

LONG TERM OPERATIONS & MAINTENANCE PLAN

709 MAIN ST, HINGHAM MA

Date: June 15, 2026

Revised: July 15, 2026

PROJECT OVERVIEW

Prevention of offsite flooding and implementation of stormwater runoff, water quality, and groundwater recharge improvements where none currently exist on-site are the main priorities of the project with respect to drainage design. The project will improve existing stormwater management within the property with respect to the existing site condition, which currently includes no such improvements, by installing a stormwater management system comprising various Best Management Practices (BMPs). Long-term water quality BMPs to mitigate the runoff generated by the site improvements include a water quality unit, and an underground infiltration/detention system and periodic mechanical sweeping to remove sand and sediment from paved surfaces.

The permanent BMPs used in this design were chosen for their effectiveness and ease of maintenance. Providing for maintenance requirements that are practical is essential to achieve the desired result of improved stormwater quality, and peak attenuation. This plan will be provided to the property owner, property manager, and general contractor to educate them on the recommendations of this plan and the DEP Stormwater Management Guidelines.

POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

a) NON-STRUCTURAL BEST MANAGEMENT PRACTICES

Implementing source controls can aid in reducing the types and concentrations of contaminants in stormwater runoff. This principle for pollution prevention and non-structural controls, or BMPs, is to minimize the volume of runoff and to minimize contact of stormwater with potential pollutants. Measures such as street sweeping, managing snow removal, and educating the owner/operator of good maintenance practices are examples of non-structural BMPs.

i. PUBLIC AWARENESS

The building owner shall issue periodic reminders to all residents or tenants to avoid dumping or releasing pollutants into the storm drains and onto the ground.

ii. SWEEPING

Driveway sweeping is an integral part of the stormwater management plan as a fundamental component of source reduction efforts. Sweeping activities shall begin on or around April 1. However, sweeping may be done after winter thaw and the onset of early spring. It is critical to remove the accumulated sediment in the driveway areas from the winter months as soon as possible before spring precipitation.

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iii. SNOW AND SNOWMELT MANAGEMENT

The removal contractor shall avoid stockpiling snow directly on top of catch basin grates and also avoid stockpiling snow in the water quality unit and area drain.

It is suggested that during snowfall events, the snow be stockpiled in at the edge of the driveway only.

It is suggested that no de-icing compounds such as calcium chloride (CaCl_2), calcium magnesium acetate (CMA) or the like be used on the site. The snow removal contractor shall store all sand off-site.

b) STRUCTURAL BEST MANAGEMENT PRACTICES:

Structural BMPs are those physical facilities that are designed to manage both stormwater quantity and quality. Proper maintenance of the proposed structural BMPs will ensure design performance and promote longevity of the structure and may decrease operator maintenance costs.

i. UNDERGROUND INFILTRATION/DETENTION SYSTEMS

Two underground detention system consisting of Cultec Recharger 330XLHD chamber systems are proposed to provide detention, infiltration, and water quality volume for proposed pavement and roof runoff for the development. All underground detention/infiltration systems are sized to mitigate peak runoff increases associated with the proposed project for all storm events up to and including the 100-year storm.

It is anticipated that maintenance of the detention/infiltration systems will be limited. Post-construction, the systems shall be inspected twice per year, at the beginning of July and late October/ early November, to determine if any loss of capacity has occurred. The systems shall also be inspected 24 hours after a rainstorm of over 2.5 inches in a 24-hour period to ensure that the systems are free of extraneous debris and fines and are draining adequately. If inspections indicate accumulation of sediment within the systems, cleaning shall be conducted through the inspection ports via vacuum truck. Removed materials shall be hauled off site and disposed of in compliance with all local, state, and federal guidelines.

ii. ROOF DOWNSPOUTS, (LEAF FILTERS AND CLEANOUTS)

Runoff from the roof gutters flows towards the downspouts to the underground 6" ADS N12 pipe to either the underground infiltration/detention system or towards to area drains at the rear. At each downspout location there is a cleanout with a leaf filter. The

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function of the cleanout and leaf filter is to remove any debris that might come from the downspouts such as leaves and provide maintenance access to the underground pipes. It is very important that the leaf filter at each downspout is inspected every three months and cleaned as needed. If the filter is observed to be damaged, it shall be replaced immediately.

iii. PERVIOUS PAVERS

Pervious pavers in the driveway and parking areas are proposed to promote recharge, stormwater storage and reduce peak runoff volume. These pavers work as designed when frequent cleaning is performed throughout the year.

Post-construction, the pavers shall be inspected three (3) times per year and cleaned at least twice per year. Once at the beginning of spring (March) and once at the end of foliage season (November). Cleaning shall be performed by sweeping or using regenerative air equipment to remove debris that might be stuck between the gaps.

During the winter season avoid using sand for traction or any salt products that contain sand. Refer to manufacturer's specifications for more information.

iv. TRENCH DRAIN

The proposed trench drain will capture runoff from the driveway and convey it to the underground infiltration system. The trench drain is not intended to provide stormwater pretreatment; however, the grate will provide limited removal of leaves, sediment, and other coarse debris.

Following construction, the trench drain shall be inspected at least three (3) times per year and cleaned a minimum of twice per year: once at the beginning of spring, in March, and once at the end of the foliage season, in November. Cleaning shall include removing visible debris from the grate, removing the grate, and clearing any sediment or debris accumulated within the trench drain structure.

MAINTENANCE AGREEMENT

The legal property owner of 709 Main Street, Hingham MA 02043 shall inspect and maintain the drainage system and its accessories as outlined in this Long-Term Operations and Maintenance Report. The inspection logs provided with this maintenance plan shall be kept as records by the homeowner(s).

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BMP MAINTENANCE LOG

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DATE	NAME OF MAINTENANCE PERSONNEL/COMPANY	TYPE OF MAINTENANCE PERFORMED	ISSUES/NEED FOR FOLLOW-UP	WORK ORDER PROVIDED?

Reproduce log sheets as necessary over the life of this Operation and Maintenance Plan.

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INSPECTION FORM: UNDERGROUND INFILTRATION/DETENTION SYSTEM (P1)

Unit Number: P1 (Refer to Site Grading and Drainage Plan)

Inspector Name:

Date/Time:

Weather:

TYPE OF INSPECTION (CHECK ONE)	
☐	Routine (Every Six Months)
☐	Annual
☐	Post-Storm (Depth = _____ inches; Storm Duration = _____ hrs; Storm End Date = _____)
☐	Post-Spill (Time/Date of Spill: _____)

INSPECTION CHECKLIST (CHECK ALL THAT APPLY)	
☐	Check for settlement/ cracking of pavement
☐	Check for ground settlement at inspection port locations
☐	Check for sediment accumulation at inlets/outlet via inspection ports
☐	Confirm dry condition within system

CORRECTIVE ACTION REQUIRED	

ADDITIONAL NOTES/OBSERVATIONS	

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INSPECTION FORM: PERVIOUS PAVER AREA

All Pervious Paver Area: (Refer to Site Grading and Drainage Plan)

Inspector Name:

Date/Time:

Weather:

TYPE OF INSPECTION (CHECK ONE)	
☐	Routine (3 Times per Year)
☐	Post-Storm (Depth = _____ inches; Storm Duration = _____ hrs; Storm End Date = _____)
☐	Post-Spill (Time/Date of Spill: _____)

INSPECTION CHECKLIST (CHECK ALL THAT APPLY)	
☐	Power wash pavement surface to dislodge trapped particles and vacuum sweep area
☐	Check pavement surface for differential settlement, spalling, cracking
☐	Conduct permeability test (per ASTM C 1701/C 1701M) (two tests per porous pavement area)
	Test 1: Water application rate = _____ Time elapsed = _____ Rate = _____
	Test 2: Water application rate = _____ Time elapsed = _____ Rate = _____

CORRECTIVE ACTION REQUIRED	

ADDITIONAL NOTES/OBSERVATIONS	

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INSPECTION FORM: TRENCH DRAIN

Unit Number: TD#1_____ (Refer to Site Grading and Drainage Plan)

Inspector Name:

Date/Time:

Weather:

TYPE OF INSPECTION (CHECK ONE)	
☐	Routine (Every Six Months)
☐	Annual
☐	Post-Storm (Depth = _____ inches; Storm Duration = _____ hrs; Storm End Date = _____)
☐	Post-Spill (Time/Date of Spill: _____)

INSPECTION CHECKLIST (CHECK ALL THAT APPLY)	
☐	Infiltration Basin form also completed?
☐	Check for ground settlement/ rilling at and around structure
☐	Confirm dry condition within structure
☐	Check for weeping/ cracking in inner wall or baffle wall
☐	Check for obstructions (sediment, trash, debris) at outlet invert and baffle orifices

CORRECTIVE ACTION REQUIRED	
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ADDITIONAL NOTES/OBSERVATIONS

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