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HAROLD COURT EAST REGIONAL SERVICE CENTER AUSTIN, TEXAS, U.S.A.

Slope Protection

Problem

The Harold Court East Regionial Service Center (HCERSC) is a City-owned multi-purpose facility shared by multiple departments including Public Works, Watershed Protection, Fleet Services and the Austin Water Utility. The site is used for material storage, vehicle maintenance, equipment storage and office space. Unstable slopes on the western and southern boundaries of the property have resulted in periodic movement of the embankment. The City of Austin contracted engineering, geotechnical and environmental studies to respond to the conditions. The findings concluded that permanent slope stabilization was required. An existing 48-inch storm drain outfall at the bottom of the western slope had become displaced and damaged due to the shifting embankment and was in need of repair. Any further lateral movement could have potentially damaged an existing wastewater main in the area. The erosion of the embankment along the southern perimeter had eliminated the original storm drain outfall

Solution

The project was initially designed as a series of 9 ft. tall gravity retaining walls along the steep slope with 10 ft. terraces in between. The challenging in-situ conditions lead the designer to review and optimize the design into a series of 9 ft. mechanically stabilized earth (MSE) retaining walls separated by vegetative terraces by using innovative and HITEC evaluated Maccaferri Terramesh System/ The project improvements included slope controls constructed on the eroding embankment along the western and southern perimeters of the facility to prevent further migration of the material into Fort Branch Creek and to provide improved worker safety and function of the site for the material storage yard. The slope controls consists of multiple rows of Maccaferri Terramesh® System walls separated by vegetative terraces with a service road to provide access to the proposed bio-filtration pond.

With the superior quality of work along with the choice of the best materials, the outcome is a solid, pleasant looking and is one of the few MSE wall systems that have been HITEC evaluated. Client: City of Austin

Designer / Consultant: Maccaferri **Contractor:** Austin Filter Systems, Inc.

Products used (Qty.)

- Terramesh n/a **Date of construction:** 01/2015 - 02/2016

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