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Project No.: 2020-061

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Preliminary Landslip Assessment for 91 Lauderdale Avenue, Fairlight, NSW

This letter report details the results of a preliminary landslip assessment required by Northern Beaches Council 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 Manly Council – Manly Development Control Plan 2013 (Amendment 11).

1. Landslip Risk Class:

The site is located within Landslip Risk Class “G2” which is classified as Flanking Slopes (Manly DCP – Schedule 1 Map C).

2. Site Location:

The site, 91 Lauderdale Avenue, Fairlight is located on the low south side of the road, near the intersection with King Avenue. It is a rectangular shaped block with long east side boundary of 32.67m and front boundary of 16.76m however it has an angled rear south boundary to Esplanade Park of 17.66m, as referenced from the supplied survey drawing.

3. Proposed Development:

It is understood that the proposed works involve demolition of the existing house and construction of a new three level residential development on the centre of the block with storeroom and garage structure at the front boundary.

The development involves a lower Level 1 Finished Floor Level (FFL) at R.L. 13.70 and an upper Level 3 FFL at R.L. 19.35.

The ground floor level and the terrace to its rear will require an excavation of up to a maximum of 1.0m depth near the rear southern boundary. Further localised/minor excavation appears required for the central garden area and the base of the elevator shaft. The new garage and undercroft structure appears formed to the front northern boundary and as such appears from supplied drawings to require removal of the existing sandstone retaining wall supporting the adjacent Public Access Road.

4. Existing Site Description:

The site is located at mid-slope level within gently south dipping topography, with the site levels falling from a high of approximately R.L. 19.73 at the front north-east corner, above the retaining wall that supports the driveway above the site, to a low of R.L. 11.88 at the rear south-west corner where stairs provide access to Esplanade Park.

Lauderdale Avenue is gently west dipping where it passes the site and is formed with a concrete kerb and gutter and then concrete footpath to the south. The pavement, kerb and footpath show no geotechnical issues.

Vehicular access via a concrete driveway enters the road reserve near the north-west corner of the site and then curves to the east providing access to the front of the site and also neighbouring properties to the east (No. 85 - 89). This concrete driveway dips gently to the east with the footpath and roadway supported above by a rendered masonry retaining wall. Around the western end and then south side, adjacent to the site, the driveway is supported by a concrete block wall above the adjacent steeply south dipping grassed reserve and then a public footpath that runs along the northern boundary of the site and adjacent property to the west (No. 93).

The site is located below the footpath and driveway with the front boundary formed as 3.0m high stacked, cut sandstone block retaining wall formed at a steep to vertical batter that retains the reserve above the level of the site. At the base of the wall is a gently south dipping terrace containing a shed near the western end and stairs at the east end. A set of low (<1.50m) rock retaining walls also create garden terraces that step down the site to the south with the existing house formed in the lower terrace.

Along the eastern boundary the site is formed with a series of high brick and mortared rock walls that retain and hide the neighbouring property (No. 89) and its suspended concrete driveway that runs down the common boundary up to 3.0m above the site levels. A set of stairs pass down this boundary at the base of the wall within the site to the lower site terrace and access to the existing house.

The existing house is a single storey brick and timber structure of that appears >75 years of age and is in a derelict condition. The structure extends close to the neighbouring property to the west. The north-east corner floor level is formed at lower terrace level whilst the rear south-west corner is slightly raised due to ground surface levels.

To the rear of the house is a concrete inground swimming pool at the south-east corner with terrace surround and then a gently south sloping garden area with stairs at the south-west corner that provides access to Esplanade Park. The rear boundary is formed with a rendered brick wall that retains the site up to 1.0m above the level of Esplanade Park.

5. Neighbouring Property Conditions:

Esplanade Park to the rear is gently south sloping adjacent to the common boundary with the site with a near level lawn and then concrete footpath within proximity to the boundary before the lawn slope becomes moderately sloping with moderate medium size vegetation adjacent to an apparent cliff slope that drops away to the south approximately 15m from the rear site boundary.

The property to the east (No. 89) contains a three to four level masonry residential development that steps down the slope to Esplanade Park. The building structure extends to within approximately 1.5m of the common boundary with the site with a suspended concrete driveway extending down the boundary for the front third of the block. The majority of this property appears raised above site levels by up to 1.0m with support via mortared sandstone rock retaining walls.

The property to the west (No. 93) contains a two storey rendered masonry residential development that is elongated east-west across the block. The property appears at a similar level to the site along the common boundary with the house located within 3.0m of the common boundary.

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

6. Assessment:

Based on the above items and Councils DCP Schedule 11 – Suggested Checklist For Preliminary Assessment - does the present site or proposed development contain:

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

It appears based on our understanding of the works that they do not exceed the Manly Council DCP – preliminary checklist – and therefore a detailed Site Stability Report is not required for this Development. However, this is dependent on confirmation of the works adjacent to the front boundary retaining wall and those adjacent to the upper eastern boundary.

7. Date of Assessment: 20th July 2020.

8. Assessment by:



Troy Crozier

Principal.

MAIG. RPGeo. – Geotechnical and Engineering

Reg. No.: 10197

9. References:

Design plans by Wendy Lewin Architect, Drawing No.: DASK00 – DASK06, Issue: A, Dated: 10/03/2020

Survey by LTS Lockley. Reference No.: 50499 002DT, Dated: 28/05/2019.