


MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
Bruno Odoardi
Eliot Senor, P.E.

FROM: Joseph M. Cermele, P.E., CFM 
Kellard Sessions Consulting
Consulting Town Engineers

DATE: September 10, 2020

RE: Site Plan Approval
Bruno Odoardi
22 Nethermont Avenue
Section 122.16, Block 4, Lot 7

As requested, Kellard Sessions Consulting has reviewed the site plans and application submitted in conjunction with the above-referenced project. The applicant is proposing the construction of a single-family dwelling and associated driveway, retaining walls, stormwater mitigation system and other appurtenances on an existing vacant lot. The ±0.16 acre property is located in the One-Family Residence, R-5, Zoning District.

GENERAL COMMENTS:

1. Upon review of the submitted architectural elevations, it is not clear whether a full basement is proposed. If so, the project will require extensive excavation, presumably in rock, for the construction of the house. The plans should include a cut and fill calculation to provide an estimate of the rock removal required and an anticipated duration. The applicant shall be prepared to discuss with the Board the proposed method of rock removal and provide the method of mitigation for chipping, blasting and dust control.
2. As previously requested, for clarity and ease of review, the applicant shall provide a separate Site Plan and Grading and Utility Plan. The applicant should prepare a site plan that includes all proposed improvements, including, but not limited to, proposed residence, walkways, patios, driveway including dimensions, a zoning compliance table, the minimum building envelope illustrating building setbacks and dimensions, retaining walls and existing neighboring buildings and

driveways. Proposed grading, utilities, erosion controls, etc., should be illustrated on separate plan sheets.

3. As previously requested, the applicant shall demonstrate zoning compliance with respect to building height. As defined by Town Code, the average grade used to determine building height in cases where the finished ground level slopes away from the exterior walls, as this does, the average grade shall be the lowest point within six (6) feet of the perimeter of the building. The applicant has provided average grade calculations, however, the plan shall clarify where the elevations were obtained and include cross sections, as necessary, to support this determination.
4. As previously requested, the applicant shall provide a maximum wall height calculation to demonstrate compliance with Section 355-26 D, which limits height to 34 feet for the R-5, One-Family Residence Zoning District. Based on the building elevations provided, it appears that the maximum wall height is shown at 36.7 feet. It appears an area variance from the Zoning Board of Appeals (ZBA) will be required.
5. As proposed, the development of the site requires clearing a majority of the site and the removal of fourteen (14) trees. A Landscaping Plan has been submitted for the Board's consideration. The Board should consider whether the amount of tree removal is appropriate and if additional screening is needed between the proposed house and neighboring properties. In addition, the applicant should be prepared to discuss the ability to plant the trees, as proposed, given the level of rock encountered on the site.
6. Sight distance profiles have been provided, as requested; however, they shall be corrected to illustrate adequate sight distance 200 feet in each direction. The sight profile shall establish the driver's eye set 3.5 feet above grade, 10 feet back from the edge of the road with a line of sight to an object in the road 2 feet above grade. The elevations shall use the same datum as the submitted plans. The sight profiles shall also be included on the site plans.
7. The driveway profile shall be revised to include vertical curve data, including high and low point elevations, length of vertical curve and existing and proposed station elevations, to demonstrate compliance with Sections 355-59 B (1) and (3) of the Town Code.
8. The applicant has removed all walls previously proposed to be greater than or equal to six (6) feet in height. However, it appears the proposed grading has not been adjusted to accommodate this. The applicant shall revise the plan, as necessary, to illustrate how the removal of the walls will impact the grading on the site. The proposed grading at either side of the house will result in the front stairs and foundation having exposed walls of 4-6 feet. The applicant shall consider terraced walls and/or landscaping to reduce the exposure of the foundation walls.

9. As previously noted, the proposed grading at the north side of the house illustrates a swale that will direct runoff toward the neighboring property to the north. The proposed grading shall be revised to avoid this condition. As noted above, the proposed grading shall be revised to add tiered walls and landscaping to screen the exposed foundation wall.
10. The applicant has provided stormwater mitigation design calculations proposed to mitigate the net increase in runoff generated for the 100-year, 24-hour design storm event. Upon review, however, there appears to be inconsistencies between the land cover areas used for the curve number calculations, specifically related to the amount of ledge and vegetated areas under pre- and post-developed conditions. There appears to be more vegetation on the site than calculated, which will affect the curve numbers used in the stormwater report. The land areas used in the model shall be revised, as necessary. All invert elevations for the components of the stormwater detention system and outlet structures shall be coordinated between the plan, details and the calculations. This office is available to meet with the applicant for a technical review, if desired.
11. As previously requested, the stormwater design calculations shall include drainage maps for the pre- and post-developed conditions to illustrate the drainage areas used in the design calculations. The maps shall be to scale and should be coordinated with the site plan.
12. A detail has been provided for the new water service connection. The property line curb stop shall be shown on the plan. As previously requested, the Trench Restoration Detail shall be revised to comply with North Castle Highway Department Standards. The detail shall indicate k-crete backfill for the full depth of the trench. All saw cut lines shall be tack coated and all joints crack seal.
13. The driveway detail shall be revised to illustrate an 18 foot maximum curb cut width.
14. The stormwater calculations shall be removed from Drawing SW-2, since they are provided in a separate report.
15. The plans include a fence detail. The plan shall clarify the location and height of the fence.
16. The proposed slot drain (trench drain) detail does not appear to be adequate for vehicle loading and shall be replaced with a drain suitable for H-20 vehicle loading.
17. As previously requested, erosion control measures shall be illustrated on the proposed grading plan, including, but not limited to, inlet protection, and tree protection. The limit of disturbance shall be revised to illustrate and quantify all areas of disturbance on and off site.

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

PLANS & DOCUMENT REVIEWED, PREPARED BY GABRIEL E. SENOR, P.C.:

- Stormwater Pollution Prevention Plan (SW-1 and SW-2), dated March 10, 2020
- Landscape Plan (LS-1), dated March 10, 2020
- Existing Conditions, Removals, Erosion Control and Steep Slopes Plan (TS-1), dated January 11, 2020
- Material Staging and Utility Plan (MS-1), dated March 10, 2020
- Stormwater Calculations Report, dated August 2, 2020

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