

Engineering Data Sheet

7168

Product: RainDrain™ Perimeter Trench Dual Media Filtration System

Product Description

The RainDrain™ is a combination sedimentation and dual media filter for treating stormwater runoff water. The RainDrain™ is designed to:

- ◆ Remove free oils
- ◆ Remove sediments to 10 microns in size
- ◆ Reduce dissolved organics and heavy metals

Many stormwater contaminants are adsorbed onto the surfaces of waterborne particles. Removing the particles also removes the contaminants. The RainDrain™ removes settleable solids in the sedimentation chamber and thereafter filters out finer particles in the downstream dual media filter. The second media, granular activated carbon, adsorbs dissolved organics as well as heavy metals. See attached drawing S-0502. An optional third media removes phosphorous. See attached drawing S-0503.

Product Application

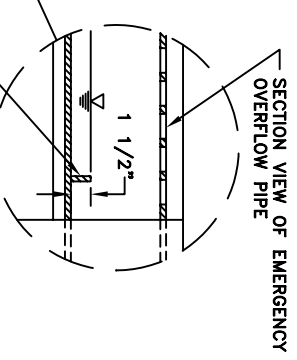
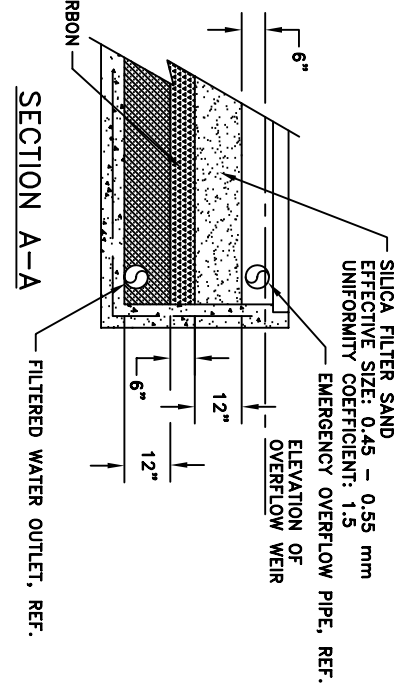
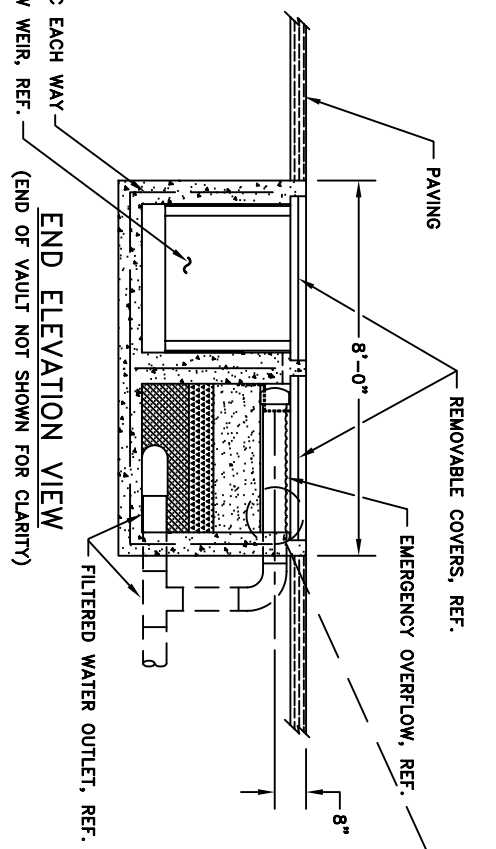
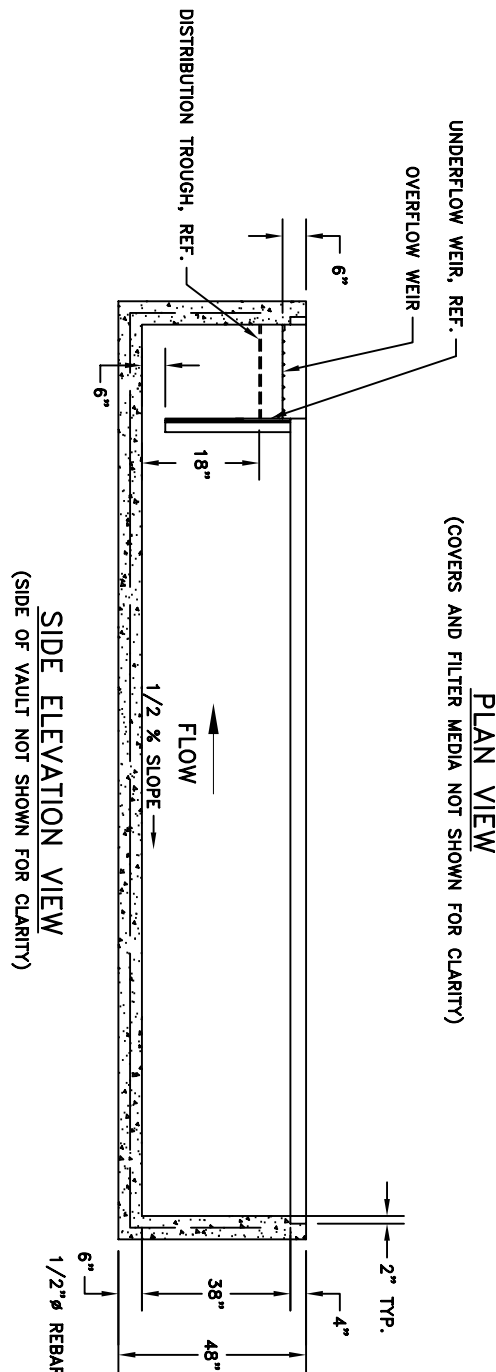
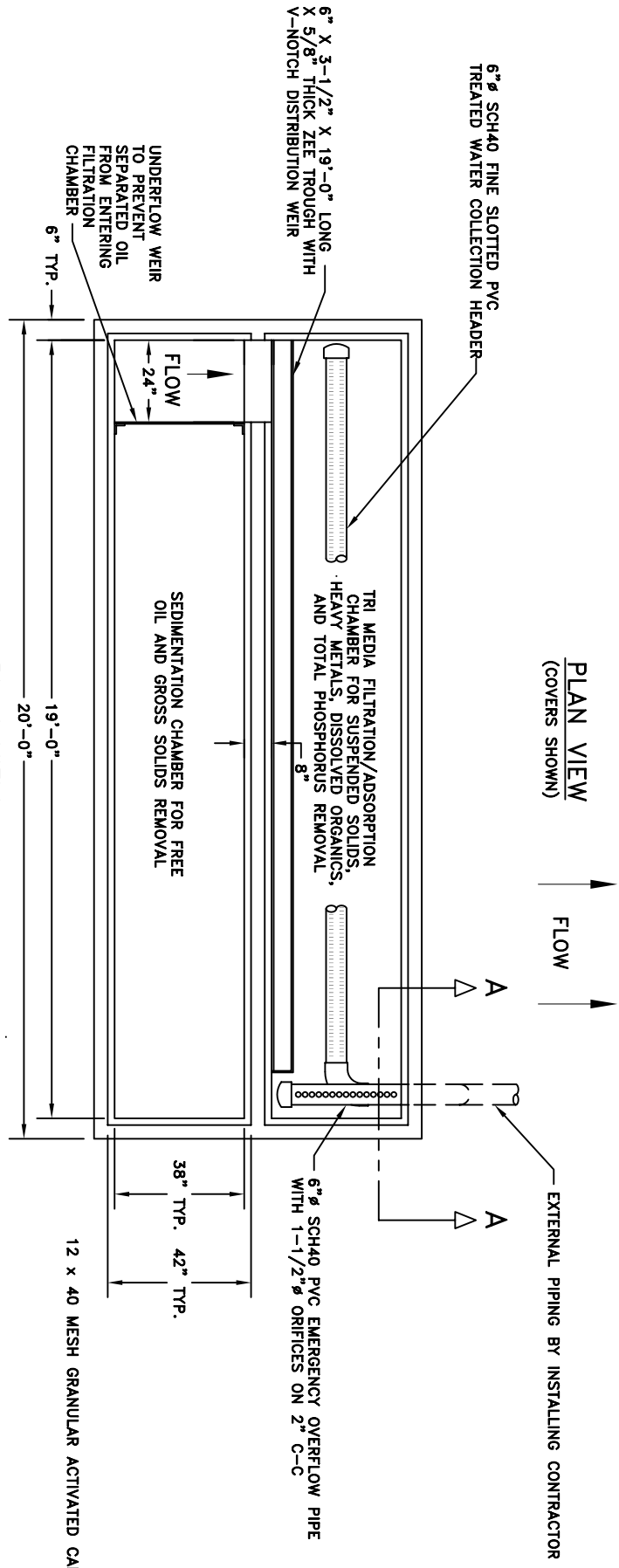
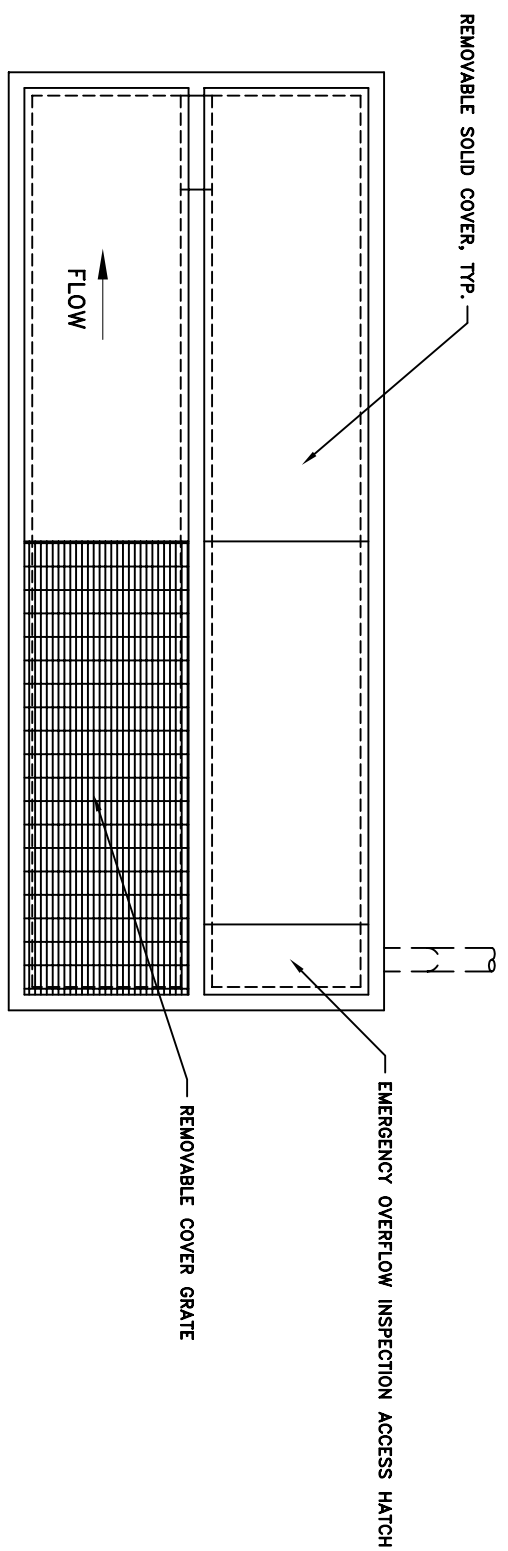
The RainDrain™ may be used to effectively treat stormwater runoff from roadways, parking lots, and other impervious drainage areas. Routine maintenance consists of yearly removal of the

sludge in the sedimentation chamber as well as the replacement of the top two inches of the sand as necessary. An emergency overflow feature permits stormwater to pass through the RainDrain™ without filtration whenever the rate of filtration is insufficient to accommodate the stormwater flow. The emergency overflow may be routinely inspected to monitor the filtration condition of the sand media between maintenance replacement procedures.

Summary

The RainDrain™ may be considered for urban, nonpoint source, stormwater management. The USEPA recognizes this technology in the attached publication. *The US Government, however, does not endorse the Rain-Drain™ product nor any of the statements or claims contained in this engineering data sheet.* The RainDrain™ is available through factory authorized precast concrete manufacturers on a national basis. It is also available from the factory in epoxy painted steel construction with sacrificial anode cathodic protection.





- DESIGN NOTES:
- 3 FILTERS REQUIRED PER ACRE.
 - 116 CUBIC FEET EFFECTIVE SEDIMENTATION STORAGE CAPACITY/FILTER.
 - 60 SQUARE FEET FILTRATION AREA/FILTER
 - FILTRATION RATE @ 1/2" HR RAINFALL/ACRE: 1.26 GPM/SQ FT.
 - SHIPPING WEIGHT/FILTER: 35,000 LBS.
 - OPERATING WEIGHT/FILTER: 55,000 LBS.
 - SPECIFY H-20 COVER LOADING, IF REQUIRED.
- MINIMUM PERIODIC MAINTENANCE CONSISTS OF:
- REMOVE ACCUMULATED SLUDGE AND FREE OIL FROM SEDIMENTATION CHAMBER EVERY 3 YEARS, MINIMUM.
 - REMOVE AND REPLACE TOP 2" OF FILTER SAND EVERY 3 YEARS, MINIMUM.
 - REMOVE AND REPLACE GRANULAR ACTIVATED CARBON EVERY 10 YEARS, MINIMUM.
 - REMOVE AND REPLACE PHOSPHORUS ADSORPTION MEDIA EVERY 10 YEARS, MINIMUM.

RainDrain Plus™

REV.	DATE	DESCRIPTION	BY	CHK
3	1/16/96	GENERAL REVISION	BEH	CSS
2	12/4/95	GENERAL REVISION	BEH	CSS
1	1/16/95	GENERAL REVISION	BEH	CSS
0	10/19/95	DESIGN	BEH	CSS

DO NOT SCALE DRAWING. USE DIMENSIONS ONLY.

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WaterSmart Environmental, Inc.
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THIS PROJECT IS A PERIMETER TRENCH DUAL MEDIA FILTRATION SYSTEM

STORMWATER RUNOFF TREATMENT

SCALE 1/2"=1'-0" DRAWN BY BEH CHECKED BY C.G.S. DATE 10/19/95

PROJECT NO. S-0503

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