

Bilston Urban Village

West Midlands

Keller provided a cost and carbon saving option in challenging site conditions on a regeneration project. Close collaboration with remedial, mining, geotechnical, & structural consultants demonstrated the value of early involvement in the scheme.



The project

The regeneration of a large brownfield site within the heart of the Black Country. The site has a long history of industrial development and a coal mining legacy.

The challenge

The client wanted a rapid foundation solution that avoided the use of heavily reinforced raft foundations or concrete piles. Keller needed to treat up to 14m of highly variable and coarse fill while maintaining the normal tolerances in plan and verticality. A number of the stone columns were required within close proximity to existing buildings, large retaining walls and buried services.

The solution

Keller offered a low cost/carbon solution involving the installation of vibro stone columns through the full depth of the fill materials. Our proposals facilitated the use of shallow reinforced strip footings designed for a bearing capacity of 150kN/m². The works were monitored on a daily basis using Keller's fully instrumented Depth Vibrator technology, to ensure that all of the columns were constructed to the highest standards and in full compliance with checking authority requirements.

Project facts

Owner(s)

Countryside Properties plc

Keller business unit(s)

Keller UK

Main contractor(s)

Countryside Properties plc

Solutions

Bearing capacity / settlement control

Markets

Residential

Techniques

Vibro stone columns

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