



CASE STUDY

Exeter Soil Nailing

THE PROJECT

To provide support to 70 deg. steep excavations up to 9.8m high supporting a highway and associated structures to allow the development of a large retail unit

REMEDY'S SOLUTION

Soil nailed slope comprising 32mm hollow self drilling bar and grout flush with a 90mm sacrificial drill bit. The facing comprised a structural rear mesh with stone filled panel cladding.

TESTIMONIAL

"Remedy provided a comprehensive and efficient design ensuring we won the contract, and also timely comment and revision during the construction phase to greatly assist in the successful execution of the works."

J. Greener, Aarsleff

Leave the ground to us!

www.remedygeotechnics.com

Follow Us @RemGeotechnics



Soil Nail Design

Remedy carried out the design of a 9.8m high by 420m long soil nailed slope for specialist geotechnical contractor Aarsleff Ground Engineering. The soil nail structure has a design life of 100 years and provides support to the A379 to the northern boundary of the site, Newcourt Way to the west and the access road to the retail development to the south. Due to the sloping nature of the site from west to east, significant excavation was required to provide a level platform for the new retail development. Soil nailing has the benefit of a top down construction sequence therefore providing support throughout the excavation sequence in both the temporary and permanent case. The ground conditions comprised medium dense to dense sand becoming very weak sandstone. Geotechnical design parameters were carefully selected from a rigorous analysis of the borehole logs and in-situ and laboratory testing.

The design was carried out in accordance with

BS8006-2 (2011) employing the latest design techniques and in-house industry-leading expertise. Sacrificial soil nail testing, in accordance with BS EN 14490:2010, was carried out prior to the main works and showed full agreement with the selected design parameters. 1090no. soil nails were installed at spacings of between 1.5m(H) x 1.5m(V) in the medium dense sand to 2.0m(H) x 2.0m(V) in the weak sandstone. Each excavation stage was carefully analysed to ensure temporary stability during construction and the structural rear mesh backed with a filter geotextile provided face stability both during the construction sequencing and in the permanent case. Once the excavation was complete the structural rear mesh was then cladded with a stone filled panel to provide a low-maintenance aesthetic facing.

Contact Remedy Geotechnics - we'll give you an answer every time.

London & Midlands

0207 206 2576

01788 211778

North & Scotland

01423 589500

admin@RemedyGeotechnics.com