

BARR REC'D 9.18.20

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OPERATIONS AND MAINTENANCE PLAN REPORT

For

6 Manitou Court

Westport, CT

Prepared For

6 Manitou Court, LLC

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Operations and Maintenance Plan

6 *Manitou Court*

9/16/20

Scope:

The purpose of the Operations and Maintenance Plan is to ensure that the existing and proposed stormwater components installed at 6 *Manitou Court* are maintained in operational condition throughout the life of the project. The service procedures associated with this plan shall be performed as required by the parties legally responsible for their maintenance.

Recommended Frequency of Service:

As further defined below, all stormwater components should be checked on a periodic basis and kept in full working order. Ultimately, the required frequency of inspection and service will depend on runoff quantities, pollutant loading, and clogging due to debris. At a minimum, we recommend that all stormwater components be inspected and serviced twice per year, once before winter begins and once during spring cleanup.

Qualified Inspector:

The inspections must be completed by an individual experienced in the construction and maintenance of stormwater drainage systems. Once every five years the inspections must be completed by a professional engineer.

Service Procedures:

1. Catch Basins & Drainage Inlets:

- a. Catch basins and drainage inlets shall be completely cleaned of accumulated debris and sediments at the completion of construction.
- b. For the first year, catch basins and drainage inlets shall be inspected on a quarterly basis.
- c. Any accumulated debris within the catch basins/inlets shall be removed and any repairs as required.
- d. From the second year onward, visual inspections shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
- e. Accumulated debris within the catch basins/inlets shall be removed and repairs made as required.
- f. Accumulated sediments shall be removed at which time they are within 12 inches of the invert of the outlet pipe.
- g. Any additional maintenance required per the manufacturer's specifications shall also be completed.

2. Storm Drainage Piping and Manholes/Junction Boxes:

- a. All storm drainage piping shall be completely flushed of debris and accumulated sediment at the completion of construction.
- b. Manholes/Junction Boxes shall be inspected and repaired on an annual basis.
- c. Unless system performance indicates degradation of piping, comprehensive video inspection of storm drainage piping shall occur once every ten years.

- d. Any additional maintenance required per the manufacturer's specifications shall also be completed.

3. Hydrodynamic Separator:

- a. Hydrodynamic Separator shall be completely cleaned of accumulated debris and sediments at the completion of construction.
- b. For the first year, the hydrodynamic separator shall be inspected on a quarterly basis.
- c. Any accumulated debris within the hydrodynamic separator shall be removed and any repairs made to the unit as required.
- d. From the second year onward, visual inspection shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
- e. Accumulated debris within the unit shall be removed and repairs made as required.
- f. Accumulated sediments shall be removed at which time they are within 12 inches of the invert of the outlet pipe.
- g. All inlets, outlets and components of the unit shall be inspected and cleared of debris. Any repairs shall be performed.
- h. Any additional maintenance required per the manufacturer's specifications shall also be completed.

4. Drainage Outfalls/Splash Pads/Scour Holes/Level Spreaders:

- a. All outfalls shall be completely cleaned of accumulated debris and sediments at the completion of construction. Any repairs to outlet protection material (rip rap) shall be performed.
- b. For the first year, outfalls shall be inspected on a quarterly basis.
- c. Any accumulated debris shall be removed and any repairs made to the outfalls as required.
- d. From the second year onward, visual inspections shall occur twice per year, once in the spring and once in the fall, after fall cleanup of leaves has occurred.
- e. Accumulated debris shall be removed and repairs made as required.
- f. Any erosion shall be promptly repaired and the cause of the erosion shall be identified and corrected.
- g. Any additional maintenance required per the manufacturer's specifications shall also be completed.

5. Porous Pavement (Pervious Concrete, Porous Asphalt, Permeable Interlocking Concrete Pavers, Flexi pave, Etc.):

- a. Clean and vacuum (Regenerative Air Vacuum for Permeable Interlocking Concrete Pavers) the porous pavement upon the completion of construction.
- b. Check for standing water on the surface of the pavement after a precipitation event. If standing water remains within 30 minutes after rainfall had ended, cleaning of porous pavement is recommended.
- c. Vacuum sweeper shall be used regularly to remove sediment and organic debris on the pavement surface. The sweeper may be fitted with water jets.
- d. Pavement vacuuming should occur during spring cleanup following the last snow event to remove accumulated debris, at a minimum.
- e. Pavement vacuuming should occur during fall cleanup to remove dead leaves, at a minimum.
- f. Power washing can be an effective tool for cleaning clogged areas. See manufacturer's specifications.

- g. Check for debris accumulating on pavement, especially debris buildup in winter. For loose debris, a power/leaf blower or gutter broom can be used to remove leaves and trash.
- h. In the event that the porous surface becomes clogged an engineer must be retained to determine how to restore the porous surface to its original condition.
- i. Any additional maintenance required per the manufacturer's specifications shall also be completed.

6. Roof Gutters:

- a. Remove accumulated debris and inspect for damage. Any damage should be repaired as required.

Disposal of Debris and Sediment:

All debris and sediment removed from the stormwater structures and bioretention/biofiltration basins shall be disposed of legally. There shall be no dumping of silt or debris into or in proximity to any inland or tidal wetlands.

Maintenance Records:

The Owners(s) must maintain all records (logs, invoices, reports, data, etc.) and have them readily available for inspection at all times.