visibility for the Project and create a digital surface model (DSM) accounting for ground elevations and obstructions such as tree canopy, buildings, towers, and other manmade structures. The proposed grade surface changes on the Project Site were included in the DSM. A five-mile radius was examined utilizing the Westchester County 50-foot digital elevation model (DEM) from Westchester County GIS. The DSM surface was offset 6 vertical feet to represent a conservative viewing height, and the proposed structures at the Project Site were offset 35 feet from the proposed grade surface to determine areas of the Project's potential visibility. Results of the analysis indicated very little visibility outside of a one-mile radius of the Project Site due to the large number of trees and residential development immediately surrounding the Project Site. Field testing via a balloon test was then limited to the one-mile radius and major land uses within the three-mile radius of the Project Site following consultation with Village of Mamaroneck planning staff.
- 4) *Balloon Test Visibility Analysis.* A balloon test was conducted at the Project Site on March 30, 2016 to further assess the existing viewshed of the surrounding neighborhood from specific locations selected by the Village of Mamaroneck. As noted above, based on results of the GIS Visibility Analysis, photo

locations were limited to within a one-mile radius of the Project Site or major land uses within a three-mile radius of the Project Site. An orange balloon was floated at a specific location and height mimicking the height and location of the proposed Project structures. Phase one tested visibility from major land uses or landmarks surrounding the Project Site and revealed that the orange balloon, at a height of 51 feet, was only visible in two of the test locations: Hommocks Middle School and Delancey Cove/Greacen Point Road. Phase two included five rounds of photographs from 15 locations. Before each round, the balloon was moved and elevated to the specified height (51 feet for rounds one through four, 40 feet for round five) to mimic different locations of the Project. Results indicated that the Project would only be visible from locations immediately adjacent to the Project Site, including some public streets and homes bordering the golf course.

- 5) *Photo Simulations.* Six surrounding neighborhood locations were chosen for photo simulations based on the results of the Visibility Analysis. The simulations were conducted for the Project at full build-out for both leaf-on and leaf-off conditions, in order to represent both summertime and wintertime conditions. The results are summarized in the table below.

Location	Description	Project Visibility Result from Location
1	Hommocks Road	Visible immediately adjacent to Middle School
2	Fairway Green	Minimally visible; not visible during leaf-on conditions
3	Protano Lane	Minimally visible; not visible during leaf-on conditions
4	Fairway Lane	Visible from dead end; minimally visible during leaf-on conditions
5	Cove Road	New single-family homes highly visible in leaf-off and leaf-on conditions
6	Greacen Point Road	Minimally visible; not visible during leaf-on conditions

Based on the results of the balloon test and the Visibility Analysis, the Planning Board Finds that the Project would be generally consistent with the surrounding neighborhood and would have no significant impacts to community character.

- 6) *Lighting.* Exterior lighting is proposed along all roadways to provide safety and security for residents, club members, and visitors. All accessory lighting would provide for a safe level of evening and nighttime lighting, utility, and security as specified by professional best-practice recommendations established by the Illuminating Engineering Society of North America (IESNA). No exterior lighting would be provided for the golf course. Roadway lighting would consist of decorative pole mounted fixtures, mounted at approximately 16 feet. Lighting levels would not exceed 0.5-foot candles. In accordance with Village of Mamaroneck Code §342-18, Exterior Lighting, the proposed lighting would direct light downward and would prevent the source of the light from being visible from adjacent residential streets. The Planning Board Finds that the Project would have no significant lighting impacts.
- 7) *Architectural Design.* Architectural materials and features may include shingle-style roofs with diverse pitches and details, cedar shingles, stone veneer, panel features, entry porches, and porticos, among others, that are in character with surrounding development features. The Project would be subject to the Village of Mamaroneck's Board of Architectural Review. The Planning Board Finds that the proposed architectural character is in keeping with the surrounding neighborhood and that there are no significant impacts associated with the proposed architecture.



- 8) The visual character of the Project Site would be altered from the existing condition by the construction of the Project. A portion of the golf course and associated open space would be replaced with residential development. The Planning Board Finds that such development would be consistent with the character and density of the surrounding neighborhood. The Project would preserve 30.6 acres of shared open space and retain 9 holes of the existing golf course, resulting in preservation of a portion of the Project Site's open space character. See Finding 3.A.11 for further discussion of the open space. The visual character of the clubhouse and accessory buildings of the Project Site would not change.

## C. GEOLOGY, SOILS, TOPOGRAPHY AND STEEP SLOPES

The following is a summary of the geological, soil, and topographic conditions that currently exist on the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the proposed Project, and the Planning Board's Findings with respect to the same.

- 1) The Project Site contains five soil types, as shown in the table below.

Map Unit Name	Acres of Project Site	Percent of Project Site
Charlton-Chatfield complex, rolling, very rocky	7.7 acres	7.2%
Chatfield-Hollis-Rock outcrop complex, rolling	24.1 acres	22.5%
Udorthents, wet substratum Urban Land	62.6 acres	58.4%
Urban land-Charlton-Chatfield complex, rolling, very rocky	11.9 acres	11.1%
Water	0.9 acres	0.8%
Total	107.2 acres	100.0%

- 2) The Project Site soils have various limitations for development, which may generally be overcome by the use of standard construction measures, including the import of structural fill for the development platform. Development on similar soils is found surrounding the Project Site. The Planning Board Finds that Project Site soils do not impose development limitations that cannot be overcome with the use of standard and common engineering methods.
- 3) The Project has incorporated a Stormwater Pollution Plan (SWPPP), which includes a grading and erosion control plan. The grading and erosion control plan includes detailed methods to stabilize the Project Site during construction and prevent erosion. The SWPPP has been reviewed by the Planning Board's consultant and found to conform to New York State Department of Environmental Conservation (NYSDEC) requirements. The Planning Board Finds that the proposed SWPPP adequately mitigates potential soil erosion impacts.
- 4) A geotechnical investigation was performed in March 2016 by GZA Environmental of New York. The subsurface conditions on the Project Site generally consist of the following: surface cover composed of gravel and topsoil; fill consisting of sand, gravel, silt, and occasional asphalt fragments; silt and clay immediately below the surface cover; fine to coarse sand to depths ranging from three to 17.5 feet below ground surface; and granitic bedrock at depths ranging from three to 17.5 feet below ground surface.

- 5) There are several prominent outcroppings of rock across the Project Site, including north of Eagle Knolls Road and northwest of the existing tennis courts. While the Project would avoid these areas, it is likely that bedrock would be encountered during construction. If so, the bedrock would be removed by mechanical chipping or by blasting. If blasting is required, the Village of Mamaroneck has blasting regulations in place that would be required to be followed. The regulations require the preparation of a blasting plan. The plan would be reviewed by the Village Engineering Department and the Building Department prior to implementation.
- 6) The Planning Board Finds that, in addition to following the Village's blasting regulations, a pre- and post-blasting survey of nearby residences is required. The purpose of the survey is to monitor for any damage that may occur as a result of blasting.
- 7) The existing golf course contains significant elevation changes, particularly in the center of the Project Site and along the eastern property border adjacent to homes on the south side of Fairway Lane. These areas range in elevation from 0.5 to 30 feet. However, the golf course itself is at a lower elevation than most surrounding property and essentially occupies a "bowl" into which rainwater drains.
- 8) Steep slopes between 15% and 25% grade are found clustered in the center of the golf course, southwest of the homes along Fairway Lane, surrounding the clubhouse area, and extending down to the Long Island Sound and Cove Road.
- 9) Re-grading of 55.6 acres is required to accommodate the proposed homes and related improvements, including reduction to grade of some of the steep slopes and bedrock outcroppings.
- 10) The Project requires the on-site cut and relocation of approximately 217,490 cubic yards (CY) of soil and the fill of approximately 301,594 CY of soil, requiring a net soil import of approximately 84,000 CY of fill, subsequently amended by the Applicant to 81,805 CY of fill. The Planning Board's consultant reviewed estimates of fill import submitted during the public comment period. The Planning Board's consultant advised the Board that the Applicant's estimate is accurate.
- 11) Clean structural fill totaling  $\pm 81,805$  CY is required to construct the proposed development platform necessary to elevate the homes above the 100-year floodplain. The source of the fill has not been identified. The Planning Board would require that a manifesting system be established to ensure that the fill is tested and comes from a clean source. For each soil source sampling, results for contaminant levels and engineering properties would be submitted for review and approval by the Village Engineer or a construction monitor established by the Village.
- 12) The proposed development platform is outside of the area of wave action from flood events. It is therefore not anticipated to be subject to erosion from waves.
- 13) Two feet of well graded soil would be required on the surface of all landscaped and lawn areas in the development area.
- 14) The Project geotechnical engineer would be responsible for the placement of all structural fill and surface soil.
- 15) Impacts associated with the import of  $\pm 81,805$  CY of structural fill related to filling in the 100-year floodplain and truck traffic are discussed in the respective sections of these Findings (Sections 3.G and 3.M).
- 16) The results of soil testing and the use of contaminated soil on the Project Site is discussed Section 3.Q of these Findings.
- 17) There is a fibrous peat layer likely deposited as part of the former marshland and streams that originally formed the low-lying eastern and western areas of the Project Site prior to its development as a golf

course in the late 1920s. There have been no reports of methane generation from the peat. Minimal development is proposed in the areas underlain by peat, and most development is proposed above the peat layer so it would not be disturbed. The most rapid methane generation comes from the breakdown of fresh organic material, while physically or chemically protected organic residues is slower to break down, typically over 20-40 years. No new organic material is being added to the peat layer, which has been buried for more than 80 years. The Planning Board Finds that the amount of methane generation is expected to be minimal, if at all, and that significant impacts are not anticipated.

## D. GROUNDWATER RESOURCES

The following is a summary of groundwater resources on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) US Department of Agriculture Soil Survey Data show that the Uc soil group, comprising 60% of the Project Site, is characterized by a 1.2-foot depth to the water table. All other soil groups on the Project Site have a water table depth of greater than six feet.
- 2) The Applicant installed a groundwater observation well in the northern portion of the Project Site. The observation well measured depth to groundwater at 0.5 – 1.4 feet below the ground surface.
- 3) 18 additional groundwater observation points were subsequently advanced on the Project Site, 13 of which encountered groundwater. Groundwater depths ranged from 0.7-4.1 feet below the surface.
- 4) Based on the groundwater observation data, the Applicant generated a groundwater elevation map. The groundwater elevation map was then compared to the proposed grading plan. This analysis determined that the groundwater surface is below the existing and proposed grade in all locations and that the Project is unlikely to encounter groundwater. In the event groundwater is encountered, the Planning Board Finds that a dewatering plan would be required. Such plans are a routine part of many construction projects.
- 5) Groundwater would not affect the proposed residences because they would be elevated on the development platform located 16 feet above the ground surface. Basements would extend into the platform, but would still be located well above the groundwater level.
- 6) The Project Site currently has two groundwater wells providing irrigation water for the existing golf course. The well water is not utilized for any domestic supply. The wells are located on the north end of the Project Site near the end of Sylvan Lane.
- 7) There are no State or Federally designated aquifers on the Project Site.
- 8) Other than the irrigation use described above, no other usage of or discharge to groundwater is anticipated of proposed.
- 9) Groundwater quality is discussed in Section 3.Q.

## E. SURFACE WATER COURSES AND WETLANDS

The following is a summary of surface water courses and wetland resources on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies, and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The surface water courses and wetlands on the Project Site include seven ponds, two vegetated marshes, and several drainage ditches. The wetlands are both natural and artificially-created features that have been altered over time to provide drainage and irrigation for the golf course and/or to serve as water hazards. The wetlands at the Project Site receive stormwater from on-site and off-site sources.
- 2) The Applicant conducted a functional assessment of the wetlands using the "Magee-Hollands Method" as described in *A Rapid Procedure for Assessing Wetland Functional Capacity based on Hydrogeomorphic Classification*. Results of the assessment indicated that Project Site wetlands are primarily anthropogenic features that were originally created or altered to provide drainage and irrigation for the golf course and to serve as water hazards, performing groundwater quality modification and storm and floodwater storage functions. As a result of performing these functions, water quality is impaired, and bottom substrates within the wetlands have been impacted by mineral and organic sediments. These features have been adversely impacted due to stormwater inputs from on-site and off-site sources, as well golf course management practices. Due to their disturbed condition, the existing wetlands at the Project Site do not provide high functionality for diversity of wetland vegetation, nor do they contribute significantly to habitat for wetland fauna.
- 3) For the purposes of the functional assessment, the wetlands were grouped together as follows:
  - a. Golf Course Drainage System 1 (Pond 13, Pond 16, and Drainage Ditch 1). Drainage system 1 discharges at the existing golf course pond located to the north of the intersection of Eagle Knolls Road and Hommocks Road.
  - b. Golf Course Drainage System 2 (Pond 5 and Pond 6). Drainage system 2 discharges at the golf course pond located to the southwest of the intersection of Eagle Knolls Road and Cove Road and adjacent to Delaney Cove.
  - c. Golf Course Drainage System 3 (Pond 10, Pond 11, Pond 18, vegetated wetland, and Drainage Ditch 2).
  - d. Wetland A (potentially isolated).
- 4) The existing golf course irrigation and pumping network distributes water throughout the golf course to maintain turf and landscaping and remove water where it accumulates to avoid degradation of the course. The ponds currently on-site were created and modified to serve as aesthetic and functional parts of the course, providing irrigation support and drainage. In the spring and fall, surface water is collected in ponds 5 and 6, distributed via the pumping system to other on-site ponds, and pumped into irrigation systems to water the course, including much of the wetland areas. Water is moved around the ponds as required to irrigate the course and may be supplemented with groundwater.
- 5) During heavy rains, water is pumped to the south into the drainage ditch which runs under Eagle Knolls Road and discharges to Delaney Cove.
- 6) The surface water features and wetlands contribute to the Project Site's designation as a Critical Environmental Area (CEA) (see Section 3.L).

- 7) The Applicant obtained a jurisdictional determination from the NYSDEC stating that none of the Project Site wetlands are under its jurisdiction.
- 8) The Applicant submitted a jurisdiction determination to the USACOE on September 4, 2018. A response has not yet been received.
- 9) Under the proposed stormwater management system, several existing drainage pipes and ditches of the existing golf course drainage system would be rerouted through the Project's drainage system. The intent of the proposed drainage system is to maintain existing drainage distribution to each of the existing outfalls. Stormwater from areas north of the development platform, including golf holes 7, 8, and 9, would be discharged to the south via a culvert under the development platform and then conveyed to the Delancey Cove tide gates. Golf holes 3 through 6 would continue to discharge to the Hommocks tide gates as they do now via existing drainage ditches. Golf holes 1 and 2 would discharge to the Delancey Cove tide gates via existing drainage ditches.
- 10) Minimal filling of drainage ditches is proposed as part of the Project. In total, 677.95 SF of drainage ditch would be filled. 6,309.24 SF of drainage ditch would be created, resulting in a net increase of 5,631.29 SF. This activity may be subject to USACOE permitting, depending on the outcome of the jurisdictional determination.
- 11) Water budget analyses of surface water runoff under existing and proposed conditions for significant storm events (1-year storm and over) at the Project Site indicate that changes in the water budget for all but one of the ponds and wetlands would be less than 10 percent, with the exception of Pond 10, where an increase of greater than 10 percent would occur (See FEIS Appendix I). It is noted that the hydrology of Pond 10 is tidally influenced; water levels within the pond are regulated by an existing tide gate. Pond 10 is expected to experience an increased contribution ( $\pm 17\%$ ) during significant storm events. The Planning Board Finds that this is not a significant impact.
- 12) No direct impacts (e.g., filling, draining, clearing of vegetation, etc.) would occur to the Project Site wetlands or ponds as a result of the Proposed Action. No development or ground disturbance from the proposed residential buildings or tennis courts would occur within 100 feet of the wetlands.
- 13) A 20-foot buffer is proposed to be planted around all ponds and wetlands within the Village of Mamaroneck portion of the Project Site. The buffer would be planted with native and non-invasive native adopted trees to improve the habitat value of the ponds and wetlands. The Planning Board Finds that this is a positive impact of the Project. This planting would not require a wetlands permit from the Village.
- 14) The Project would result in a partial change in use of the Project Site from a full, actively managed golf course to a smaller, 36.8-acre golf course and residential development with 36 acres of open space. Golf course management practices would be limited to the remaining 9-hole course, resulting in an overall reduction in fertilizer, pesticide, and herbicide applications. This would be offset somewhat by residential use of lawn and garden chemicals. No applications of these chemicals are currently proposed or anticipated within the 36 acres of open space that surround the existing wetlands. The Planning Board Finds that this is a positive impact of the Project.
- 15) The Project would improve the overall functionality of the Project Site wetlands with respect to water quality and stormwater storage/remediation functions. The Project would improve native plant diversity and limit the potential for non-native/invasive plant species to colonize and dominate the buffers.
- 16) The proposed stormwater management system would have a positive impact on wetlands by filtering pollutants prior to discharge. On-site stormwater discharges to the three existing golf course drainage systems would decrease compared to existing conditions, with a corresponding reduction in discharges of pollutants, organic material, and mineral sediments to the ponds comprising these systems.

- 17) Stormwater from the Project would be discharged into the golf course stormwater management system to be conveyed to the Long Island Sound via Delancey Cove. The stormwater facilities in the Project would be maintained and managed by the Project's Homeowners Association (HOA). Therefore, the HOA and Hampshire Recreation, LLC would need to enter into an agreement guaranteeing that stormwater runoff from the development would be permanently managed in Hampshire Recreation LLC's stormwater drainage system and that the system would be permanently maintained to accommodate the runoff.
- 18) All wetlands would be maintained and owned by Hampshire Recreation, LLC. The Applicant submitted a Wetlands Mitigation and Monitoring Plan to provide for long-term monitoring of wetland health. This plan provides that Hampshire Recreation, LLC will be responsible for maintenance of the wetlands mitigation areas. The Planning Board Finds that the proposed wetland mitigation and monitoring plan would improve native plant diversity and limit the potential for non-native/invasive plant species to colonize the buffers.
- 19) See Section 3.F for additional discussion of the existing and proposed stormwater management system.



## F. STORMWATER MANAGEMENT

The following is a summary of the stormwater management features that currently exist on the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the proposed Project, and the Planning Board's Findings with respect to the same.

- 1) The golf course's landscaped fairways, roughs, trees, and several ponds compose the majority of the Project Site. Existing impervious surfaces include the main clubhouse and accessory recreational buildings, parking lots, paved pathways, and tennis courts, constituting approximately six acres of the Project Site.
- 2) The Project Site is located within the Atlantic Ocean/Long Island Sound Watershed and the Larchmont Harbor Drainage Basin. The Project Site is located within a Total Maximum Daily Load (TMDL) watershed, and discharges into the Long Island Sound, a 303(d)-listed waterbody. The Project Site is also located within the 100-year tidal floodplain.
- 3) The majority of the golf course's land is classified as hydrologic soil group D, while the rest of the Project Site is hydrologic soil group B. Hydrologic soil group D soils have low infiltration rates, shallow water tables, and high runoff potential. Hydrologic soil group B soils have moderate infiltration rates and are moderately well drained.
- 4) The Project Site currently contains three drainage systems. The first is located primarily within the Town of Mamaroneck portion of the Project Site, the second is within the northeast corner of the Project Site, and the third is within the southern portion of the Project Site. In general, the golf course has a lower ground surface elevation compared to the surrounding area. Rainfall runoff from the surrounding areas drains to the Project Site, through the three drainage systems, then to two discharge points, and ultimately to the Long Island Sound. Discharge Point A is located at the existing pond where Hommocks Road and Eagle Knolls Road intersect. Discharge Point B is at the existing pond located at the southeast of the property next to Delancey Cove.
- 5) Stormwater runoff is channeled away from the Project Site toward the Long Island Sound via an existing system of seven ponds, two vegetated marshlands, drainage pipes, and several drainage ditches. Ponds are located across the Project Site, including two ponds to the northeast, one pond in the Town of Mamaroneck portion of the Project Site, one pond at the border between the existing golf course and the Fairway Green Condominiums, and several ponds at the southern end of the Project Site that connect directly to the Long Island Sound. Two drainage ditches are located on the northwest portion of the Project Site, connecting the northeast ponds. Another series of ditches are located on the eastern and southern portions of the Project Site. The southern ponds discharge to an existing drainage ditch to the west through a culvert under Eagle Knolls Road, and ultimately to the tide gates in Delancey Cove. The ponds and man-made drainage ditches have well defined, rock-lined edges, dually functioning as drainage infrastructure and water hazards for the golf course. A network of underground pipes connects the surface water features.
- 6) At the southwestern end of the Project Site near Hommocks Road, there are two existing tide gates (the "Hommocks Road tide gates"), and at the southeastern end of the Project Site near the intersection of Cove Road and Eagle Knolls Road there are three existing tide gates (the "Cove Road tide gates"). Both sets of tide gates control the input and output of water between the Project Site and Delancey Cove, which is tributary to the Long Island Sound. During high tide, the tide gates automatically close to prevent tidal water from entering the Project Site. Once tidal waters recede, the gates open to release any flood waters within the Project Site. The tide gates are overtopped during five-year and greater storm events.

- 7) All five tide gates were inspected by the Applicant's engineer and determined to be functioning properly. The Applicant maintains the tide gates.
- 8) The Project would create 14.3 acres of impervious surface coverage on the Project Site, of which approximately 8.3 acres would be new, resulting in an overall increase in impervious surface coverage. The total disturbance area is approximately 55.6 acres.
- 9) Stormwater runoff would continue to drain toward the same discharge points under Project development conditions as under existing conditions. The 100-year peak rate at Discharge Point A would be reduced from the existing 116 cubic feet per second (cfs) to 113 cfs following Project development due to a reduced contribution drainage area, which offsets the increase in peak rates of runoff due to the development. Increases in the contribution drainage area to Discharge Point B following Project development would increase the peak rate runoff to Discharge Point B. The 100-year peak rate would increase from 189 cfs (existing) to 220 cfs (proposed).
- 10) The drainage channel from the Project Site to Delancey Cove would require modification to obtain a minimum of 10 feet width by 4 feet depth in order to convey the increase in peak flow rate. The proposed channel improvement would include a stabilized riprap channel bottom underlaid by filter fabric. There are no anticipated impacts associated with the channel improvements.
- 11) Chapter 294 of the Village of Mamaroneck Code establishes Stormwater Management and Erosion and Sediment Control regulations. Per §294- 4(A)(1), any land development activity that results in the disturbance of land greater than 1,000 square feet requires a SWPPP. The Project requires a SWPPP per this section and overall adherence to the following, relevant regulations:
  - a. The SWPPP must be prepared in accordance with the specifications and required contents of the document per §294-8(B).
  - b. Development activities must conform to the technical, performance and design standards defined in the January 2015 NYS Stormwater Management Design Manual (SMDM) and the NYS Standards and Specifications for Erosion and Sediment Control dated November 2016, per §294-9(A).
  - c. Any land development activity shall not cause an increase in turbidity that would result in substantial visible contrast to natural conditions in surface waters of the State of New York, per §294-9(B).
- 12) In compliance with Village of Mamaroneck Code §294-4(A)(1) and New York State DEC regulations, a SWPPP was prepared for the Project to ensure that the quality of stormwater runoff after development would not be substantially altered from existing conditions. A draft SWPPP was included in the DEIS and a revised SWPPP is included in the FEIS. The analyzed drainage area includes the full Project Site and several adjacent properties that contribute to on-site drainage.
- 13) The Project Site is located within the Long Island Sound tidal area. Runoff discharges to the waters of the Sound. The Long Island Sound is a first order receiving body; water quantity controls are not required when discharging to such water bodies because the size of the receiving body is such that it is not affected by the quantity of runoff. Water quality treatment practices are required.
- 14) The Planning Board's consultant reviewed the SWPPP and found that it conforms to the relevant regulations.
- 15) The drainage system is designed to capture any sediment and mitigate any increased turbidity due to Project development. As a result of implementation, no significant water quality impacts on receiving wetlands or downstream discharge points, including the fields at Hommocks Middle School , are

anticipated. Therefore, improvements to downstream components of the drainage system are not required.

- 16) The SWPPP includes a Sediment and Erosion Control Plan that would be implemented throughout disturbance areas to mitigate short-term impacts of soil erosion. All the sediment and erosion controls would be designed in accordance with the New York Standards and Specifications for Erosion and Sediment Control, dated November 2016, and the NYSDEC's SMDM, dated January 2015, as specified in Chapter 294 of the Village of Mamaroneck Code. As a result of the proposed Sediment and Erosion Control Plan, no significant erosion or sediment impacts would be expected on the Project Site, nor are sedimentation impacts and induced turbidity expected in the Long Island Sound or other downstream water courses during the normal course of construction.
- 17) Soils would be stockpiled during construction. In the event of a 100-year tidal flood, as well as lesser tidal and non-tidal flood events, it is possible that soil stockpiled during the construction period would be disturbed and transported off-site. This is discussed in more detail in Section 3.G.
- 18) In accordance with the NYSDEC's SPDES General Permit for Construction Activities, construction would be performed in phases disturbing five acres or less. Each phase would provide soil erosion and sedimentation controls. Each phase would be stabilized in accordance with NYS's Erosion and Sediment Control requirements before proceeding to the subsequent phases. Construction phases would be coordinated with the Village, and weekly inspections would be performed by a NYSDEC-certified inspector or registered engineer to ensure compliance with the approved SWPPP.
- 19) The proposed stormwater management system employs water quality measures to filter and reduce pollutants and control runoff from impervious surfaces, as fully described in the SWPPP. Although the Project would introduce impervious surfaces that would result in runoff containing pollutants, water quality would be improved over the current condition as there are no water quality measures currently in place; the drainage system would provide water quality treatment to offset additional impervious surface coverage and runoff associated with Project development.
- 20) Porous pavement would be considered for residential driveways, walkways, pedestrian paths, and community open space features where traffic volumes are low or use is seasonal.
- 21) The HOA would be responsible for maintaining the common stormwater facilities on the residential portion of the Project Site. A description of the required maintenance for erosion control measures and stormwater management facilities is detailed in Chapter 8 of the SWPPP.
- 22) Regarding the portion of the Project Site in the residential development area, in addition to any requirement under Section 294 of the Village Code, a Declaration of Covenants, Restrictions, and Easements would be filed with the New York State Attorney General's Office and recorded against all homeowners' properties, as well as the common areas. This declaration would include a covenant (and necessary easements over private property) requiring the HOA to operate and maintain all stormwater practices on the residential portion of the Project Site. It would also contain a covenant requiring all homeowners to pay annual assessments to the HOA to cover the costs of operating and maintaining the stormwater practices.
- 23) Hampshire Recreation, LLC would be responsible for maintaining stormwater facilities on club property, including the pool, tennis courts, and nine-hole golf course, some of which would be located within the PRD.
- 24) Pursuant to Section 294-10 of the Village Code, Hampshire Recreation, LLC and the HOA would both also be required to "execute a maintenance easement agreement that shall be binding on all subsequent landowners served by the stormwater management facility. The easement shall provide for access to the

facility at reasonable times for periodic inspection by the Village of Mamaroneck to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by this chapter."

## G. FLOODPLAINS

The following is a summary of conditions regarding the floodplains on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The majority of the Project Site lies within a 100-year tidal floodplain. The floodplain elevations on the Project Site are dictated by tidal floods from the Long Island Sound. The Project Site has a history of tidal flood events that are directly associated with storm surge from the Long Island Sound, not freshwater input. Recent storm surge related flooding has occurred in this area in March 2010 (a Nor'easter), August 2011 (Hurricane Irene), and October 2012 (Hurricane/Superstorm Sandy). The Project Site experienced flooding during these events, but the flooding did not result in significant damage to the golf course or associated buildings. A drowning on the Project Site occurred during a storm in the 1990's when a vehicle was trapped by roads made impassable due to floodwaters.
- 2) Two types of flood hazard zones are found on the Project Site. The AE Zone is an area subject to inundation by the 1% Annual Exceedance Probability (AEP), commonly known as the 100-year flood. The majority of the Project Site, ~~Xxx acres, or xxx% of the site~~ lies within this 100-year floodplain. The X Zone designation indicates areas subject to inundation by the 0.2% AEP, or 500-year floodplain. A small area~~Xxx acres, or xxx%~~ of the Project Site lies within the 500-year floodplain. A small northeastern portion of the Project Site lies in neither floodplain. The Village's floodplain regulations apply to areas within the 100-year floodplain. Note that all areas within the 100-year floodplain are also within the 500 year floodplain, but those portions of the 500 year floodplain not also within the 100-year floodplain are not regulated by the Village.
- 3) The Base Flood Elevation (BFE) on the Project Site is 12 feet North American Vertical Datum (NAVD) from the Long island Sound.
- 4) There is no regulatory floodway on the Project Site.
- 5) Various models of sea rise have been developed for the Long Island Sound in the vicinity of the Project Site. Technical Report No 11-18 was published by the New York State Energy Research and Development Authority (NYSERDA) in 2014 and provides two sea rise scenarios: The Global Climate Model (GCM) and the Rapid Ice-Melt Model (RIMM). According to NYSERDA, the sea level rise by year 2080 in New York City ranges from 13" (the 10<sup>th</sup> percentile low range estimate) to 18"-39" (the 25<sup>th</sup> – 75<sup>th</sup> percentile mid-range estimate) to 58" (the 90<sup>th</sup> percentile), high range estimate. Interpolating between the 25<sup>th</sup> and 75<sup>th</sup> percentile estimates, the 100-year floodplain would be at elevation 14'4.5" under the 50<sup>th</sup> percentile estimate. --The Village of Mamaroneck Planning Department prepared its own "Sea Level Rise and Flooding" (Sea Rise Report) in February 2017 using the RIMM (worst-case) scenario to provide an estimate of future sea level rise expected to impact its coastal properties. In evaluating impacts, the Planning Board has used the 2080 mid-range estimate of a 28.5" sea level rise, recognizing that there is uncertainty in the estimates and that the actual level of sea rise could be higher or lower.
- 6) The current effective FEMA floodplain map dated 9/28/07 indicates the tidal flood elevation on the Project Site is at an elevation of 12 feet. The tidal flood elevation would be at approximately 14' 4.5-1/2" if a 28.5" sea level rise is assumed. Building elevations for the Project would be at a minimum elevation of

16 feet. The proposed minimum road elevation would be at a minimum of 13.5 feet. Thus, under the mid-range sea level rise scenario the proposed buildings would not be affected by flood waters. Some roadways would be affected. The impact could be greater or lesser depending on the actual amount of sea level rise.

- 7) The area of the Project Site proposed for development does not lie in an area mapped for wave action from storms. That is, waves from tidal storms are anticipated to have dissipated before reaching the development area.
- 8) Access to the Project Site is provided by Eagle Knolls Road, Cove Road, and Cooper Avenue. Eagle Knolls Road and Cove Roads have low points off of the Project Site such that they are blocked by floodwaters during the 100-year flood. Cooper Avenue has a low point elevation of 13 feet and is thus above the current 100-year flood elevation. A portion of Cove Road would be inundated to a depth of 16.5 inches in the 28.5 inch 100-year flood sea level rise scenario. The actual depth of inundation could be higher or lower. Cooper Avenue has a narrow point of 14 feet, allowing only one-way traffic.
- 9) ~~The Project proposes that all development be on a platform constructed of fill. Section 186-5 C (1) of the Village Code requires that the lowest floor, including basement, be elevated one to two feet above the base flood level. All structures are proposed to have a lowest finished floor elevation and all electrical, HVAC, plumbing and other service equipment at a minimum elevation of 16 feet, such that all structures would be at an elevation of 16 feet, or four feet above the BFE of 12 feet.~~
- 10) ~~The Applicant also proposes that all houses have basements; such basements would also have to comply with Section 186-5 C (1) of the Village Code. FEIS Appendix C, Figure 9 contains a schematic platform section requested by the Planning Board intended to show the appearance of the platform side slopes in relation to the proposed roads. This figure illustrates basements that appear to extend below the BFE; however, the record clearly states the Applicant's intention to construct structures in compliance with Section 186-5 C (1) of the Village Code. The Planning Board Finds that Appendix C, Figure 9 is schematic with respect to the appearance and further Finds that the Applicant must comply with Section 186-5 C (1) unless a variance is sought. The Applicant is not seeking such a variance.~~
- 9)11) Construction of the fill platform would require the import of 81,805 CY of soil and the on-site cut and relocation of 217,490 CY of soil. The total area of the fill platform within the 100-year floodplain is approximately 29.6 acres; ~~xxx CY, occupying an areal extent of xxx acres.~~
- 10)12) Utilities are proposed to be installed in accordance with the Village's floodplain regulations.
- 11)13) Chapter 186, *Flood Damage Protection*, of the Mamaroneck Village Code regulates development in floodplains for the purpose of preventing destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. A floodplain development permit is required prior to any construction in a floodplain.
- 12) ~~Section 186-5 (C) (1) requires that new construction and substantial improvements shall have the lowest floor (including basement) elevated at or above two feet above the BEF. The Project complies with this requirement.~~
- 13)14) Section 186-5 (3) (c) requires that "Whenever any portion of a floodplain is authorized for development, the volume of space occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation at or adjacent to the development. All such excavations shall be constructed to drain freely to the watercourse. No area below the waterline of a pond or other body of water can be credited as a compensating excavation." The Applicant has argued that this section of the Village Code does not apply because the hydraulic modeling included in the DEIS shows no

significant changes in water surface elevations as a result of the Project (see Findings 3.G 14-20). The Applicant further argues that this section is intended to apply to floodways. However, the Village Code does not make any exceptions for the requirement that hydraulic equivalency be provided and the code does not reference the requirement as applying only to floodways. The Planning Board therefore Finds that the Project does not comply with Chapter 186 because it does not compensate for and balance the volume of space occupied by the authorized fill or structure below the base flood elevation. The Project does not take a hydraulically equivalent volume of excavation from below the base flood elevation at or adjacent to the development. This requirement does apply to the Project, and as a result, a variance is required to allow the proposed filling to create the development platform. The criteria for issuing variances is discussed in Finding 3.G.29, below.

~~14)~~15) The Applicant's consultant, VHB, completed a Coastal Flooding Hydraulic Analysis (CFHA) to determine potential changes in existing floodplain patterns and flows due to Project development, specifically the construction of the proposed development platform. Impacts to the 100-year and 500-year floodplains were evaluated using model parameters based on the Effective (2007) and Preliminary (2014) Flood Insurance Studies for Westchester County. The Coastal Hazards Analysis Modeling Program (CHAMP) v. 2.0, including the Wave Height Analysis for Flood Insurance Studies (WHAFIS) was used for data modeling to estimate the magnitude of locally-generated, wind-driven waves and their potential impact on the Project Site and surrounding properties. FEMA's Technical Advisory Committee for Water Retaining Structures (TAW) Wave Runup Methodology was used to evaluate estimated runup at breaking wave locations on the Project Site. Potential coastal flood hazard impacts at the Project Site were evaluated for four scenarios for both the 100-year and 500-year coastal storm events, taking into consideration the existing and proposed topography:

- a. Scenario 1: The Effective Flood Insurance Study (FIS) inputs analyzed over the existing conditions topography,
- b. Scenario 2: The Effective FIS inputs analyzed over the proposed conditions topography,
- c. Scenario 3: The Preliminary FIS inputs analyzed over the existing conditions topography, and
- d. Scenario 4: The Preliminary FIS inputs analyzed over the proposed conditions topography.

~~15)~~16) A transect analysis is a way of measuring changes in flood elevations across a site based on various modelling scenarios. The transect is a line drawn across the site; changes in flood elevations are modelled across the length of the transect. A transect analysis was performed at four transect locations (Transects A-D) for each of the four scenarios above, including two locations of FEMA defined transects within the Preliminary FIS and two VHB-generated transects, to evaluate effects of proposed changes across the Project Site. The four transects are focused over areas with proposed grading changes where flooding patterns could be altered.

~~16)~~17) Wave Height Analysis. The Wave Height Analysis results indicate that the Project would result in both decreases and increases in wave heights within the Project Site. Specifically, the Project is expected to result in the following impacts to wave heights along the four transects:

- a. Transect A: Increases in wave heights (WH) of 0.5-0.6 feet within the Project Site during the 100-year and 500-year flood events, respectively; decreases in WH of up to 0.3 feet outside the landward Project Site boundary during the 100-year and 500-year flood events.
- b. Transect B: Decreases in WH outside the Project Site of 0.3-0.8 feet during the 100-year and 500-year flood events, respectively. The proposed grading would result in no increase to predicted WH within or outside the Project Site.
- c. Transect C: Decreases in WH within the Project Site during the 100-year and 500-year flood

events. The proposed grading results in no change in WH at the landward property boundary during 100-year flood events and decreases in WH by 0.3 feet within the landward Project Site boundary during 500-year flood events.

- d. Transect D: Increases in WH of up to 0.1 feet within the landward Project Site boundary during 100-year and 500-year flood events. The proposed grading would result in no change in WH at the landward Project Site boundary during the 100-year flood event and increases of up to 0.2 feet at the Project Site boundary during 500-year flood events.

~~17)~~18) All expected WH increases are within the Project Site limits; the model predicts no WH increase outside of the Project Site during the regulatory flood event. Results for Transect D predict a 0.2-foot increase during a 500-year flood event at the Project Site boundary in localized areas, immediately south of the Fairway Lane dead end. A home is located in this area; however, it is elevated above the calculated WH increase and would not be affected by the predicted increase.

~~18)~~19) FEMA's TAW Wave Runup Analysis results indicate that Project development would result in an increase of the 2% runup heights of 0.2 feet during the 100-year flood event within the Project Site. The analysis also indicates that the proposed grading would decrease the estimated 2% runup heights at the seaward face of the Project Site. Under the Preliminary FIS inputs, the increases in 2% wave runup occur only within the Project Site boundaries and are not predicted to affect adjacent properties. Under the Effective FIS inputs, the model predicts a potential increase of up to 0.1 feet at the Project Site boundary during the 100-year flood event. An increase of 0.1 feet would not increase the BFE at that location.

~~19)~~20) The flood analysis demonstrate that the addition of 105 new residential structures and associated grading will not redirect flood flows to new off-site locations or otherwise increase existing flood flows occurring on adjacent properties. By the time floodwater reaches Project Site boundaries, it will return to BFEs as existing today.

~~20)~~21) The Planning Board's consultant reviewed the results of the Applicant's flood modeling and concurs with the results. The Applicant's consultant further reviewed comments on the modeling received during the DEIS comment period and does not believe any of the comments alter the conclusions of the Applicant's analysis.

~~21)~~22) The Applicant modelled the flood extent under the proposed development condition for the 10, 25, and 50-year flood storms. Flood elevations were shown to be identical to existing conditions. No impact was shown on the Project Site or adjacent properties due to these flood elevations being influenced by the tidal action and water surface of the Long Island Sound.

~~22)~~23) The Applicant also modelled flooding from the 100-year non-tidal storm; i.e. a rainfall event that does not involve flooding from the Long Island Sound. (The 12-foot base flood elevation is determined by the 100-year tidal storm, not the 100-year non-tidal storm). The modelling showed that in a 100-year non-tidal storm water would rise to a maximum elevation of four feet in the low lying areas of the proposed golf course and would not reach any adjoining properties or roads, nor would it impact Cooper Avenue.

~~23)~~24) The Project proposes to realign Cove Road at a mean 14-foot elevation, which is higher than the 100-year flood elevation. The Project proposes to realign Eagle Knolls Road at a mean 14.5-foot elevation which is also higher than the 100-year flood elevation. including However, portions of these roads off of the Project Site would remain below the 100-year flood elevation and, thus, they would not be passable to Project residents during the 100-year flood.

~~24)~~25) The Applicant proposes to extend Cooper Avenue to improve access to the Project Site and the entire length of Cooper Avenue would be higher than the 100-year flood elevation of 12-feet. Cooper

Avenue would have a narrow point of 14-foot width. Cooper Avenue would have a low point of 13 feet. A 28.5 inch sea level rise would result in a portion of Cooper Avenue being inundated with 16.5 inches of water. A higher sea level rise would result in a deeper inundation.

~~25)~~26) Cooper Avenue is proposed to be gated. The gate would have to be opened to provide emergency access.

~~26)~~27) Both the Applicant and the Planning Board, through Planning Department staff, requested that the Village of Mamaroneck Fire Department and Mamaroneck Emergency Medical Services (MEMS) comment as to their ability to provide access to the Project Site through Cooper Avenue during the sea level rise scenario in which a portion was inundated to a depth of one foot. Neither responded to this request.

~~27)~~28) During previous tidal storm events the Village of Mamaroneck has issued mandatory evacuation orders for low-lying neighborhoods, including those adjoining the Project Site. It may reasonably be anticipated that mandatory evacuations would be issued during future tidal storm events. However, residents may or may not follow such orders.

~~28)~~29) Under the built condition, proposed buildings would be above the regulatory floodplain, but would still be mapped in the floodplain, requiring purchase of flood insurance. The Applicant may apply to FEMA for a Letter of Map Revision Based on Fill (LOMR-F) to eliminate the need to purchase flood insurance. Application for a LOMR-F typically takes place after construction due to the documentation required for its submittal, including surveys of as-built conditions. A Conditional Letter of Map Revision Based on Fill (CLOMR-F) would be completed and submitted to FEMA for review based on the final site grading for the Project. Upon FEMA approval of the CLOMR-F, the Applicant would later submit an as-built of the Project with a LOMR-F to update the map, removing proposed buildings from the floodplain.

~~29)~~30) The Project does not comply with Chapter 186 because it does not compensate for and balance the volume of space occupied by the authorized fill or structure below the base flood elevation by taking a hydraulically equivalent volume of excavation from below the base flood elevation at or adjacent to the development. The Planning Board can grant a variance from the requirements of Chapter 186 if it finds (i) good and sufficient cause; (ii) that failure to grant the variance would result in exceptional hardship to the applicant; and (iii) the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances. The Planning Board cannot make these findings here.

~~30)~~31) The Planning Board Finds that the Project is not consistent with the Village's floodplain regulations, does not meet the criteria for a variance in Village Code Sections 186-6 B (1), (4), (5), and (6), and would have a significant adverse environmental impact for the following reasons:

- a. The Project would introduce 105 new residences onto a site that would have only a single point of egress during the 100-year tidal flood event. Although Eagle Knolls Road and Cove Road would be elevated above the BFE, portions of these roads outside of the Project Site would be inundated and unpassable, and in the higher sea level rise scenarios portions of those roads on the Project Site would also be inundated. The only egress for residents from the Project Site would be via Cooper Avenue. The only access for first responders would be via Cooper Avenue. Cooper Avenue has a narrow point of 14 feet, allowing only one-way access. In the event Cooper Avenue was blocked due to an accident or a power line or tree falling down, access to the site would be completely blocked. Although the Village is likely to issue a mandatory evacuation order during a tidal flooding event, it is possible that not all residents would be able to evacuate due to ill health or other circumstances. It is unknown whether emergency vehicles would be



able to access the Project Site during the future sea level rise condition.

- b. Section 186-6 B (1), Conditions for Variances, states, "Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items [in sections] 186-6A9a) through (g) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases." The Project greatly exceeds these criteria as it proposes 105 new houses on 29.6 acres – far in excess of one half acre – and it proposes substantial filling in the floodplain. The Planning Board Finds that the scale and size of the Project are fundamentally at odds with the purpose and objectives of the Village's floodplain regulations.
- c. The Planning Board Finds that the Project is inconsistent with Section 186-1 C (1) because it is not protective of human life and health. It is not protective of life and human health because access to the site during the 100-year flood is limited to Cooper Avenue, which has a narrow point of 14 feet and which could therefore be easily blocked by a downed tree or utility pole. During the mid-range 2080 future sea level rise condition Cooper Avenue would be inundated to a depth of 164.5" and may become impassable.
- d. The Planning Board Finds that the Project is inconsistent with Section 186-1 C (3) because it does not minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- e. The Planning Board Finds that the required variance is inconsistent with Section 186-6 A (5) because the variance is not the minimum necessary to afford relief, considering the flood hazard, to afford relief. There are alternatives that would require less filling in the floodplain (see Section 3.T).
- f. The Planning Board Finds that the requested variance is inconsistent with Section 186-6 A (6) (c) because it would result in a threat to public safety.
- g. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (a) because the Project may result in stockpiled soils and other material being swept onto other lands to the injury of others during the period the Project is under construction.
- h. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (b) because the Project may result in danger to life for the reasons set forth in Finding 3.G.29.c.
- i. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (f) because there are alternatives that would require less filling in the floodplain.
- j. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (h) because it is not consistent with the purposes of the floodplain regulations as set forth in Finding 3.G.29.b, is not consistent with the 2012 Update recommendations that the Project Site be maintained as open space, and is not consistent with the Project Site's designation as a CEA because of its location in the floodplain.
- k. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (i) because it does not provide safe access to the Project Site in times of flooding in the future sea level rise condition for ordinary and emergency vehicles, as set forth in Finding 3.G.29.c.
- l. The Planning Board Finds that the Project is inconsistent with Section 186-6 A (4) (j) because it may result in costs to local government and dangers associated with conducting search and rescue operations during periods of flooding due to access limitations as set forth in Finding

3.G.29.c.

## H. WATER SUPPLY

The following is a summary of provision of water to the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The Project Site and existing clubhouse facilities are supplied potable water services by the Westchester Joint Water Works (WJWW). The WJWW purchases water from the New York City system, sourced from the Kensico Reservoir.
- 2) Several water mains, including a 12" main in Orienta Avenue and Cove Road and a 10" line in Hommocks Road, currently serve the Project Site. An existing 6" water line along Eagle Knolls Road and another along Cove Road service the existing clubhouse and accessory buildings.
- 3) The Project Site currently has two groundwater wells, in addition to a pond system and municipal water supply, providing irrigation water for the existing golf course. The well water is not utilized for human consumption.
- 4) Project development includes construction of 105 residential units, including 44 single-family homes and 61 semi-detached carriage homes.
- 5) The estimated residential average daily demand from the Project at full buildout would be 39,490 gallons of potable water per day (gpd).
- 6) Existing wells and ponds would remain in use and continue to irrigate the (reduced) 9-hole golf course, which is approximately half the size of the existing course. Based on historical records,  $\pm 18,000$  gpd water from the public water system would be used to supplement irrigation water from the on-site wells, and 10,000 gpd would be used during spring and fall.
- 7) The pumping capacity of the irrigation wells exceeds 100,000 gpd. The Applicant has applied for a water withdrawal permit from the NYSDEC pursuant to Article 15, Title 15 of the Environmental Conservation Law.
- 8) The Project would provide a new 8" water main system connecting the existing Cove Road 12" line to the existing 10" line at Hommocks Road, creating a main redundancy feed from the east and west. The new water main would provide a series of hydrants at locations approved by the Fire Official. Domestic connections would also be serviced by the 10" main.
- 9) The Applicant completed hydraulic modeling of the proposed water system. On February 4, 2018, the WJWW confirmed that the system has adequate capacity to supply the new Project-related water demands. Hydraulic modeling of the system was also reviewed and approved by WJWW at this time.
- 10) Newly installed Project water lines to individual property lines would be owned and maintained by the WJWW. Water lines on each lot would be owned and maintained by the property owner. The design and construction of the water main improvements would be in accordance with the WJWW requirements. The final limits of the water system would be determined during the final site plan approval process.
- 11) Hydrants would be adequately spaced throughout the Project Site. Spacing would be finalized in consultation with the Westchester County Department of Health and the Fire Department.
- 12) No significant impacts related to water supply have been identified and, therefore, no mitigation measures are required.

## I. SANITARY SEWAGE

The following is a summary of the provision of sanitary sewage service to the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The Project Site and existing clubhouse facilities are located within the 30-square-mile Mamaroneck Sewer District. The Mamaroneck Wastewater Treatment Plant (MWTP), located approximately 1.3 miles north of the existing clubhouse, treats sanitary sewage from the Sewer District.
- 2) The 2014 Annual Report from the Westchester County Department of Environmental Facilities indicates that the MWTP has a capacity of 20.6 million gallons per day (MGD) and an actual flow of 14.6 MGD. The West Basin Pump Station has a capacity of 5.8 MGD and an actual flow of 0.689 MGD. Thus, capacity exists within the County system to support the Project.
- 3) The Village of Mamaroneck DPW maintains a number of existing sanitary collection lines on and near the Project Site, including an existing 8" gravity main at Cove Road with service connections to the Project Site's clubhouse, pool area bathrooms and food counter, and the tennis facility on Eagle Knolls Road. An additional service connection is located at Cooper Avenue for the existing maintenance facility.
- 4) Sanitary flow from Cove Road is conveyed through an 8" gravity line that collects discharge from the Project Site facilities and the existing residences on Cove Road and South Cove Road. Collected flow is discharged to a pump station on Cove Road, west of its intersection with Orienta Avenue. The pump station operates via a 6" force main to a 10" sanitary gravity main in Orienta Avenue at the intersection of Cove Road.
- 5) No changes to the conveyance facilities serving the existing clubhouse are proposed.
- 6) There are three existing septic systems on the Project Site. All are proposed to be closed. See Section Q for further details.
- 7) The Project is anticipated to generate 39,490 gallons per day (gpd) of sewage, with an estimated peak rate of 110 gallons per minute (gpm), or 158,400 gpd.
- 8) The Applicant's preferred method of collecting sanitary sewage is by a combination of gravity and force mains to a single pump station.
- 9) From collection at the pump station, the Applicant has evaluated three options for conveyance of sanitary sewage in consultation with the Village Engineer. There are pros and cons to each, but all are feasible. The alternatives are:
  - a. Connection to the Village of Mamaroneck 10" gravity line in Orienta Avenue at the intersection of Cove Road. There are challenges with inflow and infiltration that require evaluation in the 6,000 linear feet of collection main from the connection point in Orienta Avenue to the County pump station located adjacent to the West Basin near the intersection of Orienta Avenue and Rushmore Avenue.
  - b. Connection to the Town of Mamaroneck sanitary system in Hommocks Road.
  - c. Extending the force main from the Project Site to the County pump station at West Basin.
- 10) The Village Engineer has recommended that the Applicant consider use of a low pressure sewer system for the collection of sanitary sewage as opposed to the gravity and force main system proposed by the

Applicant.

- 11) The Planning Board Finds that both collection measures and all three of the conveyance methods presented in the EIS are feasible and that none of them have significant environmental impacts that would not be mitigated through routine construction methods. The Planning Board would, therefore, follow the recommendations of the Village Engineer at the time of subdivision approval.
- 12) All proposed sewer improvements would be designed and constructed in accordance with the Ten State Standards for Wastewater Facilities as required by Westchester County Department of Health and the Village, which dictate standards for pump stations, force mains, and gravity collection systems, including peak discharge factors based on system volume to ensure sufficient sewer capacity.
- 13) The wastewater infrastructure would be conveyed to the Village of Mamaroneck.
- 14) Westchester County recommends that sanitary discharge from projects be mitigated at a ratio of 3:1 by providing system flow reductions for Inflow and Infiltration (I&I). For the proposed 39,490 gpd of sanitary flow, the Applicant would be required to perform or fund sewer upgrades to reduce I&I by 118,479 gpd.
- 15) The Applicant and project engineer would meet with the Village Engineer and DPW to identify sanitary system segments in the Village of Mamaroneck that require rehabilitation either through reconstruction or lining and assess the reductions possible for each project. The Applicant would work with the Village Engineer and DPW to further investigate each project area and perform an assessment of reduction potential. Projects would be ranked and selected jointly by the Applicant, Village Engineer, and DPW representatives. A plan would be finalized with the Village Engineer and DPW prior to site plan approval. The Applicant would either provide engineering and construction services to perform the selected sanitary upgrades or provide reimbursement to the Village of Mamaroneck to self-perform the proposed upgrades.
- 16) In the event a pump station is utilized, it would be designed and placed to mitigate potential impacts from flood events. Components at risk include the pump station, pump station controls, and emergency generator. All pump station chamber covers would be set above the floodplain at an elevation of 16 feet to prevent the possibility of inundation by flood waters. The pump station controls and emergency generator would be mounted at an elevation of 16 feet or higher to prevent flood water contact. Power provided to the pump station would be underground via sealed conduits extended above ground to a minimum elevation of 16 feet to prevent floodwater impact.

## J. SOLID WASTE

The following is a summary of conditions regarding solid waste services to the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) Solid waste is currently collected and stored in a compactor located in the loading dock area outside the basement level of the clubhouse. The compactor services the clubhouse, pool, snack bar, and tennis facilities. The Hampshire Country Club grounds department uses two additional garbage containers primarily for yard waste and discarded equipment parts.
- 2) Solid waste removal and recycling services for the Project Site are provided by a private contractor. The pickup schedule is by call-in request and varies based on the season, but generally occurs two times per month.
- 3) The Project Site currently generates  $\pm 0.11$  tons of solid waste per day, or roughly 40 tons per year.
- 4) The Village of Mamaroneck DPW is responsible for garbage, recycling, bulk waste, and yard waste collections in the Village. Solid waste from residents of the Village of Mamaroneck is delivered to the South Columbus Avenue Transfer Station located in Mount Vernon; from there, materials are delivered to the Charles Point Resource Recovery Facility in Peekskill, NY.
- 5) According to the Westchester County Department of Environmental Facilities, the Charles Point Resource Recovery Facility processes up to 2,250 tons per day of municipal solid waste and has a permitted capacity of 710,000 tons per year. In 2014, the facility processed 684,929 tons of solid waste.
- 6) The Daniel P. Thomas Material Recovery Facility serves Westchester County's recycling efforts, including processing recycling materials from the Village of Mamaroneck. The facility processed 73,013 tons of recyclables in 2014.
- 7) The Project's proposed 105 new residential units housing approximately 335 residents would generate approximately 0.73 tons of solid waste per day, or roughly 266 tons per year, which is an increase of approximately  $\pm 0.62$  tons per day, or  $\pm 226$  tons per year compared to existing conditions. The Charles Point Resource Recovery Facility has a permitted capacity of 710,000 tons of solid waste per year. In 2014 the facility processed 684,929 tons of solid waste per year and therefore has capacity to accept waste from the Project. The Charles Point Resource Recovery facility has capacity to accommodate this increase.
- 8) The Hampshire Club facilities would continue to operate as a social, tennis, golf, and swimming club under the Proposed Action; membership and frequency of events, both member and non-member, are not expected to change. Therefore, solid waste generation related to these amenities is expected to remain consistent.
- 9) No significant demolition activity is anticipated in association with the Proposed Action.
- 10) All construction debris would be required to be disposed of in accordance with applicable regulations.
- 11) The Project would require public solid waste removal and public recycling services with residential pick-up from individual disposal and recycling receptacles, in accordance with Village of Mamaroneck placement and enclosure regulations for Garbage, Rubbish, and Refuse. Solid waste management, including collection and disposal, for the existing Hampshire Country Club facilities would continue to operate as under existing conditions, as described above.

- 12) No significant adverse impacts from solid waste generation at the Project Site are anticipated to result from the Proposed Action; therefore, no mitigation measures are proposed.

## K. VEGETATION AND WILDLIFE

The following is a summary of the wildlife and vegetative conditions that currently exist on the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The existing golf course was constructed on the Project Site in the late 1920s and has remained in use since that time. Consequently, the most prominent vegetative cover types are the landscaped fairways, practice greens, roughs, and trees associated with this use, accounting for 81.6% of the Project Site. Tall grass and brush, particularly along the perimeter of the golf course and surrounding the pond and inlet to the west of the clubhouse constitute 8.3% of the Project Site. Anthropogenic ponds and wetlands constitute 4.4% of the Project Site, while impervious surfaces make up the remaining 5.6%.
- 2) On February 25, 2016, correspondence was submitted to the New York Natural Heritage Program (NYNHP) inquiring about records or known occurrences of rare or New York State-listed animals, plants, or significant natural communities on or in the immediate vicinity of the Project Site. On March 23, 2016, the NYNHP indicated that no State-listed animals, plants, or significant natural communities have been recorded at the Project Site.
- 3) The NYSDEC's Environmental Resource Mapper did not identify any significant natural communities on or near the Project Site.
- 4) The US Fish and Wildlife Service (USFWS) Trust Resources Report (TRR) also indicates there are no critical habitats on the Project Site, nor are there any rare or endangered plant or animal species known to inhabit the Project Site.
- 5) The TRR did identify a list of 28 migratory species that could potentially be affected by the Project Site activities because they may use the mature trees on the site as resting places. While none of these species are listed as rare, threatened, or endangered, all are flagged as "Conservation Concern," meaning they are vulnerable to disturbance and habitat loss. However, the Project Site is not mapped or considered as "Critical Habitat." ("Critical Habitat" is a geographic area containing features essential to preservation of a rare, threatened or endangered species.)
- 6) The Project Site currently provides habitat for common wildlife species well-adapted to predominantly developed/disturbed conditions and close human presence. The overall quality of the habitat on the Project Site is low due to the longstanding and ongoing maintenance of the golf course. Dominant vegetative species include common turf grasses and other landscaping, as well as common native and non-native trees, providing only minimal habitat value to grazers, such as Canada geese, white-tailed deer, and aerial foragers.
- 7) As discussed in Section 3.E, the wetlands on the Project Site have low value for wildlife. However, the Project Site adjoins the Hommocks Marsh Complex, which has high wildlife value.
- 8) No direct impacts to the Hommocks Marsh Complex would occur. The quality of water discharged to the Hommocks Marsh Complex would likely improve as a result of the stormwater quality controls proposed to be implemented (see Section 3.E) and because of the proposed wetland buffer plantings (see Finding 3.E.15).
- 9) The primary habitat value of the Project Site relates to the mature trees on the site. There are 816 trees on the Project Site over 8' diameter at breast height (dbh). In addition to providing a resting place for



migratory birds, they likely provide a nesting and food source for common bird species.

- 10) Project development would replace a portion of the golf course with approximately 29 acres of residential development. The primary vegetative impacts of the Project would be an increase of 8.3 acres of impervious surfaces associated with the residential development and newly created roadways, a decrease of 44.3 acres in landscaped cover types, and a 36-acre increase in grasslands and brushlands associated with the preserved open space.
- 11) No ponds or wetlands would be directly disturbed by the Project.
- 12) Application of fertilizers, pesticides, and herbicides on the golf course would be reduced under the Project corresponding to the reduction to a 9-hole golf course. The open space area would be maintained by the HOA, which would regulate the use of fertilizers, pesticides, and herbicides. No pesticides, herbicides, or fertilizers are anticipated to be used on the 36-acres of shared open space. This would be offset somewhat by residential use of lawn and garden chemicals.
- 13) The Project proposes the removal of 432 trees with a diameter of 8" or greater. The removal would occur within the 55.6-acre area of disturbance and would include an approximately 10.6-acre tree patch. A total of 5.7 acres of tree patches would remain. No trees would be removed within 100 feet of wetlands or ponds. 384 trees 8" dbh or greater would remain scattered over the entire site.
- 14) The Applicant proposes the following mitigation measures:
  - a. To avoid the potential for direct take of migratory birds, tree cutting would be avoided from April 15<sup>th</sup> through July 31<sup>st</sup>.
  - b. To replace those removed for development purposes, 432 new, small-caliper (< 3" caliper) trees would be planted.
  - c. A 20-foot buffer of native species would be planted around wetlands and ponds, resulting in 2.5 acres of improved habitat.
  - d. The 36 acres of shared open space would be converted from a golf course use to open space. The Applicant proposes a landscaping plan under which the existing maintained lawn area would be reduced. Portions of the open space would be replaced with native, low maintenance plant species based on the recommendations of the *Coastal Planting Guide for the Village of Mamaroneck*. Other areas would be allowed to revert to a natural state. With the implementation of this landscaping plan and over time, these vegetated habitats would attract a more robust wildlife species assemblage, resulting in an overall increase in species diversity.
  - e. The Applicant prepared a Landscape Management Plan which identifies responsible parties, methods and means for managing the proposed landscaping.
- 15) Estimates of the time it would take for the proposed 432 replacement trees to reach maturity range from 20-40 years or longer, depending on species.
- 16) The proposed replacement trees would likely not have the same habitat value at maturity as those they replace because there are fewer trees such as oak that produce a mast crop, and also because a number of the species are cultivars that may produce less or smaller food crops. This is not necessarily a significant impact because the species that rely on the trees for food and habitat (as opposed to use as a resting place) are common species.
- 17) Resident avian species may continue to use the remaining 384 existing trees to be preserved on the Project Site as potential habitat, as well as those in the surrounding area. Although bird density may decrease in the short-term during construction and until the new trees reach maturity, it is likely that

species diversity would remain similar.

- 18) Following Project development, the Project Site would continue to function ecologically as a location of primarily developed and landscaped habitats. However, the areas of naturally vegetated habitats in the shared open spaces would grow and improve significantly.
- 19) The Planning Board Finds that the Project would have a significant impact on vegetation and wildlife because of the loss of 432 mature trees, and that this impact is not adequately mitigated by the measures outlined in Finding 3.K.13 above because:
  - a. The length of time it would take for the trees to grow to replacement size.
  - b. The replacement trees would not have the same habitat and food value with respect to species; and
  - c. The loss of significant habitat would reduce the overall value of the Hommocks Salt Marsh, which the project site adjoins and which is part of the same Critical Environmental Area.

## L. CRITICAL ENVIRONMENTAL AREA

The following is a summary of the Critical Environmental Area (CEA) designation of the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) A CEA is a State or locally-designated site recognized for its exceptional or unique environmental characteristics with respect to one or more of the following: a benefit or threat to human health; a natural setting, e.g. fish and wildlife habitat, forest and vegetation, open space or area of important aesthetic or scenic quality; agricultural, social, cultural, archaeological, recreational, or education values; or an inherent ecological, geological, or hydrological sensitivity to change that may be adversely affected by any change.
- 2) The Hommocks Conservation Area, which includes the Hommocks Salt Marsh, and the Hampshire Country Club were designated as CEAs simultaneously by the Village of Mamaroneck in 1985. The Marsh is considered a highly sensitive coastal area, encompassing tidal wetlands, the outfalls of two nearby creeks, and sheltered waters. Together these features provide optimal feeding and nesting areas for migrating and resident birds. Unlike the Hommocks Salt Marsh, the Hampshire Country Club CEA was not noted for its significant habitat, but instead for sensitive drainage characteristics related to the Hommocks Conservation Area and its open space.
- 3) The unique environmental characteristics qualifying the Project Site for CEA designation are as follows:
  - a. Drainage patterns into the Hommocks Marsh
  - b. Presence and connection of surface water features and tidal and freshwater wetlands
  - c. Proximity to the Long Island Sound
  - d. Location within the 100-year floodplain
  - e. Open Space
- 4) Drainage is discussed in Section 3.F of these Findings. The Project would not have an adverse impact on drainage patterns into the Hommocks Marsh and would likely result in an improvement in water quality inputs to the marsh because of implementation of stormwater quality controls.
- 5) Surface water features are discussed in Section 3.E of these Findings. The Project would not have an adverse impact on surface water features and would likely result in an improvement in wetlands water quality because of the implementation of wetland buffer plantings.
- 6) The Project would not adversely impact the Long Island Sound because to the extent that drainage from the Project reaches the Sound, water quality would be improved over the existing condition because of the reduction in fertilizer, herbicide, and pesticide use with the reduction in golf course size and because of the implementation of water quality treatment measures.
- 7) The Project Site's location within the 100-year floodplain is a contributing factor to the CEA designation. The floodplain is discussed in Section 3.G. Because the Planning Board Finds that the Project would have a significant, unmitigated adverse impact on the floodplain, the Planning Board also Finds that the Project would have a significant, unmitigated adverse impact on the CEA.
- 8) The open space on the Project site is a contributing factor to the CEA designation. Open space is discussed in Finding 3.A.11. Because the Planning Board Finds that the Project would have a significant,

unmitigated adverse impact on open space, the Planning Board also Finds that the Project would have a significant, unmitigated adverse impact on the CEA.

## M. TRAFFIC, TRANSIT AND PEDESTRIANS

The following is a summary of traffic, transit and pedestrian conditions on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The Applicant conducted a traffic study using standard methods and practices. The Planning Board's consultant reviewed and provided comments on the study. In keeping with standard practices, the traffic study was conducted according to the following procedure.
  - a. An inventory of roadway, sidewalk and intersection geometry, traffic control devices, and traffic signal timings was conducted for the roadways in the vicinity of the Project Site.
  - b. Ten roadways to be analyzed were identified by the Planning Board during the scoping process. The roadways were:
    - Boston Post Road (US Route 1)
    - Hommocks Road
    - Weaver Street (NYS Route 125)
    - Eagle Knolls Road
    - East Cove Road
    - Orienta Avenue
    - Delancey Avenue
    - Cooper Avenue
    - Fairway Lane
    - Old Boston Post Road
  - c. Seven intersections to be analyzed were identified by the Planning Board during the scoping process.
    - Boston Post Road (US Route 1 and Hommocks Road/Weaver Street)
    - Hommocks Road and Eagle Knolls Road
    - Orienta Avenue and East Cove Road
    - Boston Post Road (US Route 1) and Orienta Avenue/Delancey Avenue
    - Old Boston Post Road and Cooper Avenue
    - Boston Post Road (US Route 1) and Old Boston Post Road/Richbell Road
    - Fairway Lane and Orienta Avenue
  - d. Existing vehicle, pedestrian and bicycle volumes were manually counted at all study intersections and automated 24-hour vehicle counts were conducted on Boston Post Road, Hommocks Road, and Orienta Avenue. The automated counts showed that, overall, the AM, PM, and Saturday peak hour volumes are similar. The Saturday peak hour volumes are slightly higher than the AM and PM peak hour volumes. The pedestrian counts showed that, overall, pedestrian activity was at its

greatest during the AM peak hour, with the highest concentration of pedestrians at the intersection of Boston Post Road and Hommocks Road/Weaver Street. All other study intersections had fewer pedestrians, with the least amount observed at the Orienta Avenue intersections with East Cove Road and Fairway Lane. 12 or fewer bicyclists were observed at any study location, with the highest number (11 and 12) occurring during the Saturday peak hour at the intersections of Boston Post Road with Old Boston Post Road/Richbell Road and Orienta Avenue/Delancey Avenue.

- e. Pedestrian crossings were inventoried. Sidewalks are provided connecting all of the businesses on Boston Post Road between Hommocks Road/Weaver Street and Orienta Avenue/Delancey Avenue. Signalized crossings of Boston Post Road are provided at Hommocks Road/Weaver Street, Richbell Road/Old Boston Post Road, the High School driveway, and Orienta Avenue/Delancey Avenue. All of the intersections were observed to be properly marked to accommodate pedestrians and appeared to be functioning safely. Crossing guards were provided at the intersections of Boston Post Road with Hommocks Road/Weaver Street and with Richbell Road/Old Boston Post Road. Sidewalks are provided on both sides of Hommocks Road from Boston Post Road to the driveway to the school's main parking lot where there are unsignalized crosswalks. These crosswalks are staffed by a crossing guard during morning and afternoon school dismissal periods. East of the parking lot driveway, a sidewalk continues on the school side of Hommocks Road all the way to the school's rear driveway, allowing students complete access to the campus from Boston Post Road without having to walk in the street.
- f. Traffic circulation patterns around the Project Site were assessed. Primary access to the Project Site is currently provided from Eagle Knolls Road and Cove Road. Golf course maintenance area access is provided via Cooper Avenue. Vehicles from the south generally approach the Project Site via Hommocks Road and Eagle Knolls Road. Vehicles from the north generally approach the Project Site via Orienta Avenue and Cove Road. Hommocks Road provides access to the Hommocks School and the residences on Eagle Knolls Road, Hommocks Road, and Oak Lane. Orienta Avenue provides access to the residences and businesses to the north of the Project Site. Old Boston Post Road provides access to the residences to the west of the Project Site. Within the Hampshire Country Club's property, Eagle Knolls Road and East Cove Road are private roads. Analysis shows that these roadways are used as a shortcut by traffic between Orienta Avenue and Hommocks Road, most notably on weekday mornings when ~~drivers~~some residents of the Project Site travel back and forth to the school and/or use the site's roadways as a route of travel.
- g. Intersection capacity analyses were conducted using evaluation criteria from the 2010 Highway Capacity Manual (HCM) under existing traffic volume conditions to assess the quality of traffic flow in the study area during peak hours. The existing physical roadway characteristics, signal phasing, and timing settings at the signalized study intersections were determined by collecting field measurements and using Synchro 9 software to model the study intersections based on these parameters.
- h. Capacity analysis results were reported using a variety of performance measures, including "Level of Service" (LOS). The LOS designation is an index based on the average control delay experienced by a vehicle traveling through the intersection. LOS designations are letter-based, ranging from A to F, with LOS A representing the best operating condition (lowest vehicle delays) and LOS F representing the worst operating condition (highest vehicle delays).
- i. Traffic impacts of the Project were evaluated by determining the traffic volumes expected to be generated by the 105-unit residential development and estimated changes in traffic activity due to the reduction to a 9-hole golf course. A background growth rate of 0.25% was added, as was

projected traffic from other development in the vicinity of the Project Site. Trip generation resources, including the Institute of Transportation Engineer's (ITE's) *Trip Generation Manual*, Ninth Edition were used to generate trips from the Project. Analysis indicated that the Project is expected to generate a total of 61 new trips during the AM peak hour, 73 new trips during the PM peak hour, and 61 new trips during the Saturday peak hour (see DEIS Table 3M-11).

- j. Trips generated from the Project were distributed to the three existing access points to the Project Site (Eagle Knolls Road, East Cove Road, and Cooper Avenue) in two configurations: a) with Cooper Avenue closed, except for emergencies and; b) with Cooper Avenue open for 2-way traffic. The configuration that yielded the highest traffic volume at each intersection (individually) was chosen for analysis. Note that the Applicant originally proposed that Cooper Avenue be open to vehicular traffic but subsequently revised the analysis to reflect that it is proposed to be used for emergency access only. Anticipated trip arrival and departure patterns were determined based on the existing roadway network, existing traffic patterns, and proposed site access.
  - k. Intersection capacity analyses were conducted for the Future No-Build and Build traffic volume conditions. The intersection capacity analyses were conducted using Synchro 9 software to model the study intersections based on the existing physical roadway characteristics and signal phasing and timing settings.
- 2) The results of the analysis indicate that under existing conditions, the signalized intersection of Boston Post Road and Hommocks Road/Weaver Street currently operates at an overall LOS E during the AM peak hour. LOS E is also experienced on individual movements (eastbound and southbound left turn movements and northbound through movement) during the AM peak hour. The intersection operates at acceptable LOS D during the PM and Saturday peak hours, with all individual movements operating at LOS D or better. The two other signalized study intersections operate at an overall LOS C during the peak hours. At the unsignalized intersections, the minor street turning movements operate at LOS B or better during each peak hour. Synchro analyses indicate the average (50<sup>th</sup> percentile) queues at all locations are less than the available storage. At the unsignalized intersections, the queue lengths measure less than the provided storage.
- 3) The results of the analysis indicate that under the Future No-Build condition, with the forecasted background and other development increases in traffic volumes, there would be a slight increase in overall delays at the three signalized intersections along Boston Post Road, generally on the order of two seconds or less. The LOS would remain unchanged from those experienced under existing conditions. At the unsignalized intersections, the minor street turning movements would continue to operate at LOS B or better during each peak hour, with increases in delay of up to 0.1 seconds. The intersections of Eagle Knolls Road with Hommocks Road and East Cove Road with Orienta Avenue are projected to experience LOS A conditions, indicative of little or no delay. Since traffic volumes on Eagle Knolls Road and East Cove Road between Hommocks Road and Orienta Avenue are even lower than those at the intersections of Eagle Knolls Road with Hommocks Road and East Cove Road with Orienta Avenue, it is reasonable to conclude that any intersections along these roads would also experience little or no delay in the Future No-Build condition.
- 4) The results of the analysis indicate that under the Future Build condition, with the forecasted background and other development increases in traffic volumes, there would be a slight increase in overall delays at the three signalized intersections along Boston Post Road, generally on the order of one second or less. The LOS would remain unchanged from the Future No-Build condition. At the unsignalized intersections, the minor street turning movements would continue to operate at LOS B or better during each peak hour, with only minor increases in delay of 1.1 seconds or less. At the three signalized intersections there would be a slight increase in the length of the maximum (95<sup>th</sup> percentile) queues on the turning lane

movements that exceed the available storage under Future No-Build conditions, generally on the order of eight feet or less. The average (50<sup>th</sup> percentile) queues at all locations would remain at acceptable lengths. At the unsignalized intersections, the 50<sup>th</sup> and 95<sup>th</sup> percentile queue lengths would continue to be acceptable.

- 5) A revised intersection analysis for the US Route 1 intersection with Old Boston Post Road and Richbell Avenue was conducted assuming that Cooper Avenue was used for emergency access only. The analysis indicated that the intersection would operate at level of service C or better during the peak hours, and the Project would increase peak hour delays for the intersection by 0.2 seconds or less.
- 6) Based on the foregoing analysis, the Planning Board Finds that traffic from the Project, once completed and operational, would not have a significant adverse impact on traffic operating conditions.
- 7) Construction traffic would be routed from US Route 1 to Hommocks Road to Eagle Knolls Road. During the busiest period (construction of the main fill platform, lasting nine months), 24 fill trucks, two other trucks, and 25 cars/pickup vehicles are projected to visit the site per day. Note that each truck visit is two trips: one entering and one existing, so during the busiest period there would be 52 truck trips and 50 car/vehicle trips. During the busiest hour, it is projected that 12 trucks and 17 cars/pickups would enter/exit the Project Site. The busiest construction period (structure/foundation/roads/utilities/fit-out/spurs, lasting nine months) would see approximately 12.5 truck visits on a daily basis (25 truck trips), with a maximum of eight truck trips in any hour. Construction is expected to last six to seven years, with the busiest period lasting nine months. However, if home sales do not occur at the rate projected by the Applicant, the construction period could last longer.
- 8) The Applicant proposes to prohibit trucks from Hommocks Road for 30 minutes on either side of the school's morning arrival period and for 30 minutes on either side of the afternoon departure period.
- 9) The Applicant proposes to include a rider in contract agreements requiring trucks to have GPS tracking devices installed on their vehicles and prohibiting them, under financial penalty, from having them travel on roads other than Hommocks Road prior to 8:30 am, between 2:30 and 3:30 pm, or after 6:30 pm.
- 10) The Planning Board Finds that construction truck traffic would result in a temporary, but lengthy, adverse impact to residents of Hommocks and Eagle Knolls Roads during the construction period. The length of this impact would be nine months at its most severe, and it would last 6-7 years; longer if housing sales are slower than the Applicant anticipates.
- 11) The Planning Board Finds that potential impacts to Hommocks School traffic and students is adequately mitigated by the proposed mitigation measures.
- 12) The Planning Board Finds that the overall impact of construction traffic would be lessened if less fill were required, since fill import results in the highest level of truck traffic. See Section 3.T for a discussion of alternatives that would have fewer environmental impacts, including fewer construction related truck impacts.
- 13) Sidewalks are proposed to be installed along the realigned Cove Road, traversing the Project Site, and, if permitted by the Village, extended to the existing sidewalk infrastructure at the rear of the Hommocks School. The Planning Board Finds that this is a positive impact of the Project and an improvement over existing conditions, under which there are no sidewalks for use by pedestrians walking to and from the neighborhoods on either side of the Project Site.
- 14) Project roadways are sufficiently wide to accommodate bicycle traffic.
- 15) Cove Road on the Project Site would be realigned and constructed above the 100-year flood elevation. This would improve the connection between the Orienta Avenue neighborhood and the Hommocks



Middle School. The Planning Board Finds that this is a positive impact of the Project.

- 16) Historical accident data for the study intersections discussed above were obtained from the New York State Department of Transportation (NYSDOT) for the three-year period from January 1, 2013 to December 31, 2015. Analyses show a total of 112 crashes with 101 crashes (90 percent) reported on Boston Post Road, two crashes on Orienta Avenue, four on Hommocks Road/Weaver Street, one on Old Boston Post Road, and four on Richbell Road during the three-year period. No accidents were reported on Eagle Knolls Road, East Cove Road, Fairway Lane, or Cooper Avenue. It is noted that there was one accident reported in the existing Hampshire Country Club parking lot, where one vehicle backed into another without injury. The highest number of crashes in the 3-year period occurred at the Boston Post Road (US Route 1) and Old Boston Post Road/Richbell Road intersection, with a total of 43 crashes. That intersection also had the most accidents involving pedestrians (6) and cyclists (2). Of the 107 crashes at intersections, the most predominant types were rear end collisions, with a total of 28 crashes (26 percent), followed by overtaking (21 crashes/20 percent) and left-turn (17 crashes/16 percent) collisions.
- 17) The Metropolitan Transportation Authority's (MTA's) Metro-North Railroad's New Haven line runs parallel with Boston Post Road and has two stations in proximity to the Project Site: the Mamaroneck and Larchmont rail stations. Connections to Amtrak service are also available along the New Haven line at the New Rochelle and Stamford, CT stations. Westchester County operates bus route #70, also known as the Bonnie Briar Commuter, in the vicinity, providing weekday loop service starting and ending at the Larchmont train station. Route #70 travels along Boston Post Road between Weaver Street and Richbell Road and operates four buses during the morning peak commuter period and seven buses during the PM peak period. At the Larchmont station, connections can be made to bus routes #61, #66, and #71.
- 18) The Village's *2012 Comprehensive Plan Update* listed relevant goals for pedestrian, bicycle, and transportation-related improvements. The Traffic and Transportation chapter of the *2012 Update* generally focuses on and contains recommendations for the area near the Mamaroneck train station and commercial corridors, such as Boston Post Road and Mamaroneck Avenue, but does not include any specific transportation or parking goals for the Project Site.
- 19) The Hommocks Middle School campus also includes the Hommocks Park Ice Rink and Hommocks Pool. Vehicular, pedestrian, and bicyclist circulation primarily occurs at the school during the peak morning arrival period and during the peak afternoon dismissal period. As school bus transportation is provided only for students who live more than 2 miles from the school, the majority of students walk, bike, or are driven to school by a parent/guardian. Motorists dropping off or picking up students enter the main school driveway and circulate around to the drop-off/pick-up area in front of the school entrance. Drivers then exit the driveway onto Hommocks Road when directed to by the crossing guard. School buses travel along Hommocks Road to the bus drop-off/pick-up area located on the northern part of the campus. Mitigation for truck traffic in the vicinity of Hommocks Road is discussed in Findings 3.M. 8 and 9 above.
- 20) Primary access for emergency responders to the Project Site is provided from the south via Eagle Knolls Road and from the north via East Cove Road. Cooper Avenue would be used for emergency egress and access only. Emergency access during flood events is discussed in Section 3.G.
- 21) Sight distance analyses were conducted at the following unsignalized intersections:
  - a. Orienta Avenue and East Cove Road
  - b. Hommocks Road and Eagle Knolls Road
  - c. Orienta Avenue and Fairway Lane
  - d. Old Boston Post Road and Cooper Avenue

Acceptable sight distances are provided at the Orienta Avenue and East Cove Road intersection. Acceptable site distance is provided for vehicles exiting from Fairway Lane at its intersection with Orienta Avenue. Minor brush clearing would be required to achieve acceptable site distances at the Hommocks Road and Eagle Knolls and Cooper Avenue and Old Boston Post Road intersections.

- 22) Project development would result in a total of 163 parking spaces provided at the clubhouse and an additional 16 spaces available during large Hampshire Country Club events, for a total of 179 spaces. Village Code §342-56(A) parking regulations require 2 spaces for each 3 individual, family, or other type of memberships. The Hampshire Country Club had 264 members as of 2017, requiring 176 parking spaces per the Village Code. Club membership is anticipated by the Applicant to remain similar to current level under Build conditions. Therefore, the 179 parking spaces would comply with Village parking requirements. The 179 parking spaces would also be able to accommodate large events, such as weddings with up to 250 guests.
- 23) The Project would provide four parking spaces per residential unit, including two in the driveway and two in the garage, yielding 210 enclosed spaces and 210 driveway apron spaces, for a total of 420 private residential parking spaces. On-street parking within the Project Site would be permitted on one side of all streets (2x10 foot travel ways and 8 feet for parking), adding parking spaces for approximately 125 more vehicles. Village Code §342-52(l) requires a minimum of 241 parking spaces to be provided, 88 for the single-family homes and 153 for the semi/attached carriage houses, each of which has three bedrooms. Between 80 and 160 of the required parking spaces must be enclosed and at least 80 of the unenclosed parking spaces must be available for use by anyone. A total of 545 parking spaces (420 private + 125 on-street) are proposed, which is significantly more than the 241 required spaces. The 125 on-street spaces exceeds the 80 required spaces open for use by anyone.
- 24) Existing pavement conditions on Hommocks Road and the west end of Eagle Knolls Road were evaluated by a visual inspection and laboratory core sampling of the roadway surface. Hommocks Road displayed significant distress levels in most areas, but pavement structure two inches subsurface and below is structurally sound. Using the Road Manager Pavement Condition Index (PCI), Hommocks Road was rated 35 on a scale of 0 (virtually impassable) to 100 (brand new and perfectly constructed). Eagle Knolls Road displayed moderate distress levels and is in considerably better condition than Hommocks Road. Pavement structure two inches subsurface and below is structurally sound. The PCI was rated 65. For the duration of construction, it is proposed to mill and pave Hommocks Road to improve its PCI score. At the completion of construction, the roadways would be reexamined and repaired, as needed, to approach a PCI score of 66 or better. The Planning Board Finds that this is sufficient mitigation for potential impacts to pavement conditions.
- 25) The two existing access points to the Project Site (Cove Road, Eagle Knolls Road) would be modified and a new internal roadway, "Road A", would be added to intersect with Cove Road and terminate in a cul-de-sac as part of Project development. Each roadway would be 28 feet wide and, combined, would accommodate 125 on-road parked vehicles. Thus, the 28-foot wide roadways would be sufficient to provide a 10-foot wide travel lane in either direction and an 8-foot wide car parking area along the side. The roads would be proposed for dedication to the Village.
- 26) A qualitative analysis was conducted at the three newly created "T" intersections with Cove Road (Cooper Avenue Extension, Road "A," and Eagle Knolls Road) to identify future traffic operating conditions. Project-generated traffic volumes were assigned to the internal intersections and the location of the residential units along the internal roadways. The Project trips were then added to the No-Build volumes to develop the Build volumes on the internal roads. A review of the Build volumes along the relocated Cove Road indicates that AM peak hour volumes would be 72 percent higher than the PM peak hour volumes and 52 percent higher than the Saturday peak hour volumes, primarily due to traffic to and from

**Commented [SM1]:** This is correct per the DEIS. It's a little odd but I take it to mean a full TIS was not conducted for these roads. Given the low level of traffic, I don't think it's material.

Hommocks Middle School.

- 27) A Synchro analysis was conducted with the higher AM peak hour volumes, which indicate that the minor street approaches at all three internal intersections would operate at LOS A. A further analysis was conducted in which the AM peak hour volumes were increased by a magnitude of five. This sensitivity analysis indicated that, even with the substantial increase in traffic volumes, the minor street approaches at each intersection would operate at acceptable LOS B. During the PM and Saturday peak hours, it can be concluded that traffic operating conditions would be better than the AM peak hour conditions, as the PM and Saturday volumes are much lower than the AM volumes.
- 28) The Applicant provided a search of public records with respect to Eagle Knolls Road, Delancey Cove Road West, Delancey Cove Road North, Delancey Cove Road South and Cooper Avenue by Chicago Title Insurance Company certified on October 1, 2018. The search reflects that all lots on the filed maps showing these streets have access over the streets and that "[t]here are no restrictions on the use or location of the public streets set forth on any of the above-cited maps or elsewhere on the public record." The search of the public record conducted by Chicago Title Insurance Company did not encompass the individual lots on filed subdivision maps. The certification states that "Chicago Title Insurance Company may not render a legal opinion."
- 29) The Applicant submits that it has the right to use these roads for access to the Project. There is no express grant of such a right in the public record that has been brought to the attention of the Planning Board. Residents who share ownership of these roads assert that the Project would introduce a change in use of the roads which is not permissible. Similarly, there is no express prohibition on such access in the public record that has been brought to the attention of the Planning Board.

29)

## N. COMMUNITY DEMOGRAPHICS, FACILITIES AND SERVICES

The following is a summary of community demographics, facilities, and services currently affecting/being affected by the Project Site, the potential environmental impacts resulting from Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to same.

### Demographics

- 1) The addition of 105 new residential units is projected to bring approximately 335 residents to the Project Site, based on current demographic multipliers. If all of these residents were new to the Village of Mamaroneck, the population of the Village would increase approximately 1.8% based on 2014 American Community Survey (ACS) estimates. The Project would contribute new housing stock comprised of single-family homes and townhomes to the Village. The Project would increase the Village's housing supply by 1.3%. No significant impacts to community demographics are expected as a result of the Project.

### Parks and Recreation

- 2) The Village has several parks and recreational facilities available to the public. At 44 acres and located within a quarter mile of the Project Site, Harbor Island Park is the Village's largest park. It offers playground apparatus, a beach, pavilion, boat launch, tennis club, and sports fields. Other public parks or open spaces within the Village include: Columbus Park, offering a playground and basketball courts (1.25 miles from the Project Site); Florence Park, offering sports facilities and a jogging/walking path around the perimeter (1.6 miles from the Project Site); Warren Avenue Park, offering a playground, trails, and sports facilities (2.2 miles from the Project Site); and playground apparatus is also offered at Jefferson Avenue Park, Stanley Avenue Park, and Ward Avenue Park. The Town of Mamaroneck also has various open space resources within a quarter-mile of the Project Site, including Flint Park, offering several sporting facilities, the Hommocks Conservation Area, a 7.6-acre preserved area with woodland paths, meadows, and a salt marsh, and Hommocks Middle School, which also contains outdoor recreational facilities. Village residents also have access to County and State park and recreation facilities. An increase in Village population of 1.8% is not anticipated to have a significant impact on the Village's parks and recreation facilities.
- 3) Nearby trails and bike paths include a small walking path along the stream at Ward Avenue Park, a forested trail three-quarters of a mile in length located in the 35-acre Otter Creek Preserve, nearby to the Van Amringe Millpond, and walking paths in the Hommocks Conservation Area. An increase in Village population of 1.8% is not anticipated to have a significant impact on the Village's parks and recreation facilities.
- 4) Hommocks Park Ice Rink and Hommocks Pool are located immediately adjacent to Hommocks Middle School, to the northwest of the Project Site in the Town of Mamaroneck. These public facilities are managed by the Town of Mamaroneck Department of Recreation. The outdoor training pool often reaches its capacity of 100 people during the summer months, and summertime weekdays are generally busy given the variety of programming. The ice rink faces capacity issues during high school playoff games around the end of March. Approximately 140 students participate in the rink's youth hockey

league.

- 5) If all Project residents are new to the Town and Village the project would result in an increase of 1.8% of the Village's current population, and less than 1% of the combined Village and Town of Mamaroneck population. If demographic multipliers and youth sports participation for new residents was identical to that for the Town and Village, there would be a less than 1% increase in use of the Hommocks Pool and Ice Rink. The Planning Board Finds that this is not a significant impact.
- 6) The Hampshire Country Club golf course has been in operation since the late 1920s and is currently the Village's only golf course, though several other golf clubs operate in neighboring municipalities. Hampshire Country Club also includes a private outdoor pool and tennis courts. The Project would result in the loss of a portion of 9 holes of the private, members only golf course. The private pool and tennis courts would remain open for current and future Hampshire Country Club members.
- 7) The partial loss of private recreational use would be partially offset by 36 acres of newly added shared open space available for use by Project residents. According to National Recreation and Park Association (NRPA) standards for open space needs per 1,000 individuals, the Project would generate a demand for between 2.1 and 3.5 acres of open space, assuming that all residents were new to the Village. However, see Finding 3.A.11 for the Planning Board's Findings with respect to the usability of the proposed open space.
- 8) Local recreation service providers, including the Village Department of Parks and Recreation, the Town of Mamaroneck Recreation Department, and youth football, basketball, baseball, soccer, lacrosse, and hockey leagues, were contacted regarding the potential impact of the Project. Based on local multipliers, it was estimated that 71 school age children would be generated by the Project (see Finding 3.N.20). Not all of the above recreation service providers responded. Those that did estimated participation rates of 23-30%, which would result in participation of 16-21 additional children in youth sports programming. Several providers, in particular the Larchmont-Mamaroneck Football Club, expressed concern over the capacity of sports facilities to accommodate existing demand and further concern over their ability to accommodate demand from the Project. According to NRPA's standards, the total projected increase in demand on specific recreational facility types resulting from the Project's new population would be nominal; specifically, 0.014 basketball courts and baseball fields, 0.007 soccer fields, 0.004 lacrosse and field hockey fields, and 0.004 football fields. The Planning Board Finds that the Project is unlikely to have a significant impact on recreation service providers.
- 9) The Town of Mamaroneck Recreation Department stated there were no issues of capacity with respect to their programs.
- 10) The Project would result in a minor increase in traffic on Hommocks Road and may have a small impact on parking at the Hommocks Ice Rink and Pool. The impact on the pool and rink is not likely to be significant because residents who join the Hampshire Country Club would be able to use the club's pool and because the Project is in close proximity to the pool and rink, allowing residents to walk if they choose. The Planning Board Finds that these impacts are not significant.
- 11) Village Code Section A348-13 authorizes the Planning Board to reserve land in a subdivision for park, playground, or other recreational purposes, or to impose a fee in lieu of land, where it is shown there is no suitable land within the subdivision for recreational space (Village Code §A348-13(B)(3)). The Planning Board Finds that the Project does not provide significant public recreational land and resources and, thus, a fee in lieu of land would be required.

## Police

- 12) Police services are provided to the Project Site by the Village of Mamaroneck Police Department, headquartered at 169 Mount Pleasant Avenue, approximately 1.5 miles north of the existing clubhouse.
- 13) The Project's 105 new residential units is projected to generate approximately 335 residents, which is an increase of 1.8% over the 2014 Village population. Based on standards in the Urban Land Institute's Development Assessment Handbook, the Project would generate a demand for 0.67 police personnel, 67 SF of facility space, and 0.07 vehicles. The Village Police Department stated that the proposed access would be adequate, and that their biggest concern would be increased traffic. See Section 3.M for Traffic Findings. The Planning Board Finds that the Project would not have a significant operational impact on police resources.

## Fire

- 14) The Project Site is served by the Village of Mamaroneck Fire Department, consisting of five companies that operate out of four fire stations. The department is a volunteer force staffed with over 200 volunteers. The closest fire station is at the intersection of Mamaroneck Avenue and Palmer Avenue, approximately one mile to the north of the Project Site.
- 15) The Applicant submitted a turning plan demonstrating that fire trucks could safely access all areas of the Project. Fire hydrants are proposed to be sited and spaced in accordance with Village requirements. The Fire Department would review the subdivision plan pursuant to Chapter 342, Article XI of the Village Code.
- 16) The Project's 105 new residential units would generate approximately 335 residents, which is an increase of 1.8% over the 2014 Village population. Based on standards in the Urban Land Institute's Development Assessment Handbook, the Project would generate a demand for 0.6 personnel, 83.8 SF of facility space, and 0.07 vehicles. The Fire Department did not respond to a request for comment on the Project. The Planning Board Finds that the Project would not have a significant impact on operational fire protection resources. See Section 3.G of these Findings for a discussion of emergency access to the property during flood events.

## EMS

- 17) Mamaroneck Emergency Medical Service (MEMS) serves the Project Site. The MEMS headquarters is located at 220 North Barry Avenue Extension, just off of Mamaroneck Avenue and approximately 2.5 miles north of the Project Site. MEMS has a membership of 65 volunteers, operating one Advanced Life Support ambulance 24 hours a day, 365 days per year, and one Basic Life Support unit available for standbys and emergency conditions. The Town of Mamaroneck Ambulance District provides one paid professional paramedic for the MEMS unit. Based on standards in the Urban Land Institute's Development Assessment Handbook, the Project would generate a demand for 0.05 full-time EMS personnel and 0.01 EMS vehicles to service 12.2 EMS calls per year. MEMS provided an alternative calculation estimating call demand at 27 additional calls per year. MEMS further stated that the additional call demand was within its response capabilities. See Section 3.G of these Findings for a discussion of emergency access to the property during flood events.

## Schools

- 18) The Project Site is located within the Mamaroneck Union Free School District (MUFSD), which administers six schools: four neighborhood elementary schools (Central School, Chatsworth Avenue School, Mamaroneck Avenue School, and Murray Avenue School), Hommocks Middle School, and Mamaroneck High School. The District includes residents of the Village of Larchmont, a portion of the Village of Mamaroneck, and the Town of Mamaroneck. There are three private schools located in the Village of Mamaroneck: Westchester Day School, the French-American School of New York, and Westchester Hebrew High School (see DEIS Exhibit 3N-2, *Community Facilities*). New school aged children generated by the Project who attended public schools would attend Central School, Hommocks Middle School, and Mamaroneck High School.
- 19) Historically, the MUFSD has seen measured enrollment increases, with student population growing from 4,818 students in 2002-2003 to 5,166 in 2011-2012, an increase of 348 students, or 7%, over 9 years. Enrollment for the 2015-2016 school year was 5,274 pupils, an increase of 69 students from the previous school year.
- 20) The DEIS estimated that 71 school-age children would be generated by the Project, 57 of whom would attend public schools. The additional 57 students would increase public school enrollment by 1.1% over 2015-16 levels, to 5,331 students. Assuming even distribution across each grade, this equates to approximately four to five additional students in each grade level.
- 21) An additional analysis of school children generation based on materials and multipliers from Econsult Solutions, Inc. (ESI) was provided, as requested by the MUFSD. This analysis estimated that the Project would generate 66 children who would attend public schools.
- 22) The MUFSD did not identify any direct capital improvements that would result from the projected school children generated by the Project. It did provide current capital needs by school, including the three schools to which students residing within the Project would attend:
- a. Central Elementary School - \$4,659,122
  - b. Hommocks Middle School - \$7,873,992
  - c. Mamaroneck High School - \$16,623,744
- See Section 3.O of these Findings for a discussion of fiscal impacts to the MUFSD.
- 23) As of the time of preparation of the EIS, there were five other projects in the development pipeline in the Village of Mamaroneck, including: 690 Mamaroneck Avenue (21 units), 422 East Boston Post Road (13 units), 270 Waverly Avenue (96 units), 532 West Boston Post Road (7 units), and 620 West Boston Post Road (6 units), or 143 units combined. According to the Village of Mamaroneck Planning Department, together these developments would generate a combined 19 school age children, 10 of which would be from 270 Waverly. Elementary aged school children from this development would attend Mamaroneck Elementary School, rather than Central School. The DEIS for 270 Waverly, the largest of these five developments, concludes that impacts to community facilities and services would be negligible. The other four projects, if completed, are relatively small and would not contribute significantly to any cumulative demand for community services. Cumulative impacts relating to off-site development in the Village are not anticipated.

## Other Community Services

- 24) Other public community services serving the Project Site include libraries, day care centers, and medical

facilities. The Mamaroneck Public Library is located at the corner of Prospect Avenue and Library Lane, about one mile north of the Project Site. Montefiore New Rochelle is the closest hospital to the Project Site, located just over four miles away. Additional healthcare services in the vicinity include Larchmont Women's Center, The Sarah Neuman Center (rehab and nursing home), St. Vincent's Hospital Westchester (mental health), Burke Rehabilitation and Outpatient Clinic (physical therapy), PM Pediatrics Westchester, and MDXpress (urgent care). The EIS did not identify significant impacts to other community services.



## O. FISCAL AND ECONOMIC CONDITIONS

The following is a summary of fiscal and economic conditions affecting or being affected by the Project, the potential impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The Project Site is comprised of two tax parcels, 4-14-20 in the Town of Mamaroneck (7.3 acres) and 9-42-568 (98.9 acres) in the Village of Mamaroneck. According to 2016 Tax Rolls, approximately \$22,839 in taxes were paid for tax parcel 4-14-20 and \$322,441 was paid for tax parcel 9-42-568, for a total of \$345,280 in taxes paid. Approximately 50% of the taxes were paid to the MUFSD.
- 2) All 105 proposed residential units would be constructed on the Village of Mamaroneck parcel (9-42-568). The Applicant estimated the assessed value of the 44 single-family homes at \$2,600,000 each and the 61 carriage homes at \$1,300,000 each. There is limited data available to support these assessments, but the available data does support the Applicant's estimates. The total assessed value of all of the proposed units is estimated at \$193,700,000.
- 3) Based on the estimated assessed value at completion, and using 2016 tax rates, the Project would generate \$5,215,568 in annual property taxes. The table below summarizes taxes generated by the Project by jurisdiction:

<b>Tax Parcel 4-14-20 (Town of Mamaroneck)</b>	<b>Assessed Value*</b>	<b>Tax Rate (per \$1,000)</b>	<b>Tax Projection</b>
Westchester County	500,000	3.37323	\$1,687
General Town	500,000	0.419668	\$210
Outside Villages	500,000	2.241576	\$1,121
Highways	500,000	1.125794	\$563
Mamaroneck Sewer, Town	500,000	0.550651	\$275
Fire District, Town	500,000	0.782919	\$391
County Refuse, Town	500,000	0.307353	\$154
Light District, Town	500,000	0.061837	\$31
Garbage District, Town	500,000	0.508254	\$254
Ambulance, Town	500,000	0.0508254	\$25
MUFSD	500,000	13.40936	\$6,705
Total			\$11,416
<b>Tax Parcel 9-42-568 (Town of Mamaroneck)</b>	<b>Assessed Value*</b>	<b>Tax Rate (per \$1,000)</b>	<b>Tax Projection</b>
Village Tax	193,700,000	6.73685	\$1,304,928
Westchester County	193,700,000	4.70663	\$911,674

General Town	193,700,000	0.419668	\$81,290
Mamaroneck Sewer, Town	193,700,000	0.550651	\$106,661
County Refuse, Town	193,700,000	0.307353	\$59,534
Ambulance, Town	193,700,000	0.058761	\$11,382
Library District	193,700,000	0.6778	\$131,290
MUFSD	193,700,000	13.40936	\$2,597,393
Total			\$5,204,152
Total for both parcels			\$5,215,568

Source: Town of Mamaroneck Tax Assessor, 2016; School District rate is for 2016-2017 Academic Year

\*Assessed Value for the Tax Parcel located in the Town of Mamaroneck (4-14-20) is assumed to be 50% less than the parcel's existing assessed value. The existing 18-hole golf course is planned to be converted into a 9-hole golf course, thus reducing the value of the parcel. None of the proposed residential units would be constructed on this parcel of the Project Site.

- 4) The DEIS estimated per student programmatic costs of \$18,265, of which \$15,893 is supported by the tax levy. Assuming 66 new public school children, as calculated using the methodology employed by the MUFSD's consultant, Econsult Solutions), the Project would result in an additional annual cost of \$1,048,933 to the MUFSD. Using this figure and the estimated tax revenues, the Project would result in an annual surplus to the MUFSD of \$1,555,160. The MUFSD provided an alternate estimate of 85 school age children generated by the Project. If this estimate is used, the Project would result in an annual surplus to the MUFSD of \$1,253,193. This surplus could be used by the MUFSD, if it chose, to address capital needs.
- 5) Using 2016 tax rates, the Project would result in \$1,304,928 in annual tax revenues to the Village. The Village Board would determine how to allocate these funds. Based on the minimal service demands discussed in Section 3.N, the Planning Board Finds that these revenues would more than offset the cost of providing services to the Project.
- 6) Approximately 285 construction jobs are estimated to be generated over the life of the Project.
- 7) Construction spending is estimated at \$184,770,600 (\$123,000, 000 in direct spending and \$61,770,600 in indirect spending). Construction earnings are estimated at \$36,801,600. The added value of output towards the regional economy is estimated to increase by \$102,434,400.
- 8) Project resident household spending is estimated at \$2,810,640 annually.
- 9) The Applicant estimated that operational employment would increase by 6.4% because some Project residents would join the club and creating higher demand for club jobs.
- 10) The Planning Board Finds that, based on the foregoing, the Project would have a positive economic impact, and would have a net positive fiscal impact to all taxing jurisdictions.

## P. HISTORIC AND CULTURAL RESOURCES

The following is a summary of historic and cultural resources on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) A review for cultural resources was conducted utilizing the on-line map catalogue from the University of New Hampshire's Diamond Library, the Westchester County Archives, and site files from the New York Office of Parks, Recreation, and Historic Preservation (NYSOPRHP). The Project Site was determined to fall within an archaeologically sensitive area (ASA) as defined by NYSOPRHP due to the presence of three previously reported archeological sites within a 1/2-mile of the Project Site. The NYSOPRHP files contain no information about the site characteristics, but most NYSM sites that have been identified in near-shore settings were classified as Native American villages and campsites. Three NYSOPRHP archaeological sites have also been defined in recent years within one mile of the Project Site, all of which are Native American archaeological sites dating to the pre-EuroAmerican era
- 2) A survey of existing built resources on the Project Site was conducted. Photographs and descriptions were submitted to the NYSOPRHP. The NYSOPRHP issued a "No Effect" letter on November 15, 2015 stating that no historic properties or archeological sites would be affected by the Project.
- 3) The Planning Board Finds that the Project would not have a significant impact on historic or cultural resources.

## Q. ENVIRONMENTAL CONTAMINATION

The following is a summary of environmental contamination on and near the Project Site, the potential environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) A Phase I Environmental Site Assessment (ESA) for the Project Site was prepared by GZA GeoEnvironmental of New York in April 2016 in general accordance with ASTM International's Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process (ASTM E1527-13). The Phase I ESA determines whether surficial or historical evidence indicates the likelihood or presence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), and/or historical recognized environmental conditions (HRECs), which could indicate potentially hazardous materials in the environment.
- 2) The Project Site has been a country club and golf course since at least 1934. (Note that the Applicant has reported that the golf course was constructed in the 1920's). Prior to 1934, historical Sanborn Maps indicate that the Project Site and vicinity consisted of vacant land utilized for agricultural purposes. Historical topographic maps indicate that development of the country club resulted in the backfill of coastal marshland and waterways. The source of fill material is unknown.
- 3) The Phase I ESA identified one septic tank at the Hampshire Country Club that is connected to the maintenance and workshop building in the northeastern maintenance area and concludes that the history of equipment maintenance under this condition is considered a REC. The Project Site is also identified in the NY LTANKS database as a "tank failure" reported on June 11, 1999. NYSDEC Spill Case No. 9902831 was subsequently assigned and later closed on August 2, 1999, with no further action recommended. The septic tank spill is considered an HREC.
- 4) The Phase I ESA also identified Spill No. 9902193 in the NY Spills database, associated with a gasoline tank failure reported on May 26, 1999 for an unknown quantity of gasoline. The spill was also closed on August 2, 1999, with no further action recommended. The gasoline tank spill is considered an HREC.
- 5) The following Project Site conditions were also identified in the Phase I ESA.
  - a. Storage Tanks. There are three above-ground storage tanks located in the maintenance and workshop building area to the northeast of the Project Site: Tank 1 is an in-service 1,000-gallon gasoline tank; Tank 2 is an in-service 500-gallon diesel tank; and Tank 3 is an in-service 275-gallon No. 2 fuel oil tank. There was no visible evidence of release associated with the three tanks.
  - b. Septic Systems. There are three septic systems at the Project Site. The northern-most septic system is located near the maintenance area of the Project Site and is utilized for the maintenance and workshop buildings. A second septic system is located to the south and west of the maintenance area and is associated with a restroom located on the golf course. The third septic system is located in the southern area and is associated with the tennis court pavilion. All three septic systems are proposed to be closed by a licensed septic system contractor under the appropriate provisions of the Westchester County Sanitary Code.
  - c. Chemical Storage. Pool chemicals are stored in a dedicated building adjacent to the pool and consist of muriatic acid and calcium chloride flakes. Laundry-related detergents and household cleaning chemicals are stored in the primary clubhouse area. There is a chemical storage shed

containing various herbicides, pesticides, and fungicides in the northern maintenance area of the Project Site. No visual evidence of release was observed from the current chemical storage shed. It is estimated that herbicides and pesticides have been used as part of routine maintenance of the golf course for at least the past 40 years.

- d. Transformers. There are two pad-mounted transformers on the Project Site located near the southern and northern sides of the golf course. No surficial staining was observed at either transformer location.
- 6) The Phase I ESA did not reveal any upgradient, off-site environmental concern, which could affect the subsurface conditions at the Project Site.
  - 7) A Limited Phase II ESA was prepared by GZA GeoEnvironmental of New York (GZA) in April 2016 with the primary objective of collecting and analyzing shallow soil and sediment samples to assess the impacts of pesticide and herbicide usage at the Project Site. Twenty-one soil samples were collected from the Project Site at surface depth (0-6 inches) and subsurface depth (18-24 inches) in each location to assess the potential presence of herbicides and pesticides. Sample locations were a representative distribution across the existing golf course, including tee-boxes and greens. Six sediment samples were also collected from the edges of the ponds and near visible discharge pipes within the ponds. Soil sample analytical results were compared to the NYSDEC Part 375 "Unrestricted Use" Soil Cleanup Objectives (SCOs) and the "Restricted Use" Residential SCOs. Sampling detected elevated levels of arsenic, lead, and six pesticides. Report findings include:
    - a. Surface Soil Samples. Arsenic was identified in eight of the 21 surface soil samples at concentrations exceeding the Unrestricted Use SCO, and six of these samples also exceeded the Residential Use SCO. Lead was identified in seven of the 21 surface soil samples at concentrations exceeding its respective Unrestricted Use SCO. None of the lead concentrations in the surface soil samples exceeded the Residential Use SCO. Six pesticides were detected in the surface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations exceeding the Unrestricted Use SCO. Pesticide concentrations exceeding the Unrestricted Use SCO were identified in 20 of the 21 surface soil samples. The pesticides 4,4'-DDE, 4,4'-DDT and Dieldrin were identified in three of these locations at concentrations also exceeding the Residential Use SCO. No herbicides were detected in any of the surface soil samples.
    - b. Subsurface Soil Samples. Arsenic was identified in four of the 21 subsurface soil samples at concentrations exceeding its respective Unrestricted Use SCO, and two of these samples also exceeded the Residential Use SCO. Lead was identified in three of the subsurface soil samples at concentrations exceeding its respective Unrestricted Use SCO. None of the lead concentrations in the subsurface soil samples exceeded the Residential Use SCO. Eight pesticides were identified in the 21 subsurface soil samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, delta-BHC, Dieldrin, and Endrin) at concentrations exceeding the Unrestricted Use SCO. Pesticide concentrations exceeding the Unrestricted Use SCO were identified in 15 of the 21 subsurface soil samples. The pesticide Dieldrin was identified in one of these locations at a concentration that also exceeded the Residential Use SCO. No herbicides were detected in any of the subsurface soil samples.
    - c. Sediment Samples. Arsenic was not detected in any of the sediment samples at concentrations that exceeded its respective SCO. Lead was identified in one sediment sample in the pond at the western portion of the Project Site at a concentration exceeding its respective Unrestricted Use SCO. Six pesticides were identified in the sediment samples (4,4'-DDD, 4,4'-DDE, 4,4-DDT, Aldrin, alpha-Chlordane, and Dieldrin) at concentrations that exceeded the Unrestricted Use SCO. The

exceedances were identified in five of the six sediment samples. None of the pesticide compounds exceeded their Residential Use SCO in any of the samples analyzed. Herbicide concentrations were detected in one of the sediment samples. However, there are no NYSDEC SCOs for the two herbicide compounds detected (i.e., Dicamba and Dichlorprop).

- 8) The NYSDEC requires that soil contamination levels be below the Part 375 SCOs. The Project's proposed open space use requires soil contamination to be at or below Unrestricted Use SCOs, while the residential use requires soil contamination to be at or below Residential Use SCOs, which are more stringent than the Unrestricted Use SCOs.
- 9) The Applicant proposes to cover all contaminated soils in the residential area with a minimum of two feet of clean fill. The development plan requires regrading of on-site soils and the import of clean off-site soil to create the platform for the proposed housing and roadways. The identified contamination exceeding Unrestricted Use and Residential Use SCOs, arsenic and pesticides, are inhalation and ingestion hazards. Typical environmental controls for these contaminants include covering the impacted soil with a minimum of 1 foot of clean fill soil to prevent human contact with contaminants. The Applicant proposes to cover the contaminated soil with two feet of clean fill.
- 10) All identified soil samples exceeding Residential Use SCOs, except two locations, are within the area to be filled to create the soil platform. The fill would bury the contaminated soil below the development platform. The two outlying sample locations are SS-19 and SS-6. SS-19 is adjacent to the maintenance shed located at the end of Copper Avenue, and SS-6 is located adjacent to the parking area of the existing clubhouse. Soil contamination identified at location SS-19 and SS-6 would be delineated by evaluating soil samples taken at the identified elevation at increasing distances from SS-19 and SS-6 until samples indicate clean soil for the target contaminant. It is anticipated the total soil to be relocated would be between 50 and 100 CY. The delineated contaminated soil would be relocated under the core of the soil platform to ensure isolation from the Project with a minimum of two feet of clean soil cover. Contaminated soil would be placed at the base of the platform to make sure the soil is not encountered during installation or maintenance of site underground utilities.
- 11) The NYSDEC Solid Waste Regulations do not require the preparation of a remedial action work plan or other special remedial activities to remove the residual turf management chemicals found at the Project Site. The NYSDEC Division of Materials Management reviewed the sample results obtained by GZA and determined that the proposed reuse of on-site soil for the Project's cut and fill program meets the conditional exemption under the 6NYCRR Part 360.13 (c) (see NYSDEC letter dated August 7, 2018 in Appendix L of the FEIS). NYSDEC regulations require one foot of clean fill cover over reused soils to prevent interaction with the residents of the new development. The Applicant proposes to cover reused fill material with at least 2 feet of certified clean fill.
- 12) All imported soil used to construct the development platform would be required to be from tested and confirmed clean fill sources and in compliance with Residential Use SCOs. This soil would be used for the upper layers of the proposed platform to ensure isolation of identified contaminated soil. The Planning Board Finds that clean fill soils must be purchased from off-site sources, must undergo independent quality testing and must receive certification that the material meets NYSDEC's clean fill standards and regulatory criteria, including:
  - a. No detectable concentrations of volatile organic compounds (VOCs);
  - b. No other organic compounds or inorganic analytes at concentrations above 6 NYCRR 375-6 Unrestricted Use SCOs; and
  - c. No other organic compounds or inorganic analytes at concentrations above the lower of the NYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecological Resources, and

Protection of Groundwater Supplemental SCOs.

All certifications from independent lab testing must be provided to the Village prior to commencement of the site work.

- 13) Fibrous peat, an organic, naturally occurring substance containing significant amounts of carbon and potentially emitting methane, was identified at the Project Site. It was likely naturally deposited throughout the former coastal marshland and streams that formed the low-lying eastern and western areas of the Project Site prior to the development of the golf course in the late 1920s. Most of the peat deposits were encountered in the low-lying perimeter areas of the golf course where the 9 holes would be retained and no new development would occur. The Planning Board Finds that no impacts have been identified associated with the fibrous peat deposit.
- 14) Based on the grading plan prepared by the Applicant, the Project would not result in disturbance of soils within the groundwater table.
- 15) A Construction Work Plan (CWP) was developed for the Project. The CWP describes contractor responsibilities and project execution steps to limit the off-site migration of soils during construction. The CWP identifies specific best management practices (BMPs) to protect the environment, adjacent property owners, and Village residents during construction, including: site security; truck routes; soil erosion control measures; soil importation documentation; blasting requirements; and weekly summaries of upcoming construction activities provided to the Village Engineer.
- 16) The CWP includes a Construction Health and Safety Plan (CHASP) that addresses measures to minimize exposure to impacted soil by contact, inhalation, and ingestion through the establishment of safety protocols, hazard response, and implementation of active dust monitoring. The CHASP describes a Community Air Monitoring Program (CAMP) that complies with 29 CFR Part 1926 (Safety and Health Regulations for Construction) and with the requirements of the New York State Department of Health (NYSDOH) Generic CAMP, Appendix 1A of NYSDEC DER-10 dated May 2010.
- 17) Under the CAMP, airborne dust would be monitored downwind of active construction areas with action levels set to alert the Contractor if/when it becomes necessary to implement dust control measures. The Plan proposes to undertake air monitoring, which includes organic vapor and particulate matter. Monitoring for organic vapors would be conducted during the first three days of ground intrusive activity to determine if further monitoring is warranted. If ambient air concentrations of VOCs at the downwind perimeter do not exceed background levels over the first three days, then the air monitoring plan would be modified to include only particulate monitoring.
- 18) The CWP also includes a Materials Handling Plan (MHP) to be followed by the contractor during the construction of the Project, which details the soil handling and stockpiling procedures, on-site soil reuse procedures, demarcation, and documentation of imported purchased, clean fill from off-site sources. Construction activities must be performed in accordance with the State of New York's current construction specifications and regulations, as well as all applicable local, state, and federal regulations.
- 19) All pesticide and herbicide treatments for the 9-hole golf course would continue to occur in accordance with industry standards and only include the application of treatments that are permitted by State and Federal regulations.

## R. NOISE

The following is a summary of findings regarding the current noise environment on and near the Project Site, the potential noise-related environmental impacts caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The predominant land uses surrounding the Project Site are residential and open space uses. These low-intensity uses generate low levels of ambient noise. Ambient noise at the Project Site currently comes primarily from the activities on-site.
- 2) The Project Site currently contains an 18-hole golf course, a clubhouse, swimming pool, tennis courts, and off-street parking. Sources of on-site generated noise are mainly traffic and mechanical equipment, such as air conditioners. Events also generate noise. Noise related to the golf course is the result of golfers, golf carts, and maintenance of the course.
- 3) A detailed construction noise study was conducted by the Applicant. The study included the measurement of existing ambient sound levels, predictions of construction noise, an assessment of impacts, and recommendations for BMPs to reduce construction noise impacts.
- 4) The construction noise study estimated that construction noise levels would increase ambient conditions by more than 10 a-weighted decibels (dBA) at certain residential locations close to the proposed earthwork areas of construction. This increase in noise levels is considered significant and is an adverse impact of the Project. It would last the duration of Project construction, at least six years, and possibly longer.
- 5) Noise reduction measures proposed by the Applicant to be employed during construction to mitigate noise impacts are as follows:
  - a. Construction activities would be limited to the hours permitted by the Village of Mamaroneck's Noise Code.
  - b. The contractor would be required to prepare a noise control plan to identify the potential for noise impacts according to the specific construction equipment and usage that is expected. The noise control plan would quantify the potential for impact and indicate what specific type of noise mitigation measures are required.
  - c. Stationary construction equipment would be located as far as possible from noise-sensitive sites (i.e. residences).
  - d. Mitigation for diesel engine noise may include use of shields, shrouds, or intake and exhaust mufflers.
  - e. Equipment required to have back-up alarms for safety purposes may utilize an ambient-adjusted alarm tone, or "quackers," which have a less tonal character. Flagging may also be used to eliminate the need for back-up alarms.
  - f. Mitigation proposed by the Applicant may include re-routing truck routes and adhering to the regulations outlined in the Village Code on idling times. However, the Planning Board Finds that the proposed truck routes are the most appropriate and would have the least impact to surrounding residences.
  - g. Acoustic enclosures may be needed to reduce emissions from small construction equipment,



such as generators.

- h. Temporary noise barriers or noise blankets can be installed between construction equipment and sensitive receptors to provide significant noise reduction (typically five to 15 dBA).
  - i. All construction equipment used on-site during construction would be inspected periodically to ensure that properly functioning muffler systems are used on all equipment in accordance with the NYSDEC Best Management Practice (BMP) for reducing noise.
  - j. Equipment may not idle on-site, except as permitted by the Village Code.
  - k. Best Management Practices for reduction of construction noise impacts are further detailed in the Construction Noise Study (FEIS Appendix Y).
- 6) Trucks travelling to and from the Project Site would increase noise levels on Hommocks Road. These increases would be short-term in nature as the trucks pass by, but would occur over the length of the construction period. The Planning Board Finds that this is an adverse impact of the Project that cannot be completely mitigated.
- 7) The CWP (FEIS Appendix G) identified an area that would require bedrock removal, likely by blasting. Blasting work is anticipated to last approximately one to two weeks with an estimated two blasts per day. Several prominent outcroppings of rock were also identified across the Project Site; however, the Project has been designed to avoid the outcroppings and any related removal. A blasting plan would be required prior to construction. The blasting plan would include vibration and acoustic overpressure monitoring to minimize the risk of structural damage to nearby structures. The length of each blast would be short, one or two seconds in duration. The Planning Board Finds that noise impacts from blasting are a short-term, unavoidable impact of the Project.

## S. AIR QUALITY

The following is a summary of the air quality conditions on and near the Project Site, the potential environmental impacts to air quality caused by Project development, impact avoidance strategies and/or mitigation measures identified as necessary and practical to minimize or eliminate adverse environmental impacts associated with the Project, and the Planning Board's Findings with respect to the same.

- 1) The Project is located in Westchester County, New York, which is classified as an attainment area for Particulate Matter (PM), Sulfur Dioxide, Lead, and Nitrogen Dioxide (NO<sub>x</sub>), a maintenance area for Carbon Monoxide (CO), and a nonattainment area for ozone. The Project Site's location in Westchester County is designated as an eight-hour ozone nonattainment area, which has been classified as "Moderate." Air Quality Monitoring Concentration values for the Project Site's nearest monitoring locations (Queens College and White Plains) indicate that the background concentrations for CO and PM are well-below the NAAQS levels.
- 2) New vehicular traffic generated by the Project is not expected to impact levels of CO in the region beyond the standards set by the NAAQS. Project traffic is not expected to substantially change the ozone precursors of VOCs and NO<sub>x</sub>. Therefore, no adverse impacts to air quality are anticipated due to Project generated traffic.
- 3) The Applicant developed a CHASP for the Project. The CHASP describes a CAMP that complies with 29 CFR Part 1926 (Safety and Health Regulations for Construction) and with the requirements of the NYSDOH Generic CAMP, Appendix 1A of NYSDEC DER-10 dated May 2010. Pursuant to the CAMP, airborne dust would be monitored downwind of active construction areas with action levels set to alert the contractor to the need to implement dust control measures.
- 4) The CHASP proposes to undertake air monitoring, which includes organic vapor and particulate matter. Monitoring for organic vapors would be conducted during the first three days of ground intrusive activity to determine if further monitoring is warranted. If ambient concentrations of VOCs at the downwind perimeter do not exceed background levels over the first three days, then the air monitoring plan would be modified to include only particulate monitoring.
- 5) Soils would be wetted, as required, to control dust.
- 6) The soil contaminants identified as a result of the investigations reported in the EIS do not show an increase health risk at levels more stringent than the visible (nuisance) dust levels.
- 7) A Materials Handling Plan (MHP) was developed that details the erosion and sediment control procedures to implement corrective actions identified by a qualified inspector during construction. All construction would be performed in accordance with the CHASP and MHP.
- 8) Methane gas is not anticipated to be a concern because the peat layers are located deeper than the depth of grading proposed for the Project. Therefore, the peat would not be exposed or excavated.
- 9) Emergency generators, boilers, or other fuel burning sources may be required for some of the proposed buildings, with specific determinations regarding equipment parameters, such as the number of units, size, and location, occurring during the building design. The appropriate NYSDEC air permits would be secured and submitted, meeting all criteria.
- 10) Based on the foregoing, the Planning Board Finds that the Project would not result in significant impacts to air quality.

## **T. ALTERNATIVES TO THE PROPOSED PROJECT**

- 1) The DEIS and FEIS evaluated the following alternatives to the Project:
  - a. 25-unit alternative to the Proposed Action
  - b. 50-unit alternative to the Proposed Action
  - c. 75 -unit alternative to the Proposed Action
  - d. Alternative A: The No-Action Alternative
  - e. Alternative B: Conventional subdivision under R-20 zoning
  - f. Alternative C: Cluster subdivision under R-20 zoning
  - g. Alternative D: Conventional subdivision under R-30 zoning
  - h. Alternative E: Cluster subdivision under R-30 zoning
  - i. i. Alternative F: No fill under R-20 zoning
  - j. No Fill 25 units
  - k. No fill 50 units
  - l. No fill 75 units
  - m. Rezoning for condominium and golf course - 121 units
  - n. Rezoning for condominium and golf course - 25 units
  - o. Rezoning for condominium and golf course – 50 units
  - p. Rezoning for condominium and golf course – 75 units
- 2) The Planning Board required that a quantitative and qualitative analysis of each alternative be conducted and that the results be compared to the Applicant's preferred alternative. The analysis compared the following areas of impact:
  - a. Area of disturbance
  - b. Open space
  - c. Fill
  - d. Number and percent of tree removal
  - e. Average daily truck trips during busiest period of construction
  - f. New trip generation at peak hour
  - g. Water usage and sewage generation
  - h. Residential population
  - i. School age children
  - j. Tax generation
  - k. Net tax increase from the existing condition

I. Net fiscal benefit to the MUFSD

- 3) The reduced density alternatives would have equal or lesser impacts compared to the preferred alternative with respect to area of disturbance, amount of tree removal, construction traffic, operational traffic, period of construction, amount of fill to be imported, amount of development in the floodplain, water usage, sewage generation, school children generation, and demand on community services.
- 4) The Applicant maintains that none of the lesser density alternatives are feasible because they would not result in a financially feasible development that would meet the Applicant's goals. In support of this position the Applicant provided an Opinion of Probable Costs for the 50 and 75-unit alternatives. The Applicant's estimate reflects that the lesser density alternatives are not feasible because, when costs are accounted for, the 50 and 75-unit alternatives would not yield sufficient return to offset the costs "because the investment required for infrastructure, golf course re-design and professional fees and permits would greatly exceed what could be derived from the sale of significantly fewer units to be built on a property that is large enough to support a significantly larger development based on current zoning."
- 5) The Planning Board requested that the Applicant submit financial information to support its assertion that none of the lower density alternatives is financially feasible. The Applicant responded to the Planning Board's request with a letter from its counsel, a memorandum and an "opinion of Probable Cost," prepared by Kimley-Horn of New York, P.C. The letter states, in relevant part, that "[t]he reduced-density alternatives do not meet the Project Sponsor's objectives and capabilities to develop a residential project under R-20 zoning because the alternatives would not avoid significant fixed infrastructure and overhead costs associated with the Site." The memorandum summarizes the "projected fixed costs associated with the proposed development," but expressly excluded "the variable costs associated with the construction of the individual units since these cannot reasonably be estimated without knowing how many units will be built as well as the breakdown between single family homes and carriage homes," including "hard construction costs, financing costs, permits and fees (typically based on hard construction costs), sales and marketing expenses and overhead and profit." The "Opinion of Probable Cost" quantifies various infrastructure costs associated with the proposed project for 105, 75 and 50 residential units.
- 6) In order to approve the Project, the Planning Board must find that "consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable." With only information about infrastructure costs, and without information about the variable costs associated with the various alternative development alternatives, it is impossible for the Planning Board to find that "economic considerations" require that the alternatives providing for 75, 50 and 25 units, each of which would have lesser environmental impacts than the Applicant's 105-unit proposal, are not reasonable and that the Applicant must therefore be permitted to build 105 units. The Planning Board Finds that it is not credible that the Applicant is incapable of estimating the variable costs of the proposed alternatives, as the Applicant claims, and that the Applicant has chosen not to provide that information.
- 7) ~~Based upon the Applicant's decision not to provide a complete cost analysis for the alternatives, the Planning Board concludes that a complete cost analysis would establish that each of the alternatives is reasonable.~~ The Planning Board Finds, therefore, that notwithstanding the Applicant's costs submission, the significant adverse impacts of the Project that are directly related to the size and scale of the Project could be mitigated by reducing the permissible number of units. See Finding 3.A.11 related to Open Space, Section 3.G related to development in the Floodplain, Section 3.K related to Vegetation and Wildlife, Section 3.L related to the Critical Environmental Area and Section 3.M related to Traffic, Transportation and Pedestrians.

8) Of those alternatives permitted by zoning, the Planning Board Finds that the 25-unit, no fill alternative would have the fewest environmental impacts among those analyzed in the EIS. The Applicant has not submitted information on the cost of this alternative other than to state that since the 50-unit alternative is not viable, neither would the 25-unit alternative be viable. However, the 25-unit, no fill alternative would likely involve considerably less site development expense since a large development platform would not be required.

9) The golf course and condominium alternative is not permitted by zoning and, therefore, it cannot be considered a viable alternative.

10) The No-Action alternative is not considered by the Applicant to be viable. There is conflicting information in the record as to whether the Applicant needs to develop the property in order to maintain its viability. The Planning Board is not able to evaluate and establish the viability of the No-Action alternative.

## **U. SIGNIFICANT IMPACTS THAT CANNOT BE AVOIDED**

- 1) The construction and operation of the Project would result in certain unavoidable short-term and long-term adverse environmental impacts. Significant impacts that cannot be avoided or mitigated as a result of the Project are as follows:
  - a. Short-term traffic generation from construction workers and deliveries;
  - b. Short-term noise and air quality impacts from construction activities and traffic;
  - c. Short-term air quality impacts due to exhaust and emissions from construction equipment and fugitive dust;
  - d. Permanent loss of 29.6 acres of open space;
  - e. Loss of 432 mature trees and associated habitat until the replacement trees reach maturity;
  - f. Introduction of development into an area with limited access, increasing the risk of health and safety impacts to residents and first responders; and
  - g. Increased risk of damage to adjoining properties from flooding during the construction period.

## **V. GROWTH INDUCING ASPECTS**

- 1) The Project would generate secondary and/or indirect impacts in the Village of Mamaroneck and surrounding communities. These would include increased demand for goods and services and increased construction and household spending.
- 2) The Applicant believes that employment associated with the Hampshire Country Club would remain stable.

## **W. EFFECTS ON THE USE AND CONSERVATION OF ENERGY RESOURCES**

- 1) The Project would use energy resources including electricity and fossil fuels.
- 2) The Applicant proposes to incorporate the following energy saving measures into Project construction: efficient mechanical equipment, insulated roofs, insulated exterior walls, insulated foundations, and insulated windows with low emissivity coating.



## **X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

- 1) The Project would require the commitment and consumption of a variety of resources that would then be unavailable for future use. Construction materials, such as concrete, timber, steel, brick, wood, paint, and topsoil, would be consumed. The operation of construction equipment would require the consumption of fossil fuels.
- 2) Components of the completed Project would continue to require the usage of electricity and fossil fuels for lighting, heating, and cooling, and water for landscaping and domestic use.

#### **4.0 Certification to Deny:**

SEQRA prohibits the Planning Board from approving an action unless it certifies (i) that the requirements of the SEQRA regulations have been met and (ii) that "consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact statement process will be minimized or avoided." Environmental Conservation Law § 8-0109[8].

The record of the proceedings before the Planning Board establishes the first of these findings. The Planning Board is unable to make the second of these findings, however, because the application as proposed causes the following five significant impacts that are not mitigable:

1. The Project Site is a Critical Environmental Area due to its unique environmental characteristics, including its sensitive drainage characteristics related to the Hommocks Conservation Area, and the majority of the Project Site, \_\_\_ acres, or \_\_\_ percent of the Project Site, lies within the 100-year tidal floodplain. The Project would require re-grading 55.6 acres, relocating approximately 217,490 cubic yards of soil and importing approximately 81,805 cubic yards of soil onto the site.

2. Bringing the necessary fill onto the site would require 52 truck trips through the neighborhood, the Village and the adjoining communities each day, for the first nine months of construction, followed by 16-25 truck trips for 40 months of construction, followed by a lesser number of truck trips for what the Applicant estimates will be six to seven total years of construction. Because the Applicant will construct residences based on demand, construction may last longer.

3. Construction noise would increase ambient noise conditions by more than 10 a-weighted decibels (dBA) at certain residential locations close to the proposed earthwork areas of construction. Although mitigation has been proposed, there would be an increase in noise levels lasting the duration of Project construction, at least six or seven years, and possibly longer.

4. Even after the fill, the site would have only a single point of egress – a road, Cooper Avenue, during a 100-year tidal flood event. Under the mid-range sea-level rise scenario, a portion of Cooper Avenue would be inundated with 164.5 inches of water and would be impassable. A higher sea level rise would result in a deeper inundation. Even without regard to flooding, Cooper Avenue is only 14 feet wide at one point, allowing only one-way access. If Cooper Avenue were blocked due to an accident or a power line or tree falling down, residents would be unable to evacuate during an emergency and access to the site for emergency vehicles could be impossible.

5. There are a substantial number of mostly mature trees on the Project Site that provide habitat for nesting and migratory birds, 432 of which are proposed to be removed. The Applicant proposes to replace all 432 trees, but the replacement trees would not have the same habitat value as those they are proposed to replace and would take a substantial time to reach maturity.

6. The Project would result in the loss of an open space resource recognized as important by the Village in its planning documents and by the site's designation as a Critical Environmental Area. The open space proposed to remain would be divided into eight small areas and would not provide meaningful recreation opportunities.

For all of these reasons, the Project does not promote environmental protection, open space preservation and superior design of residential development, encourage the most appropriate use of land, increase recreational opportunities and improve the balance and variety of the Village's existing housing stock. It is not consistent with the purposes of the PRD regulations.

Some of these impacts may be mitigable by reducing the number of units, but the Applicant has refused to consider a lesser density development, claiming that none of the lesser density alternatives are financially viable. Its financial

analysis of the alternatives, however, was incomplete and insufficient to establish that the lesser density alternatives are not practicable. As a result, the FEIS does not provide a basis for the Planning Board to find that economic considerations outweigh the significant environmental impacts the project will cause at its current density.

Nothing in the SEQRA law or regulations mandates that an applicant be permitted to develop its property regardless of the environmental impacts. The Applicant's property is ~~in~~-a designated Critical Environmental Area. It was a salt marsh that was filled in the early part of the twentieth century to create a golf course. The Applicant now wishes to fill it further with more than 80,000 cubic yards of imported fill, and to further rearrange more than 240,000 cubic yards of site soils to create a 16 foot high development platform to accommodate a 105-unit residential development. For the reasons that have been stated in this Findings Statement, including the lack of a viable point of evacuation for residents and access by first responders during flood events, the proposal would result in significant unmitigated environmental impacts. It is inconsistent with the goals of the Village's Planned Residential Development zoning and it is inconsistent with the Village's flood damage prevention laws. The Applicant purchased the property knowing that it was subject to these constraints including numerous documented flooding events and one death. There is a significant dispute as to whether its stated need to develop the property – that the existing 18-hole golf course is not financially viable – is accurate. In addition, adequate financial information has not been submitted to evaluate and establish the financial viability of the Alternatives. For these reasons the "social, economic and other essential considerations" in favor of the Project do not outweigh the adverse environmental impacts regardless of the available alternatives, and therefore cannot satisfy the requirements of SEQRA.

Therefore, having considered the FEIS and having considered the preceding written facts and conclusions relied on to meet the requirements of 6 NYCRR Part 617, this Statement of Findings certifies that:

1. The requirements of 6 NYCRR Part 617 have been met; and
2. Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action is the one that does not avoid or minimize adverse environmental impacts to the maximum extent practicable, and that adverse impacts will not be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

Village of Mamaroneck Planning Board  
**Name of Agency**

**Signature of Responsible Official**

**Title of Responsible Official**

**Name of Responsible Official**

**Date of Acceptance**

**Agency Address:** Village of Mamaroneck Planning Board  
169 Mt Pleasant Ave  
Third Floor  
Mamaroneck, New York 10543

**cc:**

Village of Mamaroneck Planning Board	Westchester County Dept. of Environmental Facilities
Village of Mamaroneck Building Department	Westchester County Dept. of Transportation
Village of Mamaroneck Board of Architectural Review	Westchester County Dept. of Public Works
Village of Mamaroneck Public Works Department	Westchester Joint Water Works
Village of Mamaroneck HCZM Commission	New York State Dept. of Environmental Conservation
Mamaroneck Village Board of Trustees	New York State Historic Preservation Office
Westchester County Department of Planning	New York State Department of Transportation
Westchester County Department of Health	United States Army Corps of Engineers
Town of Mamaroneck	Mamaroneck Union Free School District