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Project No.: 2019-068

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Narraweena
N.S.W. 2099.

Preliminary Landslip Risk Assessment for 12 Edward Street, Narraweena.

This letter report details the results of a preliminary landslip assessment required by Northern Beaches (Warringah) Council as part of their 2011 Local Environmental Plan (LEP) to accompany all new Development or Building Certificate Applications. It is a review of the design plans followed by a walk over visual assessment of the stability of the existing property, no in-situ testing was undertaken.

The assessment follows the guidelines as set out in Section E10-Landslip Risk of Warringah Councils 2011 LEP Planning Rules.

1. Landslip Risk Class:

The site is located within Warringah Councils Landslip Risk Class "B" which is classified as 'Flanking Slopes of between 5° and 25°.

2. Site Location:

The site, 12 Edward Street, is located on the high west side of the road. It is a rectangular shaped block with long north and south side boundaries of 45.3m and front east and rear west rear boundaries of 15.2m as referenced from supplied site plan.

The site is situated within a gently east sloping topography on the eastern flank of Beacon Hill which lies approximately 600m to the west of the site.

3. Proposed Development:

It is understood that the proposed works involve the construction of a carport on the east (front) of the existing garage and overlying an existing brick paved driveway. The carport is to comprise a metal roof, pitched to match that of the existing garage, supported either directly off the existing brick garage at the rear or via brick columns at each of the front two corners of the structure. Additional footings are shown on the supplied structural drawings within the rear of the proposed carport but is understood that these footings do not form part of the current proposals and relate to the construction of new floor slabs. Additional posts are to be constructed on the south side of the garage to support privacy screens and the north side is to remain open.

4. Existing Site Description:

To the north and south of the proposed carport lie residential properties (No.14 and No.10) containing a two storey brick dwelling (to the south) and a single storey brick dwelling (to the north) with front and rear gardens. To the west of the proposed carport and beyond the existing garage lies the site residence, a two storey brick structure which appeared in good condition and evidence of distress was not observed.

Edward Street lies to the east of the site and comprises a bitumen road surface bounded by a concrete kerb, is dipping gently to the north and in good condition where it passes the site. The road reserve contains a thin grass verge adjacent to the road reserve and low embankment (estimated 1.0m-1.5m above the road

level) containing an in-situ exposure of medium strength bedrock. The crest of the embankment appears to have a thin covering of topsoil soil overlying bedrock outcrop, which is slightly lower than the existing driveway where the carport is proposed. Bedrock was also exposed within an embankment to the south of the site, suggesting the observed outcrops likely form part of a larger ridge feature broadly trending north south and on which the properties on the western side of Edward Street are constructed.

The front of the site contains a lawn a brick paved driveway. Longitudinal cracking was observed within the driveway however it is considered to be the result of wear rather than a stability issue. A general view of the site is provided in Photograph 1.



Photograph 1: View of the site looking west from Edward Street.

The site is accessed via a concrete/asphalt driveway which crosses the road easement near the north eastern corner of the property and dips at approximately 10° east where it enters the site and appeared in good condition. Two mature gum trees are present to the south of the proposed carport within the site.

The tiled roof has gutters and downpipes that are connected to a sub-surface stormwater system.

5. Neighbouring Property Conditions:

The property slightly upslope to the west (No.9 Lascelles Road) is approximately 40m from the proposed car port location and is not considered relevant. The ground surface of the properties to the north and the south are broadly similar to site and the topography is similar across the remainder of the properties.

The single storey house to the north of the site and the two storey dwelling within the property to the south of the site are both constructed of brick. Both structures have front and rear garden and appeared in good condition.

A limited inspection of these neighbouring properties from within the site and public roadway reserve did not identify any signs of previous or impending landslip instability.

6. Assessment:

Following on site inspection and detailed review of design drawings it appears that excavation will not be required for the proposed car port. It is not known if any footings are proposed to support the proposed brick columns at the front of the car port however if required they will be limited in size and depth.

Based on the above items and on Councils flow chart check list (Page: 2 of 2 in Section E10), i.e., does the present site or proposed development contain:

- | | |
|--------------------------------|----------|
| • History of Landslip | No |
| • Proposed Excavation/Fill >2m | No |
| • Site developed | Yes |
| • Existing Fill >1m | Unlikely |
| • Site Steeper than 1V:4H | No |
| • Existing Excavation >2m | No |
| • Natural Cliffs >3m | No |

It is considered that a Geotechnical Report and Landslip Risk Assessment will not be required for this development according to the requirements stipulated by Northern Beaches Councils LEP.

Although the proposed carport does not pose a landslip risk and it is not envisaged any further works will be required to fulfil council conditions, footing requirements should be confirmed with the builder. Lightweight structures of this nature sometimes require footings to provide resistance to uplift and or load support however it is not clear. If excavation is required to construct any footings it is recommended that a few shallow holes be undertaken in the grassed areas to determine bedrock level as it is considered excavation of the rock observed in outcrop would be slow may incur unnecessary costs if not anticipated.

7. Date of Assessment:

8th May 2019.

8. Assessment by:



Kieron Nicholson
Senior Engineering Geologist

9. References:

Design Drawings by RJV, Drawing No.: D1 to D4, Dated 12/10/19