

Millbrook Tower stands tall following replacement of rainwater drainage stacks

One of the tallest buildings in Southampton has had a complete drainage solution designed and installed without the temporary re-homing of any residents.



Using Terrain Fabrication Service, the installation of the system was 40% faster than the average for such works.

Formerly the tallest building in Southampton, the Millbrook Tower stands at 240 feet. Built over 50 years ago, the building had a cast iron drainage system installed that had started to rust and fail, causing excessive leaking in the 144 flats in the development.

Southampton City Council (SCC) who wanted a complete holistic approach to the design, manufacture and installation of the replacement drainage system, approached Polypipe Terrain. In January 2016, eight members of the Direct Labour Organisation (DLO) department of SCC came to Polypipe Terrain's Centre of Excellence in Aylesford for training to gain a better understanding of the specification, assembly and installation of plastic fabricated drainage stacks.

Working with SCC, as experts in providing intelligently engineered solutions for the movement of water and air around tall buildings, Polypipe Terrain assessed the failing drainage stacks in Millbrook Tower, and designed a new high-density

polyethylene system. Terrain FUZE HDPE was installed due to a number of its key benefits over other more traditional materials.

Lighter in weight than cast iron, Terrain FUZE HDPE can feature longer pipe runs, so less jointing is required. As the system is jointed using electrofusion welding, where the weld area is as strong as the host material, the system integrity is increased and consequently the risk of leaks in the development is dramatically reduced.

CASE STUDY

Project

Millbrook Tower, Southampton

Client

Southampton City Council

Application

Live Stack Replacement

Products

Terrain Fuze HDPE

Due to the inherent material characteristics, Terrain FUZE HDPE lends itself to fabrication. Utilising Polypipe's unique Terrain Fabrication Service, the system was fabricated to exact specification and delivered to the site, where Southampton's DLO were able to complete the installation work across the 144 properties 40% faster than the average for such works. This meant that the residents of Millbrook Tower were able to remain in their properties, a key consideration when designing the drainage stacks of the building.

Jim Simpkins, Housing Refurbishment Project Manager for Southampton City Council, said:

"Millbrook Tower has been standing for 50 years and so naturally the drainage systems in place were not functioning as well as required. Polypipe Terrain provided a single source for all our drainage requirements, helping in the specification, design, manufacture and installation of replacement drainage stacks, ensuring we had expert advice from start to finish. As with all refurbishment work in our residential properties, it is always our intention to do so with as little intrusion as possible. Working with Polypipe Terrain, we were able to deliver live stack replacements across 144 individual properties with minimum disruption to residents."

Ed Swift, Business Development Manager at Polypipe Terrain, added:

"We have worked closely with numerous councils on the replacement of live stacks within tall buildings so understand the issues surrounding this. Training SCC's DLO on the specification and installation of drainage stacks means they are able to use this method, and our fabrication service in future projects. By utilising our service from the design stage of the project, we provided a bespoke design and manufacture service, adding real value to the Southampton City Council project."

