



# CROSS PLAINS - Slope Stabilization

**Year Constructed:** 2019

**Location:** Cross Plains, WI

**Project Size:** 2,500 units

**Project Type:** Slope Stabilization

**Client:** Private

**Reinforcement:** Geogrid Layering,  
Earth Anchors

**Vegetation:** Hydroseed

**Installation:** The Drainage Doctor

## + Project Snapshot

The back yard slope of this modern residence remained vegetated and stable for years, the unprecedented rainfalls in August of 2018 ripped through the steep gravelly soils, uprooting multiple massive Oak and Basswood trees. The open slope was even more vulnerable to the additional rains that fell. While the dry ravine at the edge of the property was normally dry, the excessive rains resulted in high velocity flows that scoured the toe of slope, furthering the damage.

After a thorough site analysis, it was clear that the slope failure was surficial and would need deep reinforcement to maintain stability. With the amount of erosion through the ravine, the team also recommended additional toe protection to prevent scouring in the future. This also meant that the design could reuse the uprooted trees, root structures and large boulders that migrated to the bottom of the slope, instead of having to remove them from the site. This saved a significant amount of construction time and cost for the project.

Further analysis through soil borings and topographic mapping confirmed that the failure was indeed surficial and the Envirolok system could be reinforced using 4-6' depth earth anchors, or by excavating and installing geogrid layering.

Construction began in the fall of 2020. Because of the limited access to the site, nearly all work was completed by hand. The slope was temporarily protected from additional erosion using a series of erosion mats, with a chute constructed to move materials down the slope. Tyler, Nathan, and their crew mastered their way up the slope, paying close attention to detail each step of the way. Upon completion the Envirolok system was hydroseeded with a native seed mix, consisting of shade loving grasses, sedges and forbs.

