

Additional information with regards Bore Hole Design at Gorton Parks Care Home

We are proposing to install 2 x 87 kilowatt Ground Source Heat Pumps (GSHP's) to deliver all the heating requirements of the care home and in doing so offset 130 tonnes of carbon per annum delivering a true sustainable solution to the care homes future heating requirements.

GHSP's harness the energy stored in warm water from 130 metres under the ground and is drawn up through the bore holes and delivered into the heating system via the Ground Source Heat Pumps.

Each heat pump requires 11 bore holes to be drilled 130 metres deep to power the heat pump and each bore hole is 6 inches in diameter. The bore holes are positioned to be at least 6 metres apart.

Each array of 11 boreholes are connected by plastic pipework that is laid horizontally underground at a level of 1 metre deep and then through to a manifold which is dug to the same depth. The manifolds for both arrays at Gorton Parks will be located where the red line with arrows commences in the corner of the thatched area on the site plan.

The red line with arrows signifies the route of the 4 inch delivery pipework that runs between the manifolds and the existing boiler room delivering the heat drawn up from under the ground to the heat pumps.

The total time for the installation depending on ground conditions is between 7-8 weeks.

All ground works will be re-instated to the condition found as we first arrived on the site.

No buildings or structures of any kind are erected as part of this installation process and is therefore invisible to the eye after completion

The actual Heat Pumps will be located within the existing boiler room.