Shoring Work Methodology Report

Date: 29 November 2022 Job No. 210446

Client: Jonathan Algar Engineer: BS

Site: 77 Castle Circuit, Seaforth

Brad Seghers of Northern Beaches Consulting Engineers P/L carried out a site inspection at the above property in November 2022. The purpose of the visit was to inspect and prepare a report explaining measures required, so that the existing house and pool structure, and the neighbouring house structure, are not affected during construction or in the long term. The proposed alterations and additions are detailed in the drawings prepared by Hot House Architects dated 01/09/2022 are carried out.

This report also considers the recommendations made in the Draft Geotechnical Investigation Report by White Geotechnical Group dated 11/10/2022.

1. Site Description

   The three-storey brick residential property is located on the high side of Castle Circuit and on the low side of a right of carriageway access off the dead end of Castle Circuit. The house is situated in the steep central slope of the property. A concrete driveway runs down from the right of carriageway at the top of the site. From the low side up to the house are a series of stone and masonry retaining walls, a set of stairs, and a pool on piers.

2. Proposed Works

   Construct a new garage and storage area between the boundary and the house, with a green terrace on top, a lift and set of external stairs. Construct an upper floor addition, with minor internal and external alterations.

3. Shoring Work Methodology

   3.1 Clear area to be excavated from existing stairs, retaining walls, paving, topsoil, and foliage.

   3.2 Excavate (zone 1 marked on Sketches SK1 & SK2) to create machine access to upper slope and expose pool pier footings (marked on P1 on Sketches SK1 & SK2) and the footings at the corner of the house (marked P2 on Sketches SK1 & SK2). Temporarily shore up any existing retaining walls that are to remain that are close to the proposed excavation.

   3.3 Engage geotechnical engineer to inspect exposed strata and footings to ascertain if underpinning is required and determine the possible profile of bedrock. Geotechnical engineer to confirm strategy outlined

in 3.4 below before proceeding.

3.4 Install vertical piles (marked PW on Sketches SK1 & SK2), spacing and socket depth to be confirmed by geotechnical engineer after their inspection. Carefully excavate in 1m drives and shotcrete between piles. Allow to cure before the next 1m drive commences. Care will need to be taken when excavating close to tree 1 (marked on Sketch SK1), and arborist advice will need to be sought regarding this tree.

3.5 Temporary propping of the shoring may be required until the terrace slab is constructed and restrains the top of the shoring. The garage slab will restrain the base of the shoring.

4. Summary

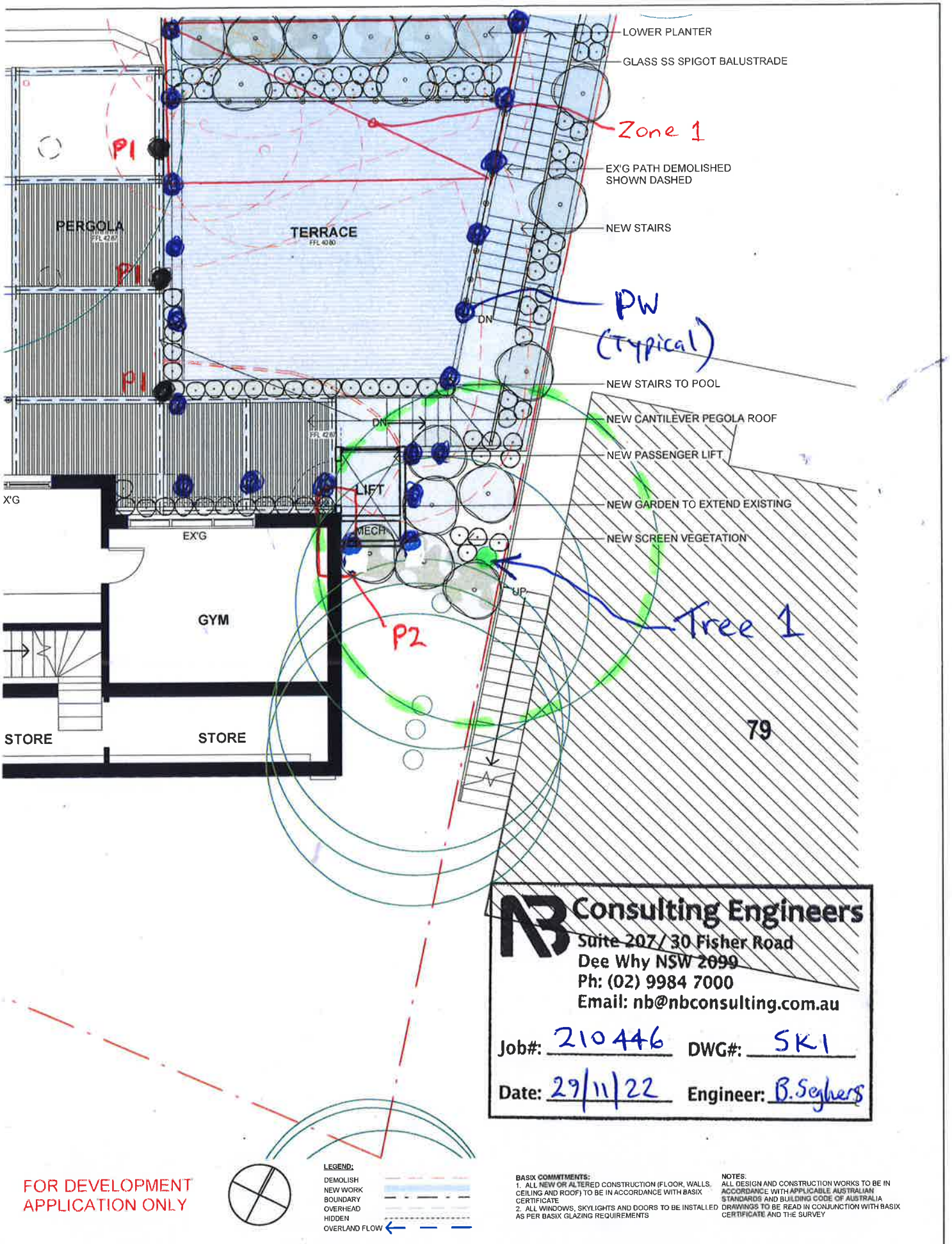
If the shoring is designed by a qualified structural engineer, and the above construction methodology is adopted, along with constant monitoring and inspections, by both the geotechnical engineer and structural engineer, then there should be no adverse impact on the existing house structure, the neighboring house structure, or the pool structure.
Note: The final shoring system may be subject to change or modifications depending on what is discovered after excavation outlined in 3.2 of this report is carried out.

Note: This report does not cover any defects to the structure that were not accessible at the time of inspection. If in the event that defects are uncovered during construction or become apparent after construction is complete, then the engineer should inspect the areas of concern and prepare a specification for remedial works. (These works will be carried out at hourly rates.)

We trust that this report meets with your requirements. Please contact the author if further clarification is required.

Yours sincerely,
NORTHERN BEACHES CONSULTING ENGINEERS P/L

Brad Seghers
BE(Hons), MIEAust, CPEng, NER, NSW Professional Engineer & Design Practitioner, Director



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Job#: 210446 DWG#: SK1

Date: 29/11/22 Engineer: B. Seghers

FOR DEVELOPMENT APPLICATION ONLY

LEGEND:
DEMOLISH
NEW WORK
BOUNDARY
OVERHEAD
HIDDEN
OVERLAND FLOW

BASIX COMMITMENTS:
1. ALL NEW OR ALTERED CONSTRUCTION (FLOOR, WALLS, CEILING AND ROOF) TO BE IN ACCORDANCE WITH BASIX CERTIFICATE.
2. ALL WINDOWS, SKYLIGHTS AND DOORS TO BE INSTALLED AS PER BASIX GLAZING REQUIREMENTS

NOTES:
ALL DESIGN AND CONSTRUCTION WORKS TO BE IN ACCORDANCE WITH APPLICABLE AUSTRALIAN STANDARDS AND BUILDING CODE OF AUSTRALIA
DRAWINGS TO BE READ IN CONJUNCTION WITH BASIX CERTIFICATE AND THE SURVEY

DATE 1-09-22	CLIENT: Jonathan Algar	GROUND FLOOR			
	PROJECT: Alterations and Additions	PROJECT NO.	1037 HHA	DA 100	
		DATE	1 Sep 2022		
	ADDRESS: 77 Castle Circuit, Seaforth, NSW, 2092	LOT: 33	DRAWN BY: JG		
		DP: 200638	CHECKED BY: WC	SCALE:	As indicated

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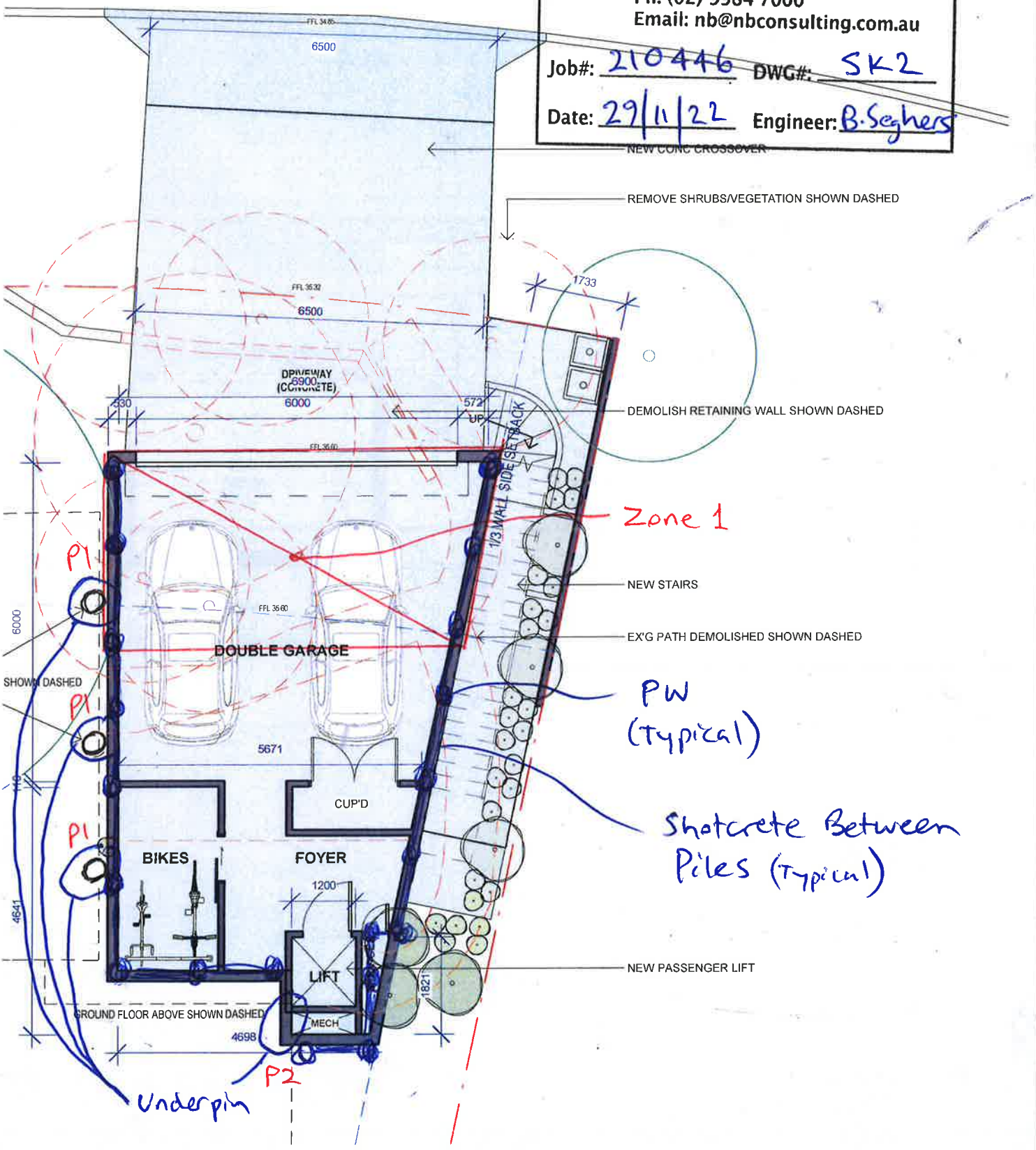
Job#: 210446 DWG#: SK2

Date: 29/11/22 Engineer: B. Seghers



DATE 1-09-22	CLIENT: Jonathan Algar	BASEMENT			
	PROJECT: Alterations and Additions	PROJECT NO.	1037 HHA		DA 099
		DATE	1 Sep 2022		
	ADDRESS: 77 Castle Circuit, Seaforth, NSW, 2092	LOT: 33	DRAWN BY: JG		
		DP: 200638	CHECKED BY: WC	SCALE:	1 : 100