

Whitworth Community High School

Rochdale

Replacement buildings were needed for a 750-place secondary school after the original buildings had come to the end of their lifecycle. Our scheme resulted in a significant carbon saving over a CFA solution.



The project

The new school comprised a two and three-storey main teaching block.

The challenge

The main challenge was to provide a solution through variable Glacial soils to accommodate relatively high column loadings of 3500kN while facilitating the construction of shallow foundations and a ground bearing slab.

The solution

RIs were installed for the foundations to achieve a bearing capacity of 175kN/m². VSCs were used to support the more lightly loaded floor slabs. This combination offered our client significant time and carbon savings over the original piled option (see graphic).

Project facts

Owner(s)

Department for Education

Keller business unit(s)

Keller UK

Main contractor(s)

Wates Construction

Solutions

Bearing capacity / settlement control

Markets

Institutional/public

Techniques

Rigid inclusions
Vibro stone columns

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