



## Triton SWS Improves Stormwater Management in Great Britain

### The Situation

The new state-of-the-art Scarsdale Veterinary Hospital, located in the Pride Park business hub in Derby, UK, needed to upgrade its stormwater management capabilities to meet Britain's new standards for control of 30-year rainfall event run-off.

As the law requires stormwater to be contained on site, project engineers wanted to be able to utilize underground storage techniques to save limited surface lands for needed uses, such as the parking lot for hospital patrons.

Significant storage capacity was needed, as the area contained nearly 30,000 square feet (2,787 square meters) of rooftops, as well as the hospital's half acre (2,023 square meters) parking lot.

Because the system was to be placed beneath the parking lot, long-term durability and proven strength were a must.

After investigating available underground systems, project manager Graham Smith chose Triton Stormwater Solutions. He was impressed with the system's storage capacity, strength and carbon neutral construction.

"There is nothing else like this available here," Smith said. "It is economical, green-friendly and strong; and its durability, flexibility in design and ease of use are outstanding."



Site preparation with crushed stone and Class II Geofabric was the most time-consuming portion of the whole project.



Triton SWS' innovative Main Header Row feeds five distribution rows in the Pride Park project.

### The Solution

Working with the Triton SWS staff, Smith and contractor Kinsey Midlands Ltd. designed a single tier system, utilizing the Triton SWS advanced-technology Main Header Row to settle out sediments before feeding stormwater to 5 distribution rows.

The site was prepared by digging a 26' wide (8 meters) by 65' long (20 meters) trench to a depth of 4 feet (1.2 meters), which created room for the needed gravel base layer, chamber placement, and then 18" (.45 meters) of backfill before paving. Approved Class II Geofabric and crushed stone were placed and leveled, and then a four-man crew placed 114 chambers in just 1 hour!

**"It took much longer to dig and backfill than it did to actually place the chambers. The entire project was done in four days."**

— GRAHAM SMITH



Special sediment floors are placed under the Main Header Row, making maintenance efficient and hassle-free.



Triton SWS' impressive strength means that only 18" (457 mm) of backfill is needed before paving.

## The Result

Pride Park, one of Derby's premier destinations, remains an example of how environmental protection and intelligent development can work hand-in-hand to everyone's benefit. The Triton Stormwater Solutions system utilized by the Scarsdale Veterinary Hospital marks the first such installation of its kind in Derby – keeping the park's cutting edge reputation intact.

"It was perfect," Smith said of the installation and Triton SWS performance. "There was no comparison that could be made to any other product we've worked with when it came to the install – it was absolutely outstanding."

Smith noted that even with Triton being located in the United States, the entire process was seamless.

"It was three weeks from order to delivery," he said. "They are extremely competitive in terms of price, delivery time, everything. It is an extremely desirable product – economically, environmentally – and because of its durability, flexible design and ease of installation."



Small footprint; unrrialed storage. The Triton SWS system allowed stormwater storage for over 2,787 square meters of rooftop and a half-acre parking lot with just 114 chambers.

## How the Triton Stormwater Solution System Works

Water enters the Triton SWS system through a standard manhole, or if desired, a pretreatment device that can be used to capture pollutants. Pre-treatment best-management practices can be as simple as a deep-sump catch basin, similar to that used in other installations, and oil-water separators, or as elaborate as full stormwater treatment devices.

Water gathers in the structure until it reaches a sufficient level to enter the Main Header Row, where remaining sediments are collected and a specially designed sediment floor keeps sediment from clogging the base layer of stone. When the water rises to a sufficient level in the Main Header Row, it flows to the distribution rows. Through this settling and controlled distribution process, a majority of the sediments carried by the stormwater is captured in the Main Header Row before the water is dispersed into the open-bottom distribution chambers – making the Triton SWS system easier and less-expensive to maintain than competitive systems.

**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.**



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