

PRELIMINARY GEOTECHNICAL ASSESSMENT:

13 Lynwood Avenue, Narraween

| | |
|-------------------------------------|---|
| 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** Extend the uphill and downhill sides of the house.
- 2.3** No excavations or fills are shown on the plans.
- 2.4** Details of the proposed development are shown on 2 drawings prepared by High Design, both drawings numbered 1-2 833 19 HD, dated April 2019.

3.0 Site Location

- 3.1** The site was inspected on the 28th June, 2019.
- 3.2** This residential property is on the high side of the road and has a NE aspect. The block runs longways to the S so the slope is a cross-fall. It is located on the moderately graded lower 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 and fills for landscaping across

the property. 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 falls across the site at an average angle of $\sim 16^\circ$. At the road frontage, a concrete driveway runs to a stable concrete block garage on the downhill side of the property. The cut and fill for the driveway are both supported by stable stack rock retaining walls reaching $\sim 1.2\text{m}$ high. The upper portion of the cut for the garage is supported by a stable brick retaining wall. The lower portion of the cut has been taken through competent Medium Strength Sandstone. A $\sim 2.5\text{m}$ high rock face rises to the W common boundary. No undercutting or other significant geological defects were observed in the outcrop and it is considered stable. Filling has been placed on the slope to create a level platform for the house. The fill is supported by a stable stack rock retaining wall reaching $\sim 1.4\text{m}$ high. Portions of this wall were observed to be supported directly onto outcropping sandstone. The part two-storey brick house is supported on brick walls. The external supporting walls of the house display no significant signs of movement. A $\sim 1.8\text{m}$ high stable stack rock retaining wall lines the W common boundary beside the house and supports a fill on the neighbouring property above. 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.

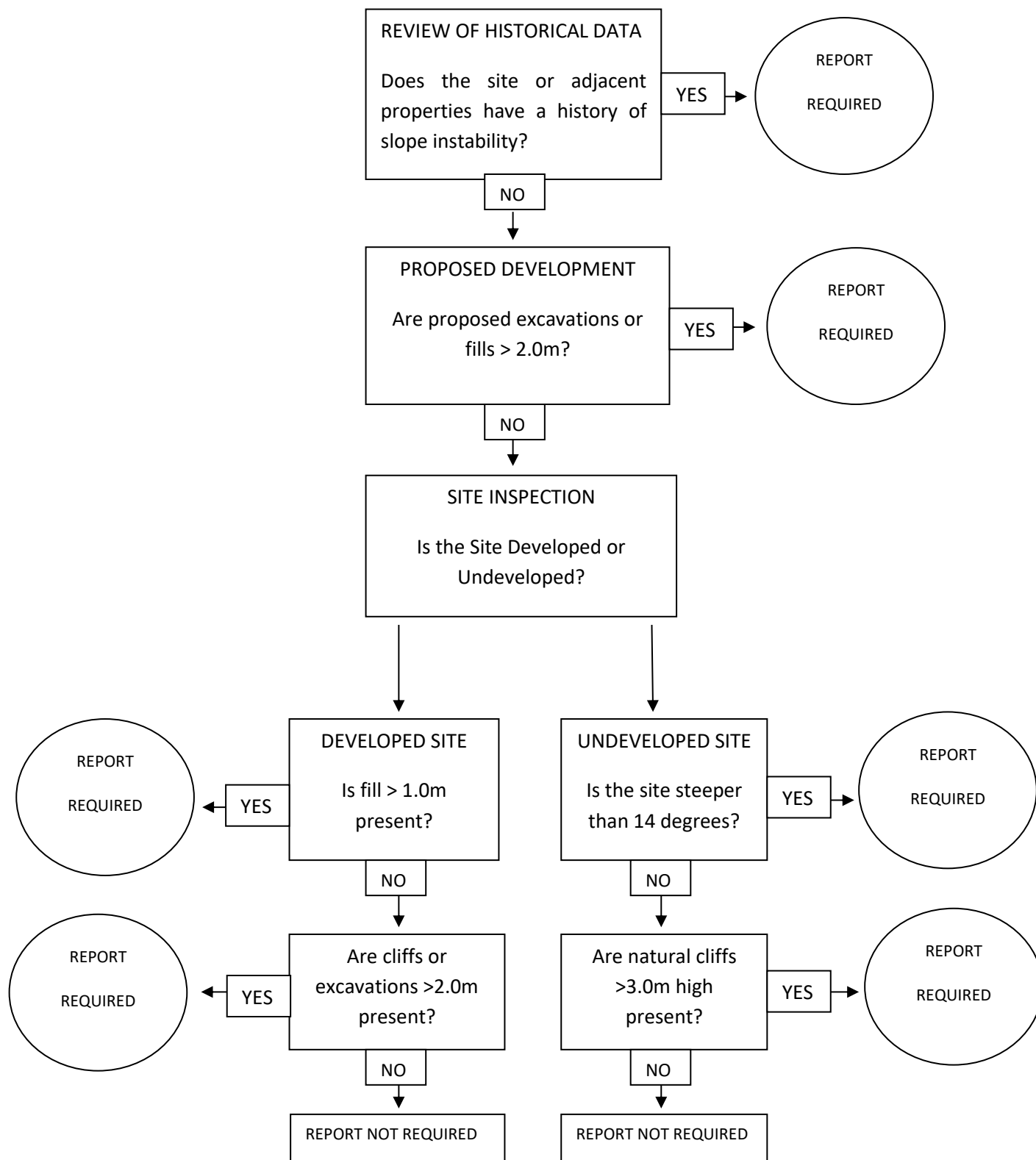
Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

White Geotechnical Group Pty Ltd.



Ben White M.Sc. Geol.,
AusIMM., CP GEOL.
No. 222757
Engineering Geologist.

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.
