



January 20, 2021

Mr. John Lee, Chairman  
135 School Street  
Walpole, MA 02081  
United States

**Re: Moose Hill Condominiums  
Comprehensive Permit (40B) Peer Review  
Walpole, Massachusetts**

Dear Mr. Chairman:

Tetra Tech (TT) has reviewed specific submittal materials for the above-referenced Project to assist the Town of Walpole Zoning Board of Appeals (Board) in its Comprehensive Permit review of the proposed "Moose Hill Condominiums" project (the Project). The submittal materials were understandable and included most of the information needed to inform our review.

Comments provided below are intended to inform and prompt discussion as well note where minor changes or edits should be reflected for the record. We reserve the option to provide additional comments as the design and discussion advances. Our review is based on materials received from the Board comprising the following documents:

- A plan set (Plans) titled "Site Development Plan..." Moose Hill Condominiums" Walpole, Massachusetts", dated March 10, 2020 and April 20, 2017 by GLM Engineering Consultants, Inc. (GLM).
- Stormwater Management Report (Stormwater Report) dated March 10, 2020, prepared by GLM.
- A Memorandum (Traffic Report) titled "Subject: Traffic Assessment for Proposed Residential Development" dated April 27, 2020 prepared by Green International Affiliates, Inc. (GIA).
- Architectural elevations and floor plans prepared by South Coast and Associates, Inc. (SCA).
- Comment letters from Walpole Police and Fire Departments and Board of Health.

The Plans and accompanying materials were reviewed for good engineering practice, overall site plan efficiency, stormwater, utilities, traffic and public safety. In general, the plans and supporting materials were well prepared and we appreciate the clarity and completeness of documents provided. Our initial comments are provided below.

### Site Plans

Our two principal concerns include (1) the lack of any dedicated turnaround for vehicles entering the site, particularly emergency vehicles and (2) the number of proposed on-site infiltration systems (3 stormwater and 4 wastewater) and the lack of detailed information to support their feasibility. We recommend the applicant consult with the Fire Department to show an acceptable vehicle turnaround and that additional information be provided to confirm infiltration systems are sized properly and capable of meeting required setbacks and offsets.

The following specific comments are offered to identify areas where additional information is required, or changes are requested to address questions or support further review.

### Existing Conditions Plan

1. Show test pit and percolation test locations on the existing conditions plan.
2. If possible, show trees and fencing that run along the project boundary with the adjacent multi-family development.
3. Remove label reference "Proposed Gas Line"
4. Provide datum reference (NAVD88 or town datum preferably).

### Layout Plan

5. The development proposes a single means of access that is approximately 340 feet long and only 20 feet wide with no accommodation to change vehicle direction other than driveways of individual units. The Fire Department has requested a turn-around be provided and we recommend the applicant coordinate with the Fire Department and make necessary changes to the plans. Modifying roadway widths or lengths may also result in modification of the proposed stormwater infiltration system.
6. The plans provide 3 parking spaces per unit (1 garage, 2 driveway) in an efficient/effective layout but provide no dedicated visitor spaces. While 3 spaces/unit provides reasonable total accommodation, given each space is assigned to a unit, they will be difficult to share. Suggest applicant consider providing 1 or 2 additional spaces that are unassigned to units.
7. Driveway depths are shown at 23 feet in front of garages but are not labeled for spaces in front of the porch. Those spaces should maintain a minimum unobstructed depth of 20 feet so parked vehicles do not extend into the narrow travel way.
8. The 15' driveway radius shown at the intersection with Moose Hill Road is reasonable but may not accommodate the turning radius of the largest Walpole fire apparatus. Please provide a figure showing how fire apparatus will access the site and confirm it meets the requirements noted in the comment letter from the Fire Department.
9. Landscape and Lighting Plans should be provided for review and to confirm there are no potential conflicts with proposed underground utilities or infiltration systems.

### Grading and Utilities Plans

10. The plans only show two test pits that are relatively closely spaced and not within the footprint of a stormwater infiltration system or a proposed sewage disposal area. Stormwater standards and septic system regulations require test pits be conducted within the proposed system footprint. At a minimum, additional testing should be provided with better representative coverage across the site and with enough detail to determine estimated seasonal high groundwater at infiltration systems.
11. Please provide a datum reference on any sheets where contours are shown.
12. The plans do not appear to comply with the minimum 50-foot setback required between infiltration structures and Title 5 systems. See Mass. Stormwater Handbook Vol 1, Ch 1, page 8. This conflict must be addressed to prove viability of the project layout/density shown.
13. Please be advised, the plans show several infiltration systems close to each other and at or near allowed setbacks leaving very little, if any, room for adjustment. As such we recommend additional detail be provided regarding the design and layout of the septic system including proposed septic

tank locations, absorption system sizing and location of reserve area to demonstrate that spacing shown is capable of meeting applicable regulations.

14. The proposed underground infiltration systems provide no accommodation for overflow during storms exceeding the design capacity or in the event of system failure. Please consider when addressing issues noted above and make sure to direct potential surcharge away from sewage disposal areas.
15. Water, gas and roof drain lines are proposed to run along the rear of the property in a relatively narrow area. While the area provided can accommodate the utilities shown, access in the future will be difficult and conditions may be required to ensure access is available for repairs.
16. No hydrants are shown on the plans. Hydrant placement should be coordinated with the Fire Department and shown on the plans to confirm arrangement with other site features.
17. The plans do not show elements needed to comply with the 44% TSS removal pre-treatment requirement for infiltration systems in soils with fast infiltration rates. Please describe how this standard will be met and note the components on the plans.

#### Erosion Control Plan

18. Ideally the temporary construction entrance would not extend into the public right of way. If possible, provide a paved driveway apron to connect the subject property to the travel way at the start of construction and pull the temporary stone construction entrance back so material is not tracked directly onto Moose Hill Road.
19. Soil stockpile(s) should not be over an area that will be used for infiltration system. Suggest deferring construction of building 4 until after construction of other site elements are complete so the building 4 area can be used for soil stockpile without impact to infiltration areas.
20. Please review notes to correct references to other projects (see reference to Burns Ave in note 9).

#### Stormwater Report

21. Report indicates project will be connected to town sewer which does not appear to be the case based on the plans. Please clarify.
22. Please provide page numbers and table numbers in future reports.
23. It is unclear if runoff originating from offsite flows into the project site. Runoff from offsite should either be diverted around the stormwater management system or be incorporated in its sizing.
24. Report and plans do not address 44% TSS removal pretreatment and report takes credit for catchbasins in series which is not allowed per stormwater standards. Please address in future submittals.
25. Modeling for Pond 3 appears to calculate infiltration over “wetted perimeter”. Please adjust models so that infiltration is calculated over system bottom area and infiltration rates are constant per guidance in Vol 3 Chapter 1 of the Stormwater Handbook. Pond model should not include additional exfiltration that may be attributable to system sidewalls or due to vertical load of water column. Please address in future submittals.
26. Final plans should include monitoring well at infiltration basin location.

27. Catch basins are required to be inspected 4 times per year. The O&M plan should be modified accordingly.

### Traffic

28. The project accurately forecasts the relatively minor increase in new traffic in comparison to current volumes on Moose Hill Road. Project traffic is not expected to significantly impact operations at nearby intersections.
29. Site distance triangles should be shown on the approved plans.
30. As noted earlier, there are no proposed accommodations for fire truck or any other vehicle turnaround. We recommend the applicant coordinate with the Fire Department to determine an acceptable accommodation. Any turnaround meeting Fire Department requirements will be suitable to accommodate the range of typical uses.
31. A Fire Truck Access Plan should be provided.
32. Pedestrian and traffic volumes are expected to be low decreasing the need for on-site sidewalks.

These comments are offered as guides for use during the Town's review and additional comments are likely to be generated as additional or revised documentation is submitted. If you have any questions or comments, please feel free to contact us at (508) 786-2230.

Very truly yours,



Sean P. Reardon, P.E.  
Vice President



Steven M. Bouley, P.E.  
Senior Project Engineer

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