

New Providence Wharf, Blackwall, London

Our Services

- Site Investigation
- Soil and Groundwater Testing
- FE Analysis on Large Parts of Tunnel
- Design of Large Diameter Piles and Gas Protection Measures
- Remediation Supervision and Validation



Geotechnical and Geoenvironmental Services

New Providence Wharf is situated on the north bank of the river Thames, opposite the Millennium Dome. It comprises 550 residential apartments, a 5-Star Hotel, 500,000 square feet of offices, a leisure complex, plus shops and restaurants.

CGL was first appointed in 1998. Work included the desk study and site investigations for geotechnical and geo-environmental purposes; gas protection design; and geotechnical advice for the pile foundations.

The site has a long industrial history. Initially developed in the 1700s as the East India Dock it became a coal handling depot and dock for the Midland Railway in the 1870s. Partly destroyed by bombing, the dock was infilled in the 1950s to become an oil distribution depot. The Blackwall Tunnel south-bound bore underlies part of the site.

Site investigations focussed on the buried Victorian dock basin to provide geotechnical and geo-environmental data to design the proposed heavily loaded structures.

Remediation was simplified by the adoption at an early stage a design to minimise changes to site levels. **CGL** analysed loading on the Blackwell Tunnel from temporary structures and was heavily involved with the design and supervision and testing of the large diameter 35m deep piles. Design and supervision of the gas protection system also utilised innovative technology.

Work required close liaison with others including consultant archaeologists, regulators and statutory authorities.

CGL's involvement continued through to the validation of completed works.

Client: Ballymore Properties