

Integration

Date
31.08.2022

To
London Borough of
Camden
33-35 Jamestown Rd,
Camden Town,
London

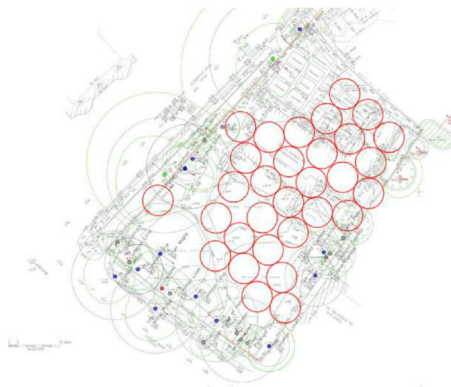
Project
52 Avenue Road

52 Avenue Road – Ground Source Viability Note

Dear Sir/Madam,

The proposed development at 52 Avenue Road puts forward a ground source heat pump system for space heating and hot water demand. Our initial assessment shows good potential for a ground source heat pump installation for this scheme and that this system will be able to provide a significant contribution to on-site carbon reductions.

The scheme proposes to maximise the onsite ground-source heating potential opportunity by maximising bore hole deployment. This includes providing boreholes across the whole site (whilst respecting tree root protection zones) including underneath the proposed buildings. As illustrated below, the scheme can accommodate over 30 bore holes on site, using 6m spacings between bore holes to allow for adequate thermal regeneration. Bore holes can achieve depths of up to 200m. The final depth and layout will be concluded once the detailed heat load calculation has been made.



Indicative bore hole layout for 52 Avenue Road

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The building energy demand is suited for a geothermal system with the majority of the heat load taking place during the winter / heating period, allowing the bore hole array to naturally recharge between heating seasons when the demand is much lower.

As reported in the updated Energy Strategy (July 2022), the results of ground investigations (Geotechnical Design Report by A2 in May 2022) suggest that the ground conditions are favourable for a closed loop borehole heat exchange network, this is evidenced in the similar completed GSHP installations in the local vicinity.

The heat exchanger system is expected to be capable of providing 230kW of heating, compared to an estimated peak space heating load of the order of 150kW.

Yours Faithfully



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Director

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