

## Case Study

### Geothermal Drilling for New Central London Development



### At a glance

- Beautiful development of 5 new family town houses
- Ten boreholes, 240m each, located directly below buildings
- 90m of permanent steel casing
- Central London site
- Drilling works completed 10 days ahead of schedule

### Objective

Having worked closely with this client on several previous projects in central London we were asked if it was possible to install two 240m boreholes under each property for their own independent Ground Source Heat Pump system.

### About the project

The site was located just opposite Harrods, giving its own logistical challenges.

The boreholes needed to be installed below the basement level. To save time and money Nicholls were the first contractor on site.

Due to the depth of the boreholes and the time they take to drill, we were able to use our experience of drilling in this part of London having installed over 100 GSHP systems in the London area. Nicholls provided a solution whereby we installed permanent steel to a depth of 90m. This enabled us to ensure the stability of the borehole at 85m where we encountered running sand enabling the borehole to be drilled to its full depth. The probes were then installed and grouted in using a thermally enhanced grout to optimise the performance of the boreholes.

Subsequently the basements for the houses were excavated and the boreholes cut down.

Nicholls obtained the appropriate permission from Transport for London to drill at this location due to the proximity of Underground Tube Lines .



***“Having used Nicholls for many years on complicated construction projects we were able to rely on them to support us with this scheme, especially with such a tight drilling programme.”***

**Client**