

## **APPENDIX C: OPERATION AND MAINTENANCE PLAN**

- STORMWATER OPERATION AND MAINTENANCE PLAN
- INSPECTION AND MAINTENANCE LOG FORM
- LONG-TERM POLLUTION PREVENTION PLAN
- ILLCIT DISCHARGE STATEMENT
- SPILL PREVENTION

# **LONG-TERM STORMWATER SYSTEM OPERATION AND MAINTENANCE PLAN**

## **The Stormwater Management Standards**

**Standard 9:** A Long-term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed.

The Long-term Operation and Maintenance Plan shall at a minimum identify:

1. Stormwater management system(s) owners;
2. The party or parties responsible for operation and maintenance, including how future property owners will be notified of the presence of the stormwater management system and the requirement for proper operation and maintenance;
3. The routine and non-routine maintenance tasks to be undertaken after construction is complete and a schedule for implementing those tasks;
4. Plan that is drawn to scale and shows the location of all stormwater BMPs in each treatment train along with the discharge point;
5. Description and delineation of public safety features; and
6. Estimated operations and maintenance budget.

The Operation and Maintenance Plan shall identify best management practices for implementing maintenance activities in a manner that minimizes impacts to wetland resource areas.

## **The Proposal is for a private development.**

Stormwater Management System

Owner: The Gardner School / Viking Development

General Contractor: Fortunato Construction

The General Contractor shall have all logs and reports as stated within the Stormwater Pollution Prevention Plan readily available at all times for inspection by the Town of Hingham.

Method of recording for future Owners

- Deed  
 Order of Conditions  
 Other: \_\_\_\_\_

## **DRAINAGE SYSTEM**

The following components shall be inspected:

- Inspection during or immediately following initial installation of sediment controls.
- Inspection following severe rainstorms to check for damage to controls.
- Inspection prior to seeding deadlines, particularly in the fall.
- Final inspection of projects nearing completion to ensure that temporary controls have been removed, stabilization is complete, drainage ways are in proper condition, and the final contours agree with the proposed contours on the approved plan.

### Storm Events

2 year storm= 3.4 inches

10 year storm=4.7 inches

25 year storm=5.7 inches

100 year storm=7.0 inches

After the occurrence of any of the storm events noted above, or any other heavy rainfall that may have affected stormwater management facilities, the designated inspector shall inspect the components listed below for evidence of scouring or erosion, excessive sediment deposits, clogging of stormwater structures, or any other condition that may adversely affect stormwater management operations.

If any of these conditions are observed, then appropriate actions should be taken to restore the stormwater management facility so that it operates as intended.

**COMPONENT:** Deep sump catch basins

**RESPONSIBILITY:**

**During Construction:** Fortunato Construction

**Post Construction:** Owner

**ACTION:** Cleaning (Sediment removal / sump cleaning) and Inspection

**FREQUENCY:**

During Construction

1. Cleaning – As needed during construction or whenever the depth of deposits is greater than or equal to one half the depth from the bottom invert of the lowest pipe.
2. Inspection – Weekly during construction

Post Construction

1. Cleaning – Twice a year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom invert of the lowest pipe in the basin.
2. Inspection – Twice a year

**DESCRIPTION:** Basins are to be cleaned twice per year. The General Contractor will monitor sumps and remove sediments as necessary. The Owner will monitor sumps post construction on an as needed basis. Precautions shall take place to maintain the integrity of the oil trapping hoods during cleaning. The hoods shall be inspected and repaired as necessary. Accumulated Hydrocarbon shall be collected separately from accumulated sediment. All material shall be disposed of in accordance with DEP regulations.

Inspections:

- Frame and Grate
- Inlet and Outlet condition
- Cracks and settlement & joint failure & leaking
- Sediment Accumulation
- Oil/Gas Sheen in water
- Condition of hood
- General Inspection of structure

**BUDGET:** Inspection/cleaning- \$1000/ per basin per yr based on inspections and cleanings twice a year.

**COMPONENT:** Stormwater Quality Unit (CDS Unit)

**RESPONSIBILITY:**

**During Construction:** Fortunato Construction

**Post Construction:** Owner

**ACTION:** Inspection / cleaning

**FREQUENCY:** Per Manufacturer's Maintenance Guidelines or at least once per twelve months whichever is more restrictive depending on the rate of sediment accumulation.

**DESCRIPTION:** See attached Manufacturer's Maintenance Guidelines. All accumulated materials shall be disposed of in accordance with DEP regulations.

**BUDGET:** Inspection/cleaning- \$500/ yr based on inspection and cleaning once a year.

**COMPONENT: Drywell**

**RESPONSIBILITY:**

**During Construction:** Fortunato Construction

**Post Construction:** Owner

**ACTION:** Inspection / cleaning

**FREQUENCY:** Dry wells shall be inspected a minimum of once a year to ensure they are operating as intended and in working order.

**DESCRIPTION:** To determine if the dry well is functioning, measure the depth of water at 24 and 48 hour intervals after a storm. Calculate clearance rates by dividing the drop in water level (inches) by the time elapsed (hours). Inspections shall be by qualified personnel assigned by the property owner. Sediment collecting in the bottom of the basin shall be inspected once annually, and shall be removed any time the sediment reaches a depth of six inches. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.

**BUDGET:** Cleaning - \$1,000/year, Inspection - \$200/yr

**COMPONENT: Bioretention Areas (Rain Gardens)**

**RESPONSIBILITY:**

**During Construction:** Fortunato Construction

**Post Construction:** Owner

**ACTION:** Inspection / cleaning

**FREQUENCY:** To be inspected and cleared of trash monthly

**DESCRIPTION:** mowed 2 to 12 times per year; mulched annually; fertilized annually; dead vegetation removed annually; pruned annually; replace entire media and all vegetation as needed. Sediment shall be removed once accumulated to 3 or more inches. Any sediment removed shall be disposed of in accordance with MADEP and other applicable requirements.

**BUDGET:** \$2,000/yr



# **LONG-TERM POLLUTION PREVENTION PLAN**

*The Gardner School  
425 Lincoln Street  
Map 46, Lot 1 & Map 35, Lot 66  
Hingham, MA*

## **RESPONSIBLE PARTY DURING CONSTRUCTION:**

*Fortunato Construction  
99 Old Brickyard Lane, Suite 10  
Berlin, CT 06037*

## **RESPONSIBLE PARTY POST CONSTRUCTION:**

*Viking Development LLC  
302 Innovation Drive, Suite 130  
Franklin, TN*

For this site, the Long-Term Pollution Prevention Plan will consist of the following:

- The property owner shall be responsible for “good housekeeping” including proper periodic maintenance of building and pavement areas, curbing, landscaping, etc.
- Proper storage and removal of solid waste (dumpsters).
- Sweeping of parking lots, drive aisles and access aisles a minimum of twice per year with a commercial cleaning unit. Any sediment removed shall be disposed of in accordance with applicable local and state requirements.
- Regular inspections and maintenance of Stormwater Management System as noted in the “O&M Plan”.
- Snow removal shall be the responsibility of the property owner. Snow shall not be plowed, dumped and/or placed in forebays, infiltration basins or similar stormwater controls. Salting and/or sanding of pavement / walkway areas during winter conditions shall only be done in accordance with all state/local requirements and approvals.
- Reseed any bare areas as soon as they occur. Erosion control measures shall be installed in these areas to prevent deposits of sediment from entering the drainage system.

- Grass shall be maintained at a minimum blade height of two to three inches and only 1/3 of the plant height shall be removed at a time. Clippings shall not be disposed of within stormwater management areas or adjacent resource areas.
- Plants shall be pruned as necessary.
- Snow piles shall be located adjacent to or on pervious surfaces in upland areas. This will allow snow melt water to filter into the soil, leaving behind sand and debris which can be removed in the springtime.
- If necessary, stockpiled snow will be removed from the Site and disposed of at an off-site location in accordance with all local, state and federal regulations.
- The amount of sand and deicing chemicals shall be kept at the minimum amount required to provide safe pedestrian and vehicle travel.
- Deicing chemicals are recommended as a pretreatment to storm events to minimize the amount of applied sand.

## **OPERATON AND MAINTENANCE TRAINING PROGRAM**

The Owner will coordinate an annual in-house training session to discuss the Operations and Maintenance Plan, the Long-Term Pollution Prevention Plan, and the Spill Prevention Plan and response procedures. Annual training will include the following:

### **Discuss the Operations and Maintenance Plan:**

- Explain the general operations of the stormwater management system and its BMPs
- Identify potential sources of stormwater pollution and measures / methods of reducing or eliminating that pollution
- Emphasize good housekeeping measures

### **Discuss the Spill Prevention and Response Procedures:**

- Explain the process in the event of a spill
- Identify potential sources of spills and procedures for cleanup and /or reporting and notification
- Complete a yearly inventory or Materials Safety Data sheets of all tenants and confirm that no potentially harmful chemicals are in use.

## ILLICIT DISCHARGE STATEMENT

Certain types of non-stormwater discharges are allowed under the U.S. Environmental Protection Agency Construction General Permit. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this LTPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. Any existing illicit discharges, if discovered during the course of the work, will be reported to MassDEP and the local DPW, as applicable, to be addressed in accordance with their respective policies. No illicit discharges will be allowed in conjunction with the proposed improvements.

Duly Acknowledged:

*Chris Fazendin*

03/28/25

Chris Fazendin, VP Real Estate Development | The Gardner School

Name & Title

Date

## **SPILL PREVENTION AND RESPONSE PROCEDURES** **(POST CONSTRUCTION)**

In order to prevent or minimize the potential for a spill of Hazardous Substances or Oil or come into contact with stormwater, the following steps will be implemented:

1. All Hazardous Substances or Oil (such as pesticides, petroleum products, fertilizers, detergents, acids, paints, paint solvents, cleaning solvents, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.
2. The minimum practical quantity of all such materials will be kept on site.
3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided on site.
4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.
5. It is the OWNER's responsibility to ensure that all Hazardous Waste on site is disposed of properly by a licensed hazardous material disposal company. The OWNER is responsible for not exceeding Hazardous Waste storage requirements mandated by the EPA or state and local authorities.

In the event of a spill of Hazardous Substances or Oil, the following procedures should be followed:

1. All measures should be taken to contain and abate the spill and to prevent the discharge of the Hazardous Substance or Oil to stormwater or off-site. (The spill area should be kept well ventilated and personnel should wear appropriate protective clothing to prevent injury from contact with the Hazardous Substances.)
2. For spills of less than five (5) gallons of material, proceed with source control and containment, clean-up with absorbent materials or other applicable means unless an imminent hazard or other circumstances dictate that the spill should be treated by a professional emergency response contractor.
3. For spills greater than five (5) gallons of material immediately contact the MADEP at the toll-free 24-hour statewide emergency number: **1-888-304-1133**, the local fire department (**9-1-1**) and an approved emergency response contractor. Provide information on the type of material spilled, the location of the spill, the quantity spilled, and the time of the spill to the emergency response contractor or coordinator, and proceed with prevention, containment and/or clean-up if so desired. (Use the form provided, or similar).
4. If there is a Reportable Quantity (RQ) release, then the National Response Center should be notified immediately at (800) 424-8802; within 14 days a report should be submitted to the EPA regional office describing the release, the date and circumstances of the release and the steps taken to prevent another release. This Pollution Prevention Plan should be updated to reflect any such steps or actions taken and measures to prevent the same from reoccurring.



Cause of Spill: \_\_\_\_\_  
\_\_\_\_\_

Measures Taken to Clean up Spill: \_\_\_\_\_  
\_\_\_\_\_

Type of equipment: \_\_\_\_\_ Make: \_\_\_\_\_ Size: \_\_\_\_\_

License or S/N: \_\_\_\_\_

Location and Method of Disposal \_\_\_\_\_  
\_\_\_\_\_

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional Contact Numbers:

- DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) EMERGENCY PHONE: 1-888-304-1133
- NATIONAL RESPONSE CENTER PHONE: (800) 424-8802
- U.S. ENVIRONMENTAL PROTECTION AGENCY PHONE: (888) 372-7341