

Polypipe delivers an innovative drainage solution for £8m Darlington development

Polypipe has delivered a tailored drainage and attenuation solution for the £8 million Haughton Road residential development in Darlington.



The project highlights the adaptability of Polypipe's Ridgistorm-XL system.

Delivered by Railway Housing Association in collaboration with contractor Tolent Living, the Haughton Road development project is one of the largest housing developments in the area in recent history.

The development will include 73 new rental homes and will incorporate the site's historic engine shed, built in 1844. The Listed status building will be converted into mews-style homes, guaranteeing the future preservation and continued use of a historic building closely linked to the town's industrial past.

The original specification for the drainage and attenuation solution included a concrete system, however due to their strong existing relationship with Polypipe, Hewitson Limited asked the manufacturer to suggest an alternative option.

Polypipe tailored a solution to meet the specific requirements of Northumbrian Water.

Polypipe worked closely with Northumbrian Water to meet their specific requirements for the site and demonstrated the capabilities that a Ridgistorm-XL large diameter plastic pipe solution could deliver, in comparison to a traditional concrete system. Engaging in discussions with the full project team, Polypipe demonstrated that its ability to provide Ridgistorm-XL pipework in bespoke pipe lengths and stiffness classifications made it one of the most adaptable large diameter piping systems in the UK, and in this instance the ideal system to meet the project's needs.

Polypipe's proposed system used Ridgistorm-XL engineered thermoplastic large diameter pipes, with just under 12 metres of pipe supplied in a diameter of 900mm and a stiffness class of SN2, and 171 metres supplied in a diameter of 1,200mm to a stiffness class of SN2.8.

The pipes were delivered with spigot and socket push-fit jointing, ensuring efficient installation on site. The Ridgistorm-XL solution was laid under the road out of the residential site and will store surface water run-off, before controlling its release back into Northumbrian Water's system at a measured rate.

Polypipe's Ridgistorm-XL is robust, reliable and long lasting, as well as being up to 94% lighter in weight than concrete systems, making it easier and quicker to handle and install, reducing installation time and cost at the Haughton Road site.

In order to approve the system, Northumbrian Water required rocker and stub connectors to be incorporated, to join manholes to the main pipelengths. Polypipe adapted by providing additional lengths of Ridgistorm-XL pipe, cut to 1.25 metres. Polypipe then worked closely with the project team to reposition the manholes within the system design as needed, with the shorter lengths of pipe used as rocker and stub connectors to secure them into the main framework. Ridgistorm-XL manholes are modular, ready-to-install access points that can be integrated anywhere in the drainage network system. At the Haughton Road site, they will effectively control surface run-off flow and facilitate easy access for future inspection and maintenance.

Pat O'Neill, Contract Manager at Tolent Living said,

"We selected Polypipe's Ridgistorm-XL system for the Haughton Road development because it is quick and easy to install, which was of great importance to our project schedule. Overall, the system is lighter in weight and more manageable than concrete solutions, which offered significant safety benefits for installers on-site."

CASE STUDY

Project

Haughton Road

Client

Railway Housing Association

Application

Drainage and attenuation

Product

Ridgistorm-XL.