



S P E E D E C K
FOUNDATIONS LIMITED



Netherhampton Road

Salisbury, Wiltshire

CLIENT TYPE Housing Contractor
LOCATION Netherhampton Road, Salisbury, Wiltshire
NO. OF UNITS 106 units

Project Overview

We were excited to work with Countryside Homes on the Netherhampton Road project in Salisbury, Wiltshire, which involves the construction of 106 residential units.

A key feature of the site was the River Terrace Deposits over weak, structureless chalk from the Seaford Chalk Formation, which influenced our geotechnical approach for the new foundations.

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Geotechnical Engineering

Key geotechnical considerations included:

Ground Stability: Ensuring stability and load-bearing capacity to counter the weak, structureless chalk.

Reduced Excavation: The reduced level dig allowed us to minimise excavation work within the Chalk formations, designing a foundation suitable for these ground conditions. Removing the need for a piling mat meant large cost savings were made for the client.

Heave: SPEEDECK Prepared a heave report for the warranty providers approval which mitigated the requirement for underslab void formers, further saving the amount of dig out required for the site.

Dissolution Feature Risk: Due to the weak structureless nature of this chalk, a risk assessment was prepared to ensure that the future dwellings were not at risk from complications as a result of dissolution. A detailed pile design was developed in order to negate this risk.

Concept Design

Initially, the project had been specified to use a granular piling mat with a traditional pile and ground beam solution. However, SPEEDECK proposed an alternative solution with a vastly reduced dig quantities; this meant that less waste needed removal from sites, which in turn lessened the environmental impact caused by waste transport and processing. This revised approach resulted in several advantages:

Simplified Excavation: The need for extensive excavation for the ground beam solution was eliminated.

Reduced Preparatory Work: The concrete blinding solution significantly reduced the preparatory work and muck away associated with a traditional granular piling mat approach.

Minimised Site Storage: The piled raft solution negated the need for site storage for bulk materials used with the precast ground beam method.

Cost Savings: A 37% cost saving was achieved with the non-voided piled raft solution.

