Milliken® Infrastructure

Concrete Cloth™

Geosynthetic Cementitious Composite Mat

CASE STUDY

STORM + SANITARY

Project Overview

When the SCDOT had severe erosion on a slope face of an overpass bridge on I-26 in Spartanburg County, they turned to a proven solution. Having already used Concrete Cloth material for a similar application, they knew its value. In both cases water coming off the bridge approach was running under a guardrail, then down the slope of the approach embankment causing erosion of the slope face. Concrete Cloth material was used to create a flared inlet to funnel the water to the flume or downslope swale. This created a structure similar to SCDOT Standard Drawings 403-205 and 403-210.

Solution

Hot mix asphalt or cast-in-place concrete are common solutions for these types of problems, but cast-in-place, especially, is a multi-step process that can add days to a small project such as this.

The unique attributes on Concrete Cloth GCCM include the ability to custom shape the material to the contours of the finished grade after the earthwork is completed to fill the previous erosion. The Concrete Cloth material also fits with the landscaping plan, which included the addition of trees and shrubs.

The photograph to the left shows the positive aesthetics achieved with Concrete Cloth GCCM.

Results

Concrete Cloth material was used again for this project because of its flexibility to conform to the terrain, which made this an easy installation. The material can be installed by the earthmoving contractor with no subcontractors and is competitive against hot mix asphalt or cast-in-place concrete.

The Concrete Cloth material was a very small part of the cost for this project, which required a significant amount of earthwork to correct the erosion. About $2,000 of Concrete Cloth material was used for this project.

Project Details

Application: Flume or downslope swale
Client: SCDOT
Location: Spartanburg, SC
Product Used: CC5, 420 sf
Installation: April 2014

Takeaway

Compared to erosion control alternatives, Concrete Cloth material provided the unique flexibility to contour the material to the finished grade after earthwork was completed - providing greater ease of installation and lower installation time.

Positive aesthetics achieved with Concrete Cloth material

Concrete Cloth material installed pre-landscaping

Severe slope erosion

infrastructure.milliken.com
855-655-6750

Milliken™ | Milliken Infrastructure Solutions, LLC