

Sydney, Northern Beaches & beyond. Geotechnical Consultants

J0432. 5<sup>th</sup> May, 2015 Page 1.

# PRELIMINARY GEOTECHNICAL ASSESSMENT

## FOR

# **71 FERGUSON STREET, FORESTVILLE**

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 roof over the deck.
- **2.2** No excavations or fills are shown on the plans.
- **2.3** Details of the proposed development are shown on 2 drawings prepared by Neil Harvey B.Arch, numbered 1957 S96 1 to 2 and dated 4<sup>th</sup> May 2015.

#### 3.0 SITE LOCATION

**3.1** The site was inspected on the 4<sup>th</sup> May, 2015.

**3.2** This residential property is on the high side of the road and has a NW aspect. It is positioned over a moderately graded section of the upper reaches of a hill slope. Hawkesbury Sandstone bedrock outcrops across the site and where it is not visible at the surface is expected at shallow depths across the property. The natural surface of the block has been altered during its development to date with platforms cut in the slope for the construction of the house and pool. The roof addition is supported off existing posts and has not altered the natural surface further.

**3.3** The site shows no significant indications of historical movement that could have occurred since it was developed. We are aware of no history of instability on the property.

White geotechnical group

Sydney, Northern Beaches & beyond. Geotechnical Consultants

J0432. 5<sup>th</sup> May, 2015 Page 2.

#### 4.0 SITE DESCRIPTION

The slope rises from the road at average angles of some  $12^{\circ}$ . The surface contours are controlled by exposed and underlying sandstone bedrock that steps up the site forming sub horizontal benches between the steps. In the natural state where the rock benches are not visible they are covered with shallow sandy soil over shallow clay. On this site the most prominent made change to the surface is the excavation on the uphill side of the house. The cut mostly through stable medium strength sandstone but a portion at the western side is supported by a concrete block retaining wall that is back filled to provide a narrow level lawn area. A low brick retaining wall in front of the pool at the street frontage is cracked and is tilting at angles of ~  $10^{\circ}$ . The owner informs us that the movement was due to the action of roots from trees behind the wall that have since been removed. The owner informs us the low wall is being removed as part of the works and the soil behind the wall will be battered and planted with ground cover. No significant signs of movement were observed on the grounds. The brick house is supported on brick walls and piers. The visible supporting walls show no signs of movement. No geotechnical hazards were observed on the neighbouring properties that could impact on the subject property.

#### 5.0 RECOMENDATIONS

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

Provided good engineering and building practice are followed no further Geotechnical assessment is recommended.

White Geotechnical Group Pty Ltd.

Felite

Ben White M.Sc. Geol., AusIMM., CP GEOL. No. 222757 Engineering Geologist.

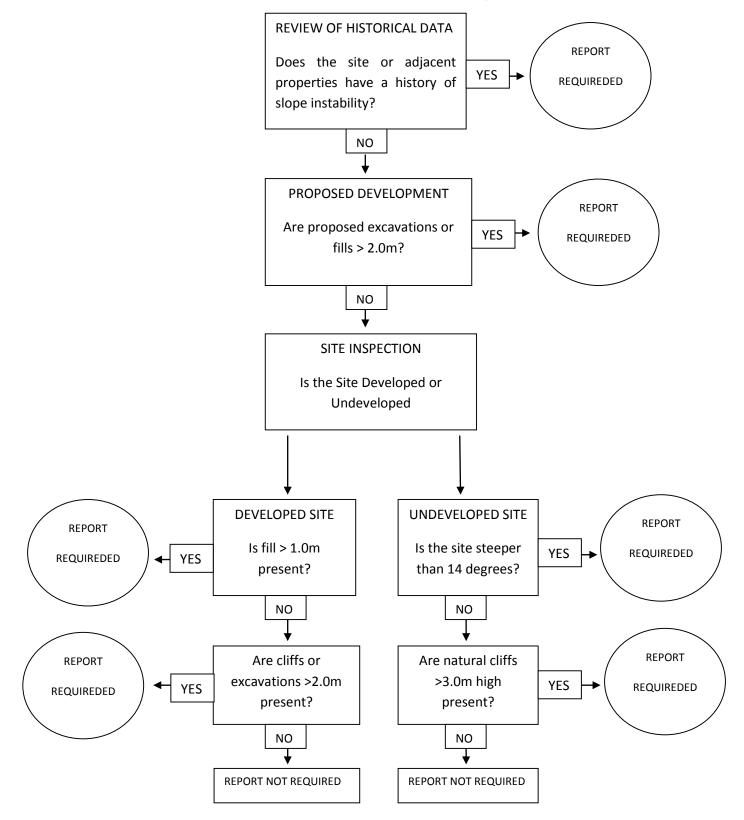
www.whitegeo.com.au Phone 027900 3214



Sydney, Northern Beaches & beyond. Geotechnical Consultants

J0432. 5<sup>th</sup> May, 2015 Page 3.

# Preliminary Assessment Flow Chart – Warringah Council



www.whitegeo.com.au Phone 027900 3214 Info@whitegeo.com.au 5/48 Collingwood St Manly



Sydney, Northern Beaches & beyond. Geotechnical Consultants

J0432. 5<sup>th</sup> May, 2015 Page 4.

## 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.