

TO WHOM IT MAY CONCERN

25 November 2021

Dear Sir,

Re: The Builder's Yard, Lower Range Road: Pre-commencement Planning Condition 8

The structural designs for the residential dwellings at the above-mentioned site have been developed based on the use of a piled foundation solution.

Extensive soil investigations have been completed by R. Carr Geotechnical Services (reference 3825/20), which highlight the varying depths of made ground across the site and the nature of the underlying soft clay soils. As a result, piled foundation are considered as the most appropriate foundation solution for the site.

The soil investigations included boreholes & samples to access any contamination which may be present within the made ground and the underlying aquifer. The results showed slightly elevated concentrations of lead and various PAH compounds within the fill material as well as asbestos fibres in two locations. Leachate testing was also completed, with low results, meaning the site is considered to pose a low risk to the water environment.

Notwithstanding the above, a site remediation strategy has been recommended which includes, but not limited to, the removal of contaminated soils within landscaped areas and removal of excavated soil from site.

Continuous Flight Auger (CFA) piles are proposed as the method of piling, as this method of piling brings the excavated material to the surface during the drilling phase thus allowing the removal of any contaminated soils. Overall, the process of forming CFA pipes prevents any contamination in the upper layers from migrating deeper into the soils or potential aquifers. Upon reaching the required depth, the auger is extracted whilst simultaneously pumping concrete under pressure into the void, thus forming the pile. Further, the leachate results from the clay soils also show that any further migration of contamination is not likely to occur.

The final pile sizes will be determined by a specialist pile designer however it is anticipated that the piles will be in the region of 300 – 400mm in diameter. Regardless of the pile size, all piles will penetrate the upper made ground and soft clays and be set a depth to suit the pile loads and soil capacities.

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I trust the above is acceptable and clears the items relating to condition 8.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Ian Hawes', is written over a light blue horizontal line.

Ian Hawes
Waldens Engineering Ltd

Gravesham Borough Council

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