



May 27, 2025

Kevin D. Thatcher, PE, CPESC
Alteration of Terrain Bureau
29 Hazen Drive
Concord, NH 03302

RE: Alteration of Terrain Permit Application #250327-055
Jennesstown Manor
Tax Map 7, Lots 39 & 39-1 – Warner

Dear Mr. Thatcher:

Our office is in receipt of the Alteration of Terrain review comments dated May 13, 2025. Based on the comments, we have made the required modifications and attached revised plans for review. A response to each comment has been provided below.

1. General Requirements:

Local Advisory Committee (LAC)

- Provide a copy of any comments received by the Warner River Local Advisory Committee and indicate how they have been addressed. Alternatively, provide correspondence from the LAC that they will not be commenting on this application.

See attached response letter to WRLAC.

Groundwater Monitoring Plan

- The plans indicate removal of ledge outcrops. Provide an estimate of the quantity of blast rock. If the quantity exceeds 5,000 cubic yards, you will be required to identify drinking water wells located within 2,000 feet of the proposed blasting activities and develop a groundwater quality sampling program to monitor for nitrate and nitrite either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area. The plan must be submitted to DES for approval prior to permitting and must include pre and post blast water quality monitoring. The groundwater sampling program must be implemented as approved by DES.

Test pits revealed ledge but the owner is going to use mechanical means to remove ledge encountered. See the Owner's blasting certification on the cover sheet of the plan set.

2. Application:

Section 7.

- Note the project is within ¼ mile of Warner River.

Added to application. See Sheet 3 Note 20.

Section 10.F.

- The stated value of 25,352 square feet is consistent with additional impervious cover not total impervious cover per HydroCAD reports. Clarify and also note total impervious cover.

Application has been updated to include total impervious cover.

Section 10.J.

- List the name of the receiving water in accordance with Env-Wq 1503.07(n).

Receiving water has been updated to state “Warner River”.

Section 10.N.

- Plans depict the grading of surface ledge outcrops. Therefore, it is assumed that blasting will be required.

The areas hatched with dots on the plan are steep slopes, see legend on Sheet 1. Test pits revealed ledge but the owner is going to use mechanical means to remove ledge encountered. See the Owners blasting certification on the cover sheet.

Section 11.

- Registration and Notification Form for Stormwater Infiltration to Groundwater is not required for surface infiltration practices.

Box has been unchecked.

3. Plans:

Grading, Drainage, & Utilities Plan (Sheet 4 of 11)

- Show driveway stationing and identity profile high point.

The stationing and high point have been added to Sheet 5.

- Review design intent of drainage structures #42 and #44 as manholes versus catch basins.

The structure labels have been revised as catch basins.

- Define STR #19.

The structure label has been corrected to Headwall #42.

- Proposed grading at HW #210 and diversion ditch at northwest corner of the site suggest installation of a level spreader. Clarify design intent.

There is a level spreader at HW #210, see Sheet 5.

- Evaluate need for permanent erosion control measures at discharge from end of curb to swale to Pocket Pond #22P sediment forebay.

A swale calculation section has been added to the drainage report.

- Evaluate need for stone lining in roadside ditches at 15 percent grade.

A swale calculation section has been added to the drainage report. Stone lining will not be needed.

- Size and define sediment forebay spillways. Earthen berms are not recommended. See following comments on Post-Development HydroCAD model.

Additional construction data has been added to Sheet 5 and the details on Sheet 13 updated.

- Revise rim elevation for OCS #22 to be 471.65 feet.

Rim elevation has been revised to 471.65 feet, see Sheet 5.

- Define emergency spillway for Pocket Pond #22P and extend riprap to bottom of Infiltration Basin #21P.

Riprap has been extended, see Sheet 5.

- Evaluate providing level spreader instead of riprap apron at OCS #21P outlet.

Level spreader and riprap are provided at OCS #21P outlet, see Sheet 5.

Erosion Control Plan (Sheet 5 of 11)

- When project activities are located within 50 feet of a water body or wetland, please show a double row of perimeter controls on the plans.

Silt fence boundary has been updated, see Sheet 6.

- Silt fence is only to be used in areas where erosion will occur only in the form of sheet erosion and there is no concentration of water in a channel or other drainage way above the fence. Discontinue or relocate silt fence as appropriate at proposed pipe and ditch outlets. Provide alternative means of erosion control such as temporary check dams and riprap outlet protection.

The silt fence has been updated and the stone riprap and berms have been provided.

- Show stabilized construction entrance.

50-foot construction entrance has been added, see Sheet 6.

- Show temporary check dams in proposed ditches.

Temporary stone check dams have been added to proposed ditches, see Sheet 6.

- Show inlet protection at existing catch basins on NH Route 103.

Temporary inlet controls have been added, see Sheet 6.

Construction Details (Sheet 8 of 11)

- Precast Reinforced Catch Basin
 - Revise relative to project specific conditions.

See precast Reinforced Catch Basin on Sheet 12.

Construction Details (9 of 11)

- Typical Pocket Pond Section
 - Show sediment forebay.

See Sheet 13 Pocket Pond Cross Section.

- Show outlet control structure.

See Sheet 13 Pocket Pond Cross Section.

- Show permanent pool.

See Sheet 13 Pocket Pond Cross Section.

- Evaluate feasibility of loam and seed within permanent pool.

See Sheet 13 Pocket Pond Cross Section. A specification for wetland/detention pond has been added.

- Revise Elevation B for Pond 22P.

See Sheet 13 Pocket Pond Cross Section.

- Evaluate providing emergency spillway for Pond 41P.

The emergency spillway for the pond is the top of the outlet structure.

- Typical Infiltration Pond Section
 - Show outlet control structure.

Outlet control structure has been added, see Sheet 13 Typical Infiltration Pond Section Detail.

- Elevation D and stone berm associated with it are not consistent with project design.

See Sheet 13 Typical Infiltration Pond Section Detail.

- Exclude loam and provide a surface treatment consistent with Env-Wq 1508.07(1)(4).

See Sheet 13 Typical Infiltration Pond Section Detail.

- Outlet Control Structures #22P and #41P Details
 - Provide detail for OCS #21P.

See Sheet 13 Outlet Control Structure #21P Detail.

- Show elevation view of orifice layout as size and elevations overlap.

Orifices have been updated and an elevation view of the orifices has been provided, see Sheet 13 Outlet Control Structure #22 Detail.

- Provide trash rack.

See Sheet 13 Trash Rack Detail.

- Provide detail for overflow grate.

See Sheet 13 Halla Grate Detail.

- Review orifice elevations.

See Sheet 13.

- Emergency Spillway Detail
 - Revise length to be 4 feet consistent with HydroCAD.

See Sheet 14 Emergency Spillway Detail.

- Revise slope lengths based on depths of 0.25 and 0.35 feet defined in HydroCAD for Ponds 21P and 22P.

See Sheet 14 Emergency Spillway Detail.

- Provide a cutoff wall at the intended overflow elevation.
 - Alternatively, model the flow through the stone in HydroCAD.

Concrete curbing has been added to provide a cutoff wall and level lip.

Construction Details (Sheet 10 of 11)

- General
 - Provide a temporary check dam detail conforming to Env-Wq 1506.07.

See Stone Check Dam Detail and Stone Check Dam Spacing Detail on Sheet 15.

- Provide an outlet protection apron detail.

See Pipe Outlet to Flat area with No Defined Channel Detail on Sheet 14.

- Stabilized Construction Exit Detail
 - Berm is required when overall length is less than 75 feet per Env-Wq 1506.09(b).

See Stabilized Construction Exit Detail on Sheet 15.

- Construction Specification #1 is not consistent with requirements.

The detail has been revised to correct the stone size.

Construction Details (Sheet 11 of 11)

- Test Pit Logs
 - Review depth of test pits noted.
 - Recommend using consistent units of inches.

The dimensions have all been converted to inches, see Sheet 16.

4. Notes:

Please add the following notes to the plan set:

Wildlife Protection Notes (Env-Wq 1504.17)

- All observations of threatened or endangered species shall be reported immediately to the New Hampshire Fish and Game Department Nongame and Endangered Wildlife Environmental Review Program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov. Email subject line: NHB24-0767, Jennesstown Manor, Wildlife Species Observation.
- Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHF&G in digital format for verification as feasible;
- In the event a threatened or endangered species is observed on the project site during the term of the permit, the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHF&G and implementation of corrective actions recommended by NHF&G, if any, to assure the project does not appreciably jeopardize the continued existence of threatened and endangered species as defined in Fis 1002.04
- The NHF&G, including its employees and authorized agents, shall have access to the property during the term of the permit.

Note has been added to the Cover Sheet.

Blasting (Env-Wq 1510)

- For any blasting activities, the plans must, at a minimum, require the best management practices contained in Attachment A of the DES document Rock Blasting and Water Quality Measures That Can Be Taken To Protect Water Quality and Mitigate Impacts available at: <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wd-19-05.pdf>

The Applicant intends to use mechanical means for clearing ledge and rock. See the blasting certification on the Cover Sheet.

5. Stormwater Management Report:

General

- Provide only node listings and not full reports for 2-year and 50-year design storms consistent with Alteration of Terrain Permit Attachment A: Application Checklist.

See the revised Hydrocad Report.

BMP Worksheets

- Stormwater Pond Design Criteria
 - Provide Stage-Area-Storage tables for sediment forebays.

The volume of the sediment forebay are listed in the pond nodes as volume #1. Volume #1 are both noted as having 0% voids.

- Infiltration Practice Criteria
 - Revise Volume to be 2,942 cubic feet consistent with OCS #21 overflow elevation.

See updated BMP Pond 21P worksheet.

Pre-Development HydroCAD Model

- Review and revise outlet pipe definitions for Ponds 10P, 20P, 30P, and 40P relative to Existing Conditions Plan (Sheet 1 of 11) regarding pipe size and length. Route Pond 30P to Pond 20P.
 - Alternatively, if the intent is to model inflow to the catch basins versus outflow from the outlet pipes, then remove the outlet definitions.

The intent is to model flow to catch basin grates versus outflow from the pipes, see Pre-Development Hydrocad Report.

Post-Development HydroCAD Model

- Refer to prior comments on Pre-Development HydroCAD Model regarding outlet pipe definitions for Ponds 10P, 20P, 30P, and 40P.

The intent is to model flow to catch basin grates versus outflow from the pipes, see Post-Development Hydrocad Report.

- Split Subcatchment 22S into area tributary to proposed curb line and proposed swale.

The Subcatchment has been split as recommended, see Subcatchment 22S and 23S in Post-Development Report.

- Add pond node for proposed driveway culvert.

46P has been added to model the proposed driveway culvert.

- Provide separate pond nodes for sediment forebays to include proposed outlet definitions.

Sediment forebays are modeled as part of the pond with 0% voids to confirm the volumes within the report.

- Route Device #6 to Device #1 for Pond 22P.

Device #6 is now routed to Device #1, see post-Development Report for Pond 22P.

Riprap Apron Sizing Calculations

- Provide sizing for OCS #22 and HW #210.

See updated Riprap Apron Sizing Calculations.

6. Revisions:

Pursuant to Env-Wq 1503.15(b), changes to the revised plans are to be called out and a revision date must be added to each page that has been changed. Graphical revision callouts should be included on the plans. If any changes to the project documents were made other than those identified above, please indicate what additional changes were made in your response letter.

Three sheets have been added per planning board comments: a landscape plan, a lighting plan, and a visibility from road plan.

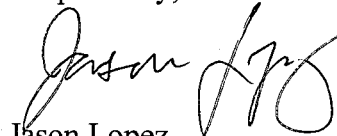
7. Electronic Files:

Pursuant to Env-Wq 1503.15(e), provide, in electronic format, a copy of all project documents that were modified in response to the request for more information. As a separate document, provide a copy of the complete application with all documents current to reflect any modifications from the original application.

A pdf file of the entire application has been emailed.

I trust the content of this response letter and its attachments will address each of the comments, as noted. Should you have further questions or require additional information, please do not hesitate to contact our office.

Respectfully,



Jason Lopez
Senior Project Manager
Keach-Nordstrom Associates, Inc.