

# Polypipe Building Services tailor-made drainage stacks solve unexpected modifications challenge in local authority tower blocks.



In total 103 Terrain FUZE drainage stacks were used across both buildings.

Ryan Callister, project supervisor for subcontractors Legionella & Fire Safe Services explains:

“Residents can’t use the facilities in their flats whilst we are carrying out replacement, so being able to complete stack installation safely, quickly, and efficiently in these tower blocks is essential.

“In older buildings like these where you’re putting in new pipework it’s challenging as there can be outdated fittings and connections sizes, as well as varying layouts as people add and change things over the years. For this project we had the original drawings, but we can often only spot modifications once plans have been set and we’re on-site starting work.

“We needed a solution that would provide the right quality and durability, but within a really tight timeframe.”



The ageing Windermere House and Thirlmere House tower blocks in Birmingham were still using original cast iron pipework for drainage. But parts of this system had become brittle, leading to numerous leaks and in one block in particular complete failure of the waste pipe. As a result, the concrete floor slabs in most flats had become damp and damaged.

This meant that a replacement was urgently needed to ensure the comfort of residents, a job that initially seemed straightforward given both blocks appeared very similar in layout. However, as the installation team moved in to replace the failing pipework at Windermere House, they discovered an additional stack serving the ground floor apartments which had not been on any plans. With tenants in situ, some elderly and vulnerable, excavating through the floors of apartments on this level to uncover where this stack ran wasn’t an option.

## CASE STUDY

### Project

Windermere & Thirlmere House.

### Client

Fortem and Birmingham City Council.

### Application

Live Stack Replacement.

### Products

Terrain FUZE.

## Bespoke connection

To solve the problem Ryan approached the Advantage Team at Polypipe Building Services to create a bespoke HDPE section that would connect the existing cast iron stack to the new one. Having worked with the team at Polypipe Building Services over many years on similar projects, Ryan knew he could rely on them to find a solution in the tight timeframe. He was able to quickly get a separate drawing over to the Advantage team to work with.

Polypipe Building Services Project Manager Deane Pearse explains:

“When we realised there was a different stack in Windermere with no means for Legionella and Fire Safe Services to connect to it, our Advantage team were able to prefabricate a new bespoke section from HDPE with a quick turnaround, which is the beauty of fabricating in HDPE.

“Because our Terrain FUZE drainage stacks are lightweight and easy to install with temporary mechanical connections at the top and bottom, they can be made live quickly minimising disruption, which is essential so residents can use their facilities, then all the branches can just be capped and can be connected later.”

This quick response meant that Ryan got the fitting he needed to keep the project on track:

“Polypipe also provided pipework for water cylinders as well as soil and vent pipes and worked with us to fabricate bespoke stubs off the stack which work for our installation teams in terms of diameter and height.

“The inlet position needed bespoke connections into the stack which can elbow differently, so we rely on the Advantage team at Polypipe Building Services to put that in the correct place. It comes as a prefabricated junction which is why Polypipe make them in two sections for us so we can twist them into exactly the right position. I really can't fault their service and I always have complete confidence in their products.”

