

PRELIMINARY GEOTECHNICAL ASSESSMENT:

90 Lawrence Street, Freshwater

1.0	LANDSLIP RISK CLASS (Highlight indicates Landslip Risk Class of property)
<input checked="" 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 checked="" 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 granny flat on the downhill side of the property by excavating to a maximum depth of ~0.9m.
- 2.2** No fills are shown on the plans.
- 2.3** Details of the proposed development are shown on 5 drawings prepared by RK Designs, Project number 21-06, sheets numbered 0 to 4, Issue A, dated 29/1/21.

3.0 Site Location

- 3.1** The site was inspected on the 19th March, 2021.
- 3.2** This residential property is on the downhill side of the road and has a S aspect. It is located on the gentle to moderately graded upper reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops on the downhill side of 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 little with

the development to date. The proposed development will require an excavation to a maximum depth of ~0.9m for the granny flat.

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 falls across the site at an average angle of ~8°. At the road frontage, a concrete driveway runs to a parking area on the uphill side of the house. Between the road frontage and the house is a gently sloping lawn. The part two-storey brick house is supported on brick walls and brick piers. No significant signs of movement were observed in the supporting walls of the house and the supporting brick piers stand vertical. A gentle to moderately sloping lawn extends off the downhill side of the house to the lower common boundary. Competent Medium Strength Sandstone outcrops through this lawn in places. The area surrounding the house and driveway is mostly lawn-covered with some paved areas. No signs of movement associated with slope instability were observed on the grounds. No cliffs or large rock faces were observed on the property or in the near vicinity. The adjoining neighbouring properties were observed to be in good order as seen from the road and the subject property.

5.0. Geotechnical Hazards and Risk Analysis

No geotechnical hazards were observed above or beside the property. The gentle to moderately graded slope that falls across the property and continues below is a potential hazard (**Hazard One**).

Geotechnical Hazards and Risk Analysis - Risk Analysis Summary

HAZARDS	Hazard One
TYPE	The gentle to moderate slope that falls across the site and continues below failing and impacting on the proposed works.
LIKELIHOOD	'Unlikely' (10^{-4})
CONSEQUENCES TO PROPERTY	'Medium' (12%)
RISK TO PROPERTY	'Low' (2×10^{-5})
RISK TO LIFE	5.5×10^{-7} /annum
COMMENTS	This level of risk is 'ACCEPTABLE'.

(See Aust. Geomech. Jnl. Mar 2007 Vol. 42 No 1, for full explanation of terms)

6.0 Recommendations

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

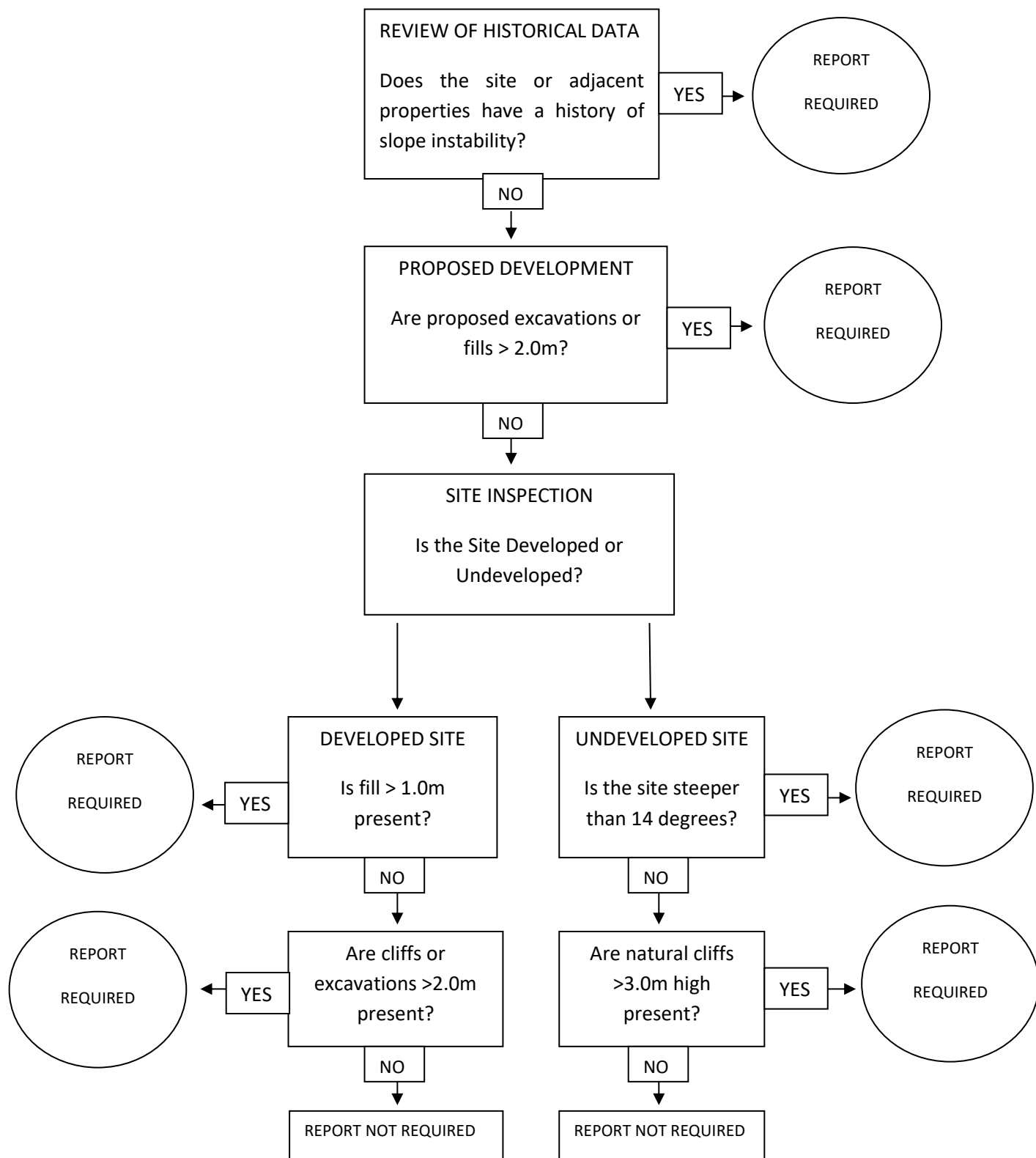
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

White Geotechnical Group Pty Ltd.



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Preliminary Assessment Flow Chart – Norther 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.
