PRELIMINARY GEOTECHNICAL ASSESSMENT:

8 Walker Avenue, Narrabeen

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 deck off the downhill side of the subject house on the first and ground floors.

2.2 Various other minor internal and external alterations and additions.

2.3 Apart from those for footings, no excavations are required. No fills are shown on the plans.

2.4 Details of the proposed development are shown on 19 drawings prepared by Northern Beaches Designs, project number 2433, drawings numbered DA1 to DA19. All dated 081124

3.0 Site Location

3.1 The site was inspected on the 7th November, 2024.

3.2 This residential property is on the high side of the road and has an E aspect. It is located on the gentle to moderately graded lower reaches of a hillslope. No rock outcrops on the property. The Sydney 1:100 000 Geological Sheet indicates the site is underlain by the Newport Formation of the Narrabeen Group of Rocks, which are

described as interbedded laminite, shale, and quartz to lithic quartz sandstone. The natural surface of the block has been altered with various cuts for the house and landscaping to a height of ~3.0m. As well as with filling for landscaping across the uphill side of the property. The proposed development will not alter the surface further as part of 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 lower half of the property at gentle angles, before increasing at moderate angles to the upper common boundary.

At the road frontage, a concrete driveway runs along the E common boundary to a garage on the ground floor of the house. A cut for the ground floor is supported by a stable concrete block retaining wall reaching ~3.0m high. Between the road frontage and the house is a gently graded lawn. The part two-story house is supported on brick walls and steel and timber posts. No significant signs of movement were observed in the visible supporting walls, and the supporting posts stand vertical. Surface water has eroded a shallow channel through the topsoil underneath the first floor of the house (Photo 1). See '**Section 5.0**' for advice. A cut for a gently graded lawn on the uphill side of the house is supported by a stable concrete block retaining wall reaching ~1.0m high which approximates the uphill common boundary. The area surrounding the house is mostly paved or lawn/garden covered. No significant 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. No geotechnical hazards that could impact on the subject property were observed on the surrounding neighbouring properties as viewed from the subject property and the street.

5.0 Recommendations

The erosion which was observed underneath the first floor of the house does not yet appear to be negatively affecting the foundations (Photo 1). However, Consideration should be made to improve the drainage of the property. This will need to be designed by the stormwater engineer in consultation with the geotechnical consultant.

The proposed development and site conditions were considered and applied to the current council requirements. See the required inspection below that is to be carried out during construction and is a requirement for the final geotechnical certification. Apart from the inspection, it is not expected additional geotechnical input will be required provided good design and building practices are followed.

6.0 Inspection

The client and builder are to familiarise themselves with the following required inspection as well as council geotechnical policy. We cannot provide geotechnical certification for the owners or the regulating authorities if the following inspection has not been carried out during the construction process.

- All footings are to be inspected and approved by the geotechnical consultant while the excavation equipment and contractors are still onsite and before steel reinforcing is placed or concrete is poured.

White Geotechnical Group Pty Ltd.

Reviewed By:

Nathan Gardner B.Sc. (Geol. & Geophys. & Env. Stud.)
AIG., RPGeo Geotechnical & Engineering.
No. 10307
Engineering Geologist & Environmental Scientist.

Ben White M.Sc. Geol.,
AIG., RPGeo Geotechnical & Engineering.
No. 10306
Engineering Geologist.

REGISTERED PROFESSIONAL GEOSCIENTIST
AUSTRALIAN INSTITUTE OF GEOSCIENTISTS
BENJAMIN WHITE
RPGeo No:
10306

Photo 1

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.
