

PROJECT PROFILE



Project Basics

Project Name: Christina Lake Commercial Plant
Storm Water Pond Project

Installation Date: March, 2015

Product Type: Western Excelsior Xtreme Armor System™ (XAS)
utilizing PP5-Xtreme with Percussion Driven
Anchors (PDAs)

Project Location: Christina Lake, Alberta, Canada

Project Overview

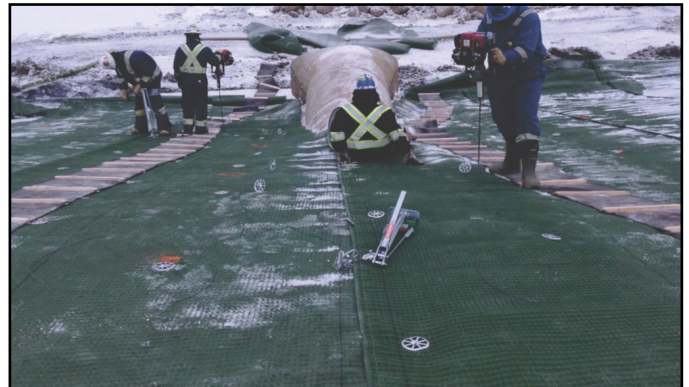
A commercial project was in search of an alternative to hard armor for the protection of a storm water pond. The site solution needed to be strong while protecting the steep basin slopes. The project planners turned to XAS for a solution that provided stability and confidence. With exceedingly steep banks, the strength of the system was key.

Installation

PP5-Xtreme, a high-performance turf reinforcement mat (HPTRM), was installed over a geotextile underlayment. Stainless steel PDAs were installed to a three (3) foot depth and used to secure the HPTRM, restraining the basin side walls and adding surficial structural slope support. The anchors selected ensured the highest level of performance, and were able to be installed in sub-frozen soils. In addition the XAS system had the strength and life to handle submerged and fluctuating conditions. As the storm water pond would not be vegetated, the permanency of the XAS system was vital in its ability to replace the hard armor alternative, a cellular confinement system with rock. In addition the the XAS system used on the basin slopes, the basin bottom was protected with a 12 rock layer.

Performance

Even given the adverse weather conditions during installation, the Xtreme Armor System performed as design. The 3500 sm geosynthetic alternative to the originally designed cellular confinement system resulting in over \$100,000 in project cost savings.



Xtreme Armor System was installed atop geosynthetic (top) and was secured with PDAs (middle). Even through cold and adverse conditions, the XAS saved the project substantially over a hard armor alternative (bottom).

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Western Excelsior
4609 E. Boonville-New Harmony Rd., Evansville, IN 47725
(866) 540-9810 | www.westernexcelsior.com

