Operations and Maintenance Plan

Ecoroofs and Roof Gardens

Facility Description. Ecoroofs and roof gardens are vegetated systems used in place of a conventional roof. Typical systems consist of a synthetic waterproof membrane, a rock reservoir, a layer of soil, and a cover of plants. Stormwater percolates through and is stored by the layers of the ecoroof, with any overflow exiting by roof drains.

What To Look For	What To Do
Structural Components, including the waterproof membrane, shall be operated and maintained in accordance with the manufacturer's specifications.	
➢ Tears or perforation of membrane. ➢ Clogged outlet	➢ Contact manufacturer for repair or replacement. ➢ Remove sediment and plant debris.
Vegetation, including plants on the Portland Plant List, shall cover 90% of the facility.	
➢ Dead or stressed vegetation ➢ Tall or sun scorched grass ➢ Weeds	➢ Replant per planting plan or substitute with plants from Portland Plant List, found in the City Stormwater Management Manual. ➢ Irrigate as needed. Do not apply fertilizers. ➢ Mow to 4-6 inches, 1-2 times each year. ➢ Manually remove weeds. Do not use pesticides. Remove all plant debris.
Growing/Filter Medium, including soil, pea gravel or like material, shall sustain healthy plant cover and infiltrate w/in 24hrs.	
➢ Exposed soil ➢ Gullies ➢ Ponding	➢ Cover with plants or gravel. ➢ Fill, lightly compact, and install flow spreader/plant vegetation to disperse flow. ➢ Rake, till or amend to restore infiltration rate.

Maintenance Schedule:
Summer. Make necessary structural repairs. Improve filter medium as needed. Clear drain. Mow. Irrigate as needed.
Fall. Replant exposed soil and replace dead plants. Remove sediment and plant debris.
Winter. Monitor infiltration/flow through rates. Clear drain as needed.
Spring. Weed as necessary. Replant exposed soil and replace dead plants. Remove sediment and plant debris.

Maintenance Records. Record date, description, and contractor (if applicable) for all structural repairs, landscape maintenance, and facility cleanout activities. Keep work orders and invoices on file and make available upon request of the City inspector.

Monitoring Log.
Access. Maintain ingress/egress to design standards.
Infiltration/Flow Control. All facilities should drain within 24 to 48 hrs. Record time/date and weather & site conditions when ponding occurs.
Pollution Prevention. All sites should implement best management practices to prevent contaminating stormwater. Contact Spill Control at 503-823-7180 for immediate assistance responding to spills. Record time/date and weather & site conditions when site activities contaminate stormwater.
Vectors (mosquitoes & rodents). Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes/burrows in and around facilities. Call Multnomah County Vector Control at 503-988-3464 for immediate assistance to eradicate vectors. Record time/date and weather & site conditions when vectors are present.