



CASE STUDY: CAMBRIDGE HOUSE (MAYFAIR)

Falco were appointed to facilitate the redevelopment of Cambridge House into a luxury hotel & apartment complex including construction of a 20 metre-deep basement.

A live Victorian shaped sewer ran 6 metres under the site blocking excavation. This required an over-pumping solution to be devised involving the installation of two 500mm DI pipes within one floor to allow permanent gravity flow.

Our approved TW contractor-status and familiarity with TWOSA/IAB approval processes for works in or close to trunk sewers was key to our selection. Falco's brief was to conclude negotiations with Thames Water, design the pumping scheme, build the permanent downstream manhole - also as a temporary discharge point - and a temporary upstream chamber as a wet well (pumping station) with a riser main in between.

The downstream permanent had to be excavated and built in a gap left in the

secant piles underneath a large existing capping beam. As a double reinforced steel structure, it formed part of the building structure with the inside wall forming part of the basement so needed to be watertight.

A watertight bulkhead wall was installed to isolate the excavation from the trunk sewer surging. A temporary flume with NRV was installed to maintain flow until the pumps were ready.

Lack of space made excavating the pumping chamber to TW's satisfaction very challenging. Two reinforced concrete chambers (one permanent, one temporary) were constructed. The design interfaces involved close collaboration with the Principal Contractor's design team and activities were sequenced to shorten programme.

We devised and implemented a 24/7 emergency response plan involving a one-hour call out throughout the project in case of accidental damage to the pumping system

Sector: Water

Client: Motcomb Estates

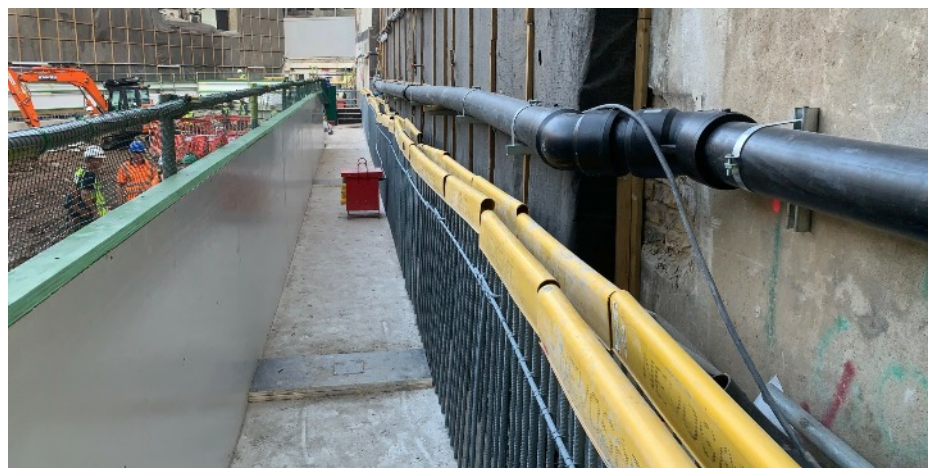
Principal Contractor: DE Group

Value: £800k

Duration: 10 Months

Location: London W1

The works were completed on time allowing the client to immediately start excavating and building around and below the sewer's route. In June 2021 Falco returned to site and installed the permanent adoptable gravity ductile iron pipeline system in a service trough built into the new basement by DE. The temporary pumping arrangements that had operated trouble-free throughout DE's basement construction works were removed and the new assets were handed over to Thames Water in accordance with the Water UK Sewerage Sector Guidance for Adoption.



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