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ABN: 786 438 493 89

Our Reference: GG10127.002
1st June 2022

Tara & James McDougall
320/15 Wentworth Street
Manly NSW 2095
C/- MCK Architects
By Email – steve@mckarchitects.com

RE – FURTHER GEOTECHNICAL ASSESSMENT – 48 JOHNSON STREET, FRESHWATER, NSW

Dear Tara and James,

Green Geotechnics have previously undertaken a geotechnical investigation of the subject site in March 2021 for proposed alterations and additions. The development will include excavating up to 3.6 metres below the existing ground surface for a basement level. Our previous report referenced GG10127.001B dated 8th November 2021 should be read in conjunction with this letter report.

We understand that a Development Application was submitted to Northern Beaches Council (Council) and that council have requested additional information in relation to groundwater and whether the site would be nominated as an integrated development pursuant to the Water Management Act 2000.

The previous investigations undertaken by Green Geotechnics included the drilling of two (2) hand augered boreholes. The borehole at the front (BH2) encountered shallow sandstone bedrock at a depth of 0.7 metres, and sandstone bedrock was inferred at the rear of the existing dwelling in BH1 from the DCP test result at a depth of 1.65 metres. BH1 was abandoned at a depth of 0.5 metres due to water flowing into the borehole. Wet conditions and water inflow were also noted in BH2 at the front of the site.

The fieldwork was undertaken in March 2021, at which time the Sydney basin was experiencing a 1 in 100 year flood event. The ground surface at the time of the fieldwork was saturated from the rains, and the site has poor drainage with BH1 positioned at a low point in the centre of the site. The water noted during the drilling of BH1 and BH2 was attributed to surface seepage and saturation of the upper topsoil materials from the rain, rather than because of intersecting a regional groundwater table.

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The site is underlain by shallow sandstone bedrock which is relatively impermeable and would also be contributing to the poor site drainage.

As per the recommendations and conclusions of our previous report, we do not anticipate the excavations encountering a regional of localised groundwater table, and therefore are of the opinion that the development would not constitute an integrated development under the Water Management Act 2000.

The site does however have poor drainage, which will need to be addressed during construction by the installation of adequate surface and subsurface drainage, in particular behind any retaining walls and below ground structures.

We trust this meets with your requirements. Should you wish to further discuss the contents of this report then please do not hesitate to contact the undersigned.

Yours Faithfully

Matt Green
Principal Engineering Geologist
Green Geotechnics Pty Limited