

Criscuolo Engineering, LLC

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MEMORANDUM

To: Kristine Sullivan
From: James M. Pretti, Jr., P.E., L.S., Member
Date: February 8, 2022
Re: The Enclave at Woodbridge
10 & 14 Merritt Avenue
Woodbridge, Connecticut



CE File No: 2022-400-01

The following items were received for review:

- Wetlands Application by Applicant Litchfield Turnpike LLC, dated 12/6/21
- Letter of Authorization by Michael Massimino, Manager, dated 12/6/21
- Wetland Delineation Report by William Kenny Associates LLC, dated 12/18/18
- Site Stormwater Management Plan prepared by John Paul Garcia and Associates, P.C., dated September 9, 2021
- Manila Avenue/Merritt Avenue Drainage Study by Cardinal Engineering Associates, Inc., dated March 2012
- Letter from Frank DeLeo, Chairman of the Woodbridge West River Flood Mitigation and Restoration Committee, dated January 31, 2022
- Sheet C-1: "Existing Conditions Plan, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut", prepared by John Paul Garcia and Associates, P.C., dated July 16, 2021.
- Sheet C-2: "Subdivision Map, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut", prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-3: "Site Development Plan, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut", prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-4: "Plan & Profile, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut", prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.

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- Sheet C-5: “Erosion & Sediment Control Plan, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut”, prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-6: “Typical Details, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut”, prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-7: “Typical Details, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut”, prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-8: “Typical Details, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut”, prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.
- Sheet C-9: “Stormwater Management System Details, The Enclave at Woodbridge, 10 & 14 Merritt Avenue, Woodbridge, Connecticut”, prepared by John Paul Garcia and Associates, P.C., dated July 29, 2021.

The following are our comments:

Flood Plain:

The parcel is partially within the AE special flood hazard zone per the current FEMA mapping (map no. 09009C0428H). The elevations of the cross sections at this location range from elev.=80 at the southern edge of the property to elev.=81 at the northern edge. The AE flood zone line depicted on the submitted plan set follows the elev.=81 contour, not the actual line depicted on the FEMA map. I believe unless one goes through the process of amending the mapping with FEMA, the lines on the map govern, not the actual elevation. I’ve attached a portion of the FEMA map.

Regardless, it appears that there is a significant amount of filling and structures proposed within this flood hazard area. Per Town of Woodbridge Zoning Regulations, Section 16: Provisions for Flood Hazard Reduction:

16.3.6 Compensatory Storage. The water holding capacity of the floodplain, except those areas which are tidally influenced, shall not be reduced. Any reduction in water holding capacity caused by filling, new construction or substantial improvements involving an increase in footprint to the structure, shall be compensated for by deepening and/or widening of the floodplain. The compensatory storage shall be provided on-site, unless easements have been gained from adjacent property owners; it shall be provided within the same hydraulic reach and a volume not previously used for flood storage; it shall be hydraulically comparable and incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Compensatory storage can be provided off-site if approved by the municipality.

It does not appear that the compensatory storage volume has been addressed on these plans.

Inland Wetlands:

1. It is recommended that a note be added to the site plan which states that any activity, present or future, which involves clearing, regrading, filling, construction, or any other means of disturbance within the wetlands or the 100' upland review area is prohibited without the prior consent of the Town's Inland Wetland Agency. Any change to the footprint, configuration, or location of the proposed addition and driveway shall also be subject to the review and approval of the Town of Woodbridge Inland Wetlands Agency. The owners of all the proposed lots, with the exception of Lots 11 & 12, should be made aware of this in writing.

Stormwater:

1. The Outlet Structure Details elevation chart appears to have typos in the elevations for A & B.
2. Who will own the detention basin after the sale of the lots? Who would be responsible for the on-going maintenance of the detention basin in the future once all the lots are sold?
3. It is recommended that a note be published on the site plan which states that the certification shall be provided to the Town of Woodbridge by the design engineer, prior to the issuance of a certificate of occupancy, that the stormwater management measures were installed in substantial conformance to the site plan of record, in accordance with his overall design intent.
4. A report entitled: Manila Avenue/Merritt Avenue Drainage Study, was published by Cardinal Engineering Associates, Inc. on March 2012. They note that this area has a very high groundwater table, even during periods without precipitation. Have any test pits been performed on the property to confirm the groundwater elevation and have any measures been considered to manage the water?
5. The same report also specifically names the low-lying area south of #24, #36 & #28 Merritt Avenue as being under water at times. This is the area of Proposed Lots 13 & 14. The area reportedly floods due to the topography and deficiencies in the adjacent DOT drainage system. According to a letter dated Jan 31, 2022 from the chairman of the Woodbridge West River Flood Mitigation and Restoration Committee, the DOT drainage problems have not been fixed. How will the homes proposed to be built on the new Lots 13 & 14 be protected from this flooding? What will be the impact of adding structures and fill in this area to the adjoining properties?
6. Given the history of flooding problems in this area, I suggest that a drainage study be conducted that examines the historic flooding, previous studies (particularly the 2012 report noted above) performed on this area and the effects that the proposed development will have on the surface flooding and the groundwater table.

General: (some of these comments maybe appropriate to Planning and Zoning, however, responses may result in a revision to the plans that will require a reapproval by the Inland Wetland Commission)

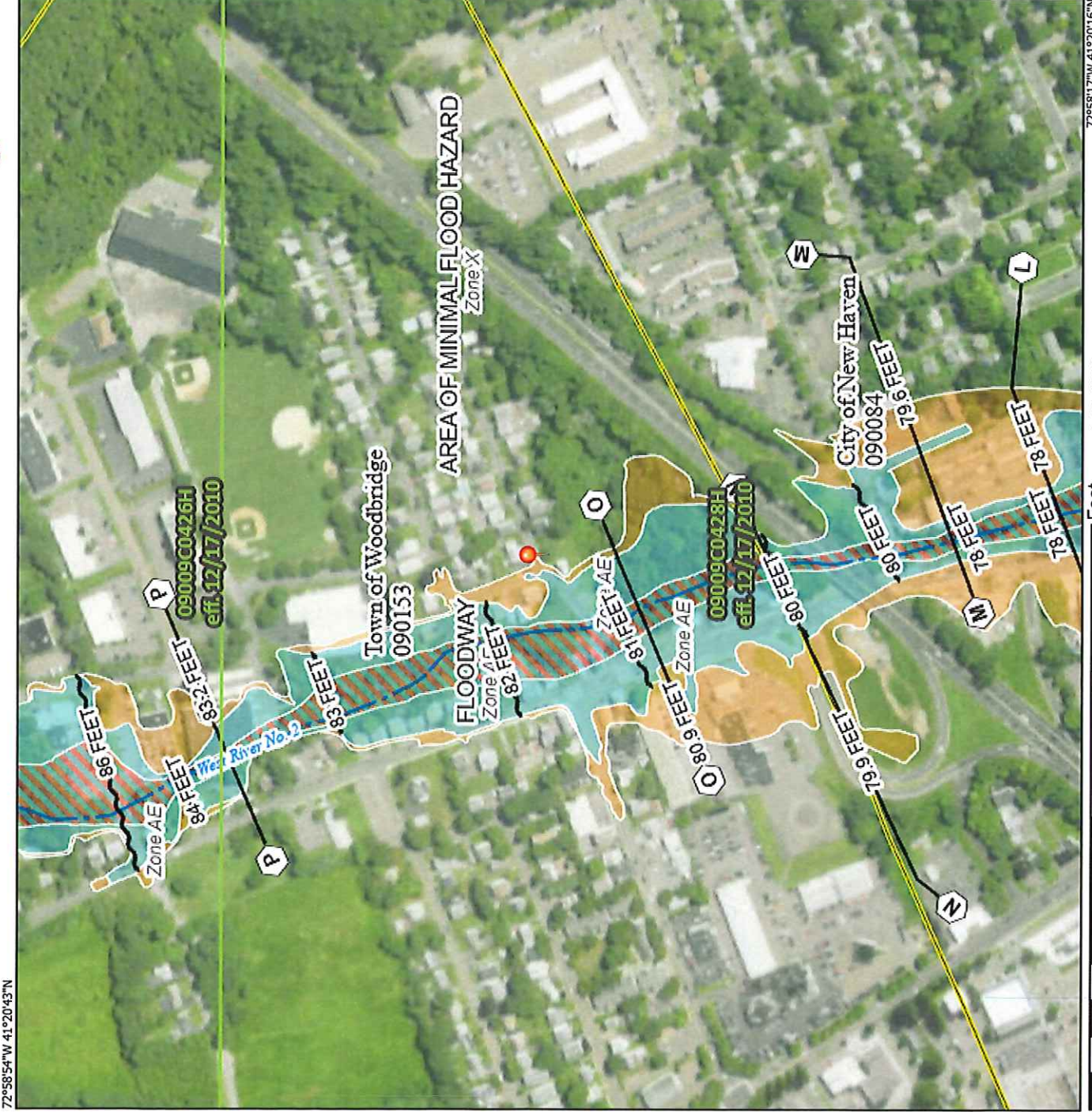
1. Sheet C-5, notes 10 & 11 refer to the Town of Seymour.

2. It is recommended that bonding be required for the installation of the stormwater management, for the implementation of the erosion and sedimentation control measures, site stabilization, and for the establishment of a permanent vegetative cover. It is recommended that a bond estimate be submitted for review.
3. Has the GNHWPCA been contacted to see if the existing sewer system has enough capacity to add the discharge from 14 new duplex homes to the system?
4. Has a traffic engineer reviewed the sight-lines exiting the new road on to Merritt Avenue? Will the offset in the alignment between the new road and Miles Avenue be a traffic safety concern?

National Flood Hazard Layer FIRMette



72°58'54"W 41°20'43"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes, Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS

- NO SCREEN
- Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/10/2022 at 10:49 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map; Orthoimagery: Data refreshed October, 2020

72°58'17"W 41°20'16"N