


MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP

FROM: John Kellard, P.E. 
KSCJ Consulting
Consulting Town Engineers

DATE: August 4, 2023
Updated November 10, 2023
Updated March 11, 2024
Updated April 8, 2024

RE: MRL 11 Whippoorwill, LLC
11 Whippoorwill Lane
Section 107.04, Block 1, Lot 5

As requested, KSCJ Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing to construct a new, single-family home on an existing 1.28 acre undeveloped, non-conforming lot. The property is adjacent to the Calder property, includes steep slopes and is also located immediately upstream of the Kensico Reservoir. The parcel does not front on a Town Improvement Roadway, instead relying on an easement/right-of-way for ingress and egress.

The proposed residence has been designed to step down the hillside with the lower level (10 feet below first floor) walking out to a patio within the rear. Beyond the patio is a proposed pool and deck. An 18 foot high retaining wall is required to support the proposed pool. A new subsurface sewage disposal system is proposed to the north of the residence. Water supply will be from North Castle Water District #5. An 18 foot wide driveway would be extended to service the residence.

The previously proposed rear yard pool has been removed from the application.

The applicant has revised the project reducing the size of the single-family residence, eliminating the pool and lower patio. The applicant has also submitted a conceptual sketch outlining proposed improvements along Whippoorwill Lane.

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GENERAL COMMENTS

1. **The project is located in the Kensico Drainage Basin. Disturbances of over 5,000 s.f. will require conformance with New York State Department of Environmental Conservation (NYSDEC) General Permit GP-0-20-001 and filing of a Notice of Intent (NOI) and MS4 SWPPP Acceptance Form with the NYSDEC. The applicant will need to submit draft copies to the Town Engineer for review.**
2. The applicant will need to submit stormwater mitigation and design calculations for the runoff generated by the net increase in impervious surface and changes to land use for the 100-year, 24-hour design storm event.

Calculations should include mitigation of water quality and pre-treatment. The system should be sized to include the new driveway and roadway runoff.

The applicant has submitted a Stormwater Report for the project which analyzes runoff from the property during pre- and post-development conditions. The applicant proposes to mitigate the runoff from the property within 30 Cultec infiltration chambers. Calculations are included within the report which confirms water quality treatment, pre-treatment and reductions in peak discharge during the 100-year storm event to pre-development levels. The infiltration system will treat runoff from the roof of the dwelling, driveway and proposed roadway extension.

The following comments remain with regard to the stormwater treatment system:

- a. **All discharge to the stormwater infiltration system should be from a single diverter box which discharges into the pre-treatment units. Flows in excess of the pre-treatment system capacity should be diverted around the pre-treatment units and into the remaining treatment chambers.**
 - b. **The applicant should update all details, etc., to reflect the increase to 30 Cultec units.**
 - c. **The applicant should explain and detail the need for the orifice and weir discussed within the Stormwater Report.**
3. **The applicant shall perform deep and percolation soil testing in the vicinity of the proposed mitigation system to be witnessed by the Town Engineer. The test locations and results shall be shown on the plan. The applicant should contact our office to schedule the testing.**

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4. The applicant is proposing to mitigate stormwater runoff through the use of Cultec infiltrators. The system is proposed within a proposed steeply sloping portion of the side yard. The system will be filled and the system will be located up to nine (9) feet below grade. The applicant should provide details and cross sections through the proposed infiltration system showing the existing and proposed grades, proposed inverts and deep soil test data.

Deep test data extends to a depth of 72 inches. Since the system will extend nine (9) feet below grade, test data must extend to a depth of 144 inches or four (4) feet below the bottom of the treatment practice.

The applicant is proposing to mitigate stormwater runoff from the project within 28 Cultec infiltrators. The infiltration system has been relocated to the rear of the proposed dwelling. A cross section through the proposed system showing deep test data would be helpful in confirming the system is in compliance with NYSDEC design standards.

Comment addressed.

5. **The applicant will need to obtain approval from the Westchester County Department of Health (WCHD) and New York City Department of Environmental Protection (NYCDEP) Approval for the on-site wastewater treatment system.**
6. Include erosion control measures on the plan, including, but not limited to, temporary construction access, silt fence, erosion control blanket, inlet protection, construction sequence, etc. Provide details. The proposed construction entrance should be located at the beginning of the project.

The applicant should consider the installation of a temporary sediment basin during the construction phase. It would also be beneficial to restrict the disturbance of the septic fields until the disturbance around the proposed dwelling is stabilized.

The applicant is proposing the installation of two (2) temporary sediment basins during the construction phase. The applicant should include the calculations used in sizing the basins within the Stormwater Report. What is the drainage area tributary to each basin and should Basin #2 be sized for the complete site disturbance when Basin #1 is offline.

The construction sequence outlined within the Stormwater Report should outline the intended phasing of the work and temporary stabilization of disturbed areas in an effort to keep the area disturbed at any one time to a minimum. An example may be to not start any work on the proposed septic system until disturbed areas along the driveway and around the dwelling are stabilized with temporary vegetation.

7. The applicant should provide a cut and fill analysis. The application may require a Fill Permit with the Town Building Department.

The project will result in 1,042 c.y. of excavation and 1,264 c.y. of fill, requiring importation of 222 c.y. of fill. The applicant should clarify the volume of fill from the dwelling and stormwater system excavation and the volume of fill required for the septic system.

The applicant has provided a cut and fill analysis for the project. Approximately 682 c.y. of excavation and 1,176 c.y. of fill will be required resulting in an import of 494 c.y. of fill. A Fill Permit will be acquired through the Town Building Department. The applicant should confirm that the stockpiles shown are of sufficient volume to accommodate the staged materials.

8. The project will require the construction of retaining walls within the rear yard. The highest wall height appears to be slightly under 18 feet. The applicant should provide retaining wall designs for the project.

Retaining wall designs and details should be provided. Please provide the base width of the stone retaining wall on the detail. Please detail the protective barrier along the top of the wall.

9. **Approval of the proposed water tap to the existing Water District #5 main within the rear yard will be required from the Town Water & Sewer Department. The applicant shall detail methods and improvements required to access the water main.**

10. The applicant is proposing to construct an 18 foot wide driveway from Whippoorwill Lane within the right-of-way/easement.

The roadway design should detail the transition between the existing roadway and new roadway.

The roadway width has been reduced to 14 feet, in conformance with Town Private Roadway Standards. Comment addressed.

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11. Town Private Roadway Standards require a minimum width of 14 feet, which the proposed roadway exceeds. Please provide a detail of the road bed specifications.

The proposed roadway will require drainage improvements which collect runoff from the roadway and pipe the runoff to the stormwater treatment system. The applicant should address drainage improvements within the proposed roadway and driveway.

Stormwater drainage for the roadway will be piped to the on-site stormwater mitigation system. Comment addressed.

12. A majority of the roadway grade is proposed at an acceptable 2.42%. There is, however, a section of the roadway shown at a much steeper grade with no information regarding the grade or vertical curve. The proposed driveway profiles should be updated to show all grades and vertical curves. Please also explain the grading outside of the easement area.

The proposed grading along the eastern shoulder of the proposed roadway does not provide a shoulder. The applicant should re-examine the eastern shoulder grading, providing a minimum three (3) foot level shoulder area adjacent to the roadway. Regrading will likely require expanding the proposed retaining wall. The applicant should also specify the proposed curbing on the plan.

The proposed driveway within the right-of-way will include a pervious shoulder. Please detail where curbing is proposed and design the proposed retaining wall. Please explain how the wall will be constructed without access to adjacent lands.

13. The applicant should include vehicle and emergency vehicle turning movements. Vehicle turning movements into and out of the driveway and emergency vehicle turnaround. The applicant should be referred to emergency services for their review and comment.

The applicant has provided a fire truck maneuvering plan which details how a fire truck will turn around. The plan is somewhat confusing. I do not understand why a fire truck cannot utilize the proposed driveway to the residence as a turning point. Perhaps the applicant's engineer can explain the design. Emergency services should be consulted.

The applicant should meet with the Fire Department to confirm their acceptance of the fire truck turning movements.

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14. The applicant should re-examine the proposed elevation of the dwelling, garage and roadway in an effort to improve access grades along the driveway and drainage within the front yard. The proposed driveway is extremely steep with short vertical curves and the grading within the front yard is restricting positive surface water movement around the proposed dwelling. The applicant should perhaps examine a slight lowering of the proposed roadway at the driveway curb cut and a slight raising of the garage and first floor of the proposed dwelling. The combination adjustments should improve the proposed driveway and drainage conditions.

Comment addressed.

15. **A field walk was conducted with the Town Planner, Building Inspector, applicant and his consultants to inspect Whippoorwill Lane and discuss an improvement plan which could provide locations where two (2) vehicles have sufficient room to pass. The group agreed that minor improvements at three (3) locations would improve the roadway without a significant change to the character of the lane. The recommendations which are illustrated on the conceptual sketch provided by the applicant included:**
- a) **Widening of the western shoulder along the major curve along the lane to permit a vehicle to pull off, allowing a vehicle in the opposite direction to pass.**
 - b) **Widening of the entrance to the driveway along the southern portion of the roadway, which would permit a vehicle to pull off the travel way onto the driveway allowing a vehicle in the opposite direction to pass.**
 - c) **Slight widening of a portion of the upper roadway providing an asphalt surface where there is evidence of tire tracks from vehicles pulling over to pass.**

If the Board is in agreement with these recommendations, the applicant will need to prepare more detailed plans of the improvements.

As additional information becomes available, we will continue our review. It is noted that the applicant should provide an itemized response to all comments will facilitate completeness and efficiency of review.

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PLANS & REPORT REVIEWED, PREPARED BY ALFONZETTI ENGINEERING, P.C., DATED MARCH 25, 2024:

- Site Plan (1 of 2)
- Site Details (2 of 2)
- Stormwater Report

PLAN REVIEWED, PREPARED BY IQ, DATED MARCH 25, 2024:

- Planting Plan (L-1)

JK/dc