“Stack” the Odds in Your Favor!

Triton SWS stackable underground stormwater management system answers the call

The Situation:

Metro Transit of Minneapolis/St. Paul needed to expand its Hiawatha Line operations and maintenance facility to meet the growing need for light rail travel in the Twin Cities. This required additional stormwater storage capacity – a big challenge given the constraints of the site; the numerous poles required to power the trains dotted the entire area, putting usable space at a premium, and demanding a flexible design.

The Solution:

Triton Stormwater Solutions innovative underground chambers, boasting large storage capacity and unrivaled strength – which allows them to be stacked to increase storage volume while saving space – meant that the project could meet the stringent requirements without disrupting the existing site infrastructure.

After consultation with Triton SWS’ staff, contractor Royal Enterprises chose a combination of Triton’s S-29 and M-6 chambers stacked in a two-tier design. The designers also utilized the maintenance-saving Main Header Row to filter out sediments before they enter the storage rows. By stacking the chambers, a tremendous savings in space was realized, while the sediment-trapping capabilities of the Main Header Row will deliver important maintenance-cost benefits: sediments are easily removed through a cleaning port, and the storage chamber floors will not become sediment laden, as they can with competitive systems.

“One of Triton SWS’ biggest benefits was the modular design – we were able to work around existing and proposed infrastructure – while still being able to meet the required storage volumes.”

Lance Hoff, Royal Enterprises, Project Manager

Water Retention Case Study

Installation took just two days!
The Installation:
A remarkable 10,213 cubic feet of storage volume was achieved with just a 2,837 square foot project area. Once the initial site preparation was finished, the two-tier chamber installation – including backfilling – was completed in just two days.

Due to the Triton SWS chambers’ tremendous strength, the first layer of chambers was topped by just one foot of crushed stone in preparation for the second tier. The second tier of storage chambers, running perpendicular to the first, was then placed, and 9.5’ of fill was placed over the chambers, making the site ready for paving.

Because the Triton SWS chambers could be used with reinforcing geogrid, the shortage of desired sharp-edged stone did not derail the project.

A potential roadblock – a shortage of desired, sharp-edged igneous rock – also was overcome by Triton SWS’ flexibility: The crew was able to fit a reinforcing geogrid at each elevation, making the available rounded stone acceptable.

Today, the expanded Hiawatha facility is serving Twin Cities’ commuters better than ever!

Triton Stormwater Solutions is the proven, comprehensive solution to stormwater management challenges. On your next project, turn to Triton Stormwater Solutions, the stronger, lighter, larger, greener, easier-to-install, cost-effective stormwater solution. Triton Stormwater Solutions gives you Power Over Water.