

Polypipe Supplies Unique Modular Cell Hybrid Solution For Residential Development

Polypipe completes bespoke hybrid sustainable drainage (SUDS) solution for residential development using its Polystorm and Polystorm Lite range of modular cells.



Main contractor, Knight Build faced a difficult challenge when redeveloping an old private school into luxury apartments. In order to manage surface water run-off from the hard standing areas of the development, a below ground SUDS solution was required to fit within the development footprint. However, the undulation of the landscaped areas of the site required the drainage application to be installed on a slope. This translated to varying burial depths across a large area which had a significant impact on the type of drainage application that could be installed.

SUDS solution for challenging landscape

Following in depth consultation and technical input from Polypipe, a bespoke hybrid solution was designed which integrated the Polystorm and Polystorm Lite cells.

Over 14,000 Polystorm and Polystorm Lite cells were installed on the site as part of an attenuation solution, resulting in 2,700m³ of capacity. This offered the first opportunity for the Polystorm and Polystorm Lite cells to be integrated together.

CASE STUDY

Project

Polystorm and Polystorm Lite hybrid SUDS solution

Client

Knight Build Ltd

Application

Attenuation

Products

Polystorm
Polystorm Lite
Ridgidrain





Stores
over
2.5 million
litres of
water



Polystorm can be installed at a maximum burial depth of 3.7 metres, meaning that a modular cell structure could be constructed using Polystorm as the base layer, with Polystorm Lite cells placed nearer to the surface of the application. Polypipe were able to design a structure that offered Knight Build the most viable and adaptable solution. Installed in July 2006, the modular attenuation tank is capable of storing over 2.5 million litres of water run-off from the roof, car park and roadway at the development.

Over 1800 metres of Ridgidrain piping were also supplied to connect the hard standing areas to the attenuation structure. Whilst Polystorm, Polystorm Lite and Ridgidrain can all be used effectively as a standalone solution, it was the adaptability of the products which offered Knight Build the most viable solution.

“We have worked with Polypipe on a number of occasions and are well aware of the performance of their products and their technical proficiency. On such a large scale project we needed a solution that was sustainable yet flexible enough to accommodate the challenges we faced on-site. We have been thoroughly impressed with the contribution of Polypipe and their input into this particular project has been greatly appreciated.”

John Durcan, Project Manager on the project for Knight Build

“This has been a fantastic project for us to work on, not only in terms of its size but also the challenges it has created. This is the first time we have integrated our Polystorm and Polystorm Lite products together as part of a single solution. The adaptability of our SUDS range enables us to create bespoke applications to accommodate modern site constraints such as those found on this project.”

Jason Shingleton, Marketing and Development Director for Polypipe