

DRAINAGE SUPPORT: WALKING TRAIL

GEO PRODUCTS, LLC | CONCRETE CANVAS®

Background

In March 2017, Concrete Canvas® (CC) was used to line a series of newly constructed drainage channels in Laguna Niguel, California. The local Public Works department needed to find a solution for a drainage and erosion issue on a popular walking trail located at a public park. The trail runs across a large slope and was prone to damage and erosion caused by water runoff. The existing solution consisted of sandbags and riprap which were used to dissipate the water flow before it entered a surface inlet that led to a drainpipe. This system was frequently clogged with debris. A more durable and long-term solution was needed that would not only fix the initial erosion issue, but would require less maintenance.

Technical Information

MATERIALS USED:

CC5™ BULK ROLLS & BATCHED ROLLS

PRODUCT AMOUNT:

13,057sqft / 1,213sqm



The completed drainage system along the walking trail.



The previous drainage system

Geo Products, LLC

12626 N. Houston Rosslyn Rd.
Houston, Tx 77086

Phone: 281.685.0745 | John Oberly
JOBERLY@GEOPRODUCTS.ORG

www.geoproducts.org



Low Carbon Solution

CC was chosen as the best solution, as it met the project requirements. CC will be able to provide a long-term solution that would cut down time and costs associated with regular maintenance, and could be easily delivered and installed despite access restrictions.

Installation Process

Prior to installation, the site was prepared by regrading the substrate and reversing the pitch of the trail so that drainage was directed away from its edge and toward the toe of the slope. A V-shaped ditch was created along the upslope side of the trail. The substrate was then compacted and graded as per design specifications. CC was then installed longitudinally with an overlap created at each subsequent edge. Anchor trenches were created to capture the material edges, which were then buried to prevent undermining. Inlets had previously been created using stone and sandbags; these were formalized and lined with CC to create a more permanent structure. CC was then hydrated with a 500-gallon tank.

CC provided a unique solution to a common problem. The system is not only durable, but will eliminate a significant amount of maintenance, making storm cleanups safer, easier, and faster.



Creating the anchor trench for the drainage system



Completed channel and drainage section.

CONCRETE CANVAS[®] USA

*Geo Products is a proud distributor of Concrete Canvas products.
Contact a member of our team for more product information.*

