

Technical Note

TN 6.31 Use of Drainage Net for Exfiltration Systems

The following provides supporting information for use of drainage net for exfiltration systems. The current specification published in the StormTech Design Manual and Installation Instructions requires an AASHTO M288 Class 2 non-woven fabric completely around the angular stone envelope. A commonly used fabric is ADS 0601T. The function of the non-woven fabric is to separate the open graded stone backfill from the insitu soils and prevent fines migration into the stone voids. StormTech always recommends a separation material. This Tech Sheet describes the use of a drainage net as an alternate separation material along the bottom of the exfiltration bed or trench.

The primary motivation for specifying drainage net is to enhance exfiltration capacity by eliminating the potentially restrictive layer of non-woven separation fabric on the bottom of the exfiltration bed or trench. In this application, an open web, geo-net may be an acceptable substitute for the non-woven separation fabric below the stone bedding. Non-woven fabric continues to be specified for the sidewalls and top of the stone envelope.

The recommended drainage net is the HDPE GeoNet ADS TN220. This drainage net is appropriate for all angular stone gradations specified by StormTech in Table 2 of the StormTech Design Manual. ADS BX124 Type 2 is acceptable on systems using #3 stone.

Note: The application for a drainage net is limited to systems that are above seasonal high groundwater. The drainage net does not provide structural reinforcement. Use of a drainage net as an alternate to non-woven fabric must be specified or approved by the design engineer.

Figure 1
Placement of the ADS Geonet Exfiltration

