


MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
Eliot Senor, P.E.
Dino & Michelle DeLaurentis

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

DATE: March 18, 2021

RE: Dino & Michelle DeLaurentis
21 Nethermont Avenue
Section 122.16, Block 4, Lot 41

As requested, Kellard Sessions Consulting has reviewed the site plan submitted in conjunction with the above-referenced project. The applicant is proposing the construction of a single-family dwelling on a vacant lot. Associated improvements include construction of a driveway, retaining walls, stormwater mitigation system and other appurtenances. The property is 9,361 s.f. in size and is located in the One Family, R-5, Zoning District.

Our comments are outlined below.

GENERAL COMMENTS

1. As previously noted, the applicant has provided cut and fill volume estimates for the development indicating that the proposed plan requires the import of approximately 900 cubic yards of fill. Given the condition of the existing roadways in the neighborhood (narrow, winding, steep), this office is concerned with the amount of truck traffic required for delivery and potential damage to existing roads. We recommend that the application is referred to the Highway Department for review and comment.
2. As previously requested, notes shall be added to the "Fill Delivery and Material Staging Plan" specifying compaction requirements and the fill material specifications.

3. As previously noted, the plan proposes tiered six (6) foot high retaining walls in the rear of the property, in close proximity to the property line. The Board should review the retaining wall layout and consider whether they are aesthetically pleasing and compatible with the surrounding residential character. Additional screening or other mitigation may be recommended. The Board may wish to consider reducing the height of the tiered walls or adding a third tier (three – 4 foot walls as opposed to two – 6 foot walls). The applicant should provide cross sections at appropriate locations through the site, front to back and left to right, for the Board’s understanding of how the proposed grading and retaining walls will relate to adjacent properties.
4. As previously requested, for clarity and ease of review, the applicant shall provide a separate Site Plan and Grading and Utility Plan in addition to the Existing Conditions Plan. Due to the drawing scale and abundance of data included on a single sheet, it is difficult to decipher the various improvements from one another. 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.
5. As previously requested, the net lot area calculations shall be removed from Sheet TS-1 “Existing Conditions, Topographic Survey & Steep Slope Analysis”, since that is only applicable to subdivisions.
6. 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 from the perimeter of the building. The applicant has provided average grade calculations; however, it appears that the elevations were taken immediately adjacent to the building. The calculation and supporting data should be revised accordingly and verified by the Building Inspector.
7. 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, and the need to verify the average grade as noted above, the maximum wall height calculation should be provided to the Building Inspector for verification that an area variance would not be required.

8. As previously requested, sight distance profiles have been provided, however, they shall be corrected to illustrate adequate sight distance for a minimum of 200 feet in each direction. It is difficult to verify compliance based on the imagery provided. We would suggest importing the GIS topography and planimetric data to generate the profile as opposed to working from an image. The sight profile shall establish the driver's eye set 3.5 feet above grade, 14 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 and correspond to the grades in the profiles.
9. This office is concerned with the apparent lack of adequate sight lines from the driveway as proposed. The topography and alignment of the existing road and the dense vegetation on adjacent properties will appear to hinder safe lines of sight in either direction. It appears that the plan will require significant removal of existing vegetation to provide the necessary sight distance, much of which is on adjacent properties or within the right-of-way and will require agreement by the neighbors and sight line easements. As previously recommend, the applicant should prepare an alternate plan for the Planning Board's consideration illustrating the driveway access from the south side of the property toward the crest of the hill on Nethermont Avenue. We would recommend evaluating a driveway access with the grades descending from the road to lower the elevation of the site slightly, as well as the resulting elevation of residence to reduce the required fill and height of retaining walls.
10. As previously noted, a Landscaping Plan has been referenced but not submitted. The applicant shall submit a Landscape Plan and Restoration Plan, in accordance with Section 308.15.A(11) of the Town Code. The plan shall include a planting schedule that includes common name, scientific name, label symbol, size and quantity of proposed plants.
11. As previously requested, the Tree Removal and Protection Plan and Summary Table shall be revised to include only trees on the subject property.
12. As previously requested, the driveway platform width should be increased to a minimum of 25 feet for adequate maneuverability out of the garage.
13. As previously requested, the invert elevations of the existing sanitary manholes in Nethermont Avenue shall be provided to verify the invert of the main line connection.
14. As previously requested, illustrate the connection between the storm system in the driveway and the existing storm system in Nethermont Avenue. Provide invert elevations as appropriate.

15. As previously noted, stormwater calculations have been submitted for mitigation of the 100-year design storm. It is noted, however, that the Hydrologic Soil Group (HSG) used for existing conditions differs from proposed conditions. Because the HSG is based on the underlying soils, the same HSG should be used for both existing and proposed conditions. The calculations shall be revised as necessary.
16. As previously noted, the stormwater design calculations shall include drainage maps for existing and proposed conditions to illustrate the drainage areas used in the design calculations.

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 REVIEWED, PREPARED BY GABRIEL E. SENOR, P.C.:

- Existing Conditions, Topographical Survey, Tree Removals (TR-1), dated December 11, 2020
- Stormwater Pollution Prevention Plan & Erosion Control (SW-1), dated March 6, 2021
- Stormwater Pollution Prevention Plan & Erosion Control (SW-2), dated March 6, 2021
- Sight Distance Analysis (SD-1), dated December 11, 2020
- Fill Delivery and Material Staging (FS-1), dated December 11, 2020

JMC/dc