

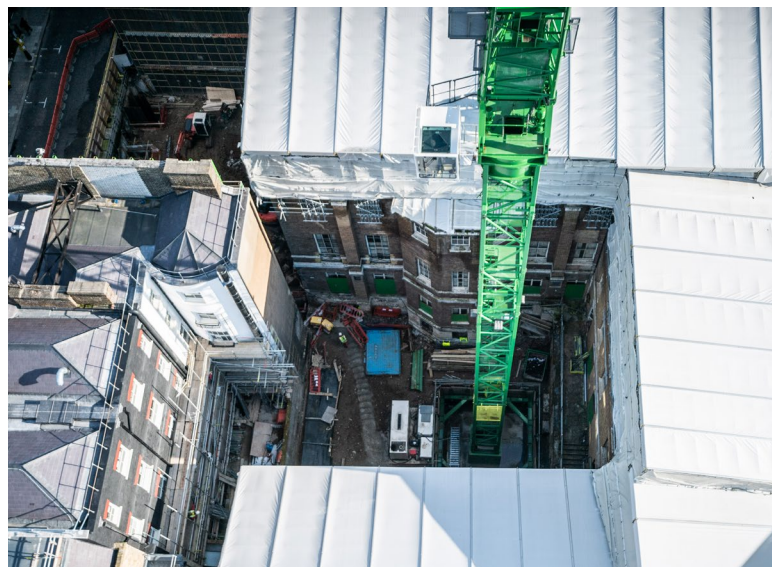
Cambridge House, Piccadilly - TC2 Crane Base

About the Project

The Former Lord Palmerston residence, and subsequent Naval and Military "In & Out" Club, together with surrounding buildings are being converted into a Luxury Hotel and Residences. Deconstruct's £37m redevelopment package involved the demolition of the existing structures, retention of the Listed façades and staircase structure, piled excavation of 4 levels of basements, and building reconstruction.

Early installation of the central tower crane (TC2) was key to the project logistics, but access to this central location was limited

by both the 1.2m width of opening and the distance to the crane position from the remote powerpack. The scheme required 8nr 508/450mm diameter piles up to 26m depth, with both compression, horizontal and tension loading, and 24nr King Post piles to facilitate the 4.6m deep excavation. Piles were installed using our Hütte 203 restricted access piling rig. The King Post wall was installed in 450mm diameter piles to 8m, fully reinforced with a 254x254x73kg/m UC spliced together in two sections.



Project Challenges

The bearing piles were very highly loaded (1058kN max / -375kN min Combination 1 design action) which pushed the depth of the piles to the maximum that the Hütte 203 can achieve at this diameter, and the position of the powerpack required 50m long hydraulic hoses. Piles had a low cut-off level, requiring careful positioning of the 7B32 cage and central tension bar. As lifting height was limited to a small excavator, the heavy king post piles had to be installed in 2 lengths, and spliced together with a full strength connection, and be carefully positioned. Despite these challenges, the works were completed within programme.



Value

£270,000



Programme Duration

9 Weeks



Nature of Works

Restricted Access
Piling



Client

Paul Davis & Partners