

PRELIMINARY GEOTECHNICAL ASSESSMENT:

2 Lurnea Crescent, Forestville

1.0	LANDSLIP RISK CLASS (<i>Highlight indicates Landslip Risk Class of property</i>)
<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 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 pergola on the N side of the house.
- 2.2** Demolish the existing roof over the patio on the W side of the house and construct a new roof in the same location.
- 2.3** Various other internal and external alterations.
- 2.4** Apart from those for footings, no excavations are required. No fills are shown on the plans.
- 2.5** Details of the proposed development are shown on 16 plans prepared by Sanctum Design, Project number WHT0620, drawings numbered A00 to 15, Issue DA01, dated 14/9/20.

3.0 Site Location

- 3.1** The site was inspected on the 4th September, 2020.

3.2 This residential property is on the corner of Davidson Avenue and Lurnea Crescent. It is on the uphill side of both roads. The property has a W aspect. It is located on the gently graded upper reaches of a hillslope. Medium Strength Hawkesbury sandstone bedrock outcrops along both road frontages. 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 for a pool on the N side of the property and to create a level platform for the house. The proposed development will not alter the surface further for the proposed works.

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 property at an average angle of $<5^\circ$. Along both road frontages, competent Medium Strength Sandstone outcrops and steps up the slope to the subject property. The rock faces reach a maximum height of $\sim 2.0\text{m}$. No undercutting or other significant geological defects were observed in the outcrops and they are considered stable. At the E end of the road frontage to Lurnea Crescent, a concrete driveway runs to a garage on the ground floor of the house and to a brick-paved parking area in the SW corner of the property. The two-storey brick house is supported on brick walls. The external supporting walls of the house display no significant signs of movement. An excavation has been made in the slope to create a level platform for the house. The cut is supported by a stable $\sim 1.0\text{m}$ high treated timber retaining wall. A brick-paved patio area extends off the W side of the house. An excavation has been made in the slope in the NW corner of the property for a pool. The water level of the pool indicates no ground movement has occurred in the shell of the pool since its construction. Another brick-paved area surrounded by garden beds extends off the N side of the house. 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.

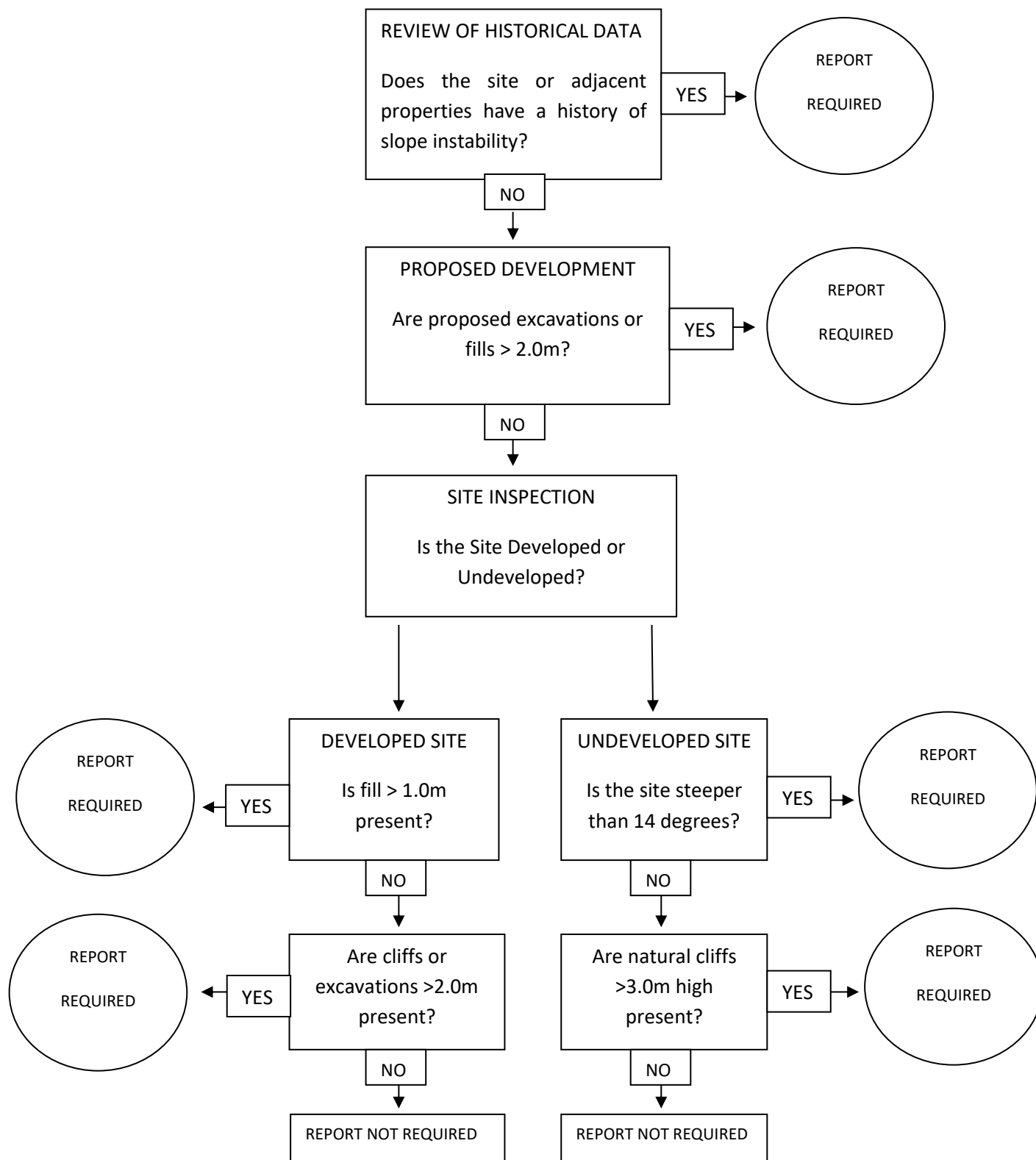
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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Preliminary Assessment Flow Chart – 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.
