

PRELIMINARY GEOTECHNICAL ASSESSMENT:

116 Beatrice Street, Balgowlah Heights

1.0 Proposed Development

- 1.1** Demolish the existing carport and construct a new carport in the same location.
- 1.2** Install a new pool on the E side of the property by excavating to a maximum depth of ~1.3m.
- 1.3** Extend the existing upper floor of the house.
- 1.4** Various other internal and external alterations.
- 1.5** No fills are shown on the plans.
- 1.6** Details of the proposed development are shown on 19 drawings prepared by Action Plans, drawings numbered DA01 to DA19, Revision A, dated 13/11/20.

2.0 Site Location

- 2.1** The site was inspected on the 24th May, 2021.
- 2.2** This residential property is on the E side of the road. It encompasses the near-level crest of a hillslope. Medium Strength Hawkesbury Sandstone bedrock outcrops on the E 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 shallow filling used for landscaping on the E side of the property. The proposed development will require an excavation to a maximum depth of ~1.3m for the proposed pool.

2.3 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.

3.0 Site Description

At the road frontage, a concrete and stone-paved driveway runs to a carport attached to the W side of the house. The carport will be demolished as part of the proposed works. Between the road frontage and the house is a near-level lawn. The part two-storey rendered brick and timber framed and clad house is supported on brick walls and brick piers. No significant signs of movement were observed in the supporting walls of the house and the supporting piers stand vertical. A gently sloping lawn-covered fill extends off the E side of the house to the E common boundary. Competent Medium Strength Sandstone outcrops through this fill in places. The low brick, timber, and stack rock retaining wall that supported the fill has collapsed (Photo 1). The owner informed us this wall would be rebuilt to current engineering standards as part of the proposed works. A fill on the S neighbouring property is supported by a brick retaining wall that lines the S common boundary. The wall was observed to be cracked in two locations and displays signs of deflection (Photo 2). See **Section 4.0** for recommendations regarding this wall. The area surrounding the house and driveway is mostly lawn-covered with some paved areas. No 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. The adjoining neighbouring properties were observed to be in good order as seen from the road and the subject property.

4.0 Recommendations

The proposed development and site conditions were considered and applied to the Council Flow Chart.

The brick retaining wall supporting the fill on the S neighbouring property is cracked and shows deflection of ~30mm (Photo 2). To be prudent, we recommend the retaining wall be

inspected by the owners on an annual basis or after heavy prolonged rainfall, whichever occurs first, keeping a photographic record of the inspections. We can carry out these inspections upon request. Should any new movement be observed, a plan is to be formulated with the owners of the S neighbouring property so that the boundary wall may be remediated or rebuilt so it meets current engineering standards.

Provided good engineering and building practice are followed, no further Geotechnical assessment is recommended for the proposed development.

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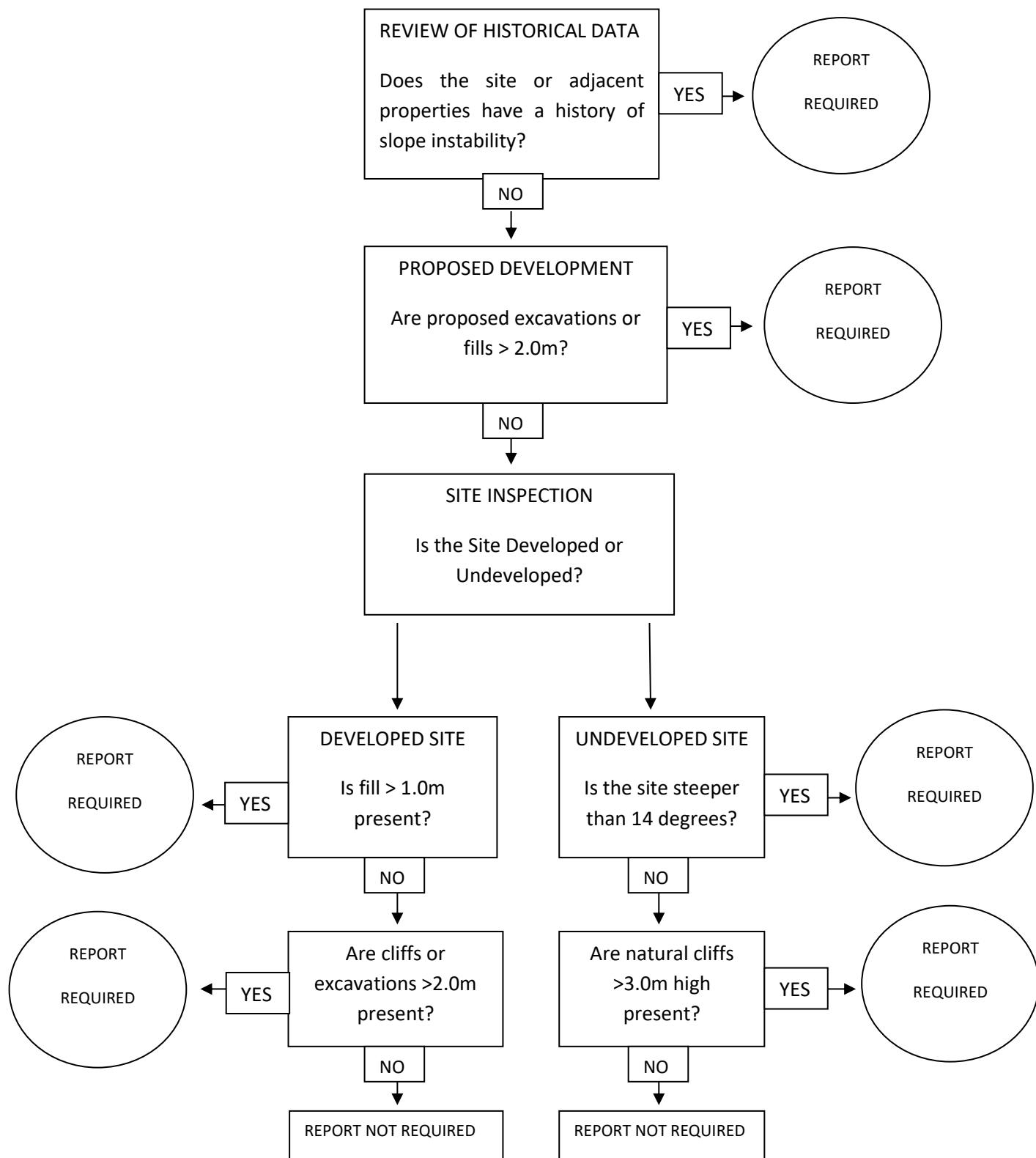


Photo 1



Photo 2

Preliminary Assessment Flow Chart – Norther Beaches Council (Manly)



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.
