

Triton “Supports” Elan at Uptown



The Situation

When developers sought to create a new apartment development at the site of a longtime Minneapolis lumber yard, they knew that the supporting infrastructure would be a challenge. Spanning nearly a city block, the complex needed a state-of-the-art underground stormwater management system to support the construction, within the constraints of limited space. Additionally, the construction was going to take place in a busy urban area – closing streets or otherwise impeding daily traffic would be difficult and expensive.



The strength of the Triton system was critical to the project. Developers were able to position the construction crane - weighing over 139,000 pounds with counterweights - over the installed chambers, saving them the trouble and expense of shutting down an adjacent street.

The Challenge

To meet the requirements of the project, 14,131 cubic feet of stormwater storage was needed. Because of the site’s constraints, project engineers chose to place two separate systems on opposite sides of the building.

Ultimately, the biggest hurdle the development team faced was the need to limit the project footprint during construction. A crane (pictured above and to the left) was required to handle materials for the building itself, creating a potential problem. Since the Triton chambers were already in place, it would be necessary to place the crane over them – or face the cost of closing down a busy street to have the crane located on its surface.



The Solution

Triton Stormwater Solutions underground chambers delivered on every metric – strength, storage capacity and flexibility!

A thorough FEA study showed that the Triton system could withstand the burden of the crane and counterweights of 139,687 pounds. This saved the developers a huge amount of hassle – and considerable money, as well!

The Triton Stormwater Solutions underground chambers were placed in two, 260 foot straight-line configurations along the east and west sides of the building to achieve the required storage. Each system utilized a Main Header Row to control sediments and debris.

In addition, convenient maintenance ports and the easy-to-service sediment flooring will ensure that the system is economical and effective for decades to come.

What They are Saying:

“This was a tight, fully urban setting, without much room to maneuver. Triton’s flexibility and strength were critical to the project.” Lance Hoff, Royal Enterprises

“The Triton chambers are preferred over similar products. They are lightweight and easy to handle, and the customer support is outstanding.” Jeremy Juday, Kevitt Excavating

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.



The flexibility of the Triton system allowed developers to create the needed storage with two straight-line systems running along the front and back of the building.

The Installation

After initial site preparation, which had to be spread out over a period of weeks to accommodate other elements of the project, chamber installation took the four-man team just one day.

The trench foundation was created with 6 inches of crushed stone and then lined with two layers of AASHTO M288 Class 1 woven geotextile. After chamber installation, crushed stone was backfilled to a height of 6 inches above the chambers and topped with 18 inches of soil cover.

The Result

The Triton system will provide dependable stormwater management and sediment control, protecting surface waters and municipal water supplies. It also facilitated the needs of the project – allowing other elements of construction to be completed without interruption or added expense.

The Elan at Uptown apartments will open in the fall of this year, transforming this former lumber yard site to an exciting residential community.



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