

### Design-Based Solution for Stabilizing Slopes with American Excelsior Company Turf Reinforcement Mats and the Gripple Terra-Lock System

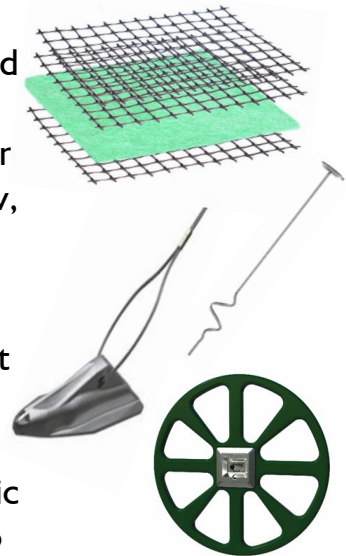


#### **EarthStabilizer™ Benefits**

- Environmentally friendly
- Reduced carbon emissions
- Fast, easy installation
- Limited earth disturbance
- Economically friendly

EarthStabilizer works by using products from two of the most respected companies in the industry. American Excelsior Company's TriNet® Recyclex® Turf Reinforcement Mat (TRM) provides the surficial erosion control portion of the design and provides protection against sheet flow, rain drop impact, and pre-determined shear velocities both in its unvegetated and vegetated stages.

Gripple Terra-Lock® Earth Twist Anchors provide the intimate contact needed between the TRM and surface of the slope. Gripple Terra-Lock® Earth Percussion Anchors reach past the failure zone, the developed frustum cone applies subsurface tension to achieve a dynamic load and compress the soils to achieve the bearing capacities needed to stabilize the slope.



## **The Problem EarthStabilizer™ Solves** Shallow Plane Failures and Transitional Slides

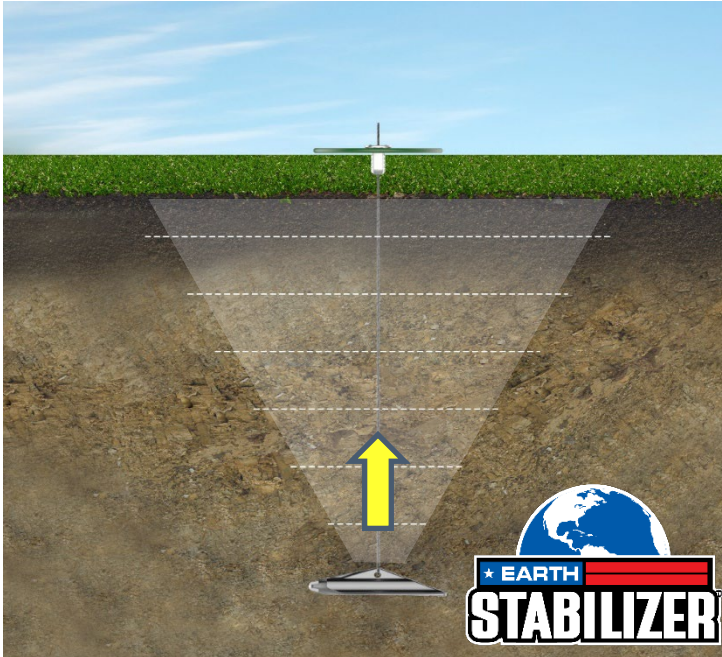


# EarthStabilizer Solution – Gripple Anchor Behavior

As earth pressures increase, penetrating earth anchors, which are always under tension, effectively transfer these pressures from the surface to the anchor, ensuring their stability.

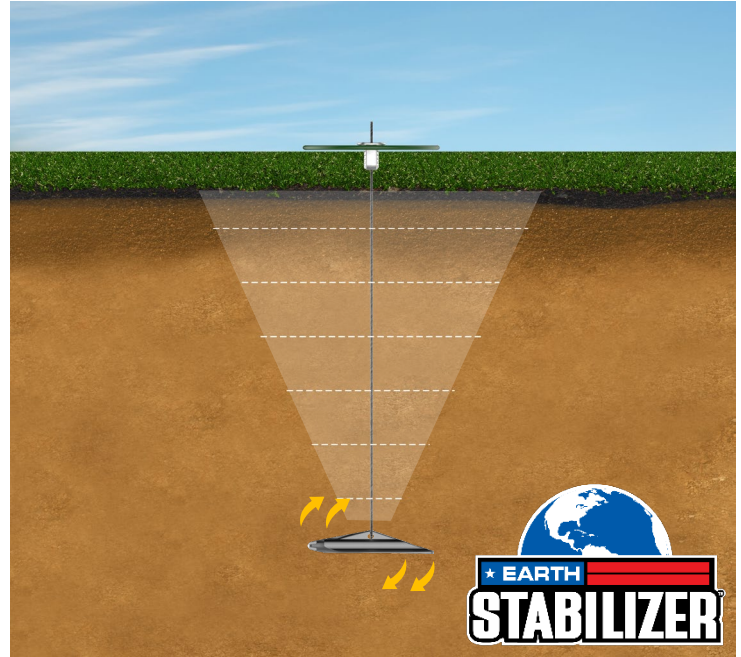
## Free Draining Soils

In free draining soils the friction angles of the soils enhances the pullout capabilities of the anchors, and this allows for the expansion of the frustrum cone that is formed.



## Cohesive Soils

In Cohesive Soils depths will typically be deeper to compensate for the narrowing of the frustrum cone. It is commonplace to upsize to the next larger anchor allowing for a larger surface area.



## TriNet Recyclex TRM

- Typically suitable for slopes up to 0.5H:1V
- Vegetated Shear Stress  $\leq 14 \text{ lb/ft}^2$  (670 Pa)
- Rated for Channel Flows  $\leq 25.0 \text{ ft/s}$  (7.62 m/s)
- Three Ultra Heavy-Duty, UV Stabilized Nets
- Made with Recyclex<sup>®</sup> Fibers
  - Made from Recycled Bottles (100% recycled materials)
  - Will Not Float
  - 95% Fiber Memory
  - $\geq 80\%$  are  $\geq 5''$  long

