

Operation Maintenance and Repair Plan – Rain Garden

Operation maintenance and repair plan to be implemented per standards and specifications set forth in the Borough Ordinance and as follows:

The stormwater management facilities will be owned and maintained by:

Property Owner / Operator
 Address
 City, State, Zip Code

The final set of as-built construction plans for the following best management practices are included as part of the operations and maintenance plan and the following chart.

Best Management Practice	Inspection Item (visual or camera as required)	Frequency	Maintenance Method
Rain Garden	Outlet riser, underdrain, outlet pipe, rock dissipater	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris. Repair, replace, reset, regROUT structures as needed within 60 days of inspection. Reset rock, replace as necessary to protect rain garden from erosion during excessive flows.
	Growth medium, mulch layer	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris, remove sediment. Rake soil mix and mulch layer to remove gullies when erosion is evident. Replenish soil mix and mulch as needed. Replace mulch every 2 to 3 years.
	Plant Material	Minimum 1 times/year, and during drought conditions	Evaluate health. Prune and weed as necessary. Replace dead/diseased plant material with choices from the recommended plant list. Water plants if experiencing hardship during drought conditions. Perennials may be cut down at the end of the growing season.
	Debris, leaf detritus	Minimum 2 times/year and after every major storm event (1 inch storm or greater)	Clear debris.
	Unit wall system	Minimum 1 times/year	Evaluate structural integrity of the wall system. Repair, replace as necessary.

Operation Maintenance and Repair Plan – Porous Sidewalk / Street Trees

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Best Management Practice	Inspection Item (visual or camera as required)	Frequency	Maintenance Method
Porous concrete	Pavement surface	2 times/year or after every major storm event (1 inch storm or greater)	Check for raveling, clogging, declivities. Clear debris by sweeping or vacuuming. Consult porous paving expert for repair of potholes or other damage.
	Surface inlets, pipe connections, underdrain	2 times/year or after every major storm event (1 inch storm or greater)	Check inspection ports, verify that no obstructions to flows exist. Cleanout debris, sediment deposits in inlets draining to the underdrain system.
	Surrounding surfaces	2 times/year or after every major storm event (1 inch storm or greater)	Maintain stable surfaces adjacent to porous surface. Sweep debris, reseed, replant or mulch areas to reduce sediment or other debris from clogging porous surfaces.
	Plant Material	Minimum 2 times/year, and during drought conditions	Evaluate health. Prune and weed as necessary. Replace dead/diseased plant material with choices from the recommended plant list. Water plants if experiencing hardship during drought conditions. Clear leaf litter.
	Winter maintenance	As needed	Clear snow by sweeping or plowing. Set plow blade high to leave a skiff of snow, and to protect the surface from gouging. Salt or synthetic deicing product is NOT required.

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Rain Garden	Outlet riser, underdrain, outlet pipe, rock dissipater	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris. Repair, replace, reset, regROUT structures as needed within 60 days of inspection. Reset rock, replace as necessary to protect rain garden from erosion during excessive flows.
	Growth medium, mulch layer	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris, remove sediment. Rake soil mix and mulch layer to remove gullies when erosion is evident. Replenish soil mix and mulch as needed. Replace mulch every 2 to 3 years.
	Plant Material	Minimum 1 times/year, and during drought conditions	Evaluate health. Prune and weed as necessary. Replace dead/diseased plant material with choices from the recommended plant list. Water plants if experiencing hardship during drought conditions. Perennials may be cut down at the end of the growing season.
	Debris, leaf detritus	Minimum 2 times/year and after every major storm event (1 inch storm or greater)	Clear debris.
	Concrete curb with curb cuts	Minimum 1 times/year	Evaluate structural integrity of the curb system. Repair, replace as necessary.

Operation Maintenance and Repair Plan – Residential Rain Garden

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Address

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Best Management Practice	Inspection Item (visual or camera as required)	Frequency	Maintenance Method
Rain Garden	Outlet riser, underdrain, outlet pipe, rock dissipater	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris. Repair, replace, reset, regROUT structures as needed within 60 days of inspection. Reset rock, replace as necessary to protect rain garden from erosion during excessive flows.
	Growth medium, mulch layer	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris, remove sediment. Rake out gullies, add soil mix and replenish mulch layer when erosion is evident as needed. Replace mulch every 2 to 3 years.
	Plant Material	Minimum 1 times/year, and during drought conditions	Evaluate health. Prune and weed as necessary. Replace dead/diseased plant material with choices from the recommended plant list. Water plants if experiencing hardship during drought conditions. Perennials may be cut down at the end of the growing season.
	Debris, leaf detritus	Minimum 2 times/year and after every major storm event (1 inch storm or greater)	Clear debris.
	Lawn berm	Minimum 1 times/year	Evaluate structural integrity of the surrounding berm. Repair, replace, reseed as necessary.

Operation Maintenance and Repair Plan – Water Quality Basin

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Best Management Practice	Inspection Item (visual or camera as required)	Frequency	Maintenance Method
Stormwater conveyance structures including: inlets, outlets, emergency spillways, manholes, endwalls, pipes, riprap	Debris, erosion, displacement, water flow	2 times/year or after every major storm event (1 inch storm or greater)	Clear debris. Repair, replace, reset, regROUT structures as needed within 60 days of inspection.
Basin	Debris, erosion, vegetation, outlet structure	Annually and after each mowing event. Mow min. 2 times per year	Clear debris. Repair, replace, reset, regROUT structures as needed and repair erosion within 60 days of inspection. Maintain 85% vegetated cover. <u>Mow interior basin slopes and embankment.</u>
Forebay	Debris, sediment	Minimum 2 times/year and after every major storm event (1 inch storm or greater)	Clear debris within 60 days of inspection. Remove sediment 1 time per year as necessary. <u>Mow interior slopes and embankment</u> to maintain function of forebay.
Grass swales	Debris, erosion, sediment, vegetation, landform	Minimum 2 times/year and after every major storm event (1 inch storm or greater)	Clear debris. <u>Seasonal mowing</u> as necessary to keep vegetation to max. 5 inch height. Reseed repair any damaged areas, reform swale as needed to maintain designed channel within 60 days of inspection.