



April 19, 2024

Building Department
Township of Verona
880 Bloomfield Avenue
Verona, New Jersey 07044

Attention: Tom Jacobsen, Construction Code Official

Re: Joseph & Kristin Venezia
Engineering Review
In-ground Pool, Patios & Cabana
48 Durrell Street
Block 1306, Lot 14.01
Township of Verona
Our File No. VAES-174

Dear Mr. Jacobsen:

We have received copies of the following documents relative to the above referenced application:

- a. Site Plans consisting of three (3) sheets entitled, “Grading Plan, Soil Erosion, Sediment Control Plan, Construction Notes & Details, Block 1306, Lot 14.01, 48 Durrell Street, Township of Verona, Essex County, New Jersey”, prepared by Dykstra Walker Design Group, dated through 2-23-2024.
- b. Topographic Survey, dated 5-3-2023, prepared by Dykstra Walker Design Group.
- c. Architectural Plans consisting of three (3) sheets entitled “Proposed Cabana, 48 Durrell Street, Verona, New Jersey”, dated 10-12-2023 and prepared by Heritage Madison Architecture LLC.

Application

1. The lot is currently developed with a single-family dwelling, front porch with paver walk, attached garage and asphalt drive.
2. The Applicant proposes to construct a freeform inground pool with full paver patio surround within the rear yard of the property, reconstruction of the front walk, new rear landing and steps, side yard paver walkway, gravel patio, shed, cabana, generator,

outdoor shower, grinder pump station, pool safety fence, pool equipment and storm drainage inlets and piping.

3. The Applicant received a zoning denial (# 2023-211) for the proposed improvements dated 2-22-2024, outlining multiple variances associated with the application.

Stormwater Management

4. The Applicant proposes to direct the patio, shed, cabana and yard runoff to yard inlets and a new roadway inlet with ultimate discharge into the Township's existing inlet within Durrell Street.
5. Per Section 455-17, minor developments are defined as any development resulting in 400 or more square feet of new impervious surface. The proposed net increase in impervious coverage is 4,119 square feet. Therefore, the project qualifies as a minor development and stormwater management is required in accordance with Section 455-17 of the Township Code. The applicant shall design a stormwater management system in compliance with the Township Code.

6. Per Section 455-17A(1), for each square foot of new impervious surface, two gallons of stormwater is required to be managed using green infrastructure practices for minor developments.

The Applicant shall provide stormwater management and associated calculations addressing same.

7. The stormwater management design shall confirm any proposed retention system drains adequately to allow for sufficient storage for storm events.
8. The cabana's roof leaders shall be mapped and confirmed for underground connection into the stormwater management system.
9. The collection of runoff south of the cabana at the eastern midpoint area of the pool patio through to the driveway along the proposed new side yard walkway shall be addressed. This area's runoff shall not drain onto the neighboring property to the east.
10. Additional elevation information shall be provided along the east side yard and the new walkway to ensure runoff does not impact the eastern neighboring property.
11. Our office is required to inspect the construction of the drainage improvements. All inspection requests shall be made at least 48 hours prior to the required inspection.
12. The property owner is responsible for maintenance of the stormwater management facilities. All stormwater management facilities are recommended to be inspected annually.

13. The final grading of the lot must ensure additional surface runoff does not adversely impact any adjoining properties. Any required modifications shall be the property owner's responsibility, in coordination with their engineer.
14. Pool emptying procedures in accordance with NJDEP regulations shall be addressed on the plan.

Tree Removal

15. The plan indicates no trees are proposed to be removed.
16. The Township of Verona has a Tree Removal Ordinance (Chapter 493, Article II) and any trees to be removed are subject to review and approval by permit only. The permit application is available on-line at the Township website and shall be reviewed independently of this review letter by the Township Zoning Official, if not done so to date.

Soil Movement

17. Soil movement excavation and fill quantities in cubic yards shall be provided.
18. The Township of Verona has a Soil Removal Ordinance (Section 440) and any soil to be moved is subject to review and approval by Township Council.
19. The limit of disturbance exceeds the 5,000 square foot threshold at 17,000 square feet. Therefore, HEPSCD certification is required. The Contractor must maintain effective soil erosion and sediment control measures throughout the duration of construction.
20. The construction access through the western side yard shall be contained within the property line. The western and eastern property lines are recommended to be surveyed and staked out onsite as well as the rear Conservation Easement boundary to help ensure disturbance is contained within the property boundaries and outside of the Easement.

Roof Leaders, Sump Pump Discharge, Grading and Property Maintenance Guidelines

21. The owner/applicant must submit an as-built survey, post construction, mapping all the improvements, including the stormwater system. This survey must include finished elevations.
22. Sump pump, roof leaders and storm water pipe drain discharge shall preferably be directed onto an absorbent surface as grass, mulch, rock or soil so the discharge will be dissipated and not immediately drain to the Township Right-of-Way or adjacent properties. The discharge location shall be as approved by the Engineer or Public Works Manager or his/her designee. In the event it is not feasible to direct discharge on to an absorbent surface, the discharge may be directed to a storm sewer, swale, ditch, detention basin, drainage basin or other drainage facility or location as approved by the Engineer,

- Public Works Manager or his/her designee. If a connection to the storm sewer is approved, a permit will be required from the Engineer, Public Works Manager prior to installation. The connection must also be inspected by the Engineer or Public Works Manager.
23. The discharge location shall not create a public nuisance. This includes any condition or act which is or may become injurious or hazardous to the public.
 24. The discharge shall not create a build-up of icing, standing water or algae growth on the street, sidewalk or public Right-of-Way.
 25. The discharge shall not be directed towards an adjacent property in such a manner as to cause damage to the adjacent property or create a nuisance.
 26. No person shall connect, or cause or permit to be connected, any sump pump, pipe drain, floor drain, surface drain, subsoil drain or leader pipe with the house sanitary sewer, or to use the sanitary sewer connection or any pipe or drain connected therewith for the purpose of receiving and discharging drainage of any kind other than from plumbing fixtures.
 27. Sump pump and pipe drain discharges may not be directed into a Township Street or Right-of-Way unless permission is granted by the Engineer, Public Works Manager or his/her designee.
 28. Roofs and outdoor areas shall be sloped to direct water away from buildings. Roof drains shall be connected to an approved storm water drainage system where and when possible. If a subterranean leader system is to be utilized, the system must be approved by the Township Engineer.
 29. Please note the following:
 - a. Water runoff which historically flowed from one property to another prior to an uphill home or developed area being built may continue to flow in the same direction after the home is built or area developed only if:
 - There is no diversion or channeling which results in the water flow being concentrated in one area, and;
 - There is no substantial construction on the uphill lot resulting in increased rates of surface run-off.
 - b. If a detrimental change in the natural pattern of drainage on an uphill lot has occurred, the uphill property owner is responsible for interception and piping or directing surface water to a natural drainage area or a storm water drainage system.

- c. The downhill property owner is responsible for providing proper drainage for water flow that occurs in accordance with natural drainage patterns, which existed prior to construction.
 - d. Due to the inherent difficulty in accurately predicting post-construction water flow from a property, changes in water flow may not be discovered until well after the construction is completed. In such cases, if it is determined the lot is generating an additional flow or intensity of storm-water across an adjacent property, in excess of what existed prior to construction, the Applicant, at the Applicants expense, will be responsible for all measures necessary to abate the excess flow of stormwater.
30. The elevation of the cabana's highest roof ridge, as per the grading plan datum, shall be provided.
31. The elevation of the shed's highest roof ridge, as per the grading plan datum, shall be provided.

This application requires variance approvals prior to Construction Permit issuance. Based on this report please address item numbers 5, 6, 7, 8, 9, 10, 14, 17, 30 and 31.

Thank you for your attention to this matter. Should you have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,

BOSWELL ENGINEERING



FOR

Peter C. Ten Kate, P.E.

PCTK/MT/lv

cc: Joseph & Kristin Venezia
Dykstra Walker Design Group
Kathleen Miesch

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