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Date: 14th October 2019
No. Pages: 3
Project No.: 2019-164

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21 Bligh Crescent,
Seaforth NSW 2095

Preliminary Landslip Assessment for 21 Bligh Crescent, Seaforth, NSW.

This letter report details the results of a preliminary landslip assessment required by Northern Beaches Council as per Manly Councils DCP 2013 requirements 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 insitu testing was undertaken.

The assessment follows the guidelines as set out in the preliminary assessment checklist.

1. Landslip Risk Class:

The site is located within Landslip Risk Class "G1" which is classified as Steeper slopes, generally near coastal or harbourside areas, slopes >25°.

2. Site Location:

The site is located on the low west side of the road, within moderately to steeply south-west dipping topography. It is a long rectangular shaped block with an angled front boundary to Bligh Crescent and an irregular curved western boundary defined by the Mean High Water Mark. It has a street front boundary of 13.895m length and north side boundary 58.32m, as referenced form the supplied survey drawing.

3. Proposed Development:

It is understood that the proposed works involve the construction of a new carport in the front south-east corner of the block. The works are proposed above ground surface within an area currently occupied by a driveway and garden

4. Existing Site Description:

The site is located on the lower south-west side of a steep slope that extends from the plateau area of Seaforth down to Middle Harbour. It is within moderate to steeply sloping topography and has a fall from a high of R.L. 22.09 in the north-east corner to a low of R.L. 0.0 at the western boundary.

Bligh Crescent is formed with a bitumen pavement that is gently to moderately sloping where it passes the site. The road is formed with a gently east to south-east fall with no kerb or gutter on the western (site) side. A narrow garden bed and the sites driveway are located within the road reserve between the pavement and the sites front boundary. There were no indications of excess cracking or subsidence within the road reserve to indicate deep seated instability or geotechnical hazard.

The front edge of the site is formed with a paved driveway that extends from the south-east corner across to the northern side boundary and a set of access stairs down to the house terrace. A narrow garden bed is located on the eastern and northern side of the driveway, at the base of a mortared sandstone rock retaining wall that supports the road reserve and a low excavation into bedrock that is exposed to the north. The driveway shows no signs of excess deflection, settlement or movement whilst the bedrock outcrop is stable. The sandstone rock retaining wall along the eastern boundary rises up to 2.0m in height at its northern end, the wall appears generally in good condition with one crack near its northern end that may be related to the installation of a steel post.

The driveway extends to the south boundary and also has a narrow garden bed formed along its western side. The south boundary and garden bed are supported by a mortared sandstone rock retaining wall that is formed partly along the south boundary and then extends across the block to the north.

The wall increases in height up to 3.0m in its south-west corner and then remains at near 2.5m in height across to the north, where it ends at the access stairs. The wall is partly supported via a weak concrete footing over a brick underpinning wall at its south-west corner, however the remainder of the wall footing is unexposed. The wall appears up to 0.60m in thickness where openings/weep holes allowed inspection. The wall appeared generally straight however there were several distinct vertical cracks identified.

The existing house is a one and two storey brick structure of early 1980's construction that is 'L' shaped and extends down the southern boundary before striking north for its rear edge. Due to the natural slope the rear edge of the house is two storeys in height with a swimming pool and terrace formed at the rear at lower level. The rear of the site is then steeply sloping down to the foreshore. A limited inspection revealed no evidence of instability within the house structure.

5. Neighbouring Property Conditions:

The neighbouring property to the south (No. 19) contains a three storey masonry residential house on the front half of the block that is undergoing internal renovations. The house is located down slope of the site and very limited inspection was possible.

The neighbouring property to the north (No. 23) contains a residential house development on the rear half of the block with open carport and parking areas adjacent to the road reserve, above a series of bedrock outcrops that step down towards the south and west. A very limited inspection of this property was possible.

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

6. Assessment:

Based on the above items and on Councils flow chart check list – does the present site or proposed development contain:

- History of Landslip No
- Proposed Excavation/Fill >2m No
- Site developed Yes
- Existing Fill >1m Possible
- Site Steeper than 1V:4H In parts yes.
- Existing Excavation >2m No
- Natural Cliffs >3m No

It is considered that a detailed Geotechnical Report with Landslip Risk Assessment is not required for this Development.

However, it is recommended that the carport structure be founded via pier footings extended to bedrock so as to prevent any loading to the existing retaining wall located to the west and south of the proposed development. All footings require geotechnical inspection to confirm the insitu nature of the foundation.

7. Date of Assessment: 30th September 2019.

8. Assessment by:

Troy Crozier
Principal Engineering Geologist

9. References:

- Design plans by Greenwood Miller Architects, Drawing No.: 1233-SK01 A and 1233-SK02 A, Dated: 10/07/2019.
- Survey by Bee and Lethbridge, Reference No: 21094, Dated: 05/09/2018