Erosion Control Imp. McCord Park Little Elm, TX

SCOUR PROTECTION EROSION CONTROL

PROJECT TEAM

OWNER: City of Little Elm, Texas

ENGINEER: TRC Companies

SUPPLIER: Premier Concrete Products, Inc.

TECHNICAL DESCRIPTION:

Product:ShoreJaxUnderlayment:Mirafi 180NSquare Feet:1,200 UnitsInstallation Date:2016/2017Completion Date:2018



PROJECT DESCRIPTION:

The City of Little Elm, TX sought out a vegetative solution to reinforce the embankments of Cottonwood Branch as it traversed through McCord Park. Designers were challenged with how to reinforce the toes of the steep slopes without disturbing the channel bottom of Cottonwood Branch, which flows year-round.

PROBLEM:

Engineers sought an effective scour protection device to aid in anchoring the toe of the slope where ArmorMax HPTRM was installed to reinforce the slopes of Cottonwood Branch. The anchoring of an HPTRM in the toe proved challenging because the creek could not be dewatered or excavated during construction. Reinforcing the HPTRM toe successfully is vital to the performance of the overall system.

SOLUTION:

Due to restrictions placed on construction in the channel bottom, TRC Engineering concluded that 24" ShoreJax Interlocking Concrete Armor units were the superior alternative. ShoreJax units could be installed at the slope's toe without dewatering or trenching taking place. The units were stacked and nested inside one another, thus creating an interlocking matrix of 5,000 psi concrete. ShoreJax units were placed on top of a Mirafi 180N non-woven geotextile and cabled together. Over the following years, the ShoreJax system has successfully reinforced the slope's toe. The system has collected sediment and helped to further reinforce the toe by promoting vegetation.





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