PRELIMINARY GEOTECHNICAL ASSESSMENT:
5 Yallumba Close, Forestville

1.0	***LANDSLIP RISK CLASS*** *(Highlight indicates Landslip Risk Class of property)*
☐	*A - Geotechnical Report not normally required*
■	*B - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required*
☐	*C - Geotechnical Report is required*
☐	*D - Geotechnical Engineer (Under Council Guidelines) to decide if Geotechnical Report is required*
☐	*E - Geotechnical Report required*

2.0 Proposed Development

2.1 Construct a new driveway and garage by excavating to a maximum depth of ~0.8m.

2.2 Extend the existing house over the footprint of the proposed garage.

2.3 No significant fills are shown on the plans.

2.4 Details of the proposed development are shown on 8 drawings prepared by Gartner Trovato Architects, project number 2134, drawings numbered A.00 to A.07, Revision A, dated 25/11/21.

3.0 Site Location

3.1 The site was inspected on the 3rd December, 2021.

3.2 This residential property is on the high side of the road and has a NW aspect. It is located on the moderately graded middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops on the uphill side of the house. 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 a cut for the carport

and storage area and filling for lawn, garden and paved areas across the property. The proposed development will require an excavation to a maximum depth of ~0.8m.

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 ~10°. At the road frontage, a concrete driveway runs to a carport on the downhill side of the house. A low brick retaining wall supports the cut for the carport. A brick storage area is cut into the slope beside the carport. A timber deck extends off the downhill side of the house. The timber posts and beams supporting the outer edge of the deck are in the process of decay (Photo 1). See '**Section 5.0** Recommendations'. The single storey brick house is supported by brick walls and brick piers. The supporting walls and piers stand vertical and show no significant signs of movement. A stack rock retaining wall obscured by vegetation up to ~2.0m high supports a cut on the S neighbouring property.

Low brick and stack rock retaining walls along the uphill property boundary support fill on the uphill neighbouring property. The brick retaining wall displays a vertical crack up to ~35mm thick, but shows no signs of deflection. Due to its low height and location, the wall does not pose a significant threat to life or property. Medium Strength Hawkesbury Sandstone bedrock outcrops on the uphill side of the house. The rock is undercut by up to ~1.0m. The undercut has a relatively thick cantilever arm in relation to its overhang length and is considered to be stable. A spa is located near the E corner of the property. A concrete block retaining wall that is estimated to be up to ~3m high is located along the N common boundary and supports fill on the N neighbouring property. The majority of the wall is obscured by vegetation, but the visible portions appear stable. The area surrounding the house is mostly lawn/garden covered with some paved areas. No signs of movement associated with slope instability were observed on the grounds that could have occurred since the property was developed. 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 Recommendations

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

The rotting timber posts and beams supporting the outer edge of the deck (Photo 1) are to be assessed for stability by a structural engineer.

An excavation to a maximum depth of ~0.8m is required to construct the proposed new driveway and garage. The excavation comes flush with the brick wall supporting the downhill edge of the house. The architectural plans show that the existing wall will be underpinned to below the proposed garage slab level. The wall is to be underpinned prior to the excavation commencing.

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

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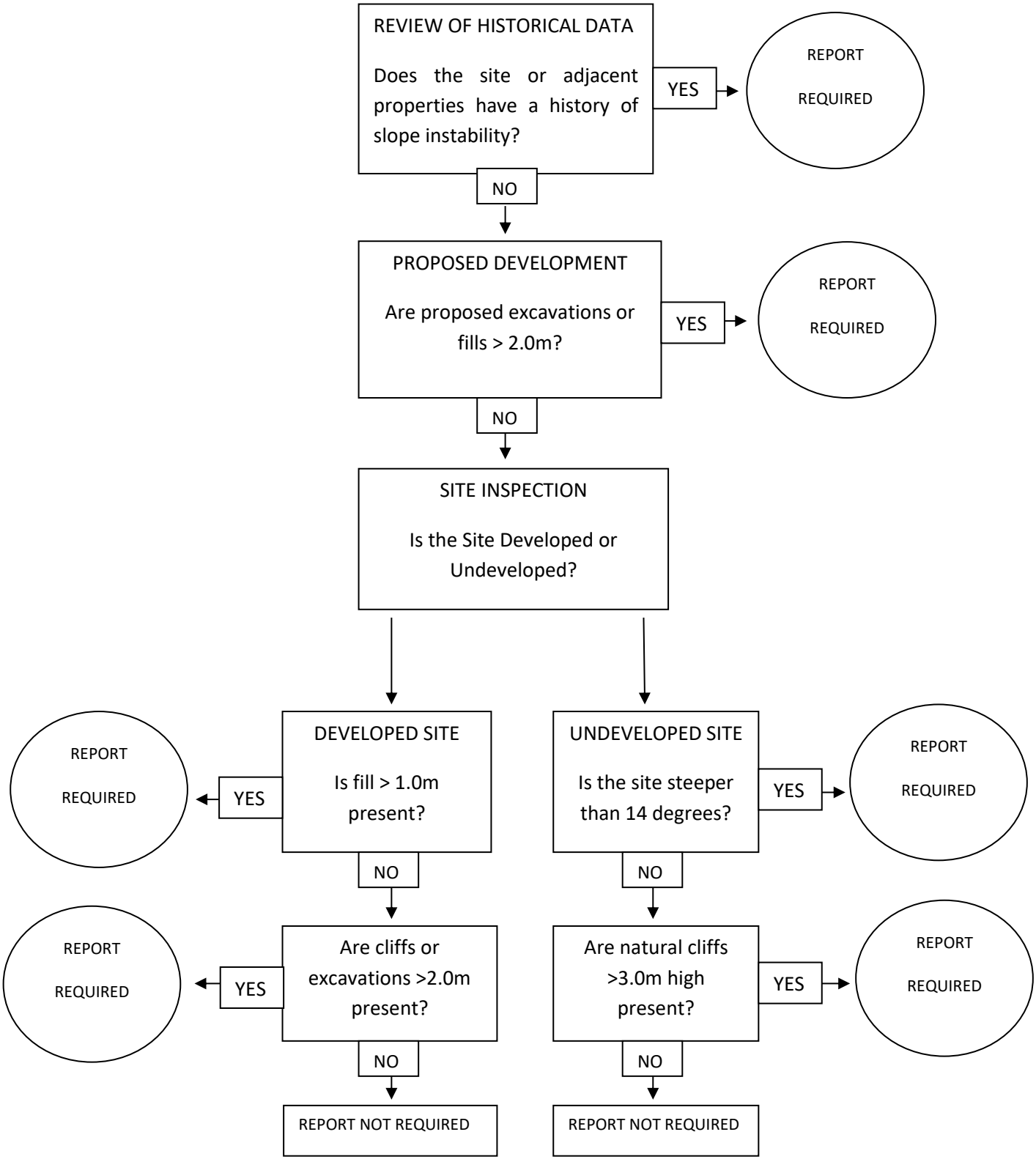
Photo 1

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.
