

# Operation & Maintenance Plan

## #544 Summer Street

March 20, 2023

Structural Best Management Practices (BMPs) require periodic maintenance to ensure proper function and efficiency in pollutant removal from stormwater discharges that would otherwise discharge from the proposed impervious areas untreated. Maintenance schedules found below are as recommended in the manufacturer's specifications.

The following BMPs shall be utilized for the project for pollutant removal from stormwater discharge as well providing additional groundwater recharge on site by directing the proposed runoff to a stone infiltration trench:

- Stone Infiltration Trench
- Permeable Paver Patio

### Stone Infiltration Trench

- Install one (1) inspection port in each trench. The inspection port shall be 4-inch perforated PVC with a cap to extend 2-inches above existing grade.
- Should standing water be present in bottom of system during a routine inspection or more than twenty-four (24) hours after the end of a rainfall event, it may be as a result of the stone bed layer being clogged. The amount of elapsed time required for the water to infiltrate completely should be recorded. If after seventy-two (72) hours from the end of a rainfall event there is still standing water in the bottom of the trench, the affected area should be excavated and the stone replaced with clean stone.
- We recommend the following schedule for system maintenance

#### Monthly in first year of service:

- Check for clogging and remove any debris as necessary
- Check for depressions in areas over and surrounding the system

#### Spring and fall in the second-year service:

- Check for clogging and remove any debris as necessary
- Check for depressions in areas over and surrounding the system

#### One year after commissioning and every year following:

- Check for clogging and remove any debris as necessary
- Inspect the interior of the trench via inspection ports and measure sediment or depth of standing water
- Check for depressions in areas over and surrounding the system
- Confirm that no unauthorized modifications have been performed to the system

- It should be noted that most failures that occur in infiltration systems are due to inadequate pre-treatment which leads to clogging. However, the crushed-stone making up this system will have a 2" river rock landscape stone layer as pretreatment and will be wrapped in filter

fabric to keep out the fine particles. This trench will only receive runoff from roofs and we do not expect there to be any adverse impacts to the system due to debris accumulation.

### Permeable Paver Patio

- Permeable pavers allow for storm water drainage and manage excess runoff. In order for the permeable paver patio to function properly, routine maintenance is required.
- We recommend the following schedule for system maintenance

#### Twice a year:

- Check for clogging and remove any debris as necessary
- Check for depressions in areas over and surrounding the system, repair as needed.
- Vacuum or blow debris out of the joints, being careful not to remove the aggregate.
- Remove any moss growing on the patio.
- Refill joints as needed with ASTM No. 8, 89, or 9 (CSA 10-2.5 or 5-2.5) Aggregate, or equivalent.