

PRELIMINARY GEOTECHNICAL ASSESSMENT:

88 Quirk Street, Dee Why

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

2.0 Proposed Development

- 2.1 Demolish the existing pool and construct a new three-storey extension to the downhill side of the house by excavating to a maximum depth of ~0.5m.
- 2.2 Various other internal and external alterations.
- 2.3 No fills are shown on the plans.
- 2.4 Details of the proposed development are shown on 21 drawings prepared by LKS Design & Drafting, Project number 2101, drawings numbered DA01 to DA21, Revision A, dated 1/6/21.

3.0 Site Location

- 3.1 The site was inspected on the 14th May, 2021.
- 3.2 This residential property has dual access. It is on the downhill side of Quirk Street and on the uphill side of Bushey Place. The property has a N aspect. It encompasses the gentle to moderately graded N flank of a W to E-trending ridgeline. 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 with an excavation for a pool on the downhill side of the property. The proposed development will require an excavation to a maximum depth of ~0.5m for the proposed extension.

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 at angles of $<5^\circ$ from the road frontage with Quirk Street to near the lower boundary where the grade increases to at an average angle of $\sim 16^\circ$. At the road frontage to Quirk Street, a brick-paved driveway runs to a garage on the ground floor of the house. Between the road frontage and the house is a gently sloping garden area. The 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 piers stand vertical. A pool has been cut into the slope on the downhill side of the house. The pool will be demolished as part of the proposed works. A gently sloping lawn extends off the downhill side of the house and pool to the top of a $\sim 2.0\text{m}$ high rock face. The face consists of competent Medium Strength Sandstone and is undercut to a maximum of $\sim 1.0\text{m}$. The undercut rock has a relatively thick cantilever arm compared to its overhang length and displays no significant cracking through the cantilever arm when viewed from below or beside. A gentle to moderately sloping lawn falls from the downhill side of the rock face to the road frontage with Bushey Place. Sandstone bedrock outcrops through this lawn in places. The area surrounding the house, driveway, and pool is mostly lawn-covered with some paved areas. 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.

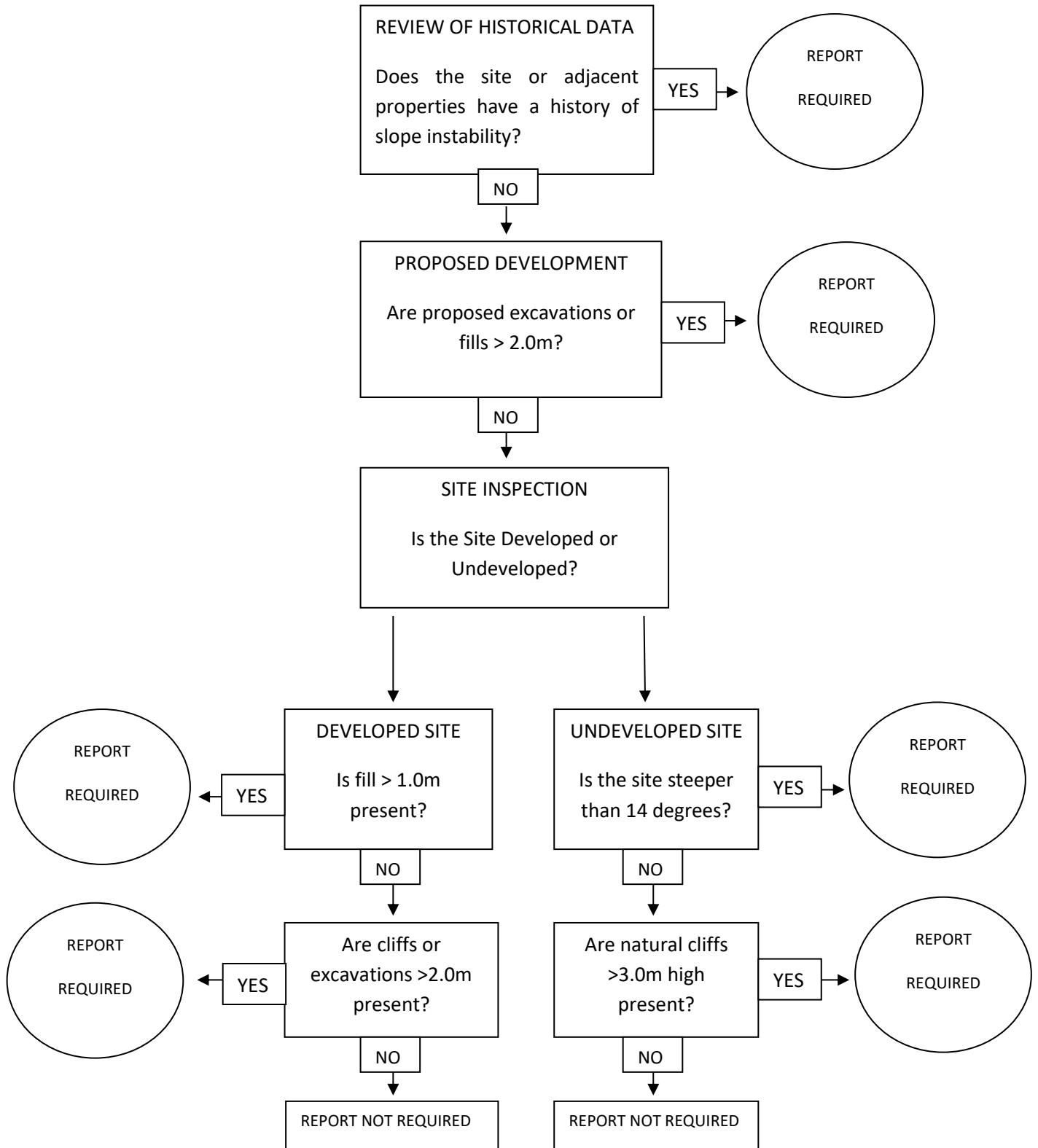
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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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.