

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **63 Beacon Ave, Beacon Hill**

<b>1.0</b>	<b>LANDSLIP RISK CLASS</b> <i>(Highlight indicates Landslip Risk Class of property)</i>
<input type="checkbox"/>	A Geotechnical Report not normally required
<input checked="" type="checkbox"/>	B Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required
<input type="checkbox"/>	C Geotechnical Report is required
<input type="checkbox"/>	D Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required
<input type="checkbox"/>	E Geotechnical Report required

## **2.0 Proposed Development**

- 2.1 Enclose the exiting car space and excavate immediately to the East for a Carport.
- 2.2 Construct a pool on the Western corner of the site.
- 2.3 Construct a covered deck off the North side of the house.
- 2.4 Excavation to a maximum depth of ~ 1.8m & ~1.4m is required for the carport and pool respectively.
- 2.5 No fills are shown on the plans.
- 2.6 Details of the proposed development are shown on 5 drawings prepared by Right Angle Design & Drafting, numbered RADD17082 A1 & A3 to A5 and dated MAR 18.

## **3.0 Site Location**

- 3.1 The site was inspected on the 4<sup>th</sup> June, 2018.
- 3.2 This residential property is on the high side of the road and has a southerly aspect but the block is close to level, being close to the crest of the local slope and due to filling at the property margins. Hawkesbury sandstone bedrock outcrops at the

Northern corner of the site. The natural surface of the block has been altered during its development to date with levelling carried out on the Eastern and Southern sides. The depth of the fill can be seen to be a maximum of ~ 1.2m deep at the property margins but the natural surface is expected to be encountered quickly towards the house. The proposed development will alter the natural surface slightly with some low excavation for the carport and pool, noting the pool will be 0.5m above the ground reducing the required excavation depth.

**3.3** The site shows no indications of historical movement that could have occurred since it was developed. We are aware of no history of instability on the property.

#### **4.0 Site Description**

The property in its current state is close to level due to the low filling discussed. The fill is battered with the batter face partly stabilised by roughly sorted boulders on the batter surface. Various light weight timber fences mark the property boundaries. To the West immediately above the proposed pool the surface of the adjoining property rises (Photo 1) and has been filled around an in ground pool (Photo 2). The fill has been supported by what appears to be a rough concrete block retaining wall, though it is mostly obscured by vegetation (Photo 3 & 4). From what was visible it does not appear to be an engineered wall. The surface on the neighbouring property is some 2.0m above the subject property. The proximity and nature of the neighbouring retaining wall and pool will have implications for the proposed pool excavations.

No signs of ground movement was observed on the subject property. No geotechnical hazards were observed on the neighbouring properties that could impact on the subject property.

## 5.0 Recommendations

The proposed development and site conditions were considered and applied to the Council Flow Chart.

We could not see behind the neighbouring fence immediately to the West of the proposed pool to determine if rock outcrops or how large the neighbouring block retaining wall is in this location. As such we recommend ground testing be carried out over the proposed pool footprint to determine the depth to rock prior to any pool excavation commencing. Once the depth of rock is established a safe excavation plan for the proposed pool can be formulated by the Geotechnical Consultant, taking into consideration the close proximity of the proposed pool to the neighbouring wall and pool. We can carry out the testing and excavation plan upon request.

## 6.0 Inspections

- The geotechnical consultant is to inspect any pits to identify the depth to rock over the pool footprint and is to provide an excavation plan for the proposed pool upon the establishment of the depth to bedrock.

White Geotechnical Group Pty Ltd.



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Engineering Geologist.



Photo 1



Photo 2- photo looking across the Western neighbour's yard to the Common Boundary fence beyond which is the proposed pool.



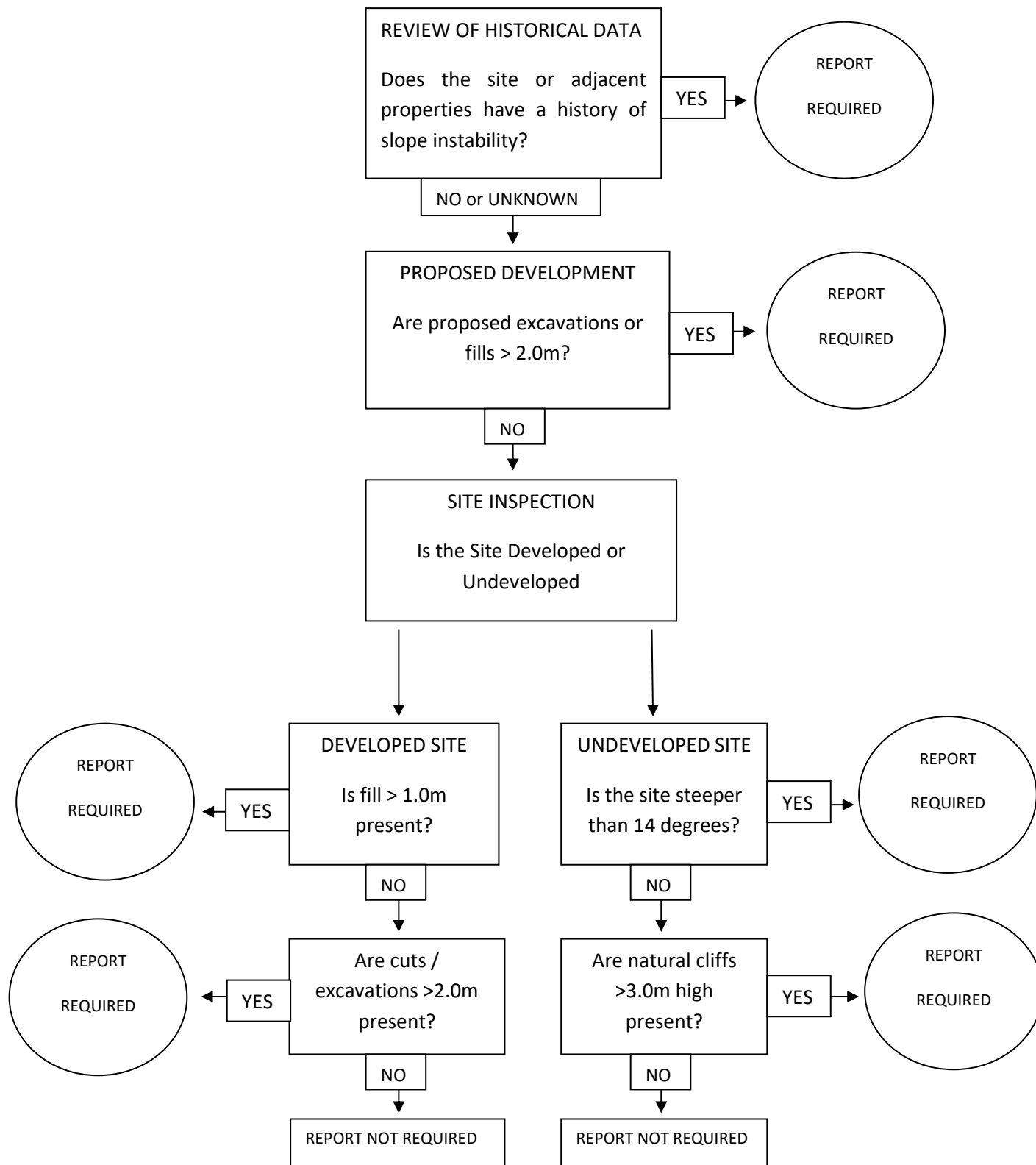


Photo 3



Photo 4

## Preliminary Assessment Flow Chart – Warringah Council



## Information about your Preliminary Assessment

This Preliminary Assessment relies on visual observations of the surface features observed during the site inspection. Where reference is made to subsurface features (e.g. the depth to rock) these are interpretations based on the surface features present and previous experience in the area. No ground testing was conducted as part of this assessment and it is possible subsurface conditions will vary from those interpreted in the assessment.

In some cases we will recommend no further geotechnical assessment is necessary despite the presence of existing fill or a rock face on the property that exceed the heights that would normally trigger a full geotechnical report, according to the Preliminary Assessment Flow Chart. Where this is the case, if it is an existing fill, it is either supported by a retaining wall that we consider stable, or is battered at a stable angle and situated in a suitable position on the slope. If it is a rock face that exceeds the flow chart limit height, the face has been deemed to be competent rock that is considered stable. These judgements are backed by the inspection of over 5000 properties on Geotechnical related matters.

The proposed excavation heights referred to in section 2.0 of this assessment are estimated by review of the plans we have been given for the job. Although we make every reasonable effort to provide accurate information excavation heights should be checked by the owner or person lodging the DA. If the excavation heights referred to in in section 2.0 of this assessment are incorrect we are to be informed immediately and before this assessment is lodged with the DA.

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