

PRELIMINARY GEOTECHNICAL ASSESSMENT:

54 Curl Curl Parade, Curl Curl

1.0	LANDSLIP RISK CLASS (Highlight indicates Landslip Risk Class of property)
<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** Construct a new pool and landscaping on the uphill side of the property.
- 2.2** Minor levelling may be required to install the proposed pool. No significant fills are shown on the plans.
- 2.3** Details of the proposed development are shown on 6 drawings prepared by Right Angle Design & Drafting, Job number RADD18015, drawings numbered P1 to P6 are dated May 2018.

3.0 Site Location

- 3.1** The site was inspected on the 14th June, 2018.
- 3.2** This residential property is on the high side of the road and has a N aspect. It is located on the moderate to steeply graded middle 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 excavations to create

level platforms for the house. The proposed development may require minor levelling to install the proposed pool.

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 average slope of the property is some 15° but the surface contours are gentle until the sandstone steps up the property a third of the way up the block. At the road frontage, a concrete driveway runs to a sandstone block garage on the downhill side of the property. The part three-storey masonry, steel, and timber clad house is supported on masonry walls. The supporting walls of the house display no significant signs of movement. Excavations have been made through the outcropping competent Medium Strength Sandstone to create level platforms for the house. The exposed sandstone faces have been trimmed in places and are free from significant undercutting or other geological defects that could affect their stability. A portion of the outcrop that rises above the deck on the uphill side of the house has been undercut to ~0.7m (Photo 1). The cantilever arm of the undercut rock does not show any jointing or cracking as viewed from above and below. Thus, the rock is currently considered stable. See **Section 5** for recommendations regarding the proposed pool in this location. No significant undercutting or other serious geological defects were observed in the remaining rock faces that rise to the upper common boundary and they are considered stable. The area surrounding the house is mostly paved or exposed rock. 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 footprint of the pool may extend over the undercut rock (Photo 1). If the footings for the pool are to be supported on the undercut portion of the rock, the undercut joint block is to be underpinned using blade walls designed by the structural engineer in consultation with the geotechnical consultant. If the pool footings are to be set back from the undercut, no additional support is required.

6.0 Inspections

It is recommended the following inspection be carried out and if geotechnical certification is desired/required the inspection is a requirement.

- All footings, including those for the possible blade walls, are to be inspected and approved by the geotechnical consultant while the excavation equipment is still onsite and before steel reinforcing is placed or concrete is poured

White Geotechnical Group Pty Ltd.

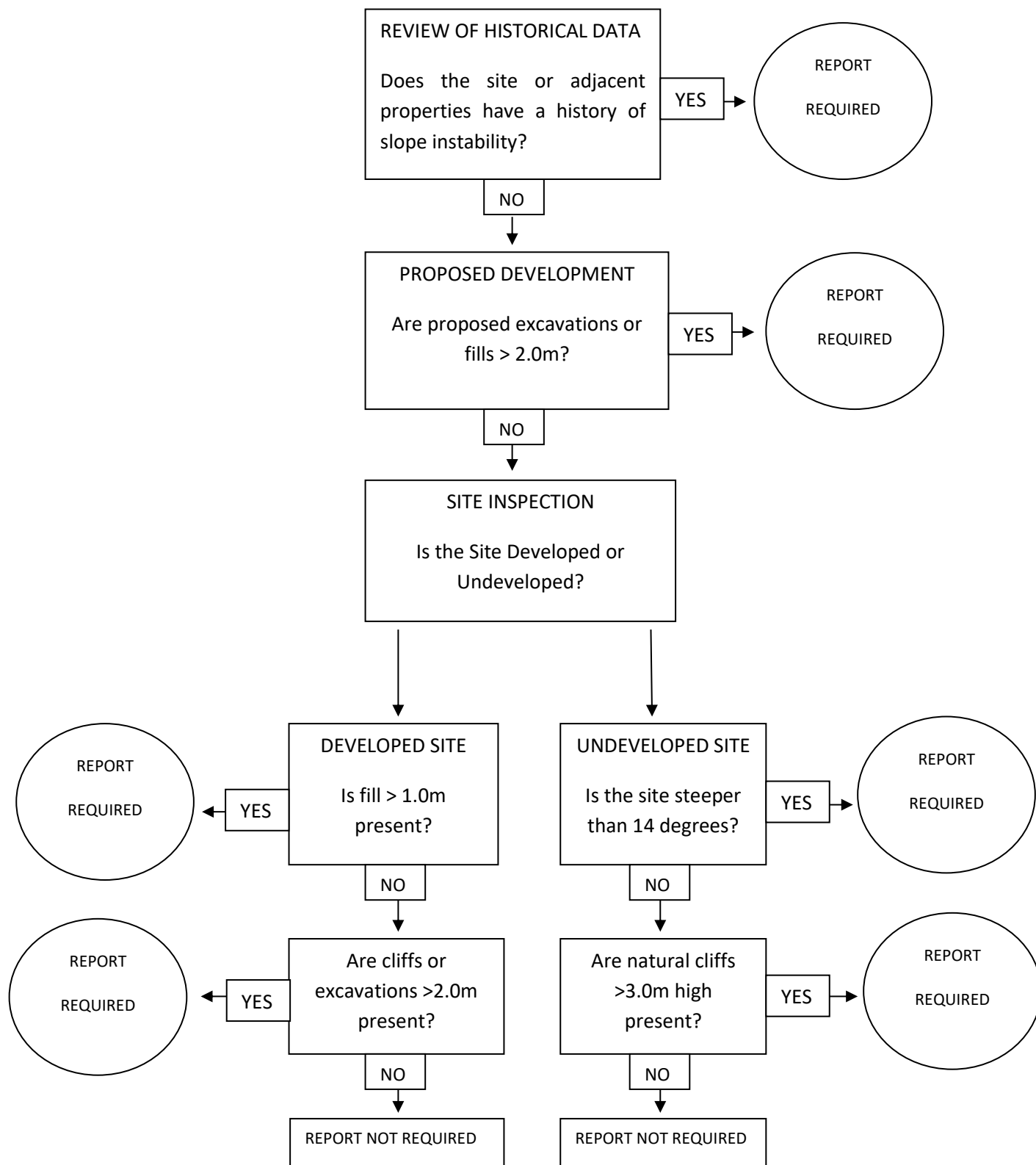


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Photo 1

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.
