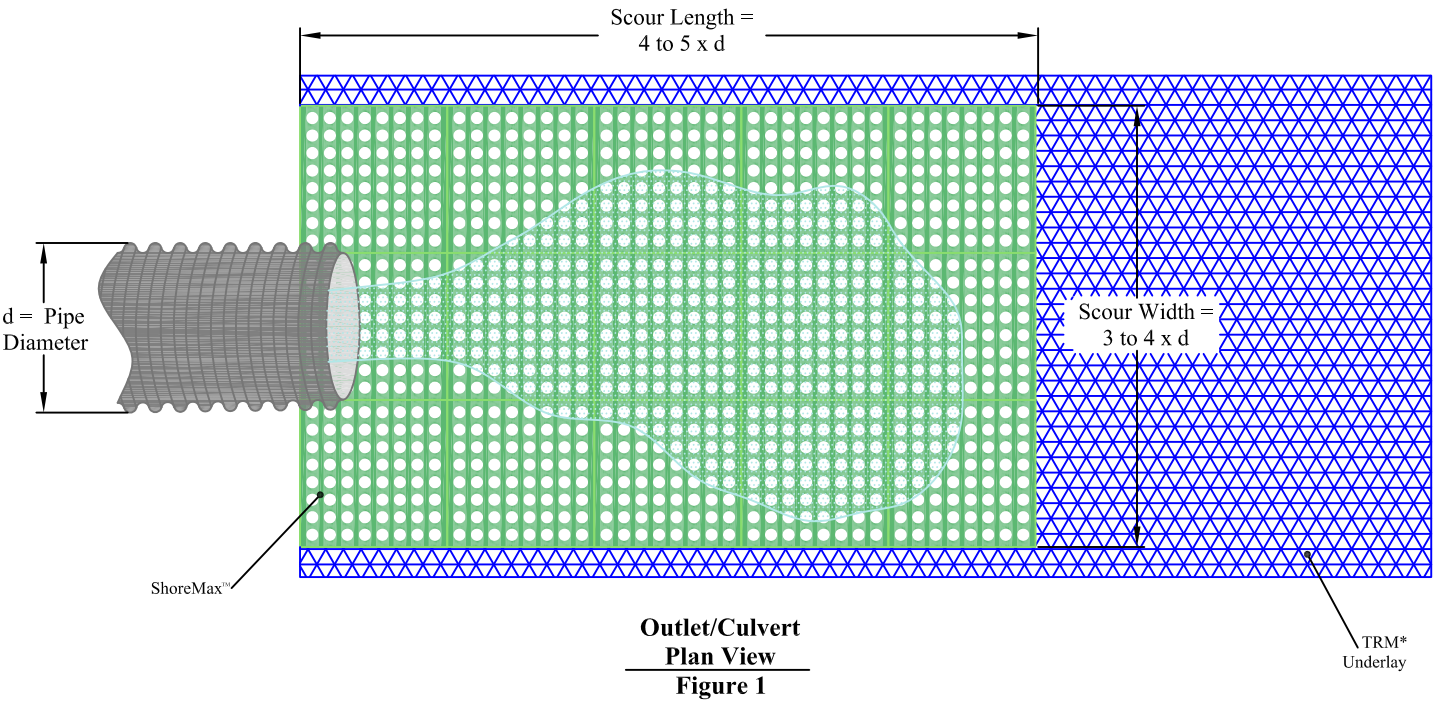
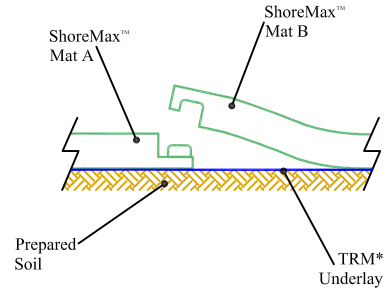


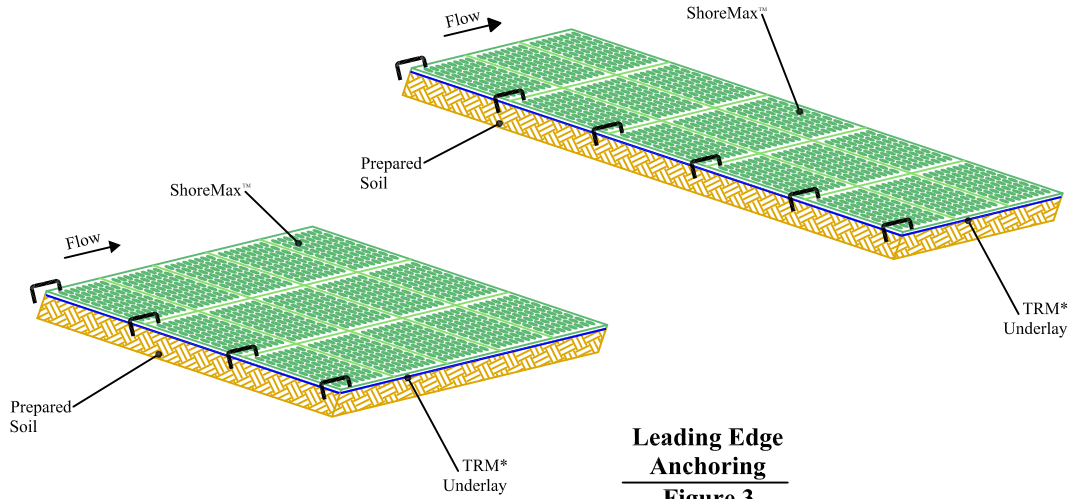
## OUTLET/CULVERT PROTECTION DETAIL



**Outlet/Culvert Plan View**  
**Figure 1**



**Integrated Panel Interlock System**  
**Figure 2**



**Leading Edge Anchoring**  
**Figure 3**

\* ShoreMax mats can be installed over a variety of underlays including: sod, turf reinforcement mats (TRMs), geotextiles, and in some cases erosion control blankets (ECBs).

1. Prepare soil before installing erosion control products, including any necessary application of lime, fertilizer, and seed.
2. Install turf reinforcement mat (TRM) over prepared soils according to manufacturer's recommendations.
3. Place ShoreMax mat over the installed TRM (figure 1). When using multiple panels, connect the panels using the Integrated Panel Interlock System (figure 2). ShoreMax mat can be laid in either direction.
4. For culvert and outfall applications, ShoreMax mat scour protection should extend a minimum width of 3-4 times the pipe diameter and a minimum length of 4-5 times the pipe diameter (figure 1). With steeper channel gradients, the length of scour protection may need to be extended.
5. Place staples/anchors in the appropriate pattern. Perimeter staples can be shared between two adjacent panels. In soft or highly erodible soils, percussion earth anchors may be required. View ShoreMax Anchoring Guide, for additional details.
6. Place 1 staple/pin per linear foot along the leading edge of the ShoreMax system, resulting in one staple/pin on each corner and gridline (figure 3).



**Disclaimer:**

The information presented herein is general design information only. For specific applications, consult an independent professional for further design guidance.