

## **PRELIMINARY GEOTECHNICAL ASSESSMENT:**

### **30 Lancaster Crescent, Collaroy**

<b>1.0</b>	<b>LANDSLIP RISK CLASS</b> (Highlight indicates Landslip Risk Class of property)
<input type="checkbox"/>	A - Geotechnical Report not normally required
<input type="checkbox"/>	B - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required
<input type="checkbox"/>	C - Geotechnical Report is required
<input checked="" 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** Extend the existing parking area by excavating ~2.0m into the slope.
- 2.2** Convert the existing garage into a rumpus room.
- 2.3** Extend the uphill side of the house.
- 2.4** Construct a new first floor addition.
- 2.5** Various other internal and external modifications.
- 2.6** No fills are shown on the plans.
- 2.7** Details of the proposed development are shown on 32 drawings prepared by Davis Architects, Project number 1801, drawings numbered 1.1 to 1.4, 2.1 to 2.9, 2.10 to 2.13, 3.1 to 3.4, 4.1 to 4.7, and 5.1 to 5.4, dated 15/11/18.

### 3.0 Site Location

**3.1** The site was inspected on the 16<sup>th</sup> November, 2018.

**3.2** This residential property is on the high side of the road and has a SW aspect. It is located on the gentle to moderately graded upper reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops and steps up the property. Where sandstone is not exposed, it is expected to underlie the surface at relatively shallow depths. The natural surface of the block has been altered with filling used for landscaping on the downhill side of the property. The proposed development will require an excavation to a maximum depth of ~2.0m to extend the parking area.

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

### 4.0 Site Description

The natural slope rises across the site at an average angle of ~13°. At the road frontage, a concrete and brick-paved driveway runs to a stable brick garage on the downhill side of the property. Competent Medium Strength Sandstone outcrops at the W end of the road frontage. Between the garage and the house is a gently sloping lawn-covered fill. The fill is supported in three different sections. The E section is supported by a series of sandstone block retaining walls that will be demolished as part of the proposed works, the middle section is supported by a ~2.0m high brick retaining wall that will also be demolished as part of the proposed works, and the W section is supported by a ~1.0m high stable stack rock retaining wall. The part two-storey brick house is supported on brick walls and brick piers. No significant signs of movement were observed in the supporting brick walls and the supporting brick piers stand vertical. A gently sloping lawn and garden area rises from the uphill side of the house to the upper common boundary. Sandstone bedrock outcrops through this slope in places. The area surrounding the house is mostly paved or lawn covered. No signs of

movement associated with slope instability were observed on the grounds. The adjoining neighbouring properties were observed to be in good order as seen from the road and the subject property.

## 5.0 Recommendations

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

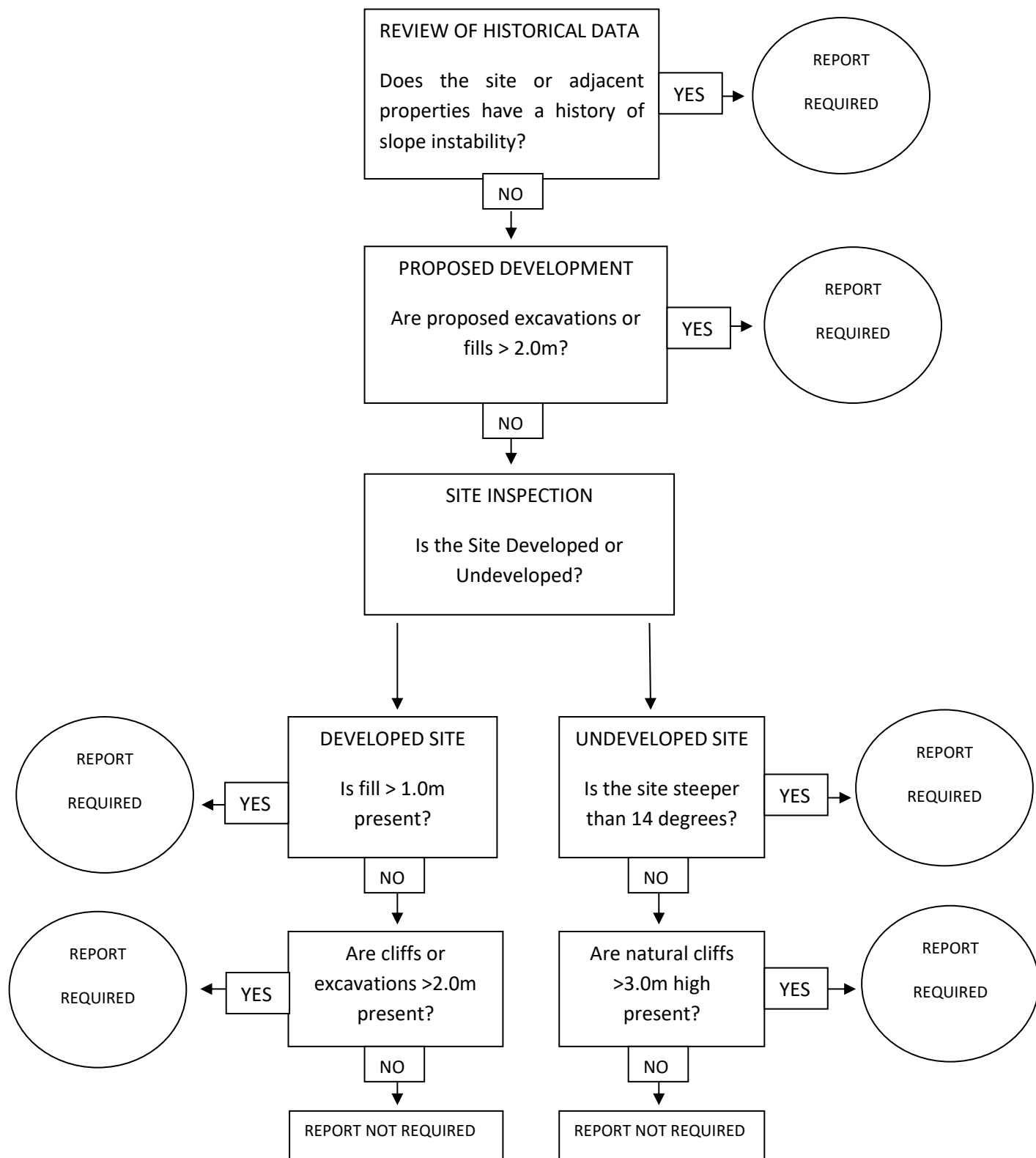
The proposed excavation for the parking area extension will come close to the downhill side of the house and will reach a maximum depth of ~2.0m. Depending on the subsurface material in this location, the excavation may detrimentally impact upon the existing house. As such, before the structural engineering is done or any excavation commences, we recommend ground testing be undertaken by a geotechnical consultant to determine the subsurface profile. Once this is done, an appropriate excavation methodology plan is to be formulated to safely carry out the excavation.

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## Preliminary Assessment Flow Chart – Northern Beaches Council (Warringah)



## 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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