

## **M**EMORANDUM

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: January 21, 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 to construct a single-family residence, and associated improvements, including asphalt driveway, retaining walls, stormwater mitigation system and other appurtenances on an existing vacant lot. 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**

- The applicant has provided cut and fill volume estimates for the development. We note 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 comments.
- 2. Notes shall be added to the "Fill Delivery and Material Staging Plan" specifying compaction requirements and the fill material specifications.

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- 3. The plan proposes two 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.
- 4. For clarity and ease of review the applicant shall provide a separate Site Plan and Grading Plan. The applicant should prepare a site plan that includes all proposed improvements, including, but not limited to, proposed residence, walkways, patio/deck, driveway including dimensions, a zoning compliance table, the minimum building envelope illustrating building setbacks and dimensions, retaining walls. Proposed grading, utilities, stormwater mitigation, erosion controls, etc., should be illustrated on separate plan sheets.
- 5. 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. 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.
- 7. The Tree Removal and Protection Plan and Summary Table shall be revised to include only trees on the subject property.
- 8. Sight distance profiles have been submitted, however, the datum used on the profile is different than that used on the plan view. Revise as necessary. 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. 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, and will require agreement by the neighbors and sight line easements. We recommend that the applicant prepare an alternate plan illustrating the driveway access from the south side of the property. Provide driveway profiles and building elevations as necessary.
- 9. The driveway platform width should be increased to a minimum of 25 feet.
- 10. The invert elevations of the existing sanitary manhole and pipe in Nethermont Avenue shall be provided.

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- 11. Illustrate the connection between the storm system in the driveway and the existing storm system in Nethermont Avenue.
- 12. The applicant is proposing a stormwater mitigation system in the rear of the lot, twelve (12) feet lower in elevation than Nethermont Avenue, and proposing to pump collected stormwater to the existing storm system in the street. This office is concerned with the reliability of a pump for the purpose of stormwater mitigation. Should the pump fail or be undersized for larger storm events, stormwater runoff will overflow directly to the neighboring property below. We recommend that the system be relocated to the front of the property with a gravity system and appropriate emergency overflow provisions.
- 13. 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.
- 14. The stormwater design calculations shall include drainage maps for existing and proposed conditions to illustrate the drainage areas used in the design calculations.
- 15. The detail for the sanitary sewer saddle connection is illegible and should be replaced.

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., DATED DECEMBER 11, 2020:

- Existing Conditions, Topographical Survey, Tree Removals (TR-1)
- Existing Conditions, Topographical Survey & Steep Slope Analysis (TS-1)
- Stormwater Pollution Prevention Plan (SW-1)
- Stormwater Pollution Prevention Plan & Erosion Control (SW-2)
- Sight Distance Analysis (SD-1)
- Fill Delivery and Material Staging (FS-1)

## JMC/dc