



JANET T. MILLS  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM  
COMMISSIONER

September 27, 2024

Peter Shaw  
New England Area Sales Manager  
ACO, Inc.  
9470 Pinecone Drive  
Mentor, OH 44060

Dear Mr. Shaw,

This letter is to inform you that the Department of Environmental Protection (Department) authorizes the use of ACO StormBrixx®, a geocellular stormwater storage product, in conjunction with a subsurface sand filter to meet the requirements of the General Standards (Section 4.C) of the Stormwater Management Rules (Chapter 500), provided the system is sized, installed, and maintained in accordance with the following provisions:

1. The ACO StormBrixx® Stormwater Management system may be used as a subsurface chamber sand filter designed per Chapter 7.3 of Volume III of the Maine Stormwater Management BMP Manual. The system will provide storage and treatment of the water quality/channel protection volume (WQv) which consists of the first 1.0 inch of runoff from impervious surfaces and 0.4 inch from landscaped areas. The WQv should be hydraulically isolated from any additional stormwater storage by weirs or other means so that only the WQv is routed through the treatment system (sand filter). The ACO StormBrixx® Stormwater Management system must release the WQv between 24 and 48 hours typically using a control orifice.
2. A pre-treatment system must be provided for the WQv that is routed to the sand filter, prior to discharging to the storage system above the sand filter. The pre-treatment system must meet the following requirements:
  - A. The ACO StormBrixx® pre-treatment structure must be underlain with a bottom surface consisting of two layers of ADS 315W woven geotextile (or approved equal). This fabric, due to the ACO StormBrixx® Module's design, needs to wrap all sides of the ACO StormBrixx® making up the modules that make up the pre-treatment structure.
  - B. The number of chambers in the pre-treatment structure must handle the projected one-year peak flow from the drainage area without activating the overflow and bypassing the underdrain sand filter. For each ACO StormBrixx® module (3.95 ft X 1.97 ft = 3.08 SF) the corresponding module flow rate is 0.029 cfs.
  - C. If the area draining to the pre-treatment structure is a source of hydrocarbons or debris (i.e. parking lots, roads, drive-through commercial enterprises), the pretreatment structure must be preceded by a practice that will trap these products.

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- D. The pre-treatment structure must be continuous and without obstacle for cleaning and must have access at both ends for the removal of accumulated sediment and debris. The pre-treatment system should be inspected at least once every six months to maintain the established efficiency for pollutant removal. A five-year binding inspection and maintenance contract must be provided prior to review and approval by the Department and must be renewed before contract expiration.
3. If required for flooding control, the ACO StormBrixx® Stormwater Management system may be part of a larger stormwater management system that will provide for the storage and release of the peak flow with a regulated flow rate from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows from the project site do not exceed the peak flow prior to undertaking the project. This flood storage should be hydraulically isolated from the WQv (first flush/treatment volume), such that the first flush is directed to the storage above the sand filter until the WQv has been captured, after which any additional flows are diverted around the WQv storage to the flood control storage.
  4. The overall stormwater management design must meet all Department criteria and sizing specifications and will be reviewed and approved by the Department prior to use. The Department may require an impermeable geomembrane (30-mil minimum) for the system.
  5. Review and approval by the manufacturer for the proposed use and sizing of the system at each specific project is required to ensure conformance with the manufacturer's design specifications.
  6. The ACO StormBrixx® Stormwater Management system must be delivered to the site and installed under the manufacturer's representative supervision.
  7. This approval is conditional to on-the-ground experience confirming that the pollutant removal efficiency and sizing of the ACO StormBrixx® Stormwater Management system are appropriate. The "permit shield" provision (Section 14) of the Chapter 500 rules will apply, and the Department will not require the replacement of the system if, with proper maintenance, pollutant removals do not satisfy the General Standards.

We look forward to working with you as these stormwater management structures are installed on new projects. Questions concerning this decision should be directed to myself or Jeff Dennis at (207) 215- 6376.

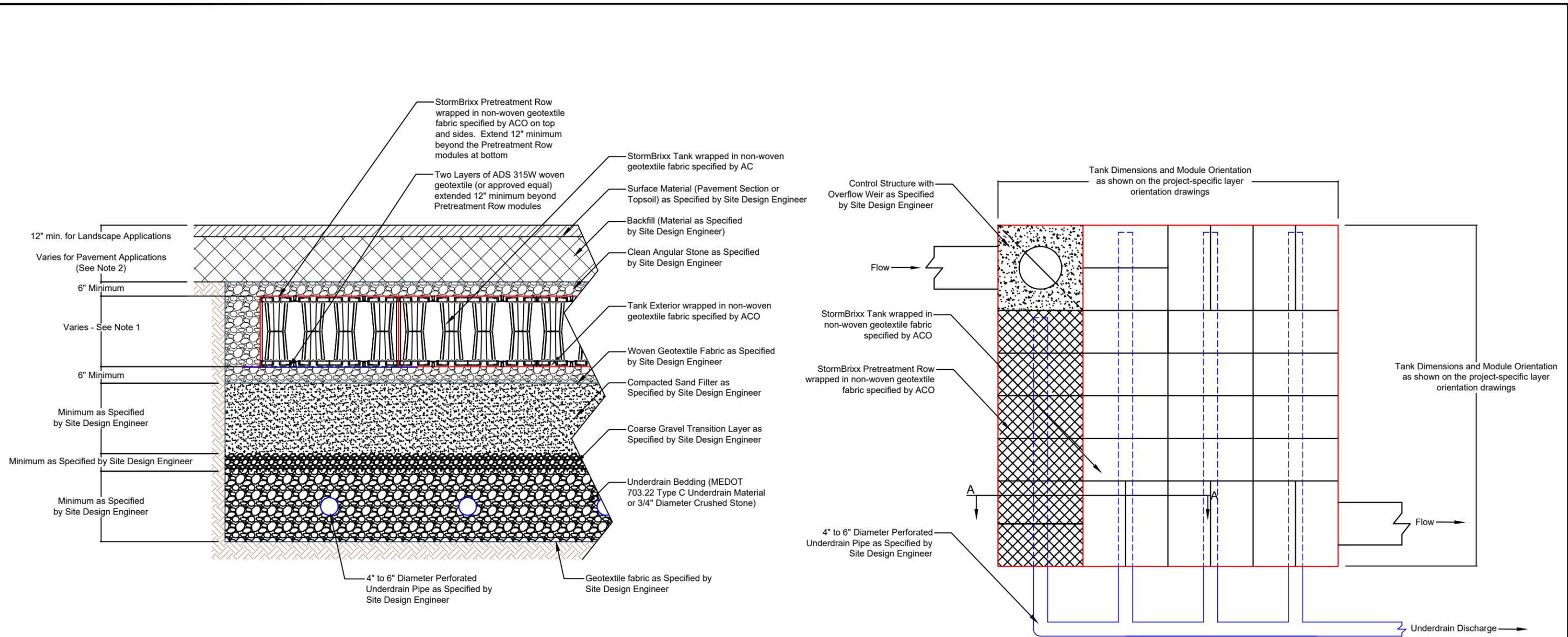
Sincerely,



Kerem Gungor, P.E.

Stormwater Engineering Team Leader, Bureau of Land Resources  
(207) 830-1002

cc: Wendy Garland, Maine DEP  
Rob Wood, Maine DEP



**STORMBRIXX SAND FILTER CROSS SECTION**

NTS

NOTE 1: Type and Number of StormBrixx Module layers may vary - 1-layer HD Modules depicted in detail.  
 NOTE 2: Minimum Cover Depth for Pavement Applications varies depending on module type, system height, and anticipated traffic type and volume. See ACO for more information.

**STORMBRIXX WATER QUALITY LAYOUT**

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DRAWN BY <b>A Frye</b>	CHECKED BY <b>J Jonke</b>
DATE <b>06/28/2024</b>	REV. <b>1</b>

**STORMBRIXX STANDARD DETAILS**  
**MAINE DEP - SAND FILTER DETAIL**



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