

MILLENNIUM ENGINEERING, INC.
Land Surveyors and Civil Engineers

August 10, 2026

Mr. Pascal Rettig, Chairman
Amesbury Planning Board
52 Friend Street
Amesbury, MA. 01913

Mr. Nipun Jain, Director
Amesbury Community & Economic Development
39 South Hunt Road
Amesbury, MA. 01913

Re: Response to Peer Review Comments for
29 Lake Attitash Road – Amesbury, MA.

Members of the Board,

The following provides our response to design review comments provided by Gerard Fortin and Michael Leach of Stantec Consulting Services Inc. Please note we have included the peer review comments with our response to assist the Board with its review.

General Comments	
Comment 1a:	<i>The Applicant's design appears to indicate the proposed rain garden stormwater basin will be excavated into the existing ground with depths below the existing ground varying up to one foot to construct the bottom elevation of 99.75 for the proposed bioretention basin. The bioretention detail on sheet 2 indicates the depth below the basin bottom to install the manufactured bioretention treatment layers is another 28 inches (~2.3 feet) below the basin bottom or to elevation 97.4. The test pits provided indicate that the seasonal high water table varies from 16-18 inches below the existing ground, and we note this equates to elevation 99.0 to 99.16 as noted on sheet 2 of the plan set. The design plan indicates the existing elevations along the wetlands adjacent to the basin vary from 98 to 99.5 and implies the bottom of the proposed stormwater basin structure would be below the existing seasonal high water table and does not provide the minimum two foot of separation above the seasonal high water table required per Volume 2 Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Handbook. We recommend the Applicant review the BMP Specifications for the Massachusetts Stormwater Handbook and update the bioretention basin design as necessary, in compliance with the Massachusetts Stormwater Handbook.</i>
Response:	It is the professional opinion of MEI that this project is not subject to the requirements of the Massachusetts Stormwater Handbook. Nevertheless, MEI has designed the rain garden to meet the applicable BMP specifications to the maximum extent practicable. Although the soil media extends below the seasonal high



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	groundwater table, the bottom of the rain garden (top of the soil media) remains above the seasonal high groundwater elevation. Providing the recommended two-foot separation from groundwater is infeasible due to the site's high groundwater conditions without raising the site, which would result in additional site disturbance. However, MEI believes the rain garden will function as intended during drier periods by providing groundwater recharge and reducing total suspended solids (TSS). In addition, the basin has been designed to provide storage for the 100-year storm event. As a result, during wetter periods when infiltration and recharge may be reduced, the basin will still provide adequate detention storage to attenuate stormwater runoff. A capped 4-inch underdrain has been provided at the bottom of the basin as a contingency measure should the rain garden be unable to infiltrate stormwater within an acceptable timeframe during prolonged wet conditions.
<i>Comment 1b:</i>	<i>*The Applicant's design approach does not consider or address the uphill contributing watershed flows to the subject parcel and the proposed stormwater facilities. Based upon the existing topographic information presented, it appears the existing roadway runoff contributes flow onto the subject parcel. In addition, it is unknown if there is existing runoff contributing from abutting lot 46 to the subject parcel. The Applicant shall update the design approach to consider and address the entire watershed flow to and through the subject parcel under this application and provide an appropriate design for all the watershed flows. Please demonstrate compliance is achieved with no increase in runoff under the post development conditions to each abutting property in compliance with Massachusetts Stormwater Management Standards.</i>
Response:	MEI has revised the drainage report to include upgrade contributing watershed to the subject parcel. No increase in runoff is achieved under the post development conditions.
<i>Comment 1c:</i>	<i>The Applicant's design indicates improvements within the Lake Attitash Road right-of-way but the design approach does not address or consider the proposed driveway impacts to Lake Attitash Road for the proposed site development. Please review and revise the analysis and design to demonstrate no increase in runoff to the roadway occurs in compliance with Massachusetts Stormwater Management Standards.</i>
Response:	The lake Attitash right of way spanning the length of the site frontage drains into the site, therefore there is no increase in runoff to the roadway.
<i>Comment 1D.1:</i>	<i>Standard 1 – No New Untreated Discharges: This standard appears to be met with the proposed site drainage directed to the rain garden.</i>
Response:	No response required.
<i>Comment 1D.2:</i>	<i>Standard 2 – Peak Rate Attenuation: As noted above, the Applicant's analysis and calculations do not address all the existing watershed flows or the proposed impacts to all</i>



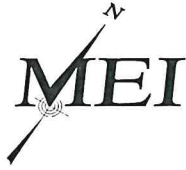
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	<i>abutters and compliance with this standard has yet to be demonstrated. Please update the analysis to demonstrate compliance is achieved with no increase in runoff under the post development conditions to each abutter including the roadway.</i>
Response:	As mentioned previously, MEI has expanded the Watershed areas to include upgrade stormwater runoff from abutting lots. No increase in runoff is achieved.
<i>Comment 1D.3:</i>	<i>Standard 2: The post development calculation for subcatchment P1B does not properly provide the CN value of 98 for the driveway and sidewalk area noted to be "pervious pavers". The analysis does not provide any calculations relative to these being "pervious" and infiltrating. In addition, the amount of impervious area appears to be more than indicated in the calculations. Please review and revise the calculations accordingly and update the analysis to demonstrate compliance is achieved with no increase in runoff under the post development conditions.</i>
Response:	The CN value of 50 is a conservative number typically used for permeable pavers. MEI has adjusted the HydroCAD to use a CN value of 74 which would be equivalent to a more conservative "grass good" value.
<i>Comment 1D.4:</i>	<i>Standard 2: The post development pond routing analysis for pond 7P implies storage is available below the outlet, but the analysis does not include any infiltration as noted in the report description for groundwater recharge and to empty the pond. Please revise the analysis to include recharge or revised to eliminate storage below the outlet since volume below the outlet would not be available when the pond is full or under frozen conditions. Please review and revise the calculations accordingly and update the analysis to demonstrate compliance is achieved with no increase in runoff under the post development conditions.</i>
Response:	The drainage report has been revised to account for infiltration within the proposed rain garden. As discussed previously, the bottom of the rain garden does not maintain the required 2-foot separation from the seasonal high groundwater table. As a result, infiltration rates may be reduced during periods of elevated groundwater. To provide operational flexibility, a capped 4-inch underdrain outlet is proposed near the bottom of the rain garden. Under normal conditions, the outlet will remain capped to maximize infiltration. If monitoring indicates that the basin is draining more slowly due to elevated groundwater conditions, the cap can be removed to facilitate dewatering and restore the rain garden's storage capacity. To re-iterate, MEI believes that this project is not subject to the MA stormwater handbook.
<i>Comment 1D.5:</i>	<i>Standard 2: The post development pond routing analysis for pond 7P implies a rectangular weir is proposed with a height to 4.50 feet, but the spot elevations note the proposed pond embankment is only 0.1 feet below (101.15 Weir vs .101.25 top of bank) and is not representative of the design presented. With an earthen embankment proposed at the outlet</i>



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	<i>location, it is not likely that a rectangular outlet can be constructed. Please review and revise the analysis accordingly.</i>
Response:	The rain garden has been revised by lowering the overflow weir elevation to 101.00 feet, while maintaining the surrounding top-of-berm elevation at 101.25 feet. This creates a 3-inch depressed overflow which can be constructed.
<i>Comment 1D.6:</i>	<i>Standard 3 – Recharge: The project report discusses recharge by infiltration, however the analysis does not include any infiltration calculations as noted above or recharge information. Please review and revised the analysis accordingly.</i>
Response:	The HydroCAD report has been revised to include infiltration in the rain garden. Additionally recharge calculations have been provided.
<i>Comment 1D.7:</i>	<i>Standard 4 – Water Quality: The report includes a TSS removal worksheet, but the calculation does not appear to be properly completed consistent with the Structural BMP Specifications for the Massachusetts Stormwater Handbook. The specifications note that 90% TSS removal requires pretreatment. Please review and revise, and clarify any pretreatment devices if applicable.</i>
Response:	The stormwater report has been revised. The site has been designed to direct runoff over vegetated lawn areas and into the proposed rain garden in accordance with Section XIV I(7)(1) of the Water Resource Protection District Bylaw. As discussed previously, this project is not required to comply with the design specifications of the Massachusetts Stormwater Handbook. Nevertheless, the site has been designed to meet those standards to the maximum extent practicable while accounting for the site's constraints.
<i>Comment 1D.8:</i>	<i>Standard 4: The removal of the nitrogen and phosphorus in the report should be reviewed and revised, if necessary, based upon the final design of the proposed stormwater system per Section XIV.I.7(a)(1).</i>
Response:	As mentioned in the report, the rain garden is capable of 30-50% nitrogen removal and 30-90% phosphorus removal. This has remained unchanged.
<i>Comment 1D.9:</i>	<i>Standard 4: The report does not include a LongTerm Pollution Prevention and Operations and Maintenance Plan document for maintenance of the postconstruction BMP's. We recommend the Applicant prepare a LongTerm Pollution Prevention and Operations and Maintenance Plan document. We recommend the document be a separate complete document as typically requested by the Board. This document may become part of the special permit conditions under this application per Section XIV.I.B.7(a)(2) of the bylaws.</i>



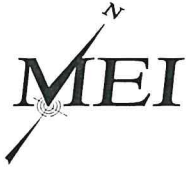
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Response:	MEI has included a long term pollution prevention plan and O&M document in the latest submittal for review.
<i>Comment 1D.10:</i>	<i>Standard 5 – Land Use with Higher Potential Pollutant Loads: This standard does not apply to this project.</i>
Response:	No response required.
<i>Comment 1D.11:</i>	<i>Standard 6 – Critical Areas: The application information indicates the site is not in a Critical Habitat location.</i>
Response:	No response required.
<i>Comment 1D.12:</i>	<i>Standard 6: The project location is within a Water Resource Protection District (WRPD) and this area is considered to be a Critical Area for the City of Amesbury. We recommend the Applicant update the analysis to demonstrate the proposed project will provide water quality treatment consistent with Standard 4.</i>
Response:	Water quality calculations have been added to the drainage report.
<i>Comment 1D.13:</i>	<i>Standard 7 - Redevelopment: This standard does not apply to this project.</i>
Response:	No Response Required.
<i>Comment 1D.14:</i>	<i>Standard 8 – Construction Period Controls: The report does not include a document or information relative to the proposed construction. We note separate NOI narrative includes a construction sequence and recommend this be part of the stormwater report or noted on the plans. We note sheet 2 includes a silt sock detail. We recommend the Applicant update the plans or report to include discussion about construction sequence, construction management, good housekeeping practices during construction and minimizing exposure during construction consistent with this standard.</i>
Response:	No response required.
<i>Comment 1D.15:</i>	<i>Standard 9 – Operation and Maintenance Plan: We would anticipate this standard would be part of the information provided under Standard 4 above.</i>
Response:	An operation and maintenance document has been provided in this submittal.
<i>Comment 1D.16:</i>	<i>Standard 10 – Illicit Discharges to Drainage System: We would anticipate this information would be part of the information provided under Standard 4 above.</i>
Response:	MEI has provided an illicit discharge statement in this Submittal.



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Comment 2:	<i>The Applicant's site plan indicates flow arrows at the driveway to direct runoff to the rain garden but does not provide spot elevations to clarify and demonstrate the grading design intent for proper construction. Please include spot elevations in the updated grading design to clarify the proper grading intent and for proper construction. Please provide documentation from the DPW that the updated driveway is acceptable for the Planning Board's project file.</i>
Response:	MEI has revised the site plan to include spot elevations directing runoff from the driveway into the rain garden.
Comment 3:	<i>We recommend the site plan be updated to include dimensions of the proposed driveway and sidewalks, and the plan set updated to include details of the proposed features for proper construction.</i>
Response:	Mei has revised the plan to include dimensions/areas for the drive and walkway. Additionally, a pervious paver detail has been provided.
Comment 4:	<i>The proposed bioretention detail on sheet 2 indicates the proposed filter media does not meet the specifications noted for the BMP in the Massachusetts Stormwater Handbook. In addition, we recommend the detail be expanded to clarify the width of the proposed embankment and detail of the proposed outlet weir for proper construction. The Applicant should review and revise the bioretention detail accordingly.</i>
Response:	As previously noted, the project is exempt from meeting all requirements outlined in the Massachusetts Stormwater Handbook. However, MEI believes the proposed rain garden will function as intended under typical, drier conditions. To address potential periods of elevated groundwater and slower infiltration rates, a contingency underdrain component has been incorporated into the design to provide additional drainage capacity when needed.
Comment 5:	<i>The project proposes clearing on the site, but the plans do not identify all trees larger than 8" We note portions of the existing tree canopy along the property lines are shown to remain undisturbed. We recommend the trees to remain should be noted on the site plan.</i>
Response:	There are several trees greater than 8 inches in diameter identified on the plan. MEI is currently in the process of confirming that all trees greater than 8 inches in diameter within the limit of work have been identified. If additional trees are identified, MEI will submit a revised plan accordingly.
Comment 6:	<i>The Applicant's design implies a portion of the proposed building foundation would be placed within the 50-foot buffer. The plan notes that the portion within the 50-foot buffer would be on a "Pile Supported Foundation", but this does not appear to meet the criteria noted under Section 21.7(4) of the Amesbury Wetlands Regulations (AWR). It is unclear if this will be a wall within the 50-foot buffer that does not comply with section 21.7(3) of the AWR. The criteria under section 21.7(4) states: The Commission may at it discretion</i>



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	<i>allow a structure on an open pile foundation within 100 to 35 feet of a resource area as defined in AWR 2.0(1-5). We note the submission did not include any documents to demonstrate the foundation would be an open pile design for this portion of the building consistent with the regulations. We recommend the Applicant provide additional detail and design information relative to the proposed foundation for review and consideration by the Commission.</i>
Response:	The corner of the building that lies within the 50-foot buffer is depicted with a dashed line and called out as "Proposed 3.5' x 7' corner of the dwelling on pile supported foundation". The architectural plans will need to be revised prior to obtaining a building permit to reflect these changes.
Comment 7:	<i>The NOI narrative does not identify or discuss if there are any existing invasive species on the site. We recommend the NOI be updated to identify any invasive species (or lack thereof) in the project area and provide a management plan, if applicable, for review and consideration by the Commission.</i>
Response:	REC did not note presence of invasive species within the project area during site inspections. Measures will be taken to minimize the presence of invasive species during construction by carefully sourcing materials to avoid introduction of non-native species. In addition, the plantings selected for in and around the rain garden are native which will increase overall habitat diversity of the site.
Comment 8:	<i>It is our understanding that the project design has been submitted for review by the Amesbury Planning Board relative to a special permit under the Water Resource Protection District. At this time, we are not aware if there are revisions to the project design as a result of the review by the Board. We recommend the Applicant also address and incorporate any revisions requested under the Planning Board review into the revision noted above with the subsequent submission.</i>
Response:	See updated plans and report.

We trust this response letter provides the necessary information for the Board's review. If you have any questions or comments, please feel free to contact our office at your convenience.

Sincerely,

Millennium Engineering, Inc.

Sam Colombo
Project Manager