



Completed CCX-M™ Installation

In December 2022, CCX-MAT™ GCCM* (CCX-M™) was used to re-line a ditch in Lynn Haven, Florida to prevent sediment build-up caused by excessive vegetation growth.

The ditch was part of a drainage system but due to excessive vegetation growth, sediment would build up causing the ditch to overflow and erode the surrounding area. Alternative solutions were considered by the City of Lynn Haven to rectify the issue, including piping the ditch and using traditional form and pour method for concrete ditch bottoms. CCX-M™ was proposed as an alternative and was selected based on its overall feasibility, including competitive cost, speed and ease of installation.

CCX-M™ is a **Type II GCCM** as defined in **ASTM D8364** - Standard Specification for GCCMs. CCX-M™ is suitable for lining hydraulic structures with both soil and solid subgrades and was chosen for this project to suit the abrasion, and loading requirements.

Before the CCX-M™ material was installed, vegetation and built up sediment were removed and the ditch later reprofiled using an excavator. Once the the ditch was re-profiled, Bulk Rolls of CCX-M™ were brought onto site and lifted into place using a crane truck and spreader beam. Once in position the CCX-M™ was pulled from the Bulk Rolls and cut to desired lengths using hand tools. Each layer of CCX-M™ was laid transversely across the ditch with the overlapping edges laid in the directional flow of water. To ensure each overlap was secured, stainless steel screws were used at 4-inch spacing, 2 inches from the overlap edge. At the crests of the ditch, the leading edges of CCX-M™ were pegged using 12-inch stainless steel J-pegs within anchor trenches. Once secured the CCX-M™ material was hydrated using a water trailer and hose.

With a day taken to re-profile the ditch, the installation of CCX-M™ took a total of 4 hours to complete. The works were carried out by contractors from the City of Lynn Haven and they are extremely pleased with installation and the product.

*Geosynthetic Cementitious Composite Mat



Ditch before re-profiling



Ditch re-profiles with anchor trenches



CCX-M™ Bulk Rolls unloaded using crane truck and spreader beam



CCX-M™ Hydrated using a water trailer and hose



CCX-M™ being hydrated



Completed Works