

March 25, 2025

Ms. Elizabeth Hughes, AICP
Town Planner
Town of Concord
Planning Division
141 Keyes Road
Concord, MA 01742

A&M Project #: 1670-24
Re: Response to Comment
275 Forest Ridge Road
Concord, MA

Dear Ms. Hughes,

On behalf of our client, WP East Acquisitions, Allen & Major Associates, Inc. (A&M) is providing the following responses to a letter dated 03/21/2025 from the Town's peer review consultant, GPI, as they relate to the civil engineering technical aspects of the project. Cumulative revisions made to the project, inclusive of the revisions noted below, are contained within the Site Development Drawings dated March 24, 2025 noted as revision 6.

In the interest of brevity, only the comments that were not addressed to GPI's satisfaction are noted below.

The response to comments is shown below in **bold** preceded by the original comment shown in *italics*.

Key Issues/Concerns:

Plans

Comment 3: Comment addressed however, the cover lists sheet V-100, which we believe should actually be V-101.

Response 3: Noted. The cover sheet has been corrected.

Site Preparation Plan – Sheet C-102A

Comment 14: We appreciate the clarification. Our only remaining comment now that we see the ultimate intended final layout as illustrated on the septic plans that have been provided is that we recommend that the portion of the existing water line that falls within the Residences at Thoreau limit of work be shown as "to be removed" on this sheet.

Response 14: Noted. The line has been labeled as suggested.

Layout & Materials Plan – Sheet C – 103A

Comment 19: A detail has been added to the detail sheet drawings (sheet C-506). We do see a symbol on sheet C-103A that appears to be the intended location for the entry sign and decorative wall however, it is not labeled.

Response 19: The sign has been labeled on the Layout and Materials Plan. Also of note, the detail on sheet C-506 has been revised to reflect that the sign will be single sided as discussed with the Zoning Board of Appeals.

Comment 22: We find the response acceptable and recommend that the Board of Appeals include a condition of approval requiring the submittal of final site plans to the town demonstrating compliance with ADA and MA AAB requirements.

Response 22: This condition is acceptable to the applicant.

Layout & Materials Plan – Sheet C-103B

Comment 25: We recommend that the Board of Appeals include as a condition of approval that final plans be provided to the town detailing the improvements to be provided throughout the amenity area.

Response 25: This condition is acceptable to the applicant.

Comment 26: We see what appears to be the bike rack at the amenity area however it is not labeled.

Response 26: The bike rack has been labeled on the plans. Also, the applicant has revised the site drawings to reflect the interior storage of 121 bicycle racks. Three 27-unit bike racks are provided within Garages B and C and a single bike rack will be provided within each of the 40 garage spaces.

Comment 28: The crosswalk has been labeled however, with the changes to the layout the crosswalk does not provide a connection to anything. We recommend that this crosswalk be removed.

Response 28: The crosswalk has been removed.

Grading & Drainage Plan – Sheet C-104A

Comment 30: Comment addressed. We recommend that the Board of Appeals include as a condition of approval a requirement that the Long Term Operations and Maintenance Plan (LTOMP) be recorded on the property at the Middlesex South Registry of Deeds and that the LTOMP inspections reports be submitted to CPW Engineering annually.

Response 30: This condition is acceptable to the applicant.

Comment 34: We recommend that the design engineer review both the swale section that is called out on the plans and the stone check dam detail. The plan calls for the swale to have a minimum depth of 1.25' (15"). Section A in the detail shows a check dam height of 3' but the "View Looking Upstream" shows a depth at the center of the check dam to be 6" below the top of the swale, with the detail showing a swale depth of 24".

Response 34: Noted. A&M has revised the detail. The intent was to provide check dams at a reasonable spacing slow the movement of water primarily during the grow-in period of the site. Once the grass is established, the maximum velocity of the water anticipated during full flow volumes is just over 1 foot per second and is not anticipated to erode the channel.

The detail has been revised to reflect that the check dam height will be 0.63 feet, or half the depth of the swale channel. The maximum depth of ponding, assuming a full 100-year volume over the length of the swale is just over 1 foot occurring at the headwater of the swale. The spacing of the check dams will be noted on the detail as “per plan” to eliminate the construction confusion.

Grading & Drainage Plan – Sheet C-104B

Comment 35: We recognize the need for a fence around this area for the reason cited in A&M's response. Our comment above is really to understand how future access to the area to perform the maintenance outlined in the Operation and Maintenance Summary Table will occur given that there is no clearly identifiable way shown on the plan to get to the infiltration basin and drywells. We recommend that prior to construction that additional details regarding this matter be provided.

Response 35: Noted. During the design phase, additional considerations can be made to this area and the final plans will illustrate how maintenance will be performed.

Comment 36: We note that an “Infiltration Pipe Detail” has been added to sheet C-505. If this is the “drywell” to be used, we recommend that either the reference on sheet C-104B be revised or the name for the detail be revised so that the same term is used in both locations.

Response 36: The label on the Grading and Drainage plan has been revised to reflect the infiltration pipe that will be used based on the detail on sheet C-505.

Comment 38: The comment was not specific to the infiltration basin, it was made with respect to all excavation within the groundwater conservancy district. The area near the wastewater treatment plant requires the removal of approximately 20 feet of soil and currently there is no information that we have seen that demonstrates that the final grade in that area will be greater than four feet above the historical high water mark.

Response 38: This area remains under design with the wastewater consultant and MassDEP. Once available, the information shall be provided to the Town. It is the intent to meet the requirements of the conservancy district. In the event these requirements cannot be met, the applicant will include this information on the Final Plans/

Comment 39: The test pits conducted by Haley Aldrich are fairly consistent across the site showing variable depths of fill over sand and no evidence of water to depths of 7 to 8 feet. The six test pits conducted by A&M generally yielded the same information. This has been reviewed with CPW Engineering and their recommendation is that the Board of Appeals include as a condition of approval a requirement that CPW Engineering inspect the bottom of excavation for each stormwater infiltration system prior to backfill/installation of system.

Response 39: This condition is acceptable to the applicant.

Comment 40: Our recommendation to the Board of Appeals under Comment 22 will cover this.

Response 40: No response required

Comment 41: We find this response acceptable and if requested, we would be willing to peer review the final design drawings and details for the subsurface infiltration system.

Response 41: This condition is acceptable to the applicant.

Comment 45: Comment addressed with the understanding that the design engineer shall not deviate from the pipe manufacturer's recommendations related to minimum pipe cover.

Response 45: Noted. This requirement has been added to the general utility notes on the plans.Utilities Plan – Sheet C-105

Comment 47: We recommend that the Board of Appeals include as a condition of approval a requirement that the applicant continue to work with Concord Public Works to address their concerns. GPI has no further comments to offer on this matter.

Response 47: This condition is acceptable to the applicant.Utilities Plan – Sheet C-105B

Comment 50: As suggested in this response, we recommend that the Board of Appeals include as a condition of approval that a copy of all approvals related to the wastewater treatment works for this project be provided to the town prior to obtaining a building permit.

Response 50: This condition is acceptable to the applicant.Section 4.0 – Stormwater Management

*Comment 76: Comment partially addressed. We recommend the box for "All exposure has **not** been eliminated..." be checked as the areas of high intensity use are in this case exposed to precipitation.*

Response 76: Noted. The stormwater checklist has been revised and is attached hereto for record.

Comment 89: We appreciate the clarification of the intent for future maintenance responsibility. Regardless of who is the responsible party and as stated in Comment 35, we recommend that prior to construction that additional details be provided to help whoever is performing the required maintenance identify a means to get the necessary equipment to these stormwater BMP's.

Response 89: Noted. The applicant shall coordinate on the individual requirements for maintenance as also reference in Comment 35.**New Comments**

Comment 94: On Site Preparation Plan Sheets C-102A and C-102B, the layer for the proposed EV charging areas is inadvertently shown. We recommend that these be removed from these sheets.

Response 94: Noted. The stray layer has been removed.

Comment 95: On Grading & Drainage Plan C-104B, we recommend that labels be added for the pipe connections to the subsurface infiltration system on either side of PDMH 17A.

Response 95: Noted. The labels have been added as suggested.

A&M believes these responses will provide sufficient information for the continued review of this application. If you require additional information, please feel free to contact me.

Very Truly Yours,

ALLEN & MAJOR ASSOCIATES, INC.

Phil Cordeiro, P.E.
Branch Manager

Copy: WP East Acquisitions (by email)
James Ward, esq. (by e-mail)

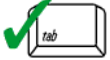
Enclosure Site Development Drawings – Revision 6
Stormwater Checklist



Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- New development
- Redevelopment
- Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas
- Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- Reduced Impervious Area (Redevelopment Only)
- Minimizing disturbance to existing trees and shrubs
- LID Site Design Credit Requested:
 - Credit 1
 - Credit 2
 - Credit 3
- Use of "country drainage" versus curb and gutter conveyance and pipe
- Bioretention Cells (includes Rain Gardens)
- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- Treebox Filter
- Water Quality Swale
- Grass Channel
- Green Roof
- Other (describe): _____

Standard 1: No New Untreated Discharges

- No new untreated discharges
- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - Static
 - Simple Dynamic
 - Dynamic Field¹
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - Site is comprised solely of C and D soils and/or bedrock at the land surface
 - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - Solid Waste Landfill pursuant to 310 CMR 19.000
 - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - is within the Zone II or Interim Wellhead Protection Area
 - is near or to other critical areas
 - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - involves runoff from land uses with higher potential pollutant loads.
 - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
 - The ½" or 1" Water Quality Volume or
 - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does **not** cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - Limited Project
 - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - Bike Path and/or Foot Path
 - Redevelopment Project
 - Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - Name of the stormwater management system owners;
 - Party responsible for operation and maintenance;
 - Schedule for implementation of routine and non-routine maintenance tasks;
 - Plan showing the location of all stormwater BMPs maintenance access areas;
 - Description and delineation of public safety features;
 - Estimated operation and maintenance budget; and
 - Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached;
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.