

MEMORANDUM

To : North Castle Planning Board

From : James J. Hahn, P.E.
Town Consulting Engineer

Dated : October 19, 2023

Subject : Site Plan and SWPPP Review
45 Bedford Road (The Gateway)
Section 108.03, Block 1, Lot 65

Drawings Reviewed : Prepared by Langan Engineering:
“Cover Sheet”, Revised 10/6/23, Sheet CS001.
“Legend and General Notes”, Revised 10/6/23, Sheet GI101.
“Existing Conditions and Removals Plan”, Revised 10/6/23,
Sheet CD101.
“Site Plan”, Revised 10/6/23, Sheet CS101.
“Grading and Drainage Plan”, Revised 10/6/23, Sheet CG101.
“Drainage Profiles”, Revised 10/6/23, Sheet CG201.
“Utility Plan”, Revised 10/6/23, Sheet CU101.
“Sanitary Sewer Profile”, Revised 10/6/23, Sheet CU201.
“Soil Erosion & Sediment Control Plan”, Revised 10/6/23, Sheet CE101.
“Details (1 of 3)”, Revised 10/6/23, Sheet CS501.
“Details (2 of 3)”, Revised 10/6/23, Sheet CS502.
“Details (3 of 3)”, Revised 10/6/23, Sheet CS503.
“Planting Plan”, Revised 10/6/23, Sheet LP101.
“Planting Details and Notes”, Revised 10/6/23, Sheet LP501.
“Site Lighting Plan”, Revised 10/6/23, Sheet LL101.
“Site Lighting Details and Notes”, Revised 10/6/23, Sheet LL501.
“Fire Truck Movements”, Revised 10/6/23, Sheet FG01.

Documents Reviewed : Response Letter from Michael Tucker, P.E, Dated 10/6/23.
Full Environmental Assessment Form, Part 1, Dated 8/3/23.
Stormwater Pollution Prevention Plan, Dated 8/7/23.

At the request of the Town of North Castle, the referenced plans and documents have been reviewed for compliance with Town Code, the SPDES General Permit for Stormwater Discharge from Construction Activity (GP-0-20-001), and our previous memorandum dated September 7, 2023. The applicant is proposing to construct 34 townhouse units on 4.2 acres in the R-MF-DA zoning district. Additional work includes stormwater mitigation, floodplain mitigation, parking area, and utility connections. A wetlands permit and floodplain development permit will also be required.

The amount of disturbance for the project is proposed to be 3.7 acres. Therefore, the project must obtain coverage under SPDES GP-0-20-001. The applicant must file a Notice of Intent (NOI) with New York State Department of Environmental Conservation (NYSDEC) and prepare a Stormwater Pollution Prevention Plan (SWPPP) that incorporates post-construction practices. Easements and maintenance agreements between the Town and the property owner are required which must be filed with the Town and Westchester County. When the project is completed, pursuant to §267-8 A. (2) of the Town Code, “As-Built” plans must be prepared and the applicant must file a Notice of Termination (NOT) with NYSDEC.

Pursuant to our review, the following items should be addressed by the applicant.

- 1) The applicant is proposing to fill in the floodplain that will reduce the storage volume for the FEMA 100 year flood event. To offset the reduction in volume, the applicant is proposing to remove fill in another location to construct a “floodplain volume compensation basin” to provide additional storage. However, the proposed fill is in the location where the floodplain channel enters the site thereby altering the channel dimensions which may reduce the capacity of the channel. Flow entering the site and the flood rise should be analyzed and demonstrated that the proposed project will not adversely impact storage areas or exacerbate flooding on adjacent properties.
- 2) The proposed floodplain compensation basin is being used for both new FEMA floodplain volume compensation storage and site stormwater runoff storage. As a result, the stormwater being detained in the basin will reduce the amount floodplain storage volume. If the basin is intended to provide both FEMA floodplain storage and site stormwater runoff storage, then adequate floodplain modeling should be provided to demonstrate how the two volumes interact and that there will be adequate floodplain volume during the FEMA 100 year flood event.
- 3) Per 6.3.1 of the Stormwater Management Design Manual, the infiltration system is required to be separated by at least 3 feet above groundwater. Based on the provided soil testing data and the elevations shown, all of the infiltration systems do not meet this requirement and will not be able to provide the stormwater mitigation storage being proposed. The elevations of the proposed infiltration systems must be revised. Our office has spoken with the applicant’s engineer and they have begun preparing a revised layout that satisfies this requirement.

- 4) The berm along the eastern side of the proposed floodplain compensation basin disconnects the basin from the rest of the floodplain during the early stages of the flood event. A comparison of existing and proposed floodplain storage should be provided.
- 5) As the proposed floodplain basin fills it will backfill the infiltration system “2P” thereby impacting the storage volume of 2P. This should be analyzed and incorporated into the hydrologic model.
- 6) It should be demonstrated that the proposed 12 inch diameter pipe connecting to the floodplain Stormtech units to the flood channel is large enough and will not act as a constriction preventing flow into the units during a flood.
- 7) Deep test pits should be performed in the area of the floodplain basin. Based on the provided tests for elsewhere on the site, it is possible the bottom of the proposed basin is located in the groundwater table.
- 8) As previously mentioned, pursuant to Town Board Resolution Condition #8, the requested sidewalk to Armonk Square should be shown.
- 9) As previously mentioned, the proposed project should be reviewed by the local fire department to determine if adequate access is provided.
- 10) As previously mentioned, Westchester County Department of Health approval is required for the proposed water and sewer mains. Additionally, a utility easement description will be required. The proposed water and sewer services and mains should be reviewed by the Town Water and Sewer Department to ensure there is sufficient capacity to serve the project.
- 11) As previously mentioned, a stormwater facility maintenance easement or agreement must be provided as required by §267-7 B. and D. of the Town Code. A draft agreement should be provided for review.
- 12) As previously mentioned, per §267-8 B.(1) of the Town Code, a performance guarantee for the construction of the stormwater system may be required by the Town.
- 13) As previously mentioned, the referenced NYSOPRHP letter in Section 2.2 of the SWPPP should be included in the SWPPP as an appendix.
- 14) As previously mentioned, a network map should be provided for the existing conditions hydrologic model. Additionally, the design data used in the model should be provided, including pond sizing data, outlet information, etc. Currently, it is unclear how the existing condition peak runoff rates were calculated.

- 15) As previously mentioned, the HydroCAD model should be revised to match the conditions shown on the plans, including modeling pond “2P” discharging into pond “21P”. When the infiltration system overflows, it will discharge into the floodplain basin.
- 16) As previously mentioned, a fence or barrier should be considered around the proposed floodplain basin. Even though it does not have a permanent pool, the sides of the basin are steep and in close proximity to patios. Consideration should be given to providing fall prevention such as a fence or landscape buffer.
- 17) It should be demonstrated that the proposed easement for the widening of Bedford Road is wide enough for a future turning lane.
- 18) The sidewalk along Bedford Road should be put into an easement to enable public use.
- 19) The wetland buffer disturbance area should include the outlet pipe for Structure OCS-1.
- 20) The location of and distance to the Wampus River from the project site should be shown.
- 21) The proposed regrading of the 372 ft contour along the south property line should be revised to be consistent with the exiting topography as it connects to a 373 ft contour.
- 22) Any footing drain discharge locations should be shown. Footing drains should not discharge into the stormwater management system.
- 23) The proposed sewer appears to be designed as a sewer main. Per Ten State Standards, sewer mains shall not be less than 8 inches in diameter.
- 24) It appears some of the proposed trees are located over the sewer main. The location of trees should be coordinated with the utilities plan.
- 25) The proposed water main size and material should be stated on the plans.
- 26) In the response letter, it is stated that gas service is no longer proposed. However, references to gas services are still shown on the plans. It should be clarified if gas is proposed or not.
- 27) A New York State Department of Transportation (NYSDOT) approved “end assembly” should be provided on the relocated guide rail.
- 28) The applicant should consider constructing the proposed sidewalks along Bedford Road and Maple Avenue in accordance with NYSDOT standards to the greatest extent practicable, including a 1.5% cross slope, 6 inches of subbase, and a minimum width of 48 inches.

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A written response and revised plans responding to the above comments should be provided for further review. Any changes made that do not pertain to our comments should be identified separately in the written response. Additional comments may be generated based on the revised plans.

If there are any questions concerning the above, please contact William J. Angiolillo, P.E. in our office at your earliest convenience.



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cc: Adam Kaufman (akaufman@northcastleny.com)
William Angiolillo, P.E. (wangiolillo@hahn-eng.com)

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