

CASEY & KELLER, INC.

LAND SURVEYORS + CIVIL ENGINEERS + PLANNERS

N.J. STATE BOARD OF PROFESSIONAL ENGINEERS & LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION NO. 24GA27985400

258 MAIN STREET, MILLBURN, NEW JERSEY, 07041
VOICE: 973-379-3280 FAX: 973-379-7993

Memorandum: Technical Review #1

To: Township of Long Hill Zoning Board of Adjustment
Board Chairman and Members

From: Richard Keller, PE, PP, CME
Board Engineering Consultant

Re: Application No. 2021-06Z
Marco Cavallari
Block: 12702, Lot: 38
95 E. Rayburn Road, Millington, New Jersey
C&K Project #: 1190102-32 (21-06Z)

Date: May 1, 2021

Documents Reviewed:

As part of our engineering technical review, we have received and reviewed the following documents:

1. Engineering Plan entitled "Pool Site Plan for 95 E. Rayburn Road" prepared by Lantelme, Kurens & Associates, P. C. Engineers & Land Surveyors, dated December 30, 2020, consisting of 1 Sheet. This plan includes a current property and topographic survey prepared by Lantelme, Kurens & Associates, P. C. Engineers & Land Surveyors, dated December 29, 2020.
2. Property Survey of 95 E. Rayburn Road prepared for ESTI Investments, LLC by Martin A. Grant Surveying, Inc. dated January 19, 2018, consisting of 1 sheet.
3. Application with checklists, site photos and proposed site renderings.

Brief Project Description:

The property is located at the southeast corner of E. Rayburn Road and Shawnee Path in the Millington section of the Township.

The property has 150 feet of frontage along East Rayburn Road, toward which the existing 2-story single family house faces and 200 feet of frontage along Shawnee Path. The property is in the R-3 Residential Zone and contains 30,000 sq. ft. where 30,000 sq. ft. lots are required.

The property slopes from the rear yard to the north, toward Shawnee Path with any surface flow of stormwater being collected by a stormwater inlet located along the curb line of Shawnee Path.

In the easterly portion of the rear yard, behind the existing dwelling, the Applicant proposes to construct a new in-ground swimming pool with an integrated spa and a patio along 2 sides of the pool. The existing

elevated deck will be replaced with an at-grade patio & outdoor kitchen. The existing 203 sq. ft. shed will be relocated to be closer to the dwelling.

1. Observations & Comments:

- 1.1. Based upon a review of the NJDEP Geo-Web GIS and the most recent FEMA mapping along with a site inspection, the subject property does not appear to contain or be in close proximity to any critical areas as defined in the Land Use Ordinance. (§LU-111)
- 1.2. Since the proposed plan creates a net increase of more than 400 sq. ft. of impervious area, the application is subject to the requirements of the Stormwater Management section of the Land Use Ordinance (Sec. 146.) Under Section 146.4c. the review of the required stormwater plan resides with the Zoning Board of Adjustment Engineer.
- 1.3. Since the area of proposed site disturbance will exceed 5,000 sq. ft. in aggregate, a Soil Erosion and Sediment Control Plan Certification from the Morris County Soil Conservation District (SCD) will be required. Item 7 of the Application Checklist requires the submission of a “copy of the completed Soil Erosion & Sediment Control Certification form.” The applicant has requested a waiver from this section citing that the application is only for bulk variance relief. We take no exception to the waiver request at this time but note that an application for plan certification from SCD will be required to secure a building permit and that plans will need to be amended to include the details, sequence of construction and notes required for plan certification by the SCD.
- 1.4. The site renderings provided in the application show the proposed patio & outdoor kitchen to be elevated and completely covered by a 472 sq. ft. +/- roof connected to the house, whereas the site plan shows only a 39 sq. ft. +/- covered landing with steps down to an at grade patio. The rendering also shows an external spa extending to the east of the pool with a hardscape path & elevated slide. The rendered spa and pool do not appear to meet the 20’ side & rear setback for a pool or have been included in the coverage calculations. The applicant should clarify what is proposed.

2. Technical Review

- 2.1. The Grading Plan should be revised to comply with the Stormwater Management Design Standards contained in Ordinance Section 146.3b. through 146.3d. (inclusive). Including:
 - 2.1.1. The subsurface stormwater detention design should be modified to provide a capacity of four inches of runoff for each square foot of increased impervious area as required under §146.3b.1.
 - 2.1.2. For the stone used around and under the proposed Cultec Chambers, a design void ratio of thirty-three (33%) percent shall be used per §146.3c.
- 2.2. The Applicant will be required to perform percolation/permeability testing in the vicinity of the proposed drywell/infiltration/recharge system proposed. The Applicant shall also locate the seasonal high ground water table to ensure a minimum separation of two (2) feet between the

bottom of the infiltration system and the ground water table. Casey & Keller, Inc. and/or the Township Engineer shall be notified a minimum seventy-two (72) hours in advance of this testing so that a representative of either entity may be present. The engineer-of-record, shall be present during percolation/ permeability testing and shall submit a signed and sealed certification regarding the results of said testing. These tests may be performed after issuance of the requested Grading & Building Permits, but prior to the installation of the infiltration system(s). However, we strongly recommend that the testing is performed as soon as possible to confirm that the proposed design is feasible. Additionally, the engineer-of-record shall provide calculations, utilizing the observed permeability rate with a factor of safety of two (2), to demonstrate that the proposed recharge systems will completely empty within 72 hours. Should on-site testing yield undesirable percolation/permeability rates, the Applicant may be required to provide an alternate design which does not rely on percolation consistent with Ordinance Section 146.2b.2.

If the Board were to act favorably upon the variance relief sought by the applicant, we would take no exception to the applicant providing the information outlined above as a condition of any approval.

- 2.3. The Applicant should indicate the type and intensity of any lighting that is proposed for the patios and around the pool area. The use full cut off fixtures to eliminate sky glow is encouraged throughout the property. Per LU-124.5j., any pool lighting *“shall be restricted to such lights as shall not be a nuisance to adjoining property owners and shall not remain lighted after 10:00 p.m.”*
- 2.4. The Pool Site Plan should note that the existing fence and gates are to comply with the Pool & Fence ordinance requirements outlined in §LU 142.5(f) & §BH7-16 through 20.
- 2.5. The proposed site renderings in the application package includes significant landscape buffers along the easterly and southerly side property lines where little or no screening currently exists. The Applicant should provide testimony as to whether any additional landscaping is proposed.
- 2.6. The Pool Site Plan indicates that 3 significant trees in the rear yard are to remain. Tree protection fencing should be placed at the limits of the drip line around each of these trees to ensure that no grading over the primary root structure occurs and that the root systems are not compressed by construction vehicles.
- 2.7. Given the presence of a number of large Township street trees that exist between the existing fence and the travelled way of Shawnee Path, we recommend that all construction vehicles access the rear yard from the existing driveway off of East Rayburn Road and that this path be identified on the grading plan as is required when the plan is revised for SCD submission.
- 2.8. We defer to the Board’s Planner for comments regarding zoning compliance and the proofs required in support of the variance requested relief.

Any revised plans or other documents should be accompanied by a cover letter responding individually to each of the comments presented in this review letter. The cover letter should also outline those changes to the plans that were requested as well as those not requested or readily apparent.