KELLARD SESSIONS

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
Stephen Anderson, Gabriel E. Senor, P.C.
Joseph Gentile

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

DATE: July 9, 2021
Updated September 9, 2022

RE: Joseph Gentile
9 Barnard Road
Section 108.03, Block 3, Lot 54

As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing to legalize an existing shed (less than 800 s.f. in size), legalize a retaining wall greater than six (6) feet in height in the front yard and associated fill material, construct an additional retaining wall, and is proposing a stormwater mitigation system for the existing residence and shed. We note that, as indicated in our prior memorandum for this application dated November 22, 2019, the applicant had previously proposed additions to the residence, relocation of the attached garage, construction of a patio and a new septic field, all of which appear to no longer be part of the proposed plan for development. The ±1.18 acre property is located in the R-1A Zoning District.

Our comments are outlined below. Please note that some of the comments presented below are from the above-referenced November 22, 2019 memorandum and remain to be addressed.

GENERAL COMMENTS

1. The plan shall demonstrate that all required setbacks to the septic, well and stormwater facilities meet minimum Westchester County Department of Health (WCHD) requirements. We note that the domestic well serving the adjacent property to the east is relatively close to the common property line. This well should be survey located and illustrated on the plan to demonstrate that

the required separation distance between the well and stormwater management system can be maintained.

The applicant has provided separation distance between the well and proposed stormwater treatment system. The applicant should show the location of the septic system and the ability to maintain the WCHD separation between the infiltration system and existing septic system.

2. The applicant has provided building elevations and floor plans of the existing shed to be legalized for the Planning Board's consideration.

3. The applicant has provided a Landscaping Plan for consideration by the Planning Board. The Site Plan shall depict all Town-regulated trees proposed to be removed or protected within and ten (10) feet beyond the proposed limit of disturbance. It appears that, at a minimum, additional tree removal is required for the proposed lower retaining wall. We note that in addition to the two (2), 20-inch pine trees illustrated on the plan, that there exists a relatively dense vegetated buffer between the adjoining lots. This buffer will require clearing in order to construct the proposed lower retaining wall. The plan proposes to replant this area with a mix of dwarf junipers and boxwoods. We would recommend that the Planning Board consider requiring a more robust screening plan.

   Comment addressed.

4. The plan illustrates an existing stone retaining wall along the eastern property line at the front of the site. This wall was constructed without prior approval and exceeds six (6) feet in height. This office is not aware of any prior design or construction certification nor was this office able to inspect its construction. Portions of the wall had been constructed within the Town right-of-way and are now proposed to be removed and the area restored. We offer the following comment relative to the wall:

   - The limits of the wall to be removed within the Town right-of-way are illustrated on the plan. The plan shall also illustrate and detail the means to restore this area.

     Comment addressed on the Engineer's plan. The landscape plan requires revision.

   - As previously requested, the applicant shall provide an estimate of the quantity of fill imported to the site to construct and backfill the wall. As part of this estimate and based on a field visit attended by this office and the Building Inspector during the prior

application, it appeared that fill was also imported to regrade a portion of the rear yard. This assumption was supported by review of available Westchester County GIS data and the buried "feet" of existing trees in the rear yard. This added material should be included in any cut/fill calculation.

Comment addressed.

- The Stone Wall Detail illustrates a tiered retaining wall with a maximum height of four (4) feet. The existing retaining wall is not dimensioned on the detail. However, based on field visits, the wall reaches heights of approximately eight (8) feet. The lower tiered wall does not dimension the footing width or depth of crushed stone backfill. The retaining wall design and detail shall be updated accordingly.

  The lower retaining wall has been removed from the design. A letter from Eliot Senor, P.E. provides his professional findings that the wall was properly constructed, in sound condition and has no visible evidence of failure.

- When the original wall was first constructed, and as part of the prior application, the applicant was required to provide a design certification by a New York State Licensed Professional Engineer demonstrating that the wall, as constructed, is stable, has been adequately sized to provide appropriate factors of safety for sliding, overturning and bearing, and has been constructed in accordance with the design and detail. Said certification was not received by this office. It is not clear why the lower retaining wall is required or being proposed at this time. We assume that the plan to construct a second tier with a maximum height of four (4) feet is to eliminate the need to provide the above certification. However, the proposed retaining wall plan will require clearing of whatever vegetated buffer remains along the property line. The Planning Board should consider whether this is appropriate or if the wall should remain as is and the certification be provided.

  The lower wall has been eliminated. Please see letter from Eliot Senor, P.E.

- The existing retaining wall had been constructed immediately adjacent to several trees, compromising the root zone and structure. As previously noted, their long-term survival was questionable. We note that there is at least one dead tree in the immediate vicinity of the retaining wall (assumed to be the 14" tree illustrated on the plan). This should be

confirmed by the applicant. We would recommend that the dead tree be shown to be removed. The Planning Board should discuss whether additional plantings are appropriate.

Comment addressed.

- The plan illustrates a temporary construction access above the existing retaining wall for construction of the infiltration system. The plan must be revised to illustrate how the area of the lower wall will be accessed for construction and what measures will be used to protect the downgradient property from being disturbed. It is not clear how the proposed lower wall can be constructed as proposed without some level of disturbance to the adjoining property.

  The lower wall has been eliminated.

5. As part of the prior application, the Building Department had required soil sampling to ensure the import material was clean and complied with applicable NYSDEC Part 360 regulations. An analysis and report, prepared by Sterling Environmental Engineering, P.C., was provided. We note the following preliminary comments:

   - The report should be sealed by a NYS Licensed Professional Engineer.

   - The report should include a summary table that lists the concentrations of all detected compounds vs. the allowable limits for Unrestricted Use and Residential use for review by the Building Inspector and consideration by the Planning Board.

   - There does not appear to be analytics provided for PCBs/Pesticides.

     Letter from Sterling Environmental Engineering confirms that the soil samples results indicate the soils comply with general fill criteria by the NYSDEC and is acceptable for use on residential properties.

   - **The Planning Board should discuss whether the report should be reviewed further by the Town's hydrogeologic consultant.**

6. **The plan proposes an infiltration system to collect and mitigate stormwater runoff generated from the existing residence and shed. The existing roof leader connection that discharges off site is proposed to be removed. This office previously witnessed soil testing in the vicinity of the**

practice to demonstrate that suitable soils exist. We note, however, that the depth to rock, as noted on the plan, is approximately five (5) feet. As such, it does not appear that the required 3 ft minimum separation will be provided by the design. The infiltration system layout shall be adjusted accordingly. We would also recommend that an additional inspection port be shown on the unit to which the storm piping is connected.

7. The plan proposes to remove the existing drain inlet located within the driveway, which currently discharges to the adjoining property. The plan, however, does not illustrate how runoff from the driveway will be collected or conveyed. Without the inlet, it appears that stormwater runoff will continue to sheet flow toward the adjoining property. The applicant should review this layout and consider an alternative to collect and mitigate this flow. We note that should this drain inlet be connected to the infiltration system, the WCHD minimum required setback to a drilled well is 100 feet.

8. Drawing S-2 appears to have been named incorrectly and should be revised to "Proposed Conditions".

Comment addressed.

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 & REPORT REVIEWED, PREPARED BY GABRIEL E. SENOR, P.C., DATED JULY 21, 2022:

- Site Plan, Shed Addition and Stone Retaining Wall Existing Conditions (S-1 & S-2)
- Site Plan, Shed Addition and Stone Retaining Wall Proposed Conditions (S-3)
- Site Plan, Shed Addition and Stone Retaining Wall Detail Sheet (D-1)
- Drainage Calculations, dated July 22, 2022

PLAN REVIEWED, PREPARED BY WALTER G. NESTLER, P.C., DATED OCTOBER 19, 2021:

- Planting Plan

REPORT REVIEWED, PREPARED BY STERLING ENVIRONMENTAL ENGINEERING, DATED MARCH 19, 2021:

- Soil Sample Report

JK/dc