

SmartDitch Rehabilitates Failed Spillway At MDOT "Park 'n Ride" Location.

Instant improvement in stormwater flow and erosion control seen

Problem:

A non-reinforced concrete spillway and multiple rip rap applications failed after one year, causing flooding and erosion at a local Park 'n Ride commuter location maintained by the MDOT Brighton Service Garage.

Solution:

SmartDitch, an HDPE Trapezoidal ditch lining system, was installed to replace the failed concrete spillway and continuously scouring rip rap.

Only 70 LF of 24 in. Trapezoidal SmartDitch was needed to replace the rip rap section of the spillway. It only took three days to install and eliminated a year long drainage, maintenance, and aesthetic issue. No special equipment was required for installation. The product, which is easy to store and handle, was delivered from the maintenance yard to the site with a standard pick-up truck.

Since SmartDitch is a permanent solution, it is more cost-effective, requires little-to-no maintenance, and will not promote vegetated growth in its channels. Additional savings were achieved by reusing the existing rip rap at the downstream end of the SmartDitch channel.

Quick Facts:

Product: 24 in. Trapezoidal SmartDitch, (9 pcs. total)

Length: 70 LF

Bedding and Backfill: Class II A Sand

Construction Time: 3 days (includes ditch preparation

and SmartDitch installation)

Installation Contractor: In-House maintenance crew

Case History Series: #4



This overgrown, failed spillway was originally constructed of non-reinforced concrete and rip rap.



24" Trapezoidal SmartDitch replaced the old concrete and will not allow vegetation to grow and obstruct flow.



The old rip rap was repurposed to help dissipate stormwater flow at the end of the channel.

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