

Ref: SRE/818/CL/21

20<sup>th</sup> June 2021

Attn: MRS. DIANA NI

9 SUFFOLK AVENUE  
COLLARROY, NSW 2097

Dear Mrs. Diana Ni,

**RE: PRELIMINARY GEOTECHNICAL ASSESSMENT FOR PROPOSED ADDITIONS & ALTERATIONS AT 9 SUFFOLK AVENUE, COLLARROY NSW 2097 - PRELIMINARY GEOTECHNICAL REPORT**

Further to the email received on the 5<sup>th</sup> of June 2021, Soilsrock Engineering was commissioned to carry a preliminary geotechnical assessment of the site conditions and give recommendations regarding the proposed development above.

**1. INTRODUCTION**

The current report describes the geotechnical assessment carried following the requirements of the Northern Beach Council - Warringah, according with Clause E10 of the Warringah Development Control Plan (DCP 2011), and the Warringah Local Environmental Plan 2011 (LEP 2011) Map which identifies the Landslip Risk Classes as per **Table 1** below.

**Table 1 – LANDSLIP RISK CLASSES A TO E**

Thick Box	LANDSLIP RISK CLASS (thick box indicates Landslip Risk Class of Property)
<input type="checkbox"/>	A Geotechnical Report not normally required
<input type="checkbox"/>	B Preliminary assessment of site conditions required to determine whether a geotechnical report is required.
<input type="checkbox"/>	C Geotechnical Report required
<input checked="" type="checkbox"/>	D Preliminary assessment of site conditions required to determine whether a geotechnical report required
<input type="checkbox"/>	E Geotechnical Report required

The site inspection was carried on 9<sup>th</sup> June 2021 to access existing site conditions. Details of the proposed development are shown on the Architectural Drawings for DA Submission prepared by DESIGNED2YOU BUILDING DESIGN, referenced as “PROPOSED ALTERATIONS &

ADDITIONS 9 SUFFOLK AVENUE, COLLAROY”, Rev A, dated 17/05/2021 which are part of the DA submission.

- DWG No.: A0.01, “COVER SHEET”.
- DWG No.: A0.02, “GENERAL NOTES”.
- DWG No.: A0.03, “BASIX REQUIREMENTS”.
- DWG No.: A1.01, “SITE / SITE ANALYSIS PLAN”.
- DWG No.: A1.02, “GARAGE - EXISTING / DEMOLITION PLAN”.
- DWG No.: A1.03, “GROUND FLOOR - EXISTING / DEMOLITION PLAN”.
- DWG No.: A1.04, “FIRST FLOOR – EXISTING / DEMOLITION PLAN”.
- DWG No.: A2.01, “PROPOSED GARAGE PLAN”.
- DWG No.: A2.02, “PROPOSED GROUND FLOOR PLAN”.
- DWG No.: A2.03, “PROPOSED FIRST FLOOR PLAN”.
- DWG No.: A3.01, “ELEVATIONS - NORTH & SOUTH”.
- DWG No.: A3.02, “ELEVATIONS - EAST & WEST”.
- DWG No.: A4.01, “PERSPECTIVE SECTION”.

Survey Drawings for DA Submission prepared by FRANKHAM ENGINEERING SURVEYS, referenced as “DETAIL AND LEVEL SURVEY FOR DA PURPOSES WITHIN LOT A IN DP380519 KNOWN AS 9 SUFFOLK AVENUE COLLAROY”, DWG No.220234, dated 4/11/2020 which are part of the DA submission.

## **2. SITE LOCATION**

The subject site is situated at 9 Suffolk Avenue, Collaroy NSW, surrounded by the residential properties such as 7 Suffolk Avenue at the South side, bounded by 11 Suffolk Avenue to the West side, 18 and 16 Suffolk Avenue to the North and Northeast, respectively.

## **3. PROPOSED DEVELOPMENT**

The development proposes to demolish the existing garage to be excavated approximately 400mm, including the instalment of a new metal garage gate to client's selection and re-grade driveway to suit garage level, new stairs leading up from the spa to the garage gate, a grate drain, a slab and footing for the swim spa, along with some required underpinning under the existing residence located beneath the kitchen. The existing ground floor is proposed to have the floors and walls for the deck, kitchen, corridor, living room and dining room demolished and have these areas replaced with selected interior timber floors and selected timber deck for the outdoor area, including new window and door tags, new stairs and balustrades to be installed within the

residence, a glass balustrade to be installed along the boundary line of the existing deck and new deck, the instalment of the swim spa as per manufacturers specifications with a cover, a new front entry gate, a metal screening device, and a new 1.5 m high painted timber front fence. The proposed first floor plan requires a new spreader onto roof below near the family room, a new door tag linked to the balcony, and stairs and balustrades to be installed in the family room. Overall, the alterations proposed will slightly change the existing two-story building and comprises the following: 4 bedrooms, three bathrooms, a living room, a family room with a balcony included, a laundry, a deck, a kitchen and the stairs coming from the ground floor level. The additional alterations loading would need to be suitable for the existing ground level and must be confirmed by the structural engineer.

#### **4. EXISTING SITE DESCRIPTION**

The subject site is known as Lot: A / DP3890519 at 9 Suffolk Avenue, Collaroy NSW, which is in a rectangle shape with approximately 491.9m<sup>2</sup> in total site area, it is containing a brick house surrounded by a grass lawn and bushes and trees, bounding the residence from nearby neighbours. The existing dwelling is a two-storey brick residential house in good conditions. From the analyses of Sydney 1:100 000 Geological Map, it is indicated the site is underlain by Hawkesbury Sandstone which is described as medium to coarse-grained quartz sandstone, very minor shale, and laminate lenses.

The site is slightly slopping down from East to West with approximately 0° to 5° from the beginning of the property, and over 5° with the backyard area. No evidence of important cracks and/or settlements were observed, no evidence of slope instability was identified at the time of the inspection.

#### **5. CONCLUSIONS**

According with the Warringah Landslip Risk Map, the site is located partially within the Areas D (Flanking Slopes from 5 to 15 degrees). Sites located within area D a preliminary geotechnical Report is required (according with the Clause E10 of Warringah DCP 2011).

Further to the analyses of the Council Checklist Flowchart attached on the **Appendix 1** and on this preliminary assessment, the proposed garage, ground floor and upper floors alterations and additions, it is considered satisfactory from a geotechnical and landslip perspective subject to the application of good engineering practice. No further detailed geotechnical report is required.

However, it is recommended to carry further geotechnical site inspections and testing by a competent professional geotechnical engineer, to confirm that the existing footings are founded in a competent and solid soil or rock foundations suitable to take any additional loads of the proposed alterations and additions and the new footings construction are excavated and socket in competent ground with the minimum allowable bearing pressures required by the structural design. In addition, prior to excavation for the garage, the footing depth founding levels must be inspected by carrying pit tests to ensure no excavation is carried below and under the underside of the existing footings to determine if underpinning works are required. It is also recommended to ensure that any new footings required for ground floor extension to be founded as well in competent foundations materials.

Please do not hesitate to contact the undersigned if you have any questions regarding this letter report or if you require further assistance.

Yours faithfully,  
For and on behalf of  
**Soilsrock Engineering Pty Ltd**



**Jorge Cabaco**

BEng MEng MIEAust CPEng RPEQ NER

**Principal Geotechnical Engineer**

**ENGINEERS AUSTRALIA**

**CHARTERED ENGINEER | NER NATIONAL ENGINEERS REGISTRATION No. 3789414**

**Appendix 1 – Checklist Flow Chart for Council's Assessment of Site Conditions and Need for Geotechnical Report in Landslip Risk Classes B and D**

## APPENDIX 1

### CHECKLIST FLOW CHART FOR COUNCIL'S ASSESSMENT OF SITE CONDITIONS AND NEED FOR GEOTECHNICAL REPORT IN LANDSLIP RISK CLASSES B AND D

