

Date: 17<sup>th</sup> July 2019

## **Geotechnical Assessment Report**

**To:** Sarah Schoffel

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**Email:** sandbergschoffel@bigpond.com

**No. of Pages:** 2

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**Re:** 2a Ruskin Rowe, Avalon

**Project No:** 2019-111

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**Comments:** Preliminary Assessment on Acid Sulfate Soil Conditions

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Sarah,

This report details the results of a preliminary assessment into Acid Sulfate Soils (ASS) conditions carried out for a proposed new house at 2a Ruskin Rowe, Avalon, NSW.

It is understood that the proposed works involve demolition of the existing house and construction of a new single level structure with a small section of two storey's. The house will extend across the property and appears raised above existing ground surface levels. The development is incorporating the existing swimming pool. As such, excavations appear to be only required for new footings and, therefore, the groundwater level will not to be lowered or impacted by the proposed work.

The site is mostly under Pittwater Council's LEP 2014 as being within 'Class 5' ASS hazard zone with a small area at the northern end being 'Class 4'. It is located on the low northwest side of Ruskin Rowe, at the intersection with Avalon Parade, within gently north dipping topography with an east-west striking creek passing through the middle of the site. Reference to the provided survey plan, the site has a high of approximately RL14.00m at the southwest corner and a low of approximately RL11.40m along the north boundary with the banks of the creek dipping from RL11.00m to RL9.40m towards east.

Reference to the Sydney 1:100,000 Geological Series sheet (9130) indicates that the geology underlying the site comprises Quaternary aged alluvial and estuarine sediments (Qha) which typically consist of silty to peaty quartz sands, silt and clay with common shell layers.

The site meets two geomorphic criteria "sediments of recent geological age (Holocene)" and "marine or estuarine sediments and tidal lakes" as detailed in Step 2 of the Acid Sulfate Soil Manual, August 1998, indicating that ASS could be present.

The preliminary assessment indicates that the proposed works involve only minor excavation for new footings and will not lower the groundwater, whilst the site is well above 5m AHD. Therefore, further investigation and an ASS management plan are not considered necessary. However, as the site meets some of the geomorphic criteria that indicate likelihood of the presence of ASS, it is recommended that geotechnical inspection of all footing excavations occur to confirm excavated soil conditions.

The following plans and drawings were supplied for the work:

- Architectural Drawing by Sandberg schoffel Architects, Project: Concept-new house 2A Ruskin Rd, Avalon, Drawing No.: 1726.DA.01, 04, 05, 06, 07, Rev.: A, Dated: 05/10/2018.

- Survey Plan by SCS Engineering Surveyors, Job No.: 10572, Drawing No.: 10572-01 to 04, Rev.: A, Surveyed on : 21/10/2017.

Hope the above comments meet your present needs, should you require clarification on any of the above detail or any further advice please don't hesitate to contact on the undersigned.

Regards,



Jun Yan  
Geotechnical Engineer