

Galleywood Care Home

Chelmsford, UK

Keller has carried out innovative foundation solutions to assist with the construction of a new Care Home for a valued client.

- Facilitated shallow simply reinforced spread footings
- Utilised a smaller low headroom rig to minimise temporary work requirements
- Offered a low vibration methodology in a residential area



The project

The construction of a 3 storey 60 bed care home.

The challenge

The site was found to be underlain by some low strength fill materials and the highly weathered Lowestoft Formation. Due to the combination of these weak soils and the proposed loadings, which included about 1.5m of upfilling, a Vibro Stone Column solution could not be used for this project. The proposed solution needed to limit settlements to <25mm and 1:500 whilst offering a sufficient bearing capacity to keep the foundation widths at a sensible size.

The solution

A displacement RI ground improvement solution was adopted below the foundations. Keller selected a 300mm diameter column installed into the top of the unweathered Lowestoft Deposits, so as to provide a bearing capacity of 150kN/m² for simply reinforced shallow foundations. All of the columns were successfully installed in just over a week, allowing the Contractor to follow on quickly with the foundation installation works.

Project facts

Owner(s)

Stompco Ltd

Keller business unit(s)

Ground Improvement

Main contractor(s)

Horizon Construction Limited

Solutions

Piling

Markets

Residential

Techniques

Rigid inclusions

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