

Project Profile

Objective

To control and infiltrate stormwater runoff from 500,000 m² Park and Ride development, following SUDS guidelines.

Solution

2,000 m³ of Stormbloc® from Hydro International was installed under the car park area, providing 4,000 m² of soakaway.



Product Profile

- Infiltration / soakaway applications.
- Fully accessible for inspection and maintenance.
- Very strong (suitable for used under trafficked areas).
- High void ratio (95%).
- Low cost.

Hydro's Stormbloc® Puts the SUDS into Norwich's Park and Ride

The new Thickthorn Park and Ride, Norwich, at the interchange of the A11 and A47 Trunk routes, is the culmination of several years' infrastructure improvements by Norfolk County Council to the City's points of entry by road. Stormbloc® infiltration modules from Hydro International were chosen to ensure that stormwater runoff from the car park complies with Sustainable Drainage Systems (SUDS) principles, as well as withstanding loading from the varying depths of backfill and traffic levels.

The total area of the development of over 500,000 m² comprises a new access to the main roads as well as the car parking facility of around 30,000 m²; enough for more than 700 cars, it includes bus stops and landscaping.



Antony Jackson, of consulting engineers Mott MacDonald explained: "The car park is on a slope and paved with standard asphalt, which drains to gullies and surface channel drains. The SUDS area beneath the car park extends to 4,000 m² of soakaway, using around 2,000 m³ of the Stormbloc®. As the soakaway layer has to be flat to ensure even infiltration, this meant that the Stormbloc® modules had to withstand a loading of some 3.5 metres of soil at the deepest point, in addition to vehicles".

“Following the Environment Agency’s requirement to manage the surface water drainage from the site without discharge to a nearby watercourse, we considered various soakage systems.” commented Antony Jackson, “however the depth of fill meant that expensive, imported lightweight material would have been required. Stormbloc® was able to take the loading of the existing site fill and remove the need for special provisions for site plant trafficking: also, the on-site mixture of sand and gravel and a cohesive soil provides better infiltration than we had anticipated. Additionally, Stormbloc®’s design means it can be easily inspected and jetted to keep it free of silt, if required.”

The new Stormbloc® rain and stormwater infiltration medium from Hydro International has been introduced to complement the well-known Stormcell® Stormwater Storage system. Stormbloc® is a cost-effective modular infiltration block system, with a designed-in and patented access tunnel for easy maintenance. Stormbloc® is thus ideal for infiltration schemes and SUDS projects offering the easy handling and installation benefits of a modular system.

Stormbloc® is available in eco-green polypropylene 800 x 800 x 663 mm blocks providing high volume water storage with a 95% void ratio. The system is designed so that, when installed, a 222 x 570 mm cross-section access tunnel runs through the blocks. This can be accessed easily by a CCTV or a high pressure jetting hose inserted to shift any accumulated sediment, silt or debris in the system, should the need arise - a feature which sets it apart from its competitors.



Client: Norfolk County Council
Main Contractor: May Gurney Ltd
Consulting Engineers: Mott MacDonald Ltd

This information is for guidance only and not intended to form part of a contract. Hydro International pursues a policy of continual development and reserves the right to amend specifications without prior notice. Equipment is patented in countries throughout the world.

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