PRELIMINARY GEOTECHNICAL ASSESSMENT:

14 Sherwood Crescent, Narraweena

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 Extend the downhill side of the house.

2.2 Extend the deck on the downhill side of the house.

2.3 Re-landscape the downhill side of the property.

2.4 Various other minor internal and external alterations.

2.5 Minor levelling may be required to re-landscape the downhill side of the property.

2.6 Details of the proposed development are shown on 11 drawings prepared by Hot House Architects, Project number 1099HHA, drawings numbered DA 001, DA 002, DA 010, DA 011, DA 099, DA 100, DA 110, DA 200, DA 201, DA 300, and DA 600, Issue 01, dated 18/9/24.

3.0 Site Location

3.1 The site was inspected on the 26th September, 2024, and previously on the 3rd July, 2018.

3.2 This residential property is on the low side of the road and has a N aspect. It is located on the moderately graded upper middle reaches of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops on the opposite side of the road to the subject property and 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 and with filling used for landscaping across the property. Minor levelling may be required to re-landscape the downhill side of the property.

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

At the road frontage, a concrete driveway runs down and across the slope to a garage attached to the E side of the house. The slope between the road frontage and the house is terraced with a series of low stable masonry retaining walls. The single-storey rendered brick and concrete block house is supported on brick and concrete block walls and concrete block piers. Minor cracking was observed in the W supporting wall of the house. However, we do not attribute this cracking to ground movement. Apart from this, the external supporting walls of the house display no other significant signs of movement and the supporting concrete block piers stand vertical. Water was observed to be flowing through and pooling within the foundation space of the house. The owner has made attempts to control this with drainage channels made to divert the water flow. Additionally, some of the downpipes for the house were observed to discharge directly onto the slope. This water was observed to flow down to

the W corner of the property where it pooled against the fence. We recommend the drainage of the property be upgraded as part of the proposed works. An excavation has been made in the slope for a pool in the NE corner of the property. The water level of the pool indicates no ground movement has occurred in the foundations of the pool since its construction. The slope surrounding the pool is terraced with a series of stable treated timber, crib, and concrete block retaining walls. Below the property is a council reserve. An intermittent water course runs through the reserve. 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 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.

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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.