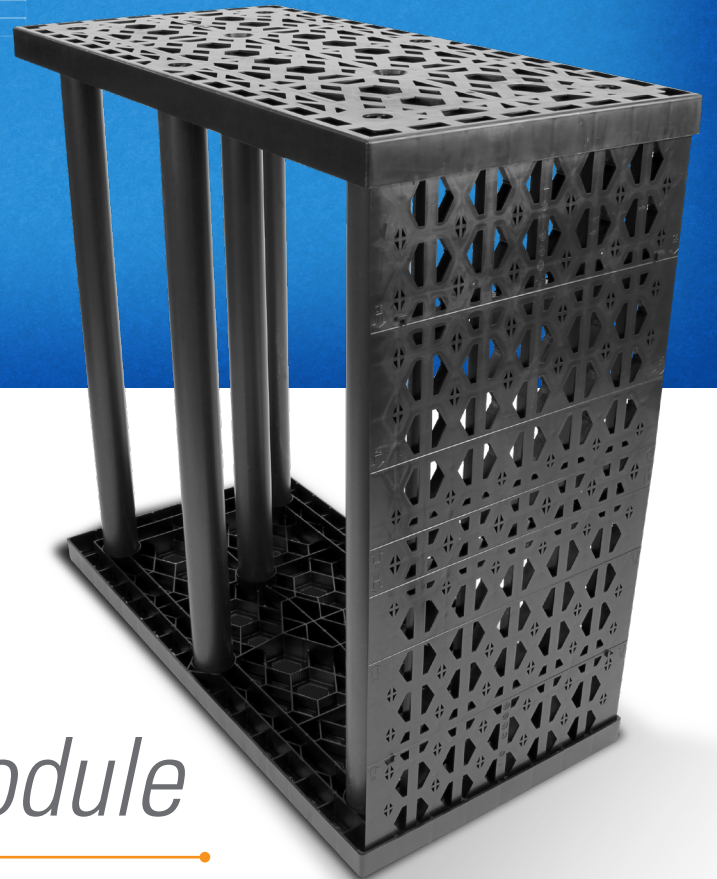
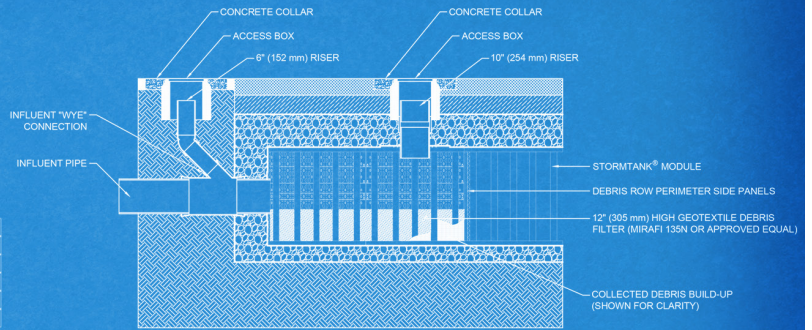
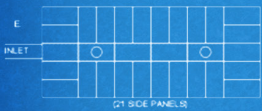
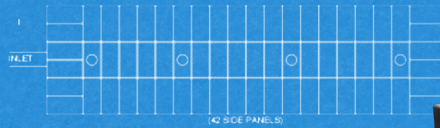
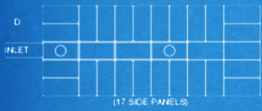
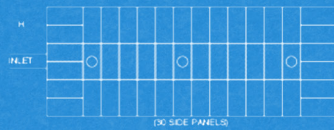
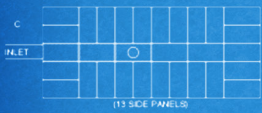
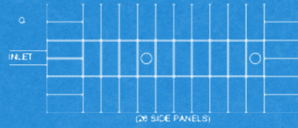
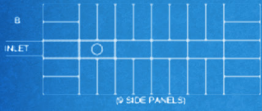
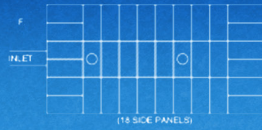
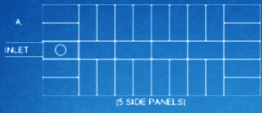




STORMWATER TREATMENT: DEBRIS ROW



STORMTANK®
STORMTANK Module

Contents

- 1.0 Debris Row Sizing
- 2.0 StormTank Installation
 - 2.1 Side Panel Installation
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 - 3.3 Cleanout

General Notes

1. Brentwood recommends that the installing contractor contact either Brentwood or the local distributor prior to installation of the system to schedule a pre-construction meeting. This meeting will ensure that the installing contractor has a firm understanding of the installation instructions.
2. All systems must be designed and installed to meet or exceed Brentwood's minimum requirements. Although Brentwood offers support during the design, review, and construction phases of the Module system, it is the ultimate responsibility of the Engineer of Record to design the system in full compliance with all applicable engineering practices, laws, and regulations.
3. Brentwood recommends a minimum bearing capacity and subgrade compaction for all installations. If site conditions are found not to meet any design requirements during installation, the Engineer of Record must be contacted immediately.
4. All installations require a minimum two layers of geotextile fabric. One layer is to be installed around the Modules, and another layer is to be installed between the stone/soil interfaces.
5. Stone backfilling is to follow all requirements of the most current installation instructions.
6. The installing contractor must apply all protective measures to prevent sediment from entering the system during and after installation per local, state, and federal regulations.
7. The StormTank® Module carries a Limited Warranty, which can be accessed at www.brentwoodindustries.com.

1.0 Debris Row Sizing

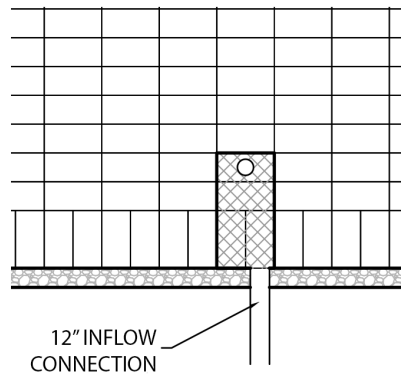
The Debris Row gathers debris and sediment in a section of modules. The Debris Row size is determined by the flow rate of the inflow connection to the system. Observation/cleanout ports are to be installed with a minimum of one port at the inflow pipe location. Based upon Debris Row size and shape, additional ports may be required.

$$\text{StormTank Module Count} = Q / (F * 0.085)$$

Q = Treatment Flow Rate
F = Module Footprint = 4.5 sf

EXAMPLE:
3.9215 Modules = 1.5 CFS / (4.5*0.085)

StormTank Module Count = 4 Modules



LEGEND

10" OBSERVATION PORT



3/4" (19.5mm) ANGULAR STONE

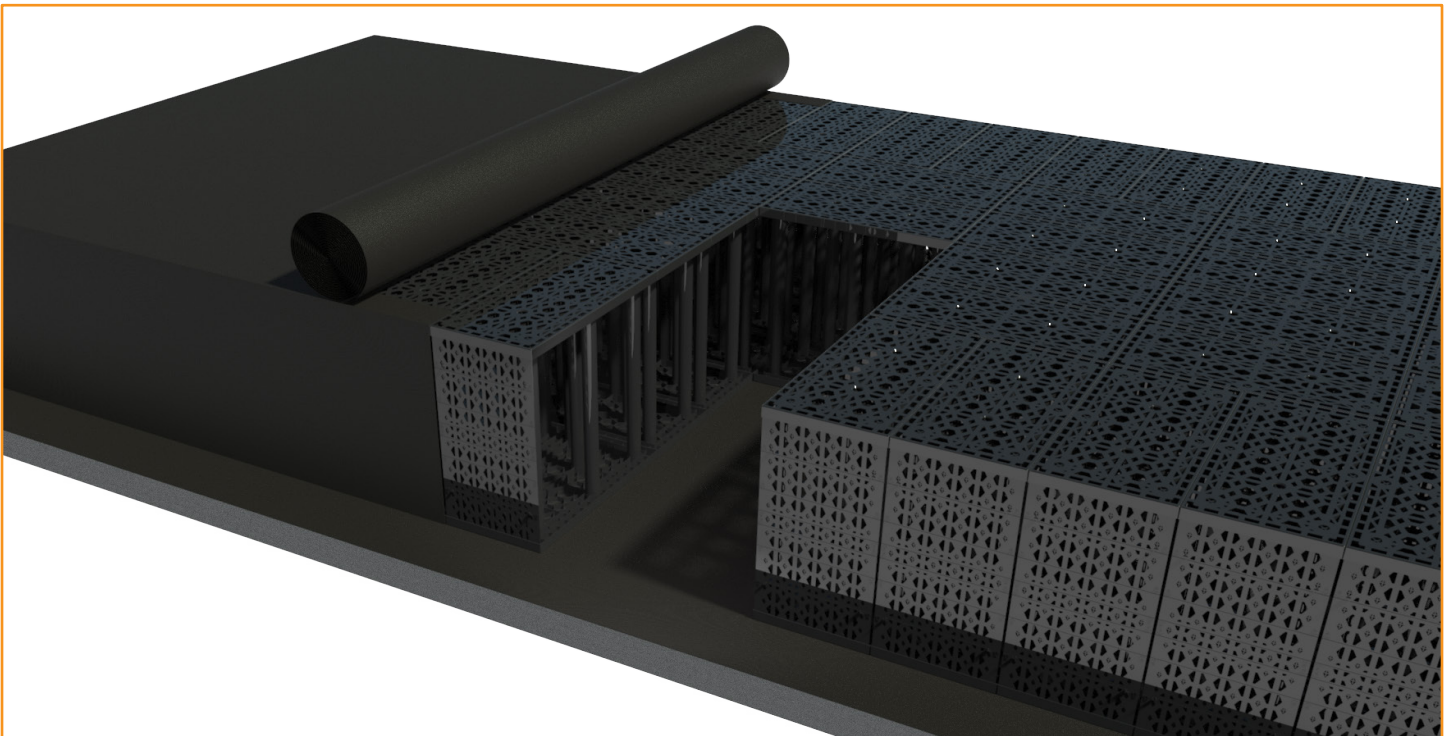


DEBRIS ROW



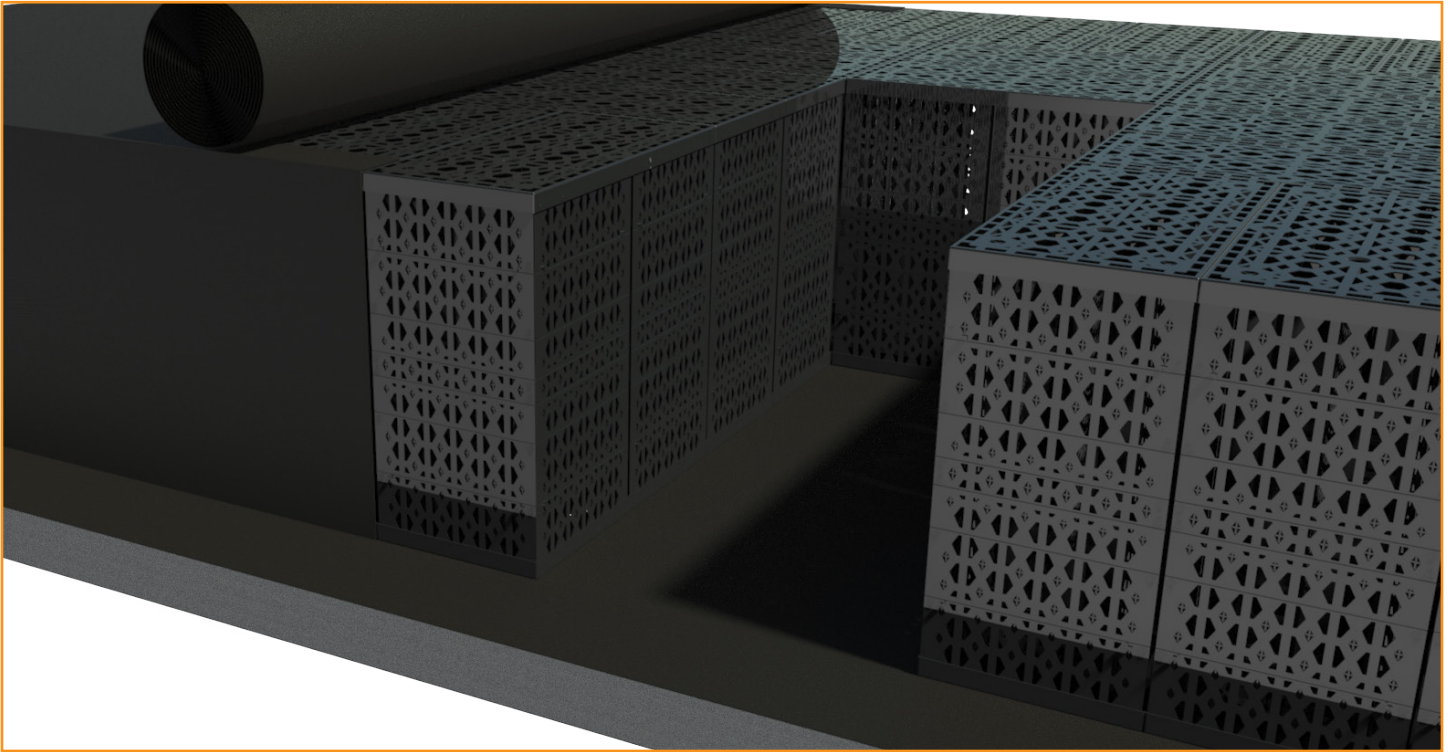
2.0 StormTank Installation

Install StormTank Modules per the approved StormTank submittal drawings. Do not include the Debris Row Modules.



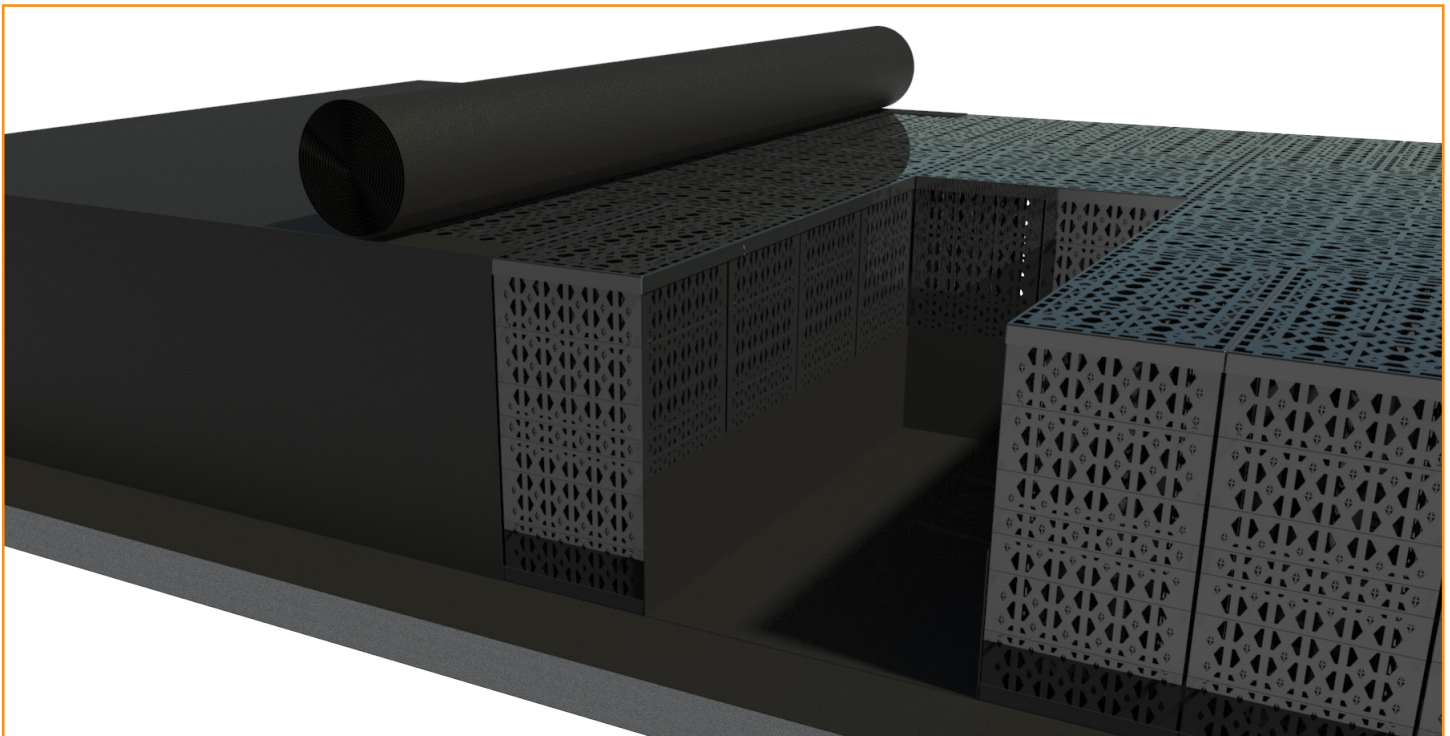
2.1 Side Panel Installation

Install Debris Row side panels in the Modules adjacent to the Debris Row, per the approved plans.



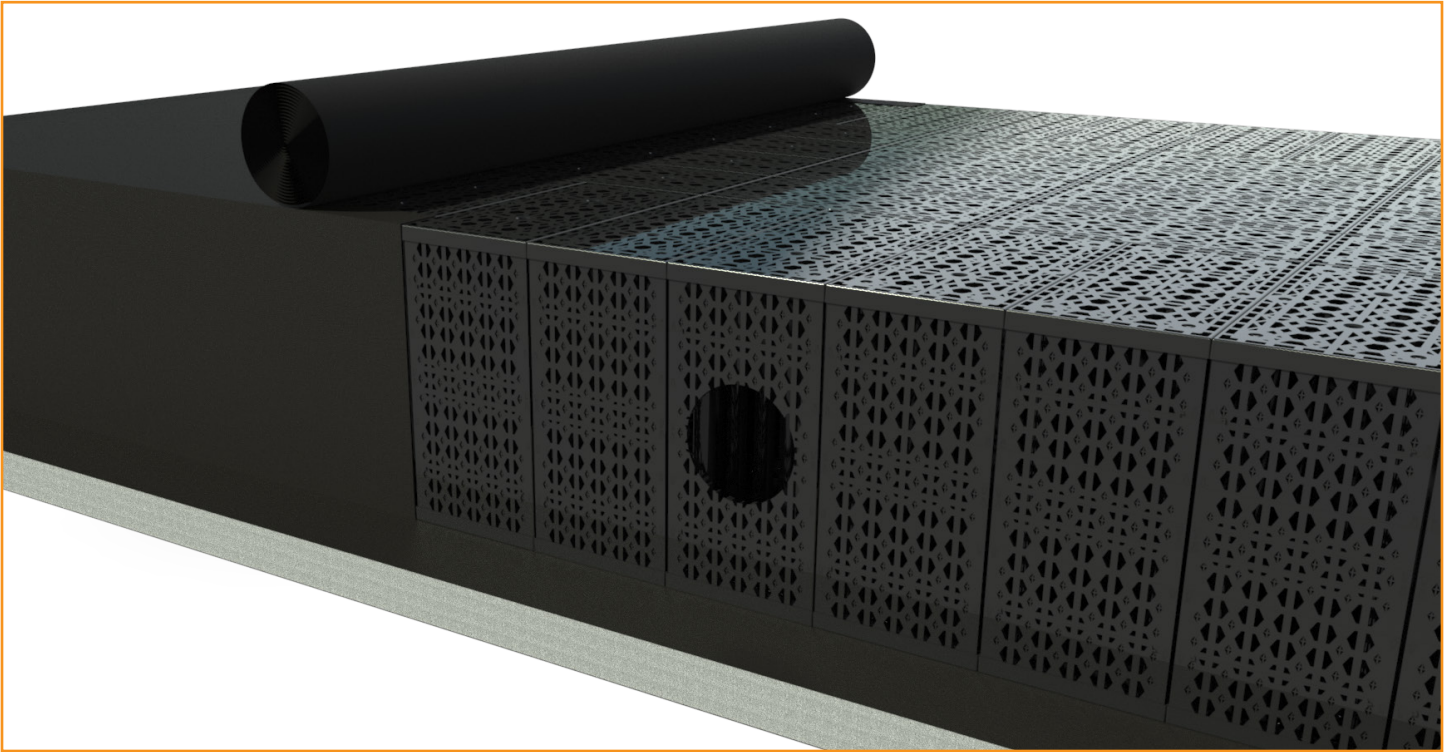
2.2 Geotextile Installation

Install a layer of geotextile across the bottom of the Debris Row, extending up the side panels of the adjacent Modules. Geotextile fabric is to be installed to the height specified by the hydrograph elevation of the selected storm (per the engineer of record's plans), or a minimum of 12" (304.8mm), whichever is greater. Secure the geotextile fabric to the side panels with zip ties.



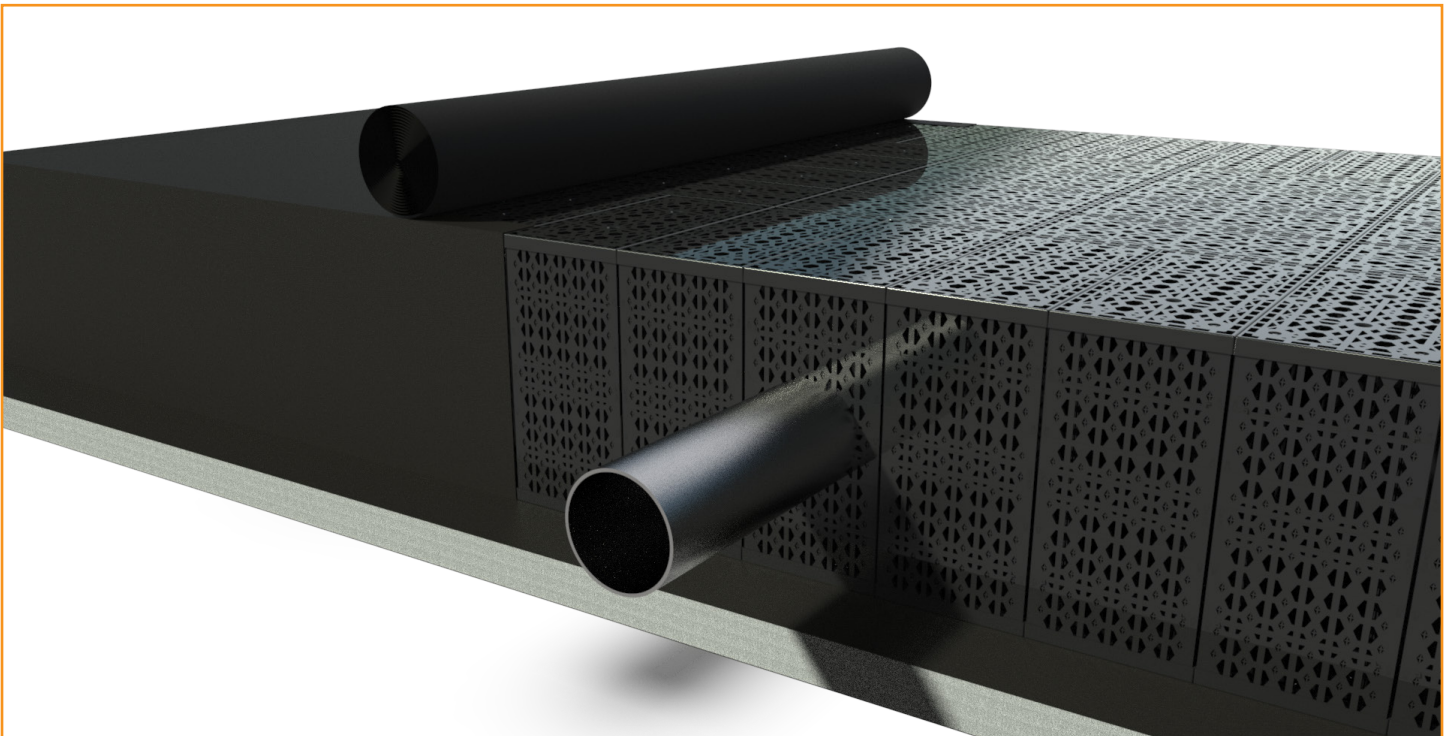
2.3 Debris Row Module Placement

Place and install the Debris Row Modules in the appropriate location per the approved StormTank submittal drawings.



2.4 Complete System Installation

Finally, make any necessary connections and complete the system installation per the StormTank installation instructions.



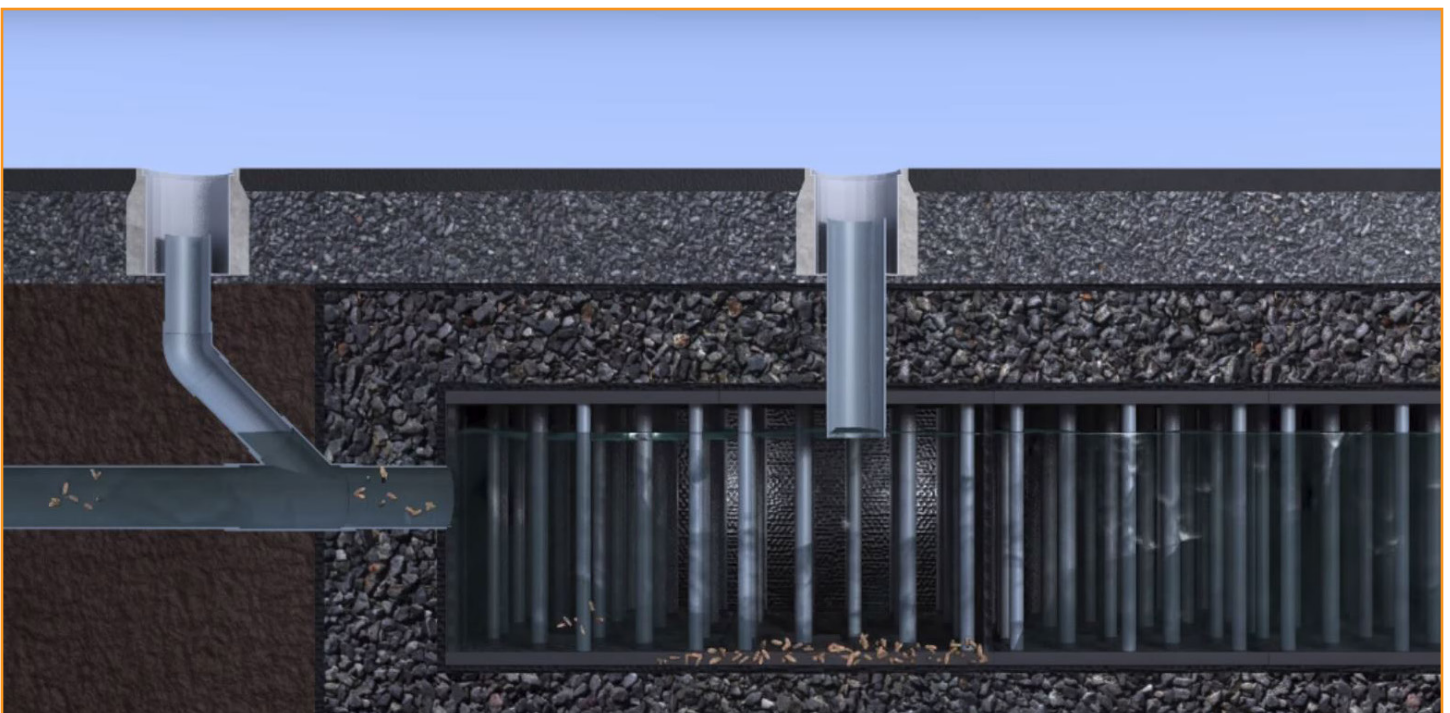
3.0 Operations & Maintenance

The Debris Row design and operation make maintaining the system easier by containing debris and sediment. The StormTank Module Debris Row is an inexpensive way to provide stormwater treatment, removing suspended solids from stormwater as well as other chemicals and nutrients that have bonded to the solids. The Debris Row provides a means of containing debris to a smaller, more manageable section of an overall storage system.



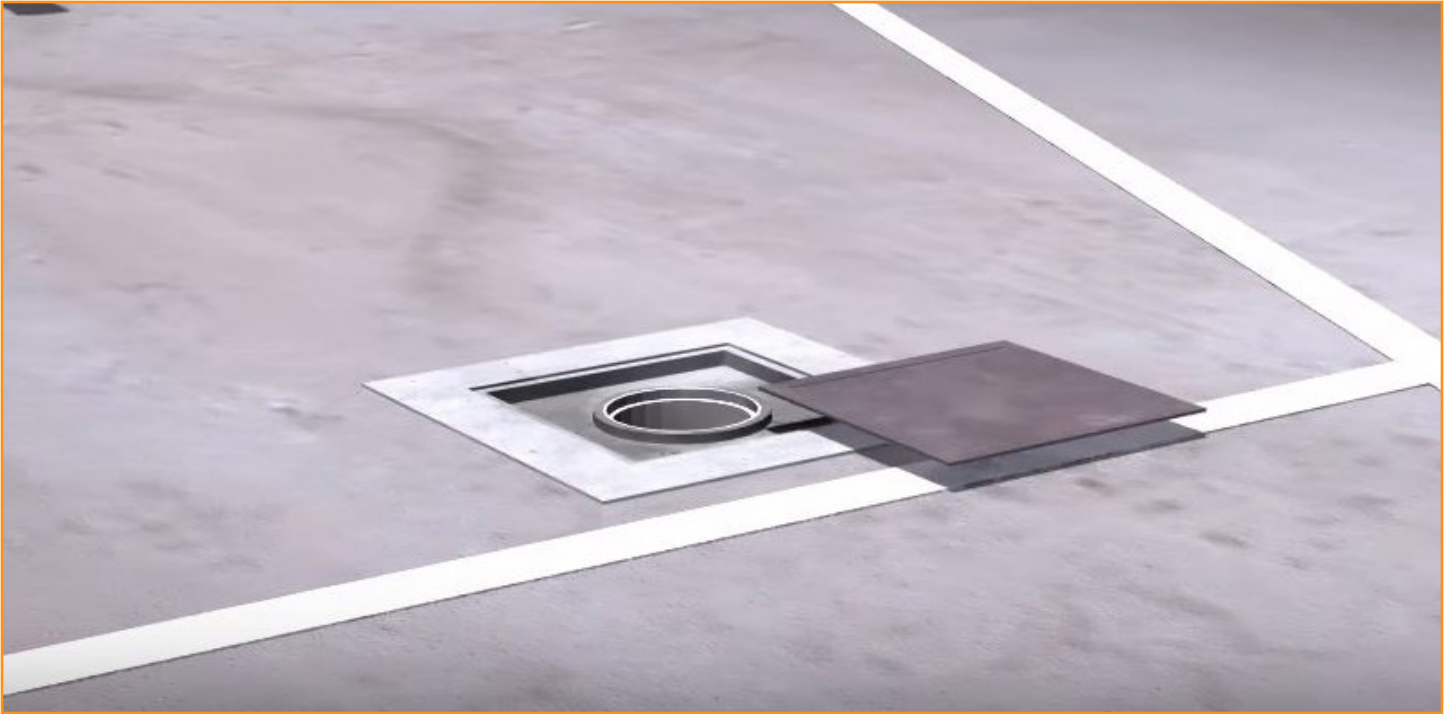
3.1 Operation

Designed to capture the first flush, the Debris Row provides full retention of large floatables. To do this, the Debris Row utilizes a layer of geotextile fabric around the lower perimeter of the cells. As stormwater enters the containment area, it passes through the geotextile, providing filtration of the stormwater. Internally located side panels are used to ensure retention of the debris by preventing large flow bypass and dispersion of captured material as the water elevation rises throughout the full basin.

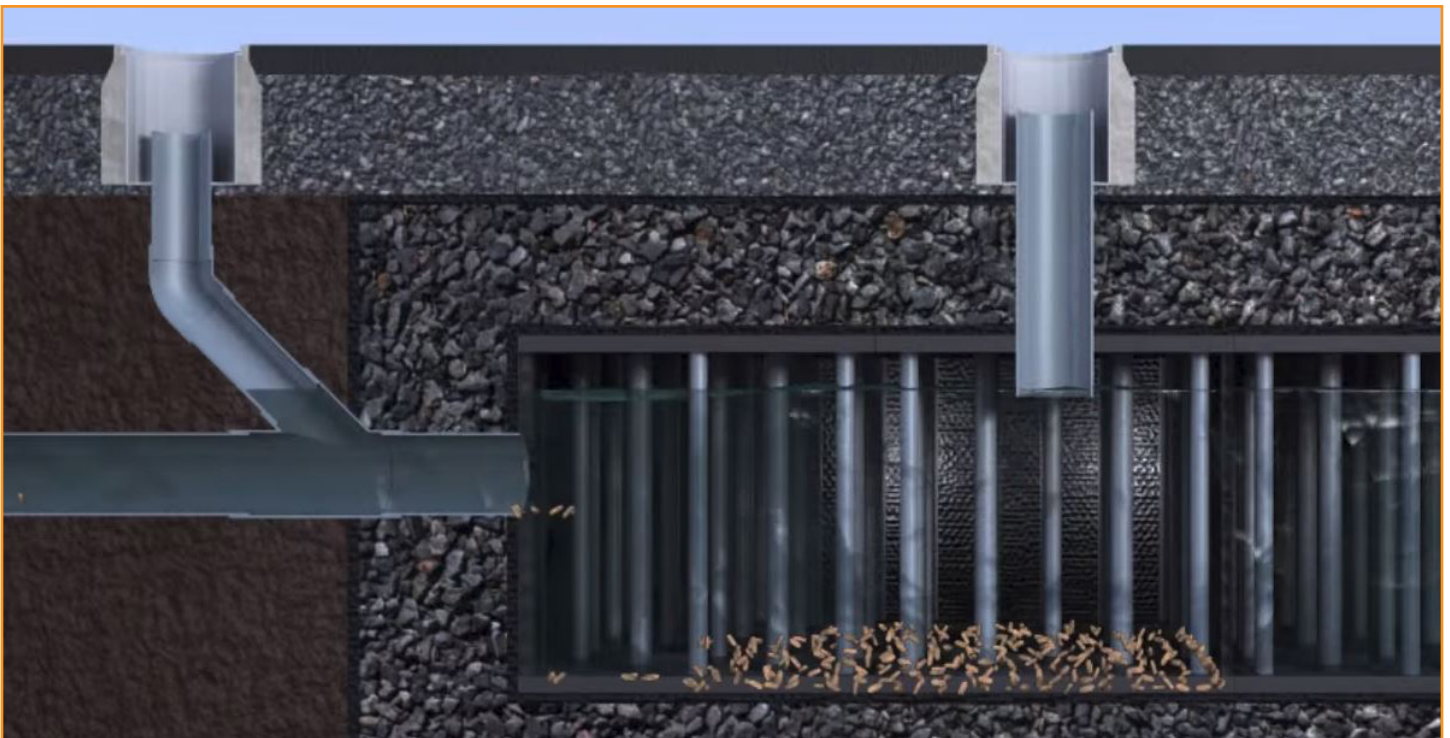


3.2 Inspection

Although frequency is site-specific and dependent upon criteria like land use, pollutant load, and climate, it is recommended that the Debris Row be inspected, at a minimum, every six months. The system is inspected through access ports located in every Debris Row. To inspect the system, remove/open the access port lid.



Using a flashlight, complete a visual inspection to evaluate debris accumulation. If the area cannot be fully observed, insert a closed-circuit camera into the system to perform inspection. If accumulation is noted, record the depth of debris. If the debris accumulation is greater than three inches, proceed to maintenance of the Debris Row. If not, record all data and inspection results and close all access lids.

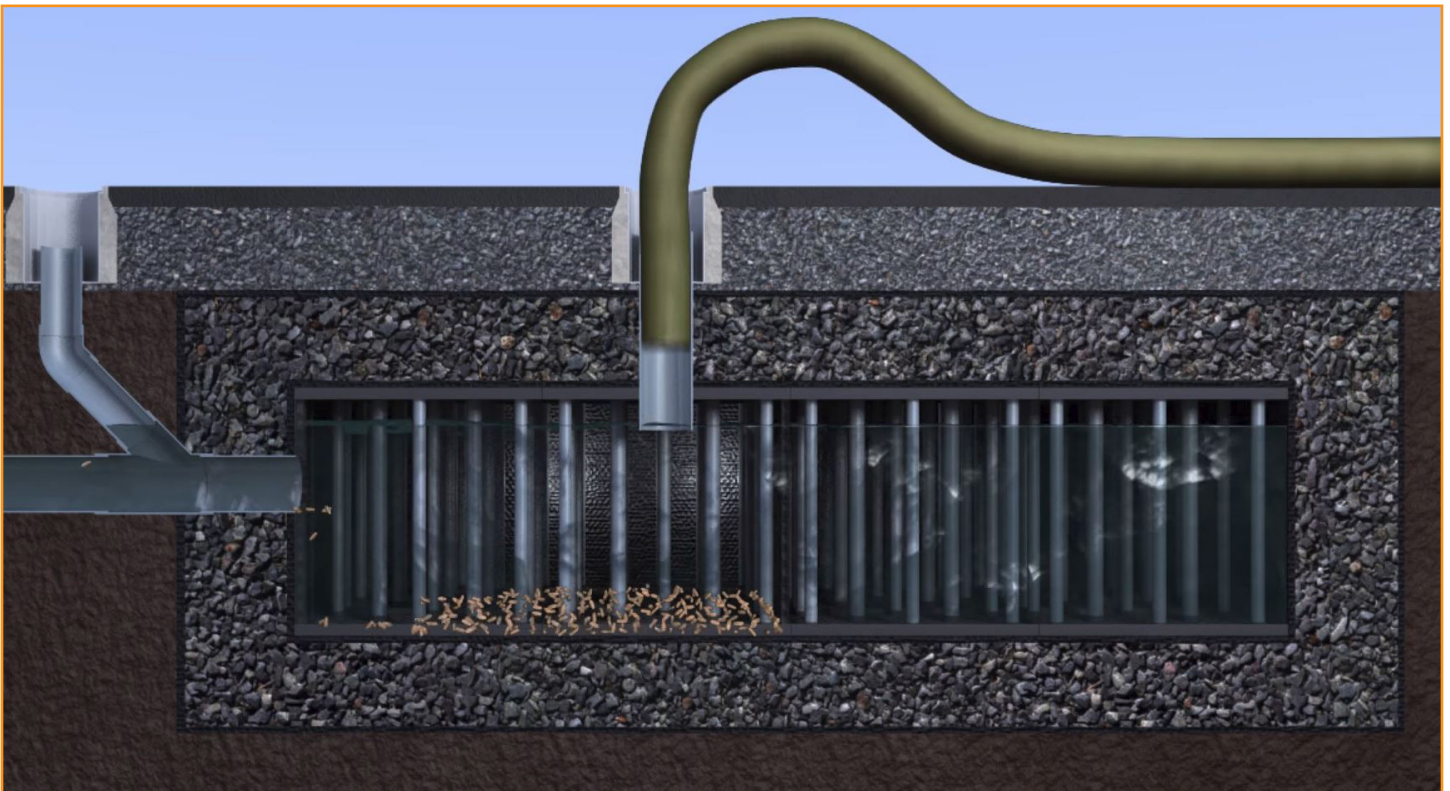


3.3 Cleanout

Designed to reduce maintenance time and cost, the Debris Row provides a contained area for sediment and debris within the larger stormwater storage basin. If inspection has determined maintenance is necessary, access is provided through the inflow connection and any access ports within the Debris Row.



Maintenance is accomplished using a high-pressure nozzle to loosen and suspend debris that can then be removed with a vacuum hose. Once debris has been removed, remove any equipment and close any open ports. Be sure to inspect and vacuum any upslope catch basins and manholes as necessary. Most municipalities and private companies have vacuum equipment with the combined capability to both loosen and remove the accumulated debris.





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