

Project Profile

Objective

To meet the required stormwater discharge constraint of 5 l/s on a fairly flat housing development without extensive civil work.

Solution

800 m³ of Stormcell® was sited under the amenity area, taking approximately 40% of the site surface water runoff. Discharge to the main sewer was provided by Hydro-Brake® Flow Controls.



Product Profile

- Modular and flexible.
- Lightweight.
- High structural integrity - suitable for installation below roads, car parks and amenity areas.
- Patented silt prevention system.
- Woven geotextile on the top of each block prevents intrusion.
- Simple and quick to install.
- Shallow 120 mm deep blocks available.

Stormcell® Adopted for Surrey Housing Development Stormwater Control

To meet the required stormwater discharge constraints from Barratt Southern Counties' prestigious 11 Hectare housing development at Dettingen Park, near Camberley, Hemsley Orrell Partnership (HOP) Consulting Engineers, selected Hydro's Stormcell® and Hydro-Brake® Flow Control. As the major components of the stormwater control system, this achieved the required discharge levels of 5 l/s and has been approved for adoption by Thames Water.

HOP commented: "Hydro Stormcell® was selected because it could be installed very simply without extensive civil work, and is very cost-effective." John Sephton, of the installing contractors, Buxted Construction Ltd, confirmed: "Due to its light, modular block design, Stormcell® is easy and quick to assemble, with shallow excavation requirements - this also helps on invert levels in flat sites."



Dettingen Park is an attractive brownfield regeneration area comprising 342 houses and apartments surrounded by beautiful heathland. The land is fairly flat with an East-West fall of some 3 metres, and is characterised by a raised central circular area which comprises a series of individually designed townhouses, situated around a spectacular 1.5 acre landscaped garden and lake.

The 800 m³ of Stormcell® is sited under part of this amenity area and accepts stormwater discharge from about 40% of the development including roads, car parking and housing - the rest of the site is drained by a porous pavement construction. The discharge to the main sewer is accurately controlled by Hydro-Brake® Flow Controls.

Hydro's Stormcell® comprises a modular block, high capacity stormwater storage system with a very shallow profile, suitable for shallow tanks. It can withstand transient vertical loads of up to 40 tonnes/m² so can be installed under roads, car parks, driveways and landscaped areas. Its inherent structural strength also reduces sub-base preparation requirements.

Hydro's Stormcell® storage system utilises a patented perforated pipe layout surrounded by granular material, that traverse the base of the storage region, bridging between the inlet and outlet pipes. The purpose of this is that self-cleansing velocities are maintained and sediments entrained in the stormwater are kept in suspension in the pipes, allowing them to pass directly through the system without the risk of being deposited. As a second line of control, Stormcell® media is equipped with a thin layer of fine aperture geotextile media, attached to both the upper and lower surfaces of each block.

turning water around ...®

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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