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SUPPLEMENTARY GROUND INVESTIGATION REPORT

PROPOSED RESIDENTIAL DEVELOPMENT

BOSTON ROAD

GOSBERTON

SPALDING

LINCOLNSHIRE

PE11 4NR

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REF: 20117 **APRIL 2020**

INTRODUCTION

Acting upon instruction from Mr S. Grimston, we re-visited the site on the 6th April 2020, with a view to determining the basic characteristics of the soils strata, and ground water levels.

Three Hand Auger Boreholes were undertaken, and our comments are based upon a visual inspection only of the disturbed samples obtained.

We would suggest that groundwater conditions may vary seasonally and that recorded water levels should not necessarily be taken as constant as they may be subject to fluctuation.

The opinions and comments expressed in this report are based upon ground conditions encountered in the boreholes sunk at the time of our visit.

LOCATION & BRIEF DESCRIPTION OF THE SITE

Situated on the West side of Boston Road, Gosberton, approximate National Grid Reference TF 245 318, the site is situated along Boston Road with limited vehicular access at this present time.

Numerous small trees are present within the site, all of which are to be removed as part of the development.

The Site is bound by a watercourse maintained by Welland and Deepings IDB to the North, Boston Road (B1397) to the East, a footpath/track and residential dwellings to the South and a riparian watercourse to the West.

The site is largely 'greenfield', however, an existing agricultural building occupies a small area of the site, which is to be demolished.

The topographical survey indicates that the site is generally flat, with ground levels between 2.300 AOD & 2.600 AOD. The level of Boston Road is approximately 3.300 AOD.

GROUNDWORKS UNDERTAKEN

Three hand auger boreholes were undertaken in the approximate location shown on attached drawing No.d 20117/SK01.

A visual inspection of the disturbed samples took place, the details of which are reproduced on sheets No.d 20117/BH01, BH02 + BH03.

Ground water levels were recorded and are shown on the respective borehole log, upon completion of the augering and 60 minutes after completion.

CONCLUSIONS

The location of boreholes took place in the region of the proposed LCC adopted roadway, since the ground water levels need to be taken into account with respect to highway and drainage design.

It is clear the strata is constant across the site being firm clayey silt below the topsoil, extending to a depth of 0.6m below the surface.

At this depth stiff silty/sandy clay was encountered, to a depth of 0.9m below the surface, where stiff reddy brown clay was found.

At a depth of 1.4m below the surface a layer of immediately wet/saturated loose sandy silt was encountered extending to a depth of 1.8m.

Thereafter the strata reverted to clayey silt, becoming stiff silty clay.

Augering was terminated at a depth of 2.5m below the surface, due to suction within the clay strata.

The upper clay strata remains relatively moist. However, once the sandy silt layer is penetrated at the approximate of 1.100 Above Ordnance Datum the water level rose to a level of 1.200 AOD.

RECOMMENDATIONS

A further geotechnical ground investigation report is required to specifically address the requirements for highway design.

However, it is anticipated maximum construction depth of 880mm will be needed to comply with roadway design.

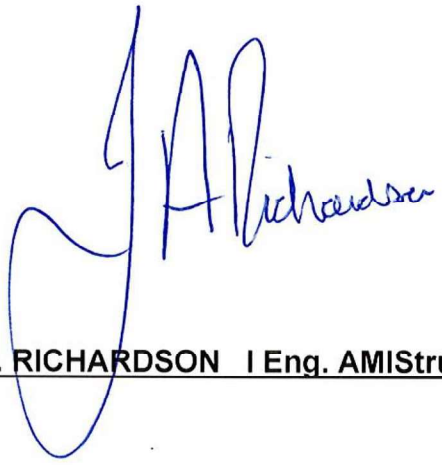
Nevertheless, the depth of excavation for roadway construction will not extend into the water laden strata.

The recorded ground water levels will not allow the requirements of the "Lincolnshire County Council Development Road and Sustainable Drainage Specification and Construction" to be adhered to.

Please refer to extracts from pages 78 and 81 of the above document.

Consequently a surface water drainage system utilizing gullies and below ground pipework will need to be incorporated.

For and on behalf of **SIDEBOTTOM RICHARDSON CHENG LTD**



J.A. RICHARDSON I Eng. AMIStructE **APRIL 2020**