



Underground Stormwater System Maximizes Car Dealer Parking

The Situation

A few years ago, local businessman Len Nadolski was considering purchasing the vacant Pontiac Buick dealership in Lansing, Michigan, an older dealership that had been closed for a few years. Nadolski wanted to remodel the existing building and add 10,000 square feet to renovate it into a Chrysler Jeep Dodge dealership. Chrysler was encouraging its dealers to revamp their stores into these “Alpha” dealerships, with all Chrysler brands under one roof. The only problem was that the dealership had a stormwater easement that went across the neighbor’s property.

“While considering the purchase, the neighbor closed off the easement which just about killed the deal,” explains Stan Schafer, owner of Schafer Construction in Brighton, Michigan, who served as general contractor on the project. “Luckily, we were able to work out a deal with the state highway department to outlet water into their drain that went across the front of the property.”

But during the design process, the drain commissioner wanted the dealership to expand its existing detention pond to handle 100 year storm requirements for rainfall.

“That meant we were going to have to take out about 20 parking spots — a key feature of any car dealership — and we were already short of parking spots,” explains Schafer. “So we had two options — buy more land or put in an underground storm water storage system.”

The Solution

It was decided to replace the detention pond with an underground system, enabling 60 additional parking spots to be added for employee and customer parking as well as new car storage.

Schafer selected a Triton Stormwater Solutions retention system in large part for its storage capability. The pond was located in a corner of the site with the existing parking lot on two sides and the neighboring property line on the other two sides.

“We were really limited in space both horizontally and



A detention pond was replaced with the Triton underground system allowing the dealership to add 60 additional parking spaces.



vertically, and Triton was able to get in more storage in a smaller space,” says Schafer.

The Installation

In late August, the team began the installation of the Triton system, replacing a 185' x 75' detention pond in the back of the dealership.

Due to the weather, the team had to wait until there was a dry week to install the system, says Brad Wright, owner of W & W Excavating, who dug the hole, backfilled the Triton system and hauled away the dirt from the pond.

One of the biggest challenges was excavating the thousands of yards of material of existing pond, says Wright, who had to fight the water in the seven-foot-deep detention pond. “All the material was coming out wet and very heavy. I could probably have knocked a day off the installation but I got pinched in a corner, due to working in such a small area.”

First, the crew dug down to elevation and put down a six inch base layer of stone. Next, the chambers were put in and the walls of the trench were lined with a class 2 non woven geo fabric. The site was backfilled with stone up to twelve inches past the crown of the chambers and the geo fabric was folded



A catch basin was designed in the middle of the system to capture water that was shedding off the property.

back and backfilled with material to the desired elevation, with Triton needing to be placed under only 18" of cover.

Nadolski, the owner of the dealership, took a very active role in working out the best solution for his dealership, according to Joe Miskovich, President of Triton Stormwater Solutions, in Brighton, Michigan.

"Len was so involved that when we were first starting to install the system, he came out to the site after work in his suit and tie and was helping us take the chambers off the stack and putting them in place," says Miskovich. "It was a great sight to see the owner — in a suit no less — helping us get started. I think that it brought out the kid in all of us including Stan and Len because putting the Triton system together is like playing with a big green Lincoln Log set."

One of the challenges of the project was finding a way to capture water that was shedding right off the property. "Because we were working in a corner of an existing parking lot, all the water was flowing to that corner and onto the neighbor's property," explains Debbie Davis of Enger Surveying and Engineering who designed the system. The team installed a catch basin in the middle of the system to resolve the issue.

"That's the beauty of these chamber systems," explains Davis. "You can cut them, you can turn them, and you end up with a variety of different shapes and sizes."

Davis was also appreciative of Triton's assistance along the way. "They helped to get all the fittings worked out and gave us drawn details, which was very helpful so we didn't have to

spend a lot of time redrawing. It's nice to have a contractor with his input; you get a better product that way."

The installation went very smoothly and was finished within two days. "I was impressed with the ease that the chambers went together as well as how light the chambers were," says Schafer.

By using the Triton system, the dealership was able to add more than 13,800 square feet of parking space and provide about 25 percent more storage capacity without the maintenance cost associated with a detention pond. A rectangular detention system of 70' by 190' provides a storage volume of 33,000 cubic feet.

Summary

What was interesting about this project is that it was all done by Michigan companies working together in the most cost effective way possible.



Backfill is added to the 33,000 cubic feet, Triton Stormwater Management System.

"We all knew that Len had very little cost effective options to get rid of the pond and increase his parking lot, and with the automotive industry being the way it is we knew that we had to be mindful of Len's budget," says Miskovich. "I am not sure if businesses outside of Michigan would have been so willing to work to solve the issue like we all did. Living and working in Michigan, we have known for some time now how bad it is out there for everyone in the state so for all of us to work together and provide a cost effective comprehensive solution is very rewarding."

Davis agrees. "Here in Michigan, there is not a lot of work going on. It was nice that Stan Schafer wanted to stay local and he did stick to his guns because once you put the work out there, the competitors are on your doorstep."

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 gives you Power Over Water.



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