



CASE STUDY: FLOOD ALLEVIATION SCHEME - MILLBANK HOUSE

Background

Millbank House is incorporated within the Parliamentary Estate of the Houses of Parliament. During excessive rainfall events where the existing Thames Water Network sewers surcharge due to capacity being exceeded this has led to the Basement of Millbank House flooding on a few occasions.

A proposed flood alleviation scheme was developed to provide an internal solution (be-spoke pumping stations) and external solution (pumping mains with new Demarcation chambers).

Planning & Mobilisation

As part of this Design & Build Contract we were tasked with carrying out Trial Holes in the Public Realm on the roads that surround Millbank House to establish a suitable location prior to moving to design stage.

We developed a good working relationship with Westminster Council Highways Permit Team over the course of the works to secure TTRO's, Section 50 notices, ancillary licences, and numerous bay suspensions.

Additional works were being carried out by other contractors locally for the

same client which required co-ordination of permits for road space. We were able to programme the works so TTRO's were, where possible, shared to minimise the impact of the works on local residents and businesses.

We also engaged with Westminster's Arboriculture Department to take into consideration the presence of several Trees and their Root Protection Areas during our works.

The area surrounding Millbank House was found to have a high volume of chartered and unchartered utilities. Following extensive desk research we were able to establish the owners of these assets. Due to the sensitive nature of security in the Parliamentary environs we were also successful in acquiring Parliamentary Passes allowing our team to operate in the Parliamentary Estate.

We acted as Principal Contractor throughout - engaging design engineers Fairhurst to generate bespoke temporary works designs which considered the influence of live loads.

The Works

Following the execution of several Trail Pits we consulted the client to offer-up

Sector: Water

Client: Houses of Parliament

Value: £400k

Duration: 7 months

Completed: Feb 2022

Location: London SW1

value engineering proposals where a solution in the Public Realm was not possible. For example, we designed a be-spoke Demarcation Chamber and associated pumping main which Thames Water approved along with a waterproofing detail for a 225mm penetration through the basement of Millbank House. We also secured a TKWS/Sika Warranty for these works.

This chamber was a 4m deep excavation using 1200 diameter P.C.C rings and placed in the public highway with an associated 225mm HPPE pipe. It also involved a new connection to the Thames Water sewer under a section 106 agreement and approved TWOSA.

Our team carry full competencies including confined spaces and executed this installation on time, and within programme and budget. We engaged a specialist sub-contractor to carry out reinstatement of the highway.

Quality Control

Our Inspection & Test Plan was approved by the Houses of Parliament Design Authority and included several hold points and signed off by the site supervisor. Connection to the Thames Water Sewer was inspected by a Thames Water Engineer prior to back-filling and reinstating. Photos of the Demarcation Chamber were forwarded to Thames Water as per their request. A Health and Safety File formed part of our contractual obligations.



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