

CHAGRIN RIVER RESIDENTIAL SLOPE MORELAND HILLS, OH



Problem



Solution



Result

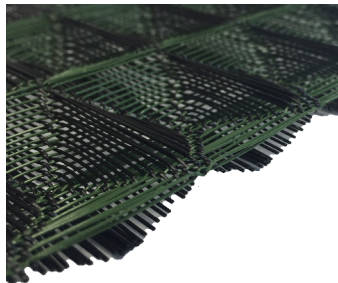
Application: Slope River Stabilization
Product: TMax HPTRM + Anchors

Site Issues: Steep slope • River stabilization • Residential property
• High visibility project • Native vegetation

Problem: Situated in the greater Cleveland area, Moreland Hills, Ohio boasts rolling hills, beautiful views of the Chagrin River, and is a sought out neighborhood for residential developments. But with all of the hills and valleys, development of the land can be particularly challenging, especially when river flows and natural erosion of steep slopes are added factors. For these discerning property owners, the main goal of the project was to provide stabilization to the 1:1 (H:V) slope allowing for the development and construction of a residential home and an infinity pool at the top of the slope.

Solution: To begin the design process, the engineering lead at Cloonan Design Services worked closely with the technical teams at North American Green and its local distributor JMD Company, a division of Hanes Companies, to develop a slope stabilization solution for the project site. The property owners wanted to maintain a naturalized slope as a long-term design, and requested a stabilization solution that would allow native species to be planted. The stabilization process was started at the toe of the slope with the installation of concrete pylons and soil nails. The permanent infrastructure would help support the overall structural stability needed for the top of slope impact. The surface and sub-surface slope stabilization was addressed by the use of an Anchor Reinforced Vegetated System (ARVS). Specifically North American Green TMax, a permanent woven TRM was installed with percussion driven anchors and seeded. To finish the look, large boulders and stones would be placed to add a more natural look to the slope, while also helping to anchor the systems.

Result: As the weather broke, the natural species seeded on the site, took hold, and the steep slope returned to a naturally vegetated river bank. This time though, the slope was protected from future river flood erosion. With the slope now stabilized, the landowners could continue the site development along the top of the bluff.



PRODUCT HIGHLIGHTS

- TMax was installed along the slopes and secured with a combination of twist pins and PDAs.
- TMax HPTRM is optimized for steep slopes, with its UV stability and woven synthetic construction.
- The extended longevity of the product allows for permanent erosion protection and support of vegetation.