

December 16, 2025

Via Email (dchandler@westorange.org)

Zoning Board of Adjustment
Township of West Orange
66 Main Street
West Orange, New Jersey 07052

Attn.: Diana Chandler – Zoning Board Secretary

**RE: ENGINEERING REVIEW NO. 3 FOR WAYSTONE REALTY, LLC, SINGLE FAMILY RESIDENCE WITH
HORSE STABLE AND RIDING ARENA
WEST ORANGE ZONING BOARD APPLICATION No. ZB 24-15
42 EAGLE RIDGE WAY (BLOCK 106, LOT 24.01)
TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY
MATRIX NO. 23-1345**

Ms. Chandler:

As requested, Matrix New World Engineering, Land Surveying and Landscape Architecture, PC (Matrix) has reviewed the Zoning Board of Adjustment application and supporting documentation for the above-referenced site. Matrix has prepared a technical engineering review of the proposed improvements at the subject. It shall be noted that our review of the project is limited to site/civil engineering only. Matrix defers all planning matters, including but not limited to, bulk and/or use variances, conformance with the master plan and ordinances, etc. to the Board's Planner. **This review letter shows changes from Review No. 2 letter dated September 2, 2025 in bold.**

As provided by your office, Matrix has received and reviewed the following documents for this project:

- Stormwater Management Report, Block 106, Lot 24.01, prepared by Colliers Engineering and Design, dated October 18, 2024, revised **December 3, 2025**
- Property Buffer Report (200-foot owner list) for Block 106, Lot 24.01, prepared by the Office of the Tax Assessor, Township of West Orange, dated August 20, 2024
- Township of West Orange Application Form for Planning Board or Zoning Board of Adjustment, undated
- Variance Discussion, prepared by Burgis Associates, Inc., dated December 13, 2024
- Application letter from Priscilla J. Triolo, Esq., Bittiger Elias and Triola, PC, dated December 27, 2024
- Letter of Explanation prepared by Priscilla J. Triolo, Esq., dated October 18, 2024, with Project Description
- Verification of Taxes and Sewer Charges Paid, Block 106, Lot 24.01, 42 Eagle Ridge Way, prepared by the Office of the Tax Collector, dated August 20, 2024
- Planning Board Resolution of Approval, PB-98-11, Highview at West Orange, Block 107, Lots 2, 3 and 4, dated September 2, 1998

- Signed but unsealed set of engineering drawings, prepared by Colliers Engineering & Design, Inc., dated October 18, 2024, and revised through **December 3, 2025** including the following sheets:
 - Cover Sheet (Sheet 1)
 - Demolition Plan (Sheet 2)
 - Layout Plan (Sheet 3)
 - Grading and Drainage Plan (Sheet 4)
 - Utility Plan (Sheet 5)
 - Landscape Plan (Sheet 6)
 - Soil Erosion & Sediment Control Plan (Sheet 7)
 - Construction Details -1 (Sheet 8)
 - Construction Details – 2 (Sheet 9)

PROJECT DESCRIPTION

Matrix understands that the Owner and Applicant for this application is Waystone Realty, LLC, mailing address: 40 Eagle Ridge Way, West Orange, New Jersey. Per the Township's Zoning Map (last revised 2020), the subject parcel is commonly known as 42 Eagle Ridge Way (Block 106, Lot 24.01) is located in the 'R-1' (Residential, 80,000 square foot minimum area) zoning district along Eagle Ridge Way, approximately 600 feet from the intersection of Eagle Ridge Way and Boland Drive. The subject property is approximately 3.09 acres and is presently undeveloped. It was previously improved with a single-family house which was razed. Since the house was demolished, the property has been disturbed as part of the improvements associated with 40 Eagle Ridge Way. The improvements there now are pending a Planning Board approval for a pool house, an inground pool and the disturbance of over one acre of property. Some of the disturbed property associated with the construction at 40 Eagle Ridge Way occurred on the parcel which is the subject of this application. The disturbance of greater than one acre classified the project at 40 Eagle Ridge Way as a Major Site Plan under the Township's Stormwater Management Regulations. Below is a summary of the proposed property improvements.

The proposed development consists of a single-family house, a barn for keeping horses and an indoor arena. There will also be an outdoor arena, grass paddocks, landscape areas, driveways and pathways. Stormwater management facilities are also proposed. Approximately 3.13 acres of land will be disturbed which includes all 3.09 acres of Block 106, Lot 24.01 (42 Eagle Ridge Way) to accommodate the previously mentioned proposed improvements. Since more than one acre of land is being disturbed for these improvements, this application is considered a Major Site Plan under the Township's Storm Water Management regulations. This parcel was previously disturbed as part of the construction associated with 40 Eagle Ridge Way. Currently there is a stormwater management plan for 40 Eagle Ridge Way approved by the West Orange Planning Board. That plan does not consider the disturbance at 42 Eagle Ridge Way. Should this plan not be approved the Storm Water Management Plan for 40 Eagle Ridge Way must be revised. The engineering drawings do not depict any trees to be removed as any trees disturbed by the construction were previously removed and a permit was issued by the Township Forester. The applicant submitted a Landscape Plan that depicts new proposed plantings.

1. General

- 1.1. Architectural drawings were provided as part of the submission. It appears that the proposed buildings comply with the residential building design criteria specified in Ordinance §25-9.7(b).
- 1.2. A property boundary and topographic survey was submitted. It was prepared by Kiersten Osterkorn, P.E., P.L.S. of Omland and Osterkorn, dated May 22, 2024. This survey may need to be updated to reflect any recent ground disturbance.

2. Demolition

- 2.1. The Applicant shall provide testimony regarding the intention to remove any additional trees and obtaining a Tree Removal Permit pursuant to Ordinance §25-27.

3. Layout Plan

- 3.1. The Applicant shall provide testimony regarding the existing site conditions, proposed improvements, and conformance with applicable ordinances and regulations.
- 3.2. Steep slope calculations were submitted, but there is an error in the land area with slopes between 10 and 14.99 percent. Also a plan that shows the location of each area of steep slopes is required. The Applicant will need to provide testimony relative to the steep slope calculations.
- 3.3. Modular block walls are proposed in the easterly portion of the site. The plan and detail indicates the walls will not exceed four feet in height. A building permit is not required for a wall four feet or less in height. However, a global stability analysis with supporting calculations shall be submitted by the Engineer to ensure that the wall can sustain the proposed wall loadings.
- 3.4. The Engineer prepared a plan superimposing existing and proposed contours using different grey scales to distinguish between the two sets of contours.
- 3.5. Soil movement calculations within the limit of Disturbance were provided by the Engineer.
- 3.6. The Engineer shall provide information and testimony on the types of vehicles that will frequent this Site and how those vehicles will maneuver within the Property.
- 3.7. Waste disposal, particularly horse waste, shall be addressed. A **compost facility** is depicted along the southerly elevation of the structure, but information and testimony are required on how this **compost facility** will be used along with frequency of collection and vehicle maneuverability. **Information and testimony shall be provided on methods to control odors.**
- 3.8. A detail of the Proposed Pavement (Typ.) was provided.
- 3.9. The Engineer shall provide testimony if any of the proposed improvements encroach on wetlands or wetlands buffers that exist along the westerly side of Eagle Ridge Way opposite this site. The NJDEP advised the Township that the drainage way on the easterly side of Eagle Ridge Way is not a regulated waterway.

4. Grading & Drainage Plan

- 4.1. The storm water management plan was designed to comply with the regulations that were in effect at the time of the submission of the application. **These regulations are contained in West Orange Ordinance No. 2870-24, adopted on November 25, 2024. The Engineer shall provide testimony that these are the regulations that were applied to this application.**
- 4.2. **The Applicant shall clarify which rainfall data is used for the stormwater analysis, the source of the rainfall data is not referenced or provided in the report.**
- 4.3. **Both the pre- and post-development hydro-CAD analysis titles are “Future Rainfall”. The source of the rainfall amounts should be clarified in the report as well as how the future rainfall amounts were calculated. Additionally, a pre- and post-development hydro-CAD**

analysis for the “Current Rainfall” should also be provided to ensure reductions are met for these storms as well.

- 4.4. The approval by the West Orange Planning Board for the adjoining parcel at 40 Eagle Ridge Way included some drainage improvements on this parcel. These plans now reflect these improvements.
- 4.5. The Applicant’s engineer shall explain the reason for offsetting the proposed impervious area by the amount of impervious area and regulated motor vehicle surfaces that existed under the prior use. At the time of this application the remnants of the prior use were removed. The application form does not indicate any impervious areas on the parcel. **Under recent guidance from the NJDEP for the review of stormwater designs, the “existing conditions” are the conditions that exist today. The Demolition Plan shows structures and driveway area that were previously removed. These pre-existing improvements must be excluded from the “existing conditions” as it relates to the impervious coverage on the parcel.**
- 4.6. The Applicant’s engineer shall provide results of a geotechnical investigation to ensure the infiltration system meets the requirements of Chapter 12 of the NJ Stormwater Best Management Practices (BMP) Manual. Verification of the depth of bedrock and seasonal high-water table shall be submitted to the Municipal Engineer and confirmed prior to the issuance of a building permit. Test pits shall be made in accordance with NJDEP BMP manual and regulations for groundwater table location. **Groundwater mounding calculations for the proposed infiltration basin should be provided in accordance with Chapter 13 of the NJDEP BMP.**
- 4.7. The Times of Concentration were provided along with the method in which they were calculated. **The proposed Time of Concentration calculations shall utilize the McCuen-Speiss limitation for determining the length of sheet flow.**
- 4.8. The Applicant’s Engineer provided calculations on the Drywell overflow for both capacity and discharge velocity and offsite stability calculations as per NJ Soil Erosion and Sediment Control Standards.
- 4.9. Since pervious pavers are not part of the stormwater management system, the Engineer does not need to verify from their manufacturer that there is sufficient storage as specified.
- 4.10 The Engineer provided documentation from the manufacturer of the storage chambers that the storage volume per chamber is as specified.
- 4.11 Conveyance system calculations were submitted. **However, the series of proposed inlets that collect runoff from the driveway and pathway areas and route directly into an underground basin require pretreatment in accordance with NJDEP Chapter 5.**

5. Landscaping Plan

- 5.1 Matrix has no comment on the landscaping plan.

6. Soil Erosion & Sediment Control

- 6.1. The Applicant shall obtain a soil erosion and sediment control permit from the Hudson-Essex-Passaic Soil Conservation District. Matrix reserves the right to review the certification and approved plans from the district.

7. Other

- 7.1. The Engineer shall prepare a Site Improvement cost estimate for the purpose of determining the amount for an escrow account for site inspections.

Thank you for the opportunity to be of service to the Township of West Orange Zoning Board of Adjustment. Please feel free to contact me directly with any questions or comments at (973) 703-5989 or via email at llepore@mnwe.com.

Sincerely,

Leonard Lepore

Leonard R. Lepore, P.E.
Project Engineer

LL:lb

Copy to: Dennis Petrocelli, PG – Matrix