



S P E E D E C K
FOUNDATIONS LIMITED



Suffolk Court, Ilford, London

CLIENT TYPE Residential Housing
LOCATION Ilford, London
NO. OF UNITS 4 Apartment Blocks

Project Overview

We constructed a piled raft foundations for Suffolk Court, on behalf of ENGIE UK and Equans UK & Ireland.

We laid the concrete raft foundations for four apartment blocks in Ilford, London. This site is creating 60 new homes for the London Borough of Redbridge.

The design approach needed to consider on site access restrictions as the new development was located in close proximity to existing, occupied dwellings and it was vital to ensure the structural integrity of both new and existing homes.

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Essential Design and Engineering

CFA Piles: Continuous Flight Auger (CFA) piles were identified as the most suitable foundation solution due to their minimal noise and vibration, speed of installation, and substantial load-bearing capacity, making them ideal for the urban setting of Ilford.

Heave Protection: All four rafts were designed to accommodate potential heave forces and as such void formers were used to protect the future structures from swelling soils.

Lift Pits: Each building included the integration of a lift pit, cast in waterproof concrete, ensuring accessibility and modern amenities for future residents.

Vibration Monitoring: Vibration monitoring devices were installed to safeguard the adjacent substation and nearby buildings, ensuring that construction activities did not negatively impact the surrounding structures.

UXO Risk: Due to the location of the site the risk of Un-exploded Ordinance was considered to be high, intrusive testing was required to mitigate this risk and ensure the safety of operatives on site.

Construction Challenges

The construction phase posed several challenges that were effectively managed to ensure the project's success.

The site team needed to plan inter site movement careful due to limited access and proximity to existing dwellings. A site logistics plan was drafted and adhered to ensure the programme was executed appropriately.

The presence of overhead telephone wires required careful planning and coordination to avoid interference with the piling rig. Another challenge that occurred was significant rainfall during construction, water had to be continuously pumped out to keep the site dry and maintain progress on the foundations.

