Open Comments
Defer to Board
Conditions of Approval

Peer Review Comment Form

PROJECT NAME Harwood Ave PEER REVIEW
DATE 5/23/2025
UPDATED: 8/25/2025
PROJECT NO. 25008.03

NO.	SHEET NO.	SECTION	GREEN'S COMMENT	Applicant's RESPONSE	CONFIRMED BY	DATE
Stormwater Review						
	PLANS & DETAILS					
1	1		The plan shows that the stonewall is to be removed to accommodate Lot 1 driveway, but only points to one area. Please show limits of wall removal and indicate if stonewall on the north side of Lot 2 is to be removed and the limits of removal for that wall as well.	The limit of the stonewall removal for Lot 1 and Lot 2 has been added to the plans.	JT	7/7/2025
2	1		Temporary Stockpile detail states that straw waddle to be placed downgradient of stockpile, but in plan view this doesn't always appear to be the case. Construction Entrance detail shows straw waddles, but this is not shown in the plan. Please revise.	Erosion control surrounding the temporary stockpiles have been revised. Straw wattles have been added to the construction entrance as shown in the detail.	JT	7/7/2025
3	1		There are notes to protect SCMs during construction, but it does not describe how it will be protected. Please consider adding notes to the plan that explains how and when this protection will happen. If straw waddles are to be used, then these should be show on the plans.	The referenced notes have been revised and erosion control has been added to the basins as requested.	JT	7/7/2025
4	1	Chapter 38, Article II - Stormwater Management and Erosion; § 38-16. Erosion and Sediment Control Plan. C	Please provide location, description of, and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures.	The "Stabilization Notes" listed in the Site Details (sheet 3) provides a description and implementation for permanent seeding. Given the limited scope of the project temporary seeding is not anticipated.	JT	7/7/2025
5	2	MA Stormwater Handbook V2CH2	MA stormwater handbook recommends an infiltration basin have a minimum 50 ft distance from any slope greater than 15%. The infiltration basin is located on top of a hill where it slopes down greater than 15%. There is concern of potential breakout in the slope. Please revise.	A detail has been added to the Site Plans depicting the proposed basin berm constructed with an impermeable clay barrier. Please refer to sheet 3, Site Details.	JT	7/7/2025
6	2	MA Stormwater Handbook V2CH2	MA stormwater handbook recommends a minimum 50 ft distance between an infiltration basin and a soil absorption system. The rain garden is similar to an infiltration basin therefore it is recommended to provide minimum 50ft from the soil absorption system. Please revise.	While the Massachusetts Stormwater Handbook recommends a 50-foot setback between infiltration basins and soil absorption systems, the proposed rain garden is significantly smaller in scale and designed for shallow, distributed infiltration. This minimizes the potential for hydraulic impact compared to a typical infiltration basin. The design also complies with 310 CMR 15.00 (Title 5), which requires a minimum 25-foot separation between leaching catch basins or dry wells and soil absorption systems.	JT	7/7/2025
7	2		Proposed Infiltration Basin is labeled as having a spillway at 302.5 and another callout appears to show it as 302.0. Please clarify.	Callouts for the proposed spillway have been revised to show the correct elevation of 302.50.	JT	7/7/2025
8	2		The overflow pipe for the infiltration basin may be prone to clogging. It is recommended that the outlet is at least 12" diameter with a grate to prevent animals or trash into the pipe or use a catch basin with an outlet. The outlet pipe should have a flared end section. Please revise.	The pipe outlet has been revised to a 12-inch diameter pipe. The infiltration basin is proposed to serve a single-family residence and is relatively small in scale. It is not expected to receive a significant amount of trash to warrant a trash rack. As is typical in residential settings, the homeowner is anticipated to keep the yard free of litter through routine upkeep. In addition, it is common practice for New England homeowners to remove leaves from their yards in the fall, which will help prevent debris accumulation at the basin outlet. These maintenance measures are outlined in the Operation & Maintenance Manual to	JT	7/7/2025
9	2		Please provide pipe information such as material, slope and diameter for all pipes.	Pipe information was added for the foundation and roof drains as requested.	JT	7/7/2025
10	2		Please provide a detail for the rip-rap outlet for the foundation drain.	A detail has been added showing rip-rap at drain pipe outlets. Please refer to sheet 3, Site Details.	JT	7/7/2025
11	2&3		The detail for the sediment forebay seems to be only for Proposed Sediment Forebay-1. Please add or revise detail to include Proposed Sediment Forebay-2. The plan shows Forebay-1 to have a berm elevation of 307.2, but it is shown at elevation 307.0 in the detail. Please clarify.	A detail has been added for Sediment Forebay-2. Please refer to sheet 3, Site Details.	MW	8/25/2025
11A	2&3		The plan shows Forebay-1 to have a berm elevation of 307.2, but it is shown at elevation 307.0 in the detail. Please revise.	Sediment forebay details have been revised as requested to avoid confusion. The outlet elevations now correspond to the plan.	MW	8/25/2025
12	2&3		Please consider cleanouts at the bends for the roof drains and foundation drains.	Considering the scale and residential nature of the project, and the function of the roof and foundation drains serving a single-family home, providing cleanouts at each bend was evaluated and deemed unnecessary and	JT	7/7/2025
13	2&3		There is a detail for an inspection port, please show the location of these in the plan.	Locations of inspection ports for the subsurface chambers have been added to the site plans. Please refer to sheet 2, Stormwater Management Plan.	JT	7/7/2025
14	3		There is a detail called "Roof Detail Dry Well" but it doesn't appear to have dry well. Please clarify.	Detail has been revised as requested to avoid confusion.	JT	7/7/2025

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	STORMWATER MANAGEMENT REPORT					
15	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal Calculations - TSS	§ 38-18. Stormwater Management Plan.	Since the project disturbs over an acre of disturbance, the project shall meet the local stormwater requirements which requires the MA stormwater standards to be fully met. Please provide a HydroCAD model and a peak rate table to show peak rates are met. Please provide hydrocad back up storage tables to confirm the water quality volume provided.	Pre and post development HydroCAD modeling and a peak summary table has been provided. Please see attached. Rainfall intensities from NOAA 10 were used for the modeling.	JT	8/25/2025
15A	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal	§ 38-18. Stormwater Management Plan.	Please provide hydrocad back up storage tables to confirm the water quality volume provided.	Storage tables from HydroCAD have been provided for the SCMs as requested.	JT	8/25/2025
15B	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal	§ 38-18. Stormwater Management Plan.	The hydrocad back up storage tables have been provided but they do not match the water quality volume provided table. Based on the storage table the water quality volume requirement is met.Therefore, this comment is closed.		JT	8/25/2025
16	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal	§ 38-18. Stormwater Management Plan. C.7.	A drainage area map showing pre- and post-construction watershed boundaries with stormwater flow paths, vegetation, and ground surfaces was not provided. Please provide.	Pre and post development watershed maps have been provided. Please see attached.	MW	8/25/2025
16A	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal	§ 38-18. Stormwater Management Plan. C.7.	Parts of SC-1 and SC-1c discharge to the neighboring property before discharging to Harwood Ave. Please make the neighboring property a discharge point and show that there is no increase in peak rates to the neighboring property.	The abutting property was modeled as an analysis point as requested. Please see attached revised watershed maps and HydroCAD calculations.	MW	8/25/2025
17	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal Calculations - Water		A drawdown calculation was only performed for the infiltration basin. A drawdown calculation shall be provided for all SCMs. Please revise.	Drawdown calculations have been provided for each infiltration SCM. Please see attached.	JT	7/7/2025
18	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal Calculations - Water		Recharge calculations were not provided. Please provide recharge calculations with a capture area adjustment since not all impervious area is directed to the SCMs.	Groundwater recharge calculations and a capture area adjustment have been provided. Please see attached.	JT	7/7/2025
19	Attachment 2: TSS, Water Quality Volume, and Total Phosphorus Removal Calculations - Water		No pretreatment calculations were provided to show the forebays are sized for the receiving area. Please provide pretreatment calculations.	Pretreatment calculations for Sediment Forebay sizing has been provided. Please see attached.	JT	7/7/2025
20	Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan - 4. Operation & Maintenance of SCMs	Volume 2 Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Handbook	The MA Stormwater Handbook recommends inspecting Grassed Channels the first few months after construction and twice a year thereafter. Sediment and debris should be removed at least once a year. Please revise.	The referenced maintenance requirement in Vol. 2, Ch. 2 of the MADEP Stormwater Standards is for drainage channels, not a grass channel as is being proposed. However, the maintenance section for the grassed channel in the O&M plan has been revised as requested.	JT	7/7/2025

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21	Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan - 4. Operation & Maintenance of SCMs	Volume 2 Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Handbook	Inspection of Subsurface Infiltration Structures describes checking outlet pipes, but no outlet pipes are shown in plans. Please confirm. Also, include mosquito controls for subsurface system. Please revise.	The note regarding outlet pipes in the O&M plan has been revised. The subsurface chamber systems are designed to totally exfiltrate within 72 hours and not to hold standing water. Additionally, the inspection ports have been designed with a resealable plug, thereby making it mosquito proof.	JT	7/7/2025
22	Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan - Attachment 1: Soil Information	§ 38-18. Stormwater Management Plan. C.5.	Please provide data for 1124-X test pits. Please also provide test pits where the infiltration basin and proposed lot-2 roof infiltration system are proposed. Test pit were also performed in July instead of November to April which does not meet the requirements of Chapter 38. Please provide ESHGW for each SCM to confirm adequate separation to groundwater is provided.	Additional test pit data for the 1124-series have been provided as requested (see attached). Test pits located nearest to the infiltration basin and Lot 2 subsurface chambers were used to determine the estimated seasonal high groundwater table (ESHGW). Based on numerous test pits across Lots 1 and 2, the ESHGW was found to occur consistently at a depth of approximately two feet, determined through observation of redoximorphic features (soil mottling) in accordance with DEP guidance. This is a single-family home development, and the proposed stormwater control measures are designed to mitigate a minimal amount of runoff. Given the small scale of the project and the consistent groundwater observations, we believe the existing test pit data are sufficient for design purposes. If the Planning Board requires a test pit to be located within the basin, it can be performed prior to basin construction as a condition of permit approval. The results of the test pit shall be sent to the board, and if the ESHGW in that location is found to be higher than assumed, the basin bottom shall be raised to the minimum 2' above ESHGW.		
22A	Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan - Attachment 1: Soil Information	§ 38-18. Stormwater Management Plan. C.5.	We recommend that confirmatory test pits be performed in the location of the infiltration basin and Lot 2 roof infiltration area prior to construction. We defer to the Board if this should be a condition of approval as suggested by the Applicant. We defer to the Board for the waiver request of performing test pits in July instead of in November to April.	No response required.		
23	Long Term Pollution Prevention & Stormwater System Operation and Maintenance Plan - Attachment 3: Subsurface Infiltration Structures Operation and Maintenance	§ 38-18. Operation and Maintenance Plan. B. 3.	Signature(s) of the owner(s) required for O&M plan.	The owner can sign the O&M and submit to the town prior to certificate of occupancy as a condition of permit approval.		
23A		§ 38-18. Operation and Maintenance Plan. B. 3.	We recommend this be made a condition of approval.	The Applicant is agreeable to this condition.		
24	MA Stormwater Checklist		The MA stormwater checklist and illicit discharge statement is missing. Please provide.	The checklist and illicit discharge statement is included	JT	7/7/2025
25	NRCS Soil		The NRCS soils information is missing. Please provide.	The NRCS Soils map for the project site has been provided. Please see	JT	7/7/2025
	7/7/2025 New Comments					
26	Plan 2 & HydroCAD		For the infiltration basin, the plan calls for invert out (8" & 12" HDPE) and there is another callout for 3-12" HDPE. Please clarify and update HydroCAD to match the plan as needed.	Outlet pipes for the infiltration basin have been revised due to updated HydroCAD modeling. Call outs for the pipe outlets match HydroCAD modeling. Please see attached	MW	8/25/2025

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27	HydroCAD		For the infiltration basin & bioretention basin, the sediment forebay is modelled in hydrocad. The sediment forebay is a pretreatment device and should not be modelled in hydrocad to help mitigate peak rates. Please revise to remove the forebay from hydrocad.	The sediment forebays have been removed from receiving stormwater runoff in HydroCAD modeling. They are still being modeled separate for stage storage calculations to demonstrate adequate treatment.	JT	8/25/2025
28	HydroCAD		The Lot 1 and Lot 2 Roof area are not discharging to the SC310 chambers in HydroCAD but they are in the plans. Please update HydroCAD to show that the SC310 chambers have capacity to infiltrate the roof runoff as designed. Also, a 4" orifice is modelled as an outlet but based on the plans there is no outlet. Please revise.	HydroCAD modeling has been updated as requested. The 4" outlet was modeled at the top of stone elevation for each system. This is to depict the downspout overflow that is being shown in the detail.		
28A	HydroCAD		HydroCAD layout shows Sc-2a going to AP-2 and not P-2a and Sc1a to AP-2 instead of P-1a. Please revise.			
29	Plan 2 & Test pits		Test Pit 718-18 notes ground at 307.3 and seasonal high groundwater 23" below which would equal elevation 305.38. The bottom of stone at Lot 1 roof infiltration area is at elevation 306.77 which is less than 2' from seasonal high groundwater. Please revise to have a minimum of 2' separation to seasonal high groundwater. Also, provide a mounding analysis.	Lot 1 roof infiltration chambers have been raised to provide 2' separation to seasonal high groundwater. A groundwater mounding analysis has been provided as requested. Please see attached.	JT	8/25/2025
30	Plan 2 & Test pits		Test Pit 718-8 notes ground at 306.9 and seasonal high groundwater 24" below which would equal elevation 304.9. The bottom of stone at Lot 2 roof infiltration area is at elevation 304.00 which is less than 2' from seasonal high groundwater. Even if assumed seasonal high groundwater is 2' below existing grade at the proposed location of the chambers, the seasonal high groundwater would be at elevation 303 which is less than 2' separation to seasonal high groundwater. Please revise to have a minimum of 2' separation to seasonal high groundwater. Also, provide a mounding analysis.	Lot 2 roof infiltration chambers have been raised to provide 2' separation to seasonal high groundwater. A groundwater mounding analysis has been provided as requested. Please see attached.		
30A	Plan 2 & Test pits		The bottom is still less than 2' the bottom is set to 306.5 which is 1.6' of separation. Please provide 2' separation from seasonal high groundwater or perform a test pit in the location of the subsurface chamber system to confirm 2' is provided.			