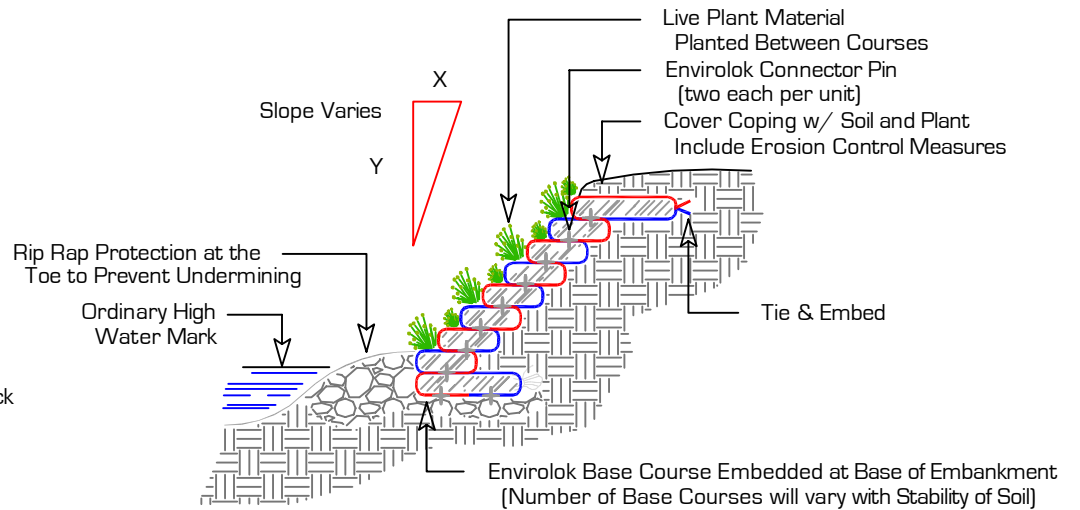


TWINING RESISTANCE

Shear resistance from Envirolok Pin Connector:
 $2(90 + N \times \tan[26]) = 2(90 + 45 \times \tan[26]) = 223 \text{ lbs/ft } [332 \text{ kg/m}]$

Shear resistance from Envirolok Twining:
 $\text{width} \times T_{ut} / \text{unit width} = 4.75\text{in} \times 1500 \text{ ppf} \times 2 / 24 \text{ in} = 593 \text{ lbs/ft}$
 or;
 $\text{width} \times T_{ut} / \text{unit width} = 120 \text{ mm} \times 2232 \text{ kg/m} \times 2 / 61\text{mm} = 882 \text{ kg/m}$
 T_{ut} = Ultimate wide width tensile strength (based on ASTM D4595)

Total force to remove a unit from the wall is 816 lbs/ft (1214 kg/m)
= 1633 lbs/unit or 2430 kg/unit



In slope applications, the normal force is the weight of the bag over the shear connectors. In flat slopes, the normal force is minimal.

NOTE: In areas of wave action and flow along the units, the bags may lift or "rock" from the water action. The Envirolok Connector Pin eliminates the chances of the units lifting off the connectors.

This is a typical, non-site specific design. Envirolok LLC makes these documents available on an "as is" basis. All CAD (.dwg) and PDF (.pdf) files were created as a service to our customers. Final determination of the suitability of any information or material for the use contemplated, and its manner of use, is the sole responsibility of the user. A final project specific design should be prepared by a qualified, licensed, professional engineer. THIS DRAWING IS NOT FOR CONSTRUCTION. Copyright 2013, Envirolok LLC

PROJECT
**ENVIROLOK INSTALLATION
 TWINING RESISTANCE**

DATE
 JANUARY 2013

SCALE
 1/2" = 1' - 0"

SHEET
 SHEET 24

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REVISIONS