

Cementation

SKANSKA

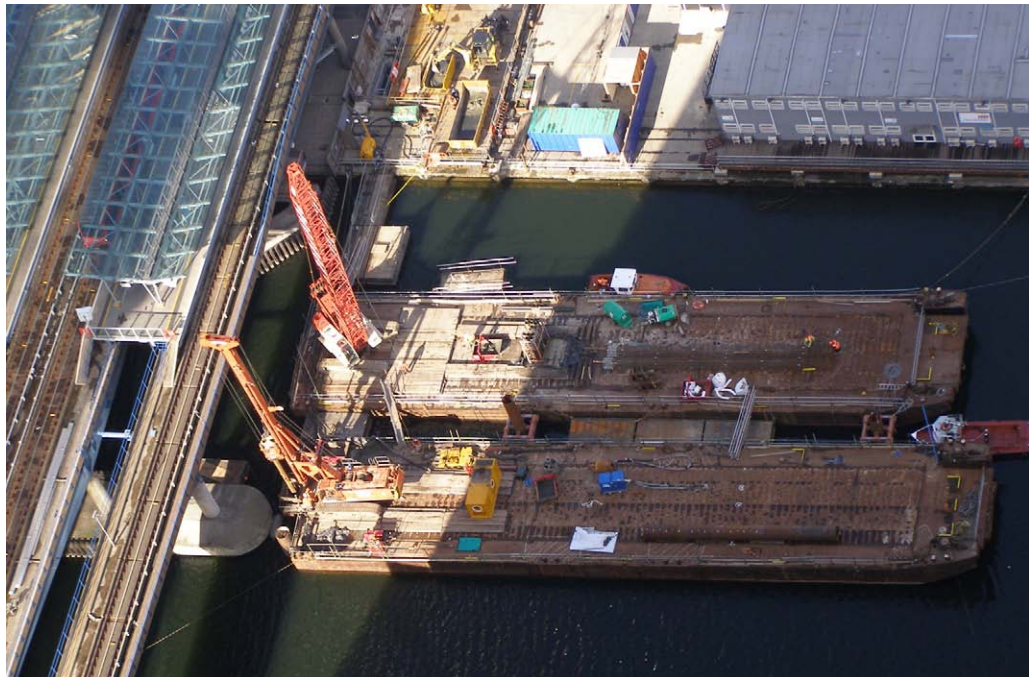
Further information:
Cementation Skanska
skanska.co.uk/cementation
cementation@skanska.co.uk

DLR 3 Car Capacity Enhancement - Piling Works

Client
Docklands Light Railway

Main Contractor
Taylor Woodrow
Construction

Engineer
Arup



Cementation Skanska was contracted by Taylor Woodrow to design and construct piled foundations for stations and viaducts to enable the existing capacity of the Docklands Light Railway (DLR) to be extended from 2 car operation to 3 car operation. These works required the extension of station platforms and remodelling of track around the DLR network between Canning Town, Limehouse and Cross Harbour Stations.

The works were successfully carried out at 6 stations during the passage of the automated DLR during standard traffic hours working, with a small proportion of the piles constructed during engineering hours and weekend possessions. The works commenced on site in February 2008 and were successfully completed in January 2009.

The pile design at each location incorporated varying pile loadings in challenging ground conditions in varying headroom's and as such the piles ranged from 200mm diameter mini piles to 2500mm diameter Mono Piles. A number of the piles were constructed within a few millimetres of

the existing railway viaducts during operational hours and the piling techniques ranged from mini piles, rotary piles under polymer, rotary piles under bentonite, CFA piles in full headroom and low headroom rotary piles. The project also incorporated constructing a number of marine piles from floating barges within the centre of North Dock immediately adjacent to Canary Wharf tower.

In total 670 piles were constructed totalling some 12.82km of pile bores constructed.

The project was a highly complex project and required all extremes of piling to be undertaken in demanding conditions and was successfully completed on time with zero reportable accidents. During the project Cementation Skanska was twice awarded with safety awards in recognition of the priority given to safety during such a technically and logistically challenging project.

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