## MAINTENANCE & OPERATIONS PLAN OF STORMWATER MANAGEMENT FACILITIES FOR-

# 30 FOX STREET, 3-UNIT BUILDING PORTLAND, MAINE

Responsible Party: Dyer Neck Development, LLC

29 Kellogg Street, #3 Portland, ME 04101

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#### **List of Stormwater Measures:**

Vegetated Areas Stone Roof Dripline Filter Strip

#### **Introduction:**

The owner or operator of the proposed project will be responsible for the maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance log book. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

#### **Inspection & Maintenance Tasks:**

NOTE: The following instruction are excerpts from the Maine Department of Environmental Protection's *Stormwater Management for Maine, Volume III BMPs Technical Design Manual*, dated January 2006.

#### **Vegetated Areas:**

- 1. Routine Maintenance and Inspection: The area should be inspected for failures following heavy rainfall and repaired as necessary for newly formed channels or gullies, reseeding/ sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity of the check dams.
- **2. Aeration:** Vegetated areas may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall.
- **3. Erosion:** It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter on the surface.
- **4. Fertilization:** Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

#### **Roof Dripline Filter:**

- 1. Inspection: Inspect filter semi-annually and following major storm events. Debris and sediment buildup should be removed from the forebay and basin as needed. Any bare area or erosion rills should be repaired with new filter media, seeded and mulched.
- 2. Maintenance Agreement: A legal entity should be established with responsibility for inspecting and maintaining any filter basin. The legal agreement establishing the entity

- should list specific maintenance responsibilities (including timetables) and provide for the funding to cover long-term inspection and maintenance.
- 3. **Drainage:** The filter should be draining within 48 hours following a one-inch storm or greater. If the system drains too fast, an orifice may need to be added on the underdrain outlet or may need to be modified if already present. ●
- **4. Sediment Removal:** Sediment and plant debris should be removed from the structure at least annually.
- **5. Soil Filter Replacement:** The mulch shall be replaced with fresh material on a yearly basis.
- **6. Soil Filter Replacement:** The top several inches of the filter can be replaced with fresh material if water is ponding for more than 72 hours.

## **Task Frequency:**

Table 11-1 Long-Term Inspection & Maintenance Plan								
	Spring	Fall or Yearly	After a Major Storm	Every 2-5 Years				
Vegetated Areas								
Inspect all slopes and embankments	X		X					
Replant bare areas or areas with sparse growth	X		X					
Armor areas with rill erosion with an appropriate lining or divert the ero-sive flows to on-site areas able to withstand concentrated flows. See Appendix A(5) of Rule.	X		X					
Stormwater Channels	1							
Inspect ditches, swales and other open stormwater channels	X	X	X					
Remove any obstructions and accumulated sediments or debris	X	X						
Control vegetated growth and woody vegetation		X						
Repair any erosion of the ditch lining		X						
Mow vegetated ditches		X						
Remove woody vegetation growing through riprap		X						
Repair any slumping side slopes		X						
Replace riprap where underlying filter fabric or underdrain gravel is showing or where stones have dislodge		X						
Culverts								
Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit	X	X	X					
Repair any erosion damage at the culvert's inlet and outlet	X	X	X					
Roadways and Parking Surfaces								
Clear accumulated winter sand in parking lots and along roadways	X							
Sweep pavement to remove sediment	X							
Grade road shoulders and remove excess sand either manually or by a front-end loader	X							
Grade gravel roads and gravel shoulders	X							
Clean-out the sediment within water bars or open-top culverts	X							
Ensure that stormwater is not impeded by accumulations of material or false ditches in the shoulder	X							

Table 11-1 Long-Term Inspection & Maintenance Plan								
	Spring	Fall or Yearly	After a Major Storm	Every 2-5 Years				
Roof Dripline Filters								
Inspect and clean-out any surfaces that collect sediment and hydrocarbons entering an infiltration measure	X	X						
Provide for the removal and disposal of accumulated sediments within the infiltration area				X				
Renew the infiltration measure if it fails to drain within 72 hours after a rainfall of one-half inch or more				X				
Green Roof System								
Follow manufacturer's suggested maintenance requirements.								

### **Maintenance Log Sheet:**

Maintenance Log Sheet 30 Merrill Street, Portland, ME							
BMP's		Date Inspected	Repairs Needed?	Date Repaired			
Example			4/1/16	Y	4/2/16		
1. Vegetated Areas							
2. Paved Areas							
3. Pervious Pavers							
4.							
			epair Notes:				
BMP Type	Date	Description of Repair Ma					
1	4-1-16	Sodded over eroded se	ver eroded section (Example)				