Geotechnical Services
On Budget. On Time. Professional Service

Geotechnical Investigation Report

For

Sydney Extensions & Designs Pty Ltd

At

16 Noorong Avenue,

Frenchs Forest NSW 2086

Report G11624-1

24th March 2025

Document Control

16 Noorong Avenue,

Frenchs Forest NSW 2086

Prepared for: Sydney Extensions & Designs Pty Ltd

Revision	Date	Author	Reviewer
Rev 0	24/03/2025	BG	XDC

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1. Introduction

1.1. Overview

Atlas Geotechnical Service Pty Ltd (AGS) was engaged by Sydney Extensions & Designs Pty Ltd (client) to undertake a Geotechnical Investigation for a Proposed Residential Development at 16 Noorong Ave, Frenchs Forest NSW 2086 redevelopment, herein referred to as 'the site'.

It is understood the client requires a Geotechnical Investigation Report in conjunction with the associated laboratory tests to provide a determination of the existing site founding conditions based on investigation findings.

1.2. Objectives

The objectives of this investigation are listed below:

- Determination of in-situ soil conditions via mechanical and manual auger investigation;
- Obtain subsurface soil profile and geotechnical parameters;
- Determination of shallow bearing capacity;
- Determination of site classification;
- Determination of groundwater during investigation (if encountered);
- Determination of Bedrock level depth and classification (if encountered); and
- Provide comments and recommendations on investigation findings.

1.3. Scope of Work

To achieve the above-mentioned objectives, AGS carried out the following scope of work:

- Review of DBYD drawings, geological maps, and other available documents in the area;
- Walkover observation of site conditions;
- Supervise One (1) x mechanical borehole towards the southern perimeter of the proposed development footprint, advanced to a maximum depth of 1.2m;
- Supervise 1 x manual borehole towards the northern perimeter of the proposed development footprint, advanced to a maximum depth of 1.2m;
- Logging of onsite borehole and GINT Logging;
- Undertake 1 x bulk soil sample for the Atterberg Limits test;
- Undertake a total of Two (2) x shallow Dynamic Cone Penetrometer (DCP) within each borehole location; and
- Prepare a Geotechnical Investigation Report of investigation findings along with annotated drawings and geotechnical design parameters.

1.4. Supplied Documents

As part of this investigation, AGS was supplied with the following documentation:

- 'Ground Floor and First Floor Alterations and Additions', issued by: Sydney Extensions & Design Pty Ltd, Ref: Lot 321, DP848146 Rev C, issued: 20/01/2025.
- 'Return of Application', issued by Northern Beaches Council, Application No. DA2025/0197-PAN-210181, issued: 27 February 2025.

2. Site Condition and Description

2.1. Regional Geology

The 1:100,000 scale Geological Series Map of the Sydney region indicates that the subject site is underlain by a Hawkesbury Sandstone (Rh) of the Mesozoic Era. Rh is described as 'Medium to coarse-grained quartz sandstone, very minor shale and laminite lenses'.

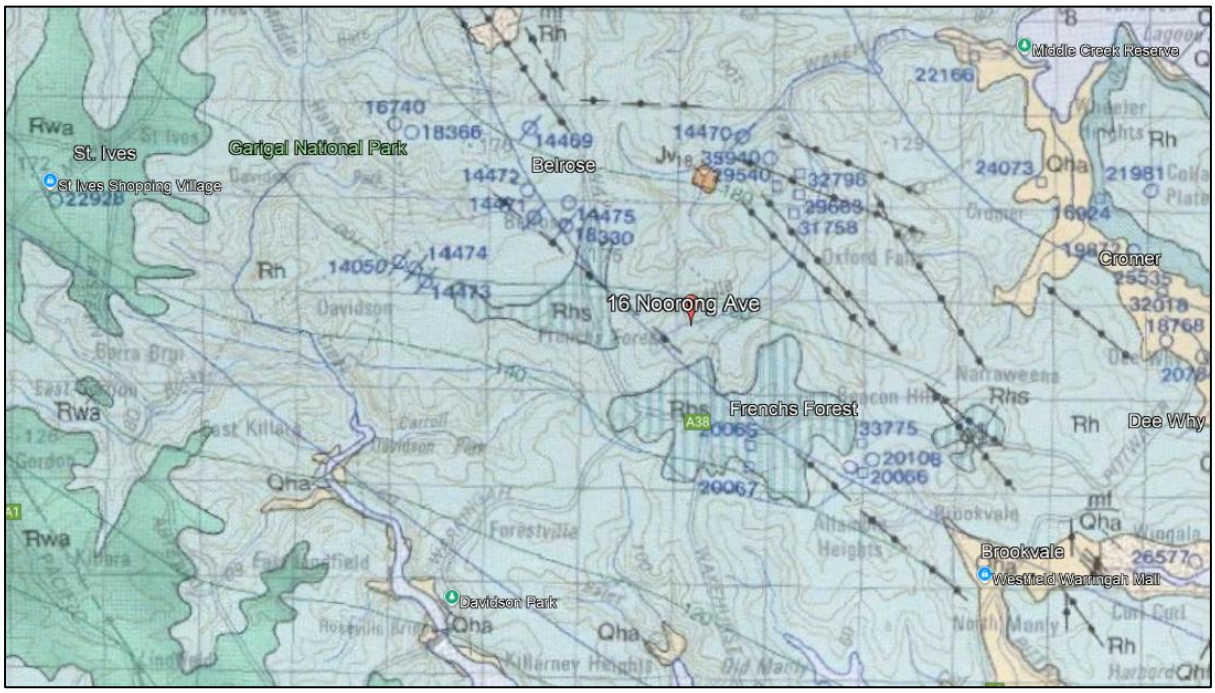

Image 1 - 1:100,000 Geological Map of the Sydney Region

2.2. Proposed Development

Based on client consultation, supplied documentation, and geotechnical observations, AGS has prepared a borehole site plan (refer to Figure 1) presented in the attachments within this report.

It is understood that the proposed first floor is to be constructed above the existing car garage, found at the southwestern portion of the existing residential dwelling footprint. The indicated residential developments concept was extrapolated from the aforementioned supplied documentation (Image 2).

Image 2 – Proposed Construction Area

AGS understands that the following construction has been proposed, with respect to Image 2:

- Demolition of the existing garage roofing;
- Redevelopment of the first floor and garage of the existing structure; and
- Construction of the proposed first floor, including redevelopment of the garage parking space, an additional bedroom, ensuite, staircase and balcony, within the bounds of the proposed works.

2.3. Site Description

The site is located within the Northern Beaches Council, with site access from Noorong Avenue, located on the southwestern perimeter of the site location/boundary. The site maintains an area of 503 m^2.

The proposed development, as outlined in Section 2.2, will be constructed within the confines of the site's internal boundary (Image 3), the site is located at 16 Noorong Avenue, Frenchs Forest. Topographically, the site was calculated to exhibit a descending terrain with a gradient of approximately 14°, descending from northwest to southeast. The property has landscaped gardens along the front of the property and adjacent to the western fence line, which contains retaining walls. At the front of the property, there are paved and concreted car parking spaces. At the back of the property, there is a swimming pool and timber decking surrounded by concrete paving.

Image 3 - General Site Location

3. Fieldwork

3.1. Drilling Investigation

Fieldwork was undertaken on 7th March 2025 under the full-time supervision of a Geotechnical Engineer from AGS, and it included subsurface investigations at 2 select locations. The investigation comprised 1 mechanical borehole advanced with a 4.1T Pixy Drilling Rig and 1 manual borehole advanced with a hand auger. DCP testing was conducted at each borehole location prior to drilling works to ascertain the bearing capacity of the subsurface soils. The Pixy 4.1T drilling rig was supplied and operated by Precise Drilling Pty Ltd for mechanical borehole drilling and in-situ sample collection.

Proposed borehole locations were confirmed by the client prior to AGS's site visit. AGS was commissioned by the client to undertake a total of 2 boreholes. The proposed boreholes were advanced to practical refusal, with a maximum refusal depth of 1.2m below ground level (bgl).

A retrieved soil sample was collected at the natural profile for the purpose of Atterberg Limits testing, in accordance with AS1289.3.3.1, to ascertain the required geotechnical parameters for subsurface soils' physical properties. Laboratory test results are presented in Appendix D and outlined in Table 3 in section 4.1.

A total of 2 DCP tests were performed during the investigation for the assessment of shallow soil Allowable Bearing Pressure (ABP). DCP test results are summarised in Table 2 of Section 3.3.

AGS did not encounter buried metallic services or utilities during the drilling investigation. Details of underlying soil profiles and descriptions are outlined within the attached borehole logs (Appendix B).

3.2. Soil Profiles

The subsurface conditions observed on-site are summarised in Table 1. For a detailed description, refer to the attached borehole logs and explanatory notes.

Table 1 - Subsurface Soil Profile

Borehole	Borehole depth (m)	Termination /Refusal	Fill[1] (m)	Colluvial[2] (m)	Bedrock[3] (m)
BH01	1.2	Refusal	0.00 - 0.95	-	0.95 – 1.20
BH02	1.2	Refusal	0.00 - 0.15	0.15 – 1.15	1.15 – 1.20

NOTE: *[1] Soil Horizon Unit 1 – FILL: Sandy CLAY, brown-grey, medium plasticity, with fine to medium-grained sand.*
[2] Soil Horizon Unit 2 – Colluvial: Clayey SAND, grey, low plasticity, fine to coarse grained sand.
[3] Soil Horizon Unit 3 – BEDROCK: SANDSTONE, pale grey, white-brown, extremely weathered, extremely low strength, fine to medium-grained sand, trace fine subrounded gravel fragments.

3.3. Field Dynamic Cone Penetrometer Testing

Field testing using DCP was undertaken within each of the drilled borehole locations for the assessment of shallow soil ABP. The DCP test results are presented in Appendix C and summarised in Table 2 below.

Table 2 - DCP Test Result Summary

Test Number:	DCP-1	DCP-2
Material Description (Soil Horizon):	1	2
Test Method:	AS1289.6.3.2	
Test Location:	BH01	BH02
Depth Tested (m):	Blows Per/150mm	
0.00 – 0.15	6	1
0.15 – 0.30	5	4
0.30 – 0.45	4	5
0.45 – 0.60	6	5
0.60 – 0.75	7	6
0.75 – 0.90	9	4
0.90 – 1.05	25/90 - Refusal	25/30 - Refusal

4. Laboratory Testing

4.1. Atterberg Limits

Laboratory Atterberg Limits tests were conducted in accordance with AS1289.3.3.1 in AGS's NATA accredited laboratory. The Atterberg Limits sample was collected from BH01 at a depth of 0.4m below existing ground level. The Plastic Index Test Report is attached within Appendix D, and the results of the laboratory testing are summarised in Table 3 below.

Table 3 - Atterberg Limits Test Summary

Borehole	Sampling Depth (m)	LL (%)	PL (%)	PI (%)	Material Type
BH01	0.4 – 0.6	35	18	17	Sandy CLAY

Notes: *LL: Liquid Limit PL: Plastic Limit PI: Plastic Index*

5. Recommendations

5.1. Groundwater Considerations

Groundwater seepage was encountered during AGS's site investigation. Water ingress was encountered at a depth of 0.9m for BH02 and was not encountered for BH01. The proposed footing design was not provided at the time of this report compilation. If additional footings are required, it is anticipated that groundwater seepage may be encountered. Dewatering or inflow redirection procedures may be required should construction activities encounter any groundwater. It is recommended that any potential inflow be controlled by the sump pumping method.

5.2. Site Classification

As part of the requested scope from the client, AGS was commissioned to determine a suitable Site Classification in accordance with AS2870-2011 "Residential Slabs and Footings". Based on analytical laboratory test results, assessed site conditions, and soil profiles, this site may be classified as follows:

Table 4 – Site Classification Summary

Residential Address	Site Classification
16 Noorong Ave, Frenchs Forrest NSW	**Class P**

This site classification is described as inadequate bearing strength or where ground movement may be significantly affected by factors other than reactive soil movements due to moisture conditions. **Class P** sites include soft or unstable foundations such as soft clays or silt or loose sands, landslip, mine subsidence, collapsing soils and soils subjected to erosion, reactive sites subject to abnormal moisture conditions. The classification of a site with uncontrolled fill not more than 0.8m deep for sand and not more than 0.4m deep for material other than sand shall be Class P, unless all footings are founded on natural soil through the filling.

5.3. Preliminary Bearing Pressure Assessment

Based on onsite DCP testing, it is anticipated that the Proposed Residential Development is to be founded on 2 soil profiles comprising the shallow colluvial profile (Soil Horizon Unit 2) and shallow fill layer (Soil Horizon Unit 1). AGS's drilling investigation indicated that the subject colluvial soil profile consisted of medium-dense sands to a depth of 1.15m and fill material to a depth of 0.95m bgl.

Shallow bedrock strata was encountered in each borehole (BH01 & BH02) locations. It can be anticipated that 800 kPa can be achievable at the encountered bedrock strata (Soil Horizon 3 – Table 1).

Due to the varying depth of the sandstone bedrock profile, it is important to note that all foundations must be founded on consistent material of similar quality and strength (i.e. similar Allowable Bearing Pressure) to eliminate differential settlement due to variations in bearing material. Foundation strata is to be inspected and verified by an experienced and qualified geotechnical engineer post-excavation (HOLD POINT).

For the design and construction of footings, it is also recommended that:

- The base of the excavation is to be cleaned so that no soft, loose, or wet soils are present;
- Before pouring concrete, an experienced geotechnical engineer to inspect the excavation strata and confirm the allowable bearing pressures (HOLD POINT).

Table 5 – Anticipated Allowable Bearing Pressure

Material Description	Allowable Bearing Pressure (kPa)
Clayey SAND	150
Sandstone Class V	800
Sandstone Class IV	1000

5.4. Slope Stability

As indicated by the Northern Beaches Council, the subject site is of landslip potential and must therefore undergo landslip prevention which may arise from the proposed construction. The appraisal is relevant to the proposed development, which is the subject of the current application before the Northern Beaches Council. No historical data, including documents or investigatory findings, were provided regarding the local landslide history at the time of this report.

The subject site has been identified to be within an area where there are risks that slope instability may occur. It was found that the subject site is situated within 'Area B' of the Warringah Landslip Risk Map. It is important to recognise that soil and rock movements are an ongoing geological process, which may be affected by the development and landslip management within the site or on adjoining land. Soil and rock movements may cause visible damage to structures even where the risk of slope failure is considered low. This report is intended to assess the risk of slope failure, apparent at the time of inspection. Our opinion is provided on the risk of slope instability for the land specifically referenced in the title of this report.

No evidence of former land instability was observed within the site and surrounding land during the site visit and walkover survey. Given the shallow depth of bedrock material and the undulating land, with grades in the order of 14° at the steepest sections, we consider the risk of landslides to be low. The need to carry out a further detailed slope risk assessment in accordance with Australian Geomechanics Society (AGS) Practical Note Guidelines for Landslide Risk Management (2007) was deemed necessary.

5.5. Risk Assessment

The assessment has been carried out by:

- Consideration of the likely slope failure mechanisms and likely initiating circumstances that could effect the elements at the site. The type or mode of landslide failure has also been classified.

- For this case, the potential consequences with respect to the proposed additions development have been considered. The current assessed probability of occurrence of each event has been estimated on a quantitative basis. The consequence and probability have been combined to determine the risk assessment.

Table 6 – AGS Risk Assessment (Risk to Property)

Site Area	Geotechnical Hazards		Proposed Development Risk to Property					
	Hazard Type	Element(s) at Risk	Without Risk Management			With Risk Management		
			Likelihood	Consequence	Risk	Likelihood	Consequence	Risk
16 Noorong Ave, Frenchs Forest	Landslides	House and surrounding land	Rare	Catastrophic	Moderate	Barely credible	Catastrophic	Low
	Slumping	House and surrounding land	Rare	Major	Low	Barely credible	Medium	Very low
	Subsidence	House and land	Rare	Major	Low	Barely credible	Medium	Very low
	Topping	House and land	Rare	Catastrophic	Moderate	Barely credible	Major	Very low
	Uncontrolled Water Flows	House and land	Possible	Insignificant	Very low	Unlikely	Insignificant	Very low
	Ground vibrations from construction	House and land	Rare	Insignificant	Very low	Barely credible	Insignificant	Very low
	Retaining wall failure	House and land	Rare	Minor	Very low	Barely credible	Minor	Very low

As indicated in Table 6, the hazards identified on the site and adjoining land can be effectively managed to maintain a 'Low' or 'Very Low' level of 'risk to property' by following the risk management actions.

The AGS 2007 guidelines provide the following equation to be used for 'risk to life' calculations:

$$R_{(LoL)} = P_{(H)} \times P_{(S:H)} \times P_{(T:S)} \times V_{(D:T)}$$

Where:

$R_{(LoL)}$ is the risk (annual probability of loss of life (death) of an individual).

$P_{(H)}$ is the annual probability of the landslide.

$P_{(S:H)}$ is the probability of spatial impact of the landslide impacting a building (location) taking into account the travel distance and travel direction given the event.

$P_{(T:S)}$ is the temporal spatial probability (e.g. of the building or location being occupied by the individual) given the spatial impact and allowing for the possibility of evacuation given there is warning of the landslide occurrence.

$V_{(D:T)}$ is the vulnerability of the individual (probability of loss of life of the individual given the impact).

Table 7 – Summary of Risk to Life Calculations

Hazard	Without Risk Management					With Risk Management				
	$P_{(H)}$	$P_{(S:H)}$	$P_{(T:S)}$	$V_{(D:T)}$	$R_{(LoL)}$	$P_{(H)}$	$P_{(S:H)}$	$P_{(T:S)}$	$V_{(D:T)}$	$R_{(LoL)}$
Landslides	1×10^{-3}	0.2	0.75	1.0	1.5×10^{-4}	1×10^{-4}	0.2	0.75	0.5	7.5×10^{-6}
Slumping	1×10^{-4}	0.2	0.75	1.0	1.5×10^{-5}	1×10^{-5}	0.2	0.75	0.5	7.5×10^{-7}
Toppling	1×10^{-4}	0.2	0.75	0.05	7.5×10^{-7}	1×10^{-5}	0.2	0.75	0.05	7.5×10^{-8}

Note: *The values of the probability terms in Table 7 have been estimated for the site by engineering judgment, based on previous experience with risk assessment calculations, hillside building developments and landslide stabilisation works.*

By reference to the risk assessment set out in Tables 6 and 7, provided that the proposed development is undertaken 'with risk management', AGS has determined that:

- The quantitative risk-to-life calculations meet the **'Acceptable'** criteria in accordance with AGS 2007 (i.e. the probability of loss of life for the individual most at risk is less than 1×10^{-6} per annum).
- As the qualitative risk to property assessment for the proposed development indicates a **'Low'** to **'Very low'** risk to property, it has been assessed that there is no significant risk to life associated with the development.

This outcome meets the **'acceptable risk level'** for the proposed development in accordance with Warringah Development Control Plan, section E10 Landslip Risk and Australian Geomechanics Society Practical Note Guidelines for landslide Risk Management (2007).

6. Limitations

AGS has performed its services for this project in accordance with current industry codes and practices. The advice given in this report assumes that the test results are representative of the overall ground conditions. However, it should be noted that actual conditions in some parts of the site might differ from those found. If excavations reveal ground conditions significantly different from those shown in our findings, AGS must be consulted.

The scope and the period of AGS services are described in the report and are subject to restrictions and limitations. AGS did not perform a complete assessment of all possible conditions or circumstances that may exist at the Site. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by AGS regarding it.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by AGS for incomplete or inaccurate data supplied by others. Any drawings or figures presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

7. References

- Geological Series Map of the Penrith region, scale 1:100,000
- Pells, P.J., Douglas, D.J., Rodway, B, Thorne, C. And Mcmahon, B.K "Design Loadings for Foundations on Shale and Sandstone in the Sydney Region". Australian Geomechanics Journal, Vol.3 1978.
- AS1289 - Methods of testing soils for engineering purposes

APPENDIX A

FIGURES

ATLAS Geotechnical Services
On Budget. On Time. Professional Service

ABN: 67 626 182 349
W: www.atlasgeoservice.com.au
E: info@atlasgeoservice.com.au
P: Unit 49 93/97 Newton Road, Wetherill Park NSW 2164

Client: Sydney Extensions and Designs Pty Ltd	Project Name: Proposed Residential Development	Report No: G11624-1	N	Figure No: Figure 1	Figure Title: Approximate Borehole & DCP Locations
	Project Address: 16 Noorong Ave, Frenchs Forest NSW 2086	Figure Date: 14/03/25			

Figure 2.1 – General View of Drilling Rig (BH01)

Figure 2.2 – General View of Subsurface Material (BH01)

Figure 2.3 – General View of Subsurface Material (BH01)

Figure 2.4 – General View of Encountered Bedrock Material at BH01

Figure 3.1 – View of Encountered Topsoil Material (BH02)

Figure 3.3 – View of Colluvial Clayey Sand (BH02)

Figure 3.5 – Closeup View of Augered Material at BH02 Location

Figure 3.2 – View of Encountered Silty Clay Fill Material (BH02)

Figure 3.4 –View of In-situ Bedrock Material (BH02)

ATLAS Geotechnical Services On Budget. On Time. Professional Service	ABN: 67 626 182 349 W: www.atlasgeoservice.com.au E: info@atlasgeoservice.com.au A: Unit 49, 93-97 Newton Rd, Wetherill Park NSW 2164	Client: Sydney Extensions and Designs Pty Ltd	Project Name: Proposed Residential Development Project Address: 16 Noorong Ave, Frenchs Forest NSW 2086	Report No: G11624-1 Figure Date: 14/03/2025		Figure No: Figure 3	Figure Title: Site Photographs

APPENDIX B

BOREHOLE LOGS

Atlas Geotechnical Services Pty Ltd
T: (02) 8740 0494
E: info@atlasgeoservice.com.au
W: www.atlasgeoservice.com.au

BH No: BH01
Sheet: 1 of 1
Job No: G11624-1

Borehole Log

Client: Sydney Extensions & Designs Pty Ltd
Project: Proposed Residential Development
Location: 16 Noorang Ave, Frenchs Forest NSW 2086

Started: 7/3/25
Finished: 7/3/25
Borehole Size: 110mm

Rig Type: 4.1T Pixy
Hole Location: Figure 1
Driller: Precise Drilling
Logged: BG
RL Surface (m): 89.99
Contractor: AGS
Bearing: ---
Checked: PC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT	No Ground Water Table	89.5	0.5		SC	Clayey SAND, white - yellow, low plasticity, fine to medium grained sand, trace rootlets, appears well compacted		D		FILL
					CL	Sandy CLAY, brown - grey, low plasticity, with fine to medium grained sand, trace rootlets, appears well compacted	S-2349A	M		FILL
		89.0	1.0			SANDSTONE, pale grey, high strength, extremely weathered, fine grained sands				BEDROCK
		88.5	1.5			Borehole BH01 terminated at 1.2m				BH01 Refusal at 1.2m
		88.0	2.0							

Atlas Geotechnical Services Pty Ltd
T: (02) 8740 0494
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BH No: BH02
Sheet: 1 of 1
Job No: G11624-1

Borehole Log

Client: Sydney Extensions & Designs Pty Ltd
Project: Proposed Residential Development
Location: 16 Noorang Ave, Frenchs Forest NSW 2086

Started: 7/3/25
Finished: 7/3/25
Borehole Size: 110mm

Rig Type: Hand Auger
Hole Location: Figure 1
Driller: Atlas Geotechnical
Logged: BG
RL Surface (m): 90.17
Contractor: AGS
Bearing: ---
Checked: PC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
HA						Sitly Clay, brown, low plasticity, trace rootlets, appears well compacted		M		FILL
		90.0				Sandy CLAY, grey - brown, low to medium plasticity, fine to medium grained sands, trace fine subrounded gravels, trace rootlets		M	St	COLLUVIAL
	Water Seepege at 0.9m		0.5			Clayey SAND, white - grey, low plasticity, fine to medium grained sand, trace rootlets		M	MD	
		89.5				From 0.9m - Water seepage observed		W	MD	Water Seepage
		89.0	1.0			SANDSTONE, white - brown, high strength, extremely weathered, fine to medium grained sands, trace fine subrounded sandstone fragments				BEDROCK
		88.5	1.5			Borehole BH02 terminated at 1.2m				BH02 Refusal at 1.2m
			2.0							

BOREHOLE / TEST PIT SAMPLE LOG.GPJ GINT STD AUSTRALIA.GDT 24/3/25

EXPLANATORY NOTES – DRILL & EXCAVATION LOGS / SOIL & ROCK DESCRIPTION

GENERAL

Information obtained from site investigation and testing carried out by Atlas Geotechnical Services Pty Ltd (AGS) is recorded on log sheets. Data logged onto "Auger Borehole Logging Sheet" represents the data collected on rock and non-rock material using an auger supervised by an AGS representative. All material description and classification are based on SAA Site Investigation Code AS 1726 – 1993. All rock testing and calculations are in conjunction with AS 4133.4.1 – 2007 accredited by NATA.

DRILLING

Drilling & Casting

WB	Wash-bore drilling
RR	Rock Roller
HMLC	HMCL core barrel
NMLC	NMLC core barrel
AS	Auger Screwing
AD/V	Auger Drilling with V-Bit
AD/T	Auger Drilling with TC-Bit
HQ	HQ core barrel
NQ	NQ core barrel

Drilling Penetration/Drill Depth

Core loss is calculated as core loss per run as a percentage with line and depth identifying core lifts. The following is an abbreviation of the ease of penetration in none-core drilling.

VE	Very Easy
E	Easy
F	Firm
H	Hard
VH	Very Hard

Samples/Tests

HP	Hand Penetrometer Test
PBT	Plate Bearing Test
VS	Vane Shear Test
SPT	Standard Penetration Test
PZ	Piezometer Installation
IMP	Borehole Impression Device
D	Disturbed
U	Undisturbed
C	Core Sample
N	Results of SPT (*sample taken)

SOIL DESCRIPTION

Material Description **-** In accordance with AS 1726-1993, Appendix A2.3

Types of Soil

Observation of the primary, secondary, and minor soil components are used to construct the soil name, which describes the composition of the soil. AS 1726:2017. The following table provides particle size definition.

Fraction	Components
Oversize	BOULDERS
	COBBLES
Coarse Grained Soil	GRAVEL
	SAND
Fine Grained Soil	SILT
	CLAY

The following sizes correspond to the approximate sieve sizes.

Components	Subdivision	Size (mm)
BOULDER		<200
COBBLES		63-200
GRAVEL	Coarse	19-63
	Medium	6.7-19
	Fine	2.36-6.7
SAND	Coarse	0.6-2.36
	Medium	0.21-0.6
	Fine	0.075-0.21
SILT		0.002-0.075
CLAY		<0.002

Moisture Condition

D	Dry, look and feel dry
M	Moist, no free water on remoulding
W	Wet, free water on remoulding

Consistency

In accordance with AS 1726-1993, Appendix A2.5

VS	Very Soft	<25kPa
S	Soft	25 – 50kPa
F	Firm	50 – 100kPa
St	Stiff	100 – 200kPa
VSt	Very Stiff	200 – 400kPa
H	Hard	≥ 400kPa

The Unconfined Compressive Strength range of each class is defined by the approximate strength figures quoted.

Density Index

% is estimated or is based on SPT results. N Value correlation is approximated and is shown in the right column.

VL	Very Lose	< 15%	0 – 4
L	Loose	15 – 35%	4 – 10
MD	Medium Dense	35 – 36%	10 – 30
D	Dense	36 – 85%	30 – 50
VD	Very Dense	>85%	>50

MATERIAL DESCRIPTION - ROCK

Material Description

Rock type, texture and composition are identified based on visual features in accordance with AS 1726-1993, Appendix A3.1-A3.3 and Table A6a, A6b and A7.

Core Loss

Core Loss location will be indicated.

Bedding

Description	Spacing (mm)
Thinly Laminated	< 6
Laminated	6 – 20
Very Thine Bedded	20 – 60
Thinly Bedded	60 – 200
Medium Bedded	200 – 600
Thickly Bedded	600 – 2000
Very Thickly Bedded	>2000

Weathering – Weathering classification are only means of identification and do not contribute to engineering properties.

Fresh (F)	Rock substance unaffected by weathering.
Slightly Weathered (SW)	Rock substance partly stained or discoloured. Colour and texture of fresh rock recognisable.
Moderately Weathered (MW)	Staining or discolouration extends throughout rock substance. Fresh rock colour not recognisable.
Highly Weathered (HW)	Stained or discoloured throughout. Signs of chemical or physical alteration. Rock texture retained.
Extremely Weathered (EW)	Rock texture evident but material has soil properties and can be remoulded.

Strength

Rock strength is defined using the following terms:

Rock Strength Class	Abbreviation	Point Load Strength Index, $I_{s(50)}$ (MPa)
Extremely Low	EL	< 0.03
Very Low	VL	0.03 to 0.1
Low	L	0.1 to 0.3
Medium	M	0.3 to 1
High	H	1 to 3
Very High	VH	3 to 10
Extremely High	EH	≥ 10

Strengths are supported by Point Load Index Testing of representative samples.

Materials Structure/Fractures

Rock

Natural Fracture Spacing – the following classification identifies the spacing of natural fractures such as bedding parting or joints but excludes handling breaks or mechanical breaks.

Visual Log – A diagram in relation to core axis plot of defects showing type, spacing and orientation.

Defects	———	Breaks through rock substance
	----------	Defects closed in-situ
	▬▬▬	Defects open in-situ or clay sealed

Additional Data – Description of individual defects based on visual observation by type, orientation, in-filling, shape, and roughness in accordance with AS 1726-1993, Appendix A Table A10, notes and Figure A2.

Type	BP	Bedding Parting
	DL	Drill Lift
	HB	Handling Break
	DB	Drilling Break
	JT	Joint
	SM	Seam
	FZ	Fracture Zone
	SZ	Shear Zone
	VN	Vein
	FL	Foliation
	CL	Cleavage

Orientation – Angle relative to the plane normal to the core axis.

Infilling	CN	Clean
	Clay	Clay
	Fe	Iron Oxide
	Qz	Quarts
	MS	Secondary Mineral
	MU	Unidentified Mineral
	KT	Chlorite
	CA	Calcite
	X	Carbonaceous
Shape	IR	Irregular
	ST	stepped
	DIS	Discontinuous
	PR	Planar
	CU	curved
	UN	Undulose
Roughness	VR	Very Rough
	RF	Rough
	S	Smooth
	SL	Slickensided
	POL	Polished

Soil

Structures – Fissuring and other defects are described in accordance with AS 1726-1993, Appendix A2.6, using terminology for rock defects.

Origin – Where applicable and assessment is provided of the probable origin of the soil, eg. Fill, topsoil, alluvium, colluvium, residual soil

APPENDIX C

DCP TEST RESULTS

Atlas Geotechnical Services ABN : 67 626 182 349
Construction Material Testing
49/93-97 Newton Road
Wetherill Park NSW 2164
02 87400494

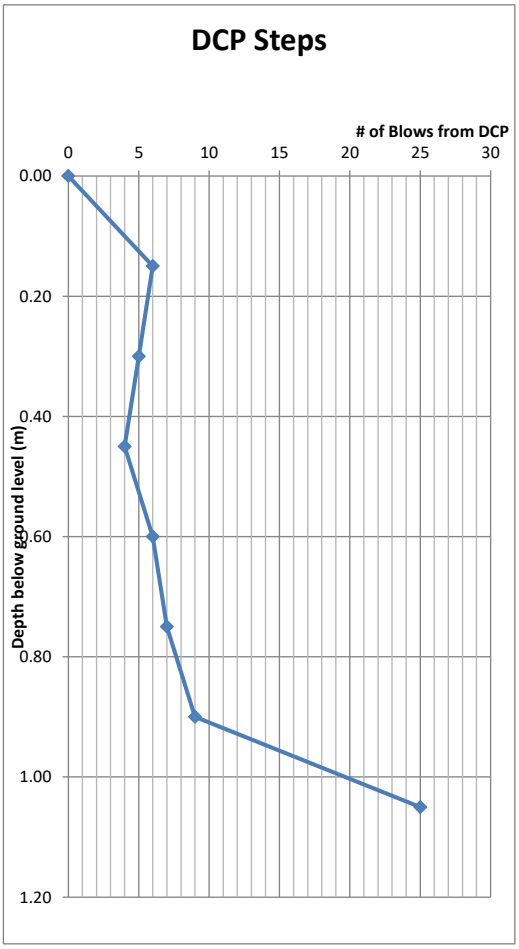
PENETRATION RESISTANCE REPORT

Client:	Sydney Extensions & Design Pty Ltd	**Report No.:**	G11624-1
Project:	Proposed Residential Development	**Date:**	14/03/2025
Location:	16 Noorong Ave, Frenchs Forest NSW 2086	**Tested By:**	BG

DCP No.:	DCP-1	Equipment ID: Kit-2	**Date Tested:** 7/06/2025
Test Procedure:	☑ AS1289.6.3.2 - 1997- Dynamic Cone Penetration Test	☐ AS1289.6.3.3 - 1997 - Perth Sand Penetrometer Test	
Test Location:	Figure 1	☑ Drop Height Check	☑ Tip Sharpness
Soil Description with Moisture:	Sandy CLAY, brown-grey, low plasticity, with fine to medium grained sand, trace rootlets, moist		

Depth (m)	Test RL (m)	Ground water level bgl (m)	# of Blows	Total number of Blows	Penetration Rate	Penetration Resistance Np /300 mm
0.00			0	0	0.00	-
0.15			6	6	25.00	6
0.30			5	11	30.00	11
0.45			4	15	37.50	9
0.60			6	21	25.00	10
0.75			7	28	21.43	13
0.90			9	37	16.67	16
1.05			25	62	6.00	34

DCP Test: ☐ Termination ☑ efusal at 1.05 m



* bgl - below ground level

Notes:

Accreditation No.: 20498
Accredited for compliance with ISO/IEC 17025 -Testing.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards.

Tests not covered by NATA are denoted with *.

NATA
WORLD RECOGNISED ACCREDITATION

Authorised Signatory:

Peter Chen (Xiao Dong Chen)
Director | Geotechnical Engineer
Adv. Dip. Structural Eng, B. Eng (Civil), MIEAust
Atlas Geotechnical Services Pty Ltd

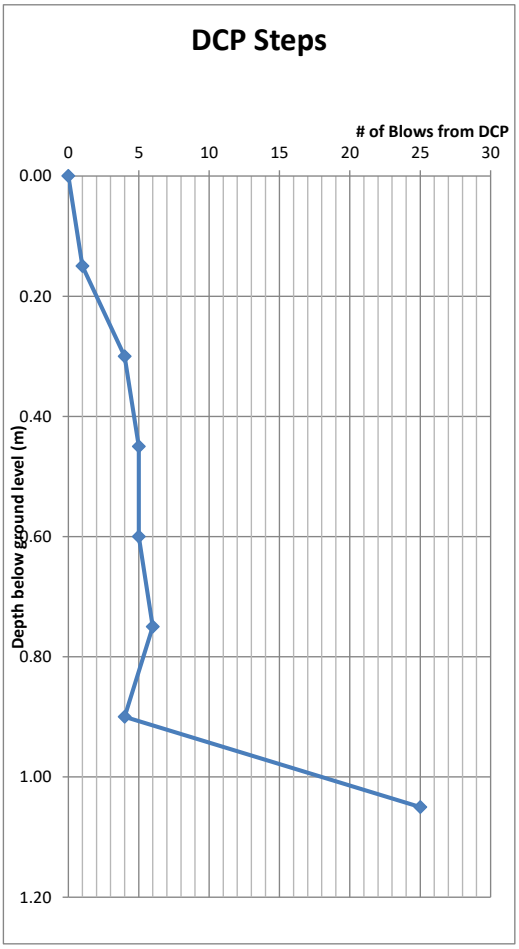
Atlas Geotechnical Services ABN : 67 626 182 349
Construction Material Testing
49/93-97 Newton Road
Wetherill Park NSW 2164
02 87400494

PENETRATION RESISTANCE REPORT

Client:	Sydney Extensions & Design Pty Ltd	**Report No.:**	G11624-1
Project:	Proposed Residential Development	**Date:**	14/03/2025
Location:	16 Noorong Ave, Frenchs Forest NSW 2086	**Tested By:**	BG

DCP No.:	DCP-2	Equipment ID: Kit-2	**Date Tested:** 7/06/2025
Test Procedure:	☑ AS1289.6.3.2 - 1997- Dynamic Cone Penetration Test	☐ AS1289.6.3.3 - 1997 - Perth Sand Penetrometer Test	
Test Location:	Figure 1	☑ Drop Height Check	☑ Tip Sharpness
Soil Description with Moisture:	Clayey SAND, grey, with fine to coarse grained sand, wet		

Depth (m)	Test RL (m)	Ground water level bgl (m)	# of Blows	Total number of Blows	Penetration Rate	Penetration Resistance Np /300 mm
0.00			0	0	0.00	-
0.15			1	1	150.00	1
0.30			4	5	37.50	5
0.45			5	10	30.00	9
0.60			5	15	30.00	10
0.75			6	21	25.00	11
0.90			4	25	37.50	10
1.05			25	50	6.00	29
DCP Test:		☐ Termination		☑ efusal at	1.05	m



* bgl - below ground level

Notes:

Accreditation No.: 20498
Accredited for compliance with ISO/IEC 17025 -Testing.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards.

Tests not covered by NATA are denoted with *.

NATA
WORLD RECOGNISED ACCREDITATION

Authorised Signatory:

Peter Chen (Xiao Dong Chen)
Director | Geotechnical Engineer
Adv. Dip. Structural Eng, B. Eng (Civil), MIEAust
Atlas Geotechnical Services Pty Ltd

APPENDIX D

LABORATORY TEST REPORT

Material Test Report

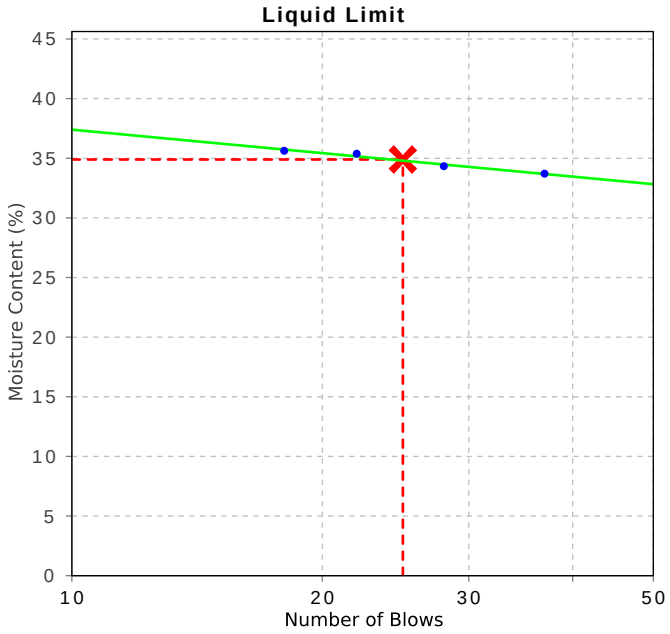
Report Number: **T11624-1**
Issue Number: 1
Date Issued: 12/03/2025
Client: Sydney Extensions and Designs
731 Warringah Rd, Forestville NSW 2087
Contact: Mustafa Varol
Project Number: T11624
Project Name: 16 Noorong Avenue, French Forest
Project Location: 16 Noorong Avenue, French Forest
Work Request: 2349
Sample Number: S-2349A
Date Sampled: 10/03/2025
Dates Tested: 10/03/2025 - 12/03/2025
Sample Location: **0.4-0.6m**

Atlas Geotechnical Services Pty Ltd
49/93-97 Newton Road Wetherill Park NSW 2164
Phone: 0426267115
Email: mh@atlasgeoservice.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Lucas Andrade
Field Tester
NATA Accredited Laboratory Number: 20498

Atterberg Limit (AS1289 3.1.1 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried / Air Dried / Natural / Unknown		
Preparation Method			
Liquid Limit (%)	35		
Plastic Limit (%)	18		
Plasticity Index (%)	**17**		

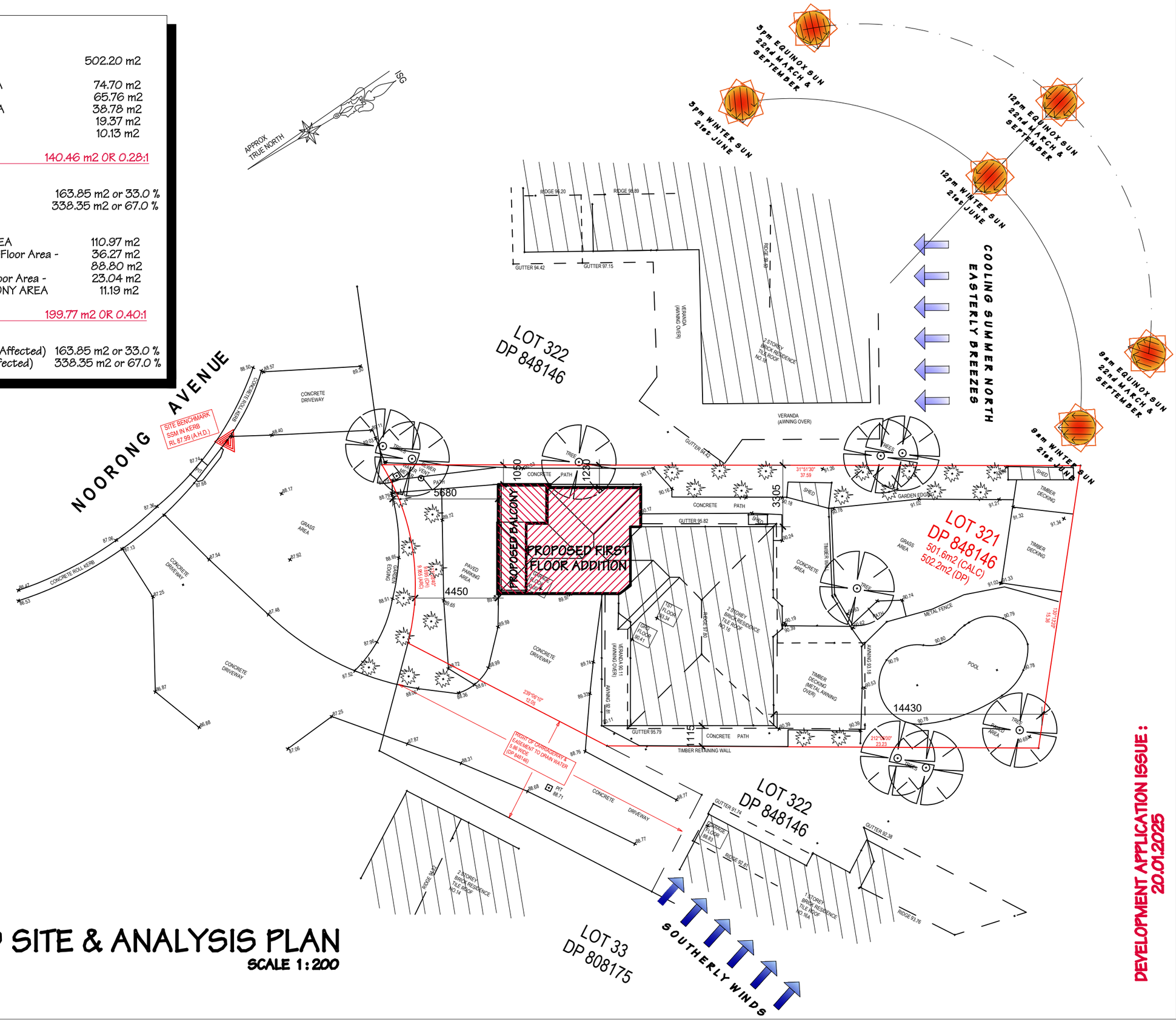


APPENDIX E

SUPPLIED DOCUMENTS

AREA SUMMARY

TOTAL SITE AREA	502.20 m2
EXISTING GROUND FLOOR AREA	74.70 m2
EXISTING FIRST FLOOR AREA	65.76 m2
EXISTING FRONT GARAGE AREA	38.78 m2
EXISTING REAR DECK AREA	19.37 m2
EXISTING FRONT PORCH AREA	10.13 m2
TOTAL EXISTING FLOOR AREA	140.46 m2 OR 0.28:1
TOTAL LANDSCAPE AREA	163.85 m2 or 33.0 %
TOTAL SITE COVERAGE	338.35 m2 or 67.0 %
PROPOSED GROUND FLOOR AREA	110.97 m2
Proposed Additional Ground Floor Area -	36.27 m2
PROPOSED FIRST FLOOR AREA	88.80 m2
Proposed Additional First Floor Area -	23.04 m2
PROPOSED FIRST FLOOR BALCONY AREA	11.19 m2
TOTAL PROPOSED FLOOR AREA	199.77 m2 OR 0.40:1
TOTAL LANDSCAPE AREA (Not Affected)	163.85 m2 or 33.0 %
TOTAL SITE COVERAGE (Not Affected)	338.35 m2 or 67.0 %



PROPOSED SITE & ANALYSIS PLAN

SCALE 1:200

DEVELOPMENT APPLICATION ISSUE : 20.01.2025

Sheet No. 2 OF 11

STAGE	DATE	V.O. No	VARIATION ORDER AMENDMENT DETAILS
A	09.12.2024	-	PRELIMINARY CONTRACT AGREEMENT
B	11.12.2024	-	CONTRACT SIGNING ISSUE
C	20.01.2025	-	DEVELOPMENT APPLICATION ISSUE
D		-	
E		-	
F		-	

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU

ADDRESS : No.16 NOORONG AVENUE, FRENCHS FOREST, NSW, 2086
LOT No : 321 SECTION No : - DP No : 848146
TELEPHONE (M) : - CONTRACT No: 9516

DESIGNER : DAVID MACKENZIE CONTRACT DATE :
DRAFTSPERSON : M. YAROL CHECKED : M. YAROL
COUNCIL : NORTHERN BEACHES COUNCIL
GENERAL DESCRIPTION : GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

SYDNEY EXTENSIONS AND DESIGNS
CUSTOM DESIGNERS AND BUILDERS
No.731 WARRINGAH ROAD, FORESTVILLE, NSW, 2087
Tel : (02) 9882 2445 Fax : (02) 9882 5225
LIC No: 119644C ABN 92 086 626 002 H.I.A No: 595 251

NOTES : (For Council)

(a) **Framing Timbers** are to comply with A.S. 1684 (2006).
(b) **Sub Floor Ventilation:**
(i) 150mm minimum bearer to ground clearance or 200mm minimum for particleboard.
(ii) Sub floor vents minimum 6000mm/m (External Wall).
(iii) Weep holes at 1200mm maximum centres to comply with A.S. 1640.
(c) **Reinforcement:**
(i) Trench mesh for concrete footings lapped minimum 500mm with 50mm minimum cover.
(ii) Fabric mesh to be lapped minimum 225mm with 25mm minimum cover.
(d) **Brickwork** is to comply with A.S. 3700 - Flashing as per AS / NZS 2904.
(e) **Wet Areas** (refer to Specification for responsible party). Provide impervious floor and wall coverings to all wet areas to AS 3740 (2004).
(f) **Concrete** strength to be minimum 20 Mpa at 28 days per A.S. 1480.
(g) **Steps / Stairs :**

Min Tread	- 240mm	Max Riser Height	- 190mm
Min Head Clearance	- 2000mm. (Recommended)		
Min Width of Stairway	- 750mm clear of all obstructions eg. handrails, balustrades etc.		
Min. Handrail Height	- 865mm above tread nosing. 1020mm above landing, ramps etc.		

(h) **Insulation** is to comply with clause 3.12.1.1 (d) & VIC amendment 1.2 of the Building Code of Australia.

1. TREES:
Some species of tree in certain soils, (pending size & distance from the building) could in particular circumstances affect the structural integrity of the proposed work.
It is suggested that the Client, if concerned, organise an arborist to advise them in this regard.
The Builder can, upon written request, organise this report and carry out any recommendations.

2. MATERIALS:
Items specified to match existing as close as possible, does not imply an identical match.
The contract allows for materials available from current manufacturer's standard lines (no special tooling allowed for).

3. CHECKS BY CLIENT:
The Client is required to check the dimensions of the work (with the assistance of the Construction Supervisor) at:
a) Floor Stage,
b) Frame Stage,
This includes levels, heights, widths, window locations, door locations, external and internal wall locations, brick & roof tile selections. Any discrepancies found are to be advised in writing to the Building Manager within three (3) days of the check. The allowance by the Client for the works to continue will be deemed to be acceptance by the Client that the preceding works satisfy the Clients requirements and the Builder's obligations.

4. ASBESTOS:
Unless otherwise specified in these Specifications NO allowance has been made for the removal or handling of any asbestos products. The Builder, prior to commencement of works, will take a sample of all materials in areas affected by new works and have the existing linings tested for the presence of asbestos. If asbestos is found a quote for the safe handling and removal of this material from affected areas will be obtained and this work included in this contract by way of Variation Order at additional cost to Client. Alternatively it will be the Clients responsibility to remove asbestos from affected areas and provide a 'clearance certificate' for following works to occur.

5. EXISTING STRUCTURE:
Where the Builder is carrying out works in an existing area (e.g. re-tile / re-line floors walls etc.) unless the Client notifies the Builder otherwise the Builder will assume that the Client accepts the existing condition of the structure (ie. Level, plumb, square etc.). Should the Client desire it, the Builder will undertake to provide a detailed existing conditions report in any area of concern for a fee to be agreed upon. The request to undertake this report must be in writing and be received by the Builder in advance of any works being undertaken on site.

6. WORKS BY CLIENT:
Where the Client is responsible for specified works to be carried out in conjunction with this contract, the Client shall be responsible for paying for and obtaining the necessary security deposit / approval as may be required by local council including obtaining a 'Certificate of Final Inspection' upon completion of works.

7. FRAME & LOCK UP ONLY PROJECTS:
The Client will be responsible for:
- obtaining a 'Certificate of Final Inspection' upon completion of works and
- paying for and obtaining any necessary security deposit / approval that may be required by local council.

Where works past frame or lock up stage are required by the Builder (eg. Plaster, Fixing, Fit off etc.) but do not involve completion of the contract, the Builder will claim an extension of time from completion of 'Frame" or 'Lock Up' stage till ten (10) days after receiving written confirmation from the Client that preceding works (eg. Plumbing & electrical rough in, plaster etc) has been completed.

8. COUNCIL CONDITIONS ON APPROVED DOCUMENTS:
The BUILDER has allowed for the standard fees associated with the application of a Development Application and Construction Certificate, unless otherwise specified no allowance has been made for additional works or fees required by Council as per the conditions included within the Development Application and/or Construction Certificate approvals. Any additional costs involved shall be charged to the Client by way of Variation Order.

9.BASIX COMPLIANCE:
BASIX (Building Sustainability Index) is a measure of thermal comfort, water saving measures and energy efficiency of a new building. As of 1st July 2007, residential additions and renovations over the value of $ 50,000 will need to be assessed and comply with the requirements of BASIX. Works to this effect have been included in this contract, and will be provided for your selection by way of Variation Order to Contract. The included basix compliance items are:
- A minimum of 40% of new or altered light fittings are to be fitted with fluorescent, compact fluorescent, or led lamps.

9.BASIX COMPLIANCE:
- All new or altered showerheads must have a flow rate no greater than 9 litres per minute or a 3 star water rating.
- All new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.
- All new or altered taps must have a flow rate no greater than 9 litres per minute or a minimum 3 star water rating.

10. TERMITES:
- CLIENT is advised that due to the nature of termites it is extremely difficult to prevent them gaining access to a building. It is therefore the
- CLIENTS responsibility to ensure regular maintenance and competent inspection of the building (new and existing) is carried out on an ongoing basis.

WINDOW SCHEDULE

No.	SIZE (H x W)	DESCRIPTION	BASIX No.	GLAZING
W1	700 x 900	ALUMINIUM AWNING WINDOW	W1	IMPROVED ALUMINIUM, SINGLE CLEAR, (U-VALUE: 6.44, SHGC: 0.75)
W2	1500 x 2400	ALUMINIUM AWNING WINDOW	W2	IMPROVED ALUMINIUM, SINGLE CLEAR, (U-VALUE: 6.44, SHGC: 0.75)
W3	1500 x 700	ALUMINIUM FIXED WINDOW	W3	IMPROVED ALUMINIUM, SINGLE CLEAR, (U-VALUE: 6.44, SHGC: 0.75)
W4	900 x 600	ALUMINIUM AWNING WINDOW	W4	IMPROVED ALUMINIUM, SINGLE CLEAR, (U-VALUE: 6.44, SHGC: 0.75)

WINDOW SCHEDULE - CHECK ON-SITE BEFORE ORDERING

W5	600 x 2420	ALUMINIUM FIXED WINDOW	W6	IMPROVED ALUMINIUM, SINGLE CLEAR, (U-VALUE: 6.44, SHGC: 0.75)

DOOR SCHEDULE

D1	2100 x 880	ALUMINIUM 820 HINGED DOOR	D1	IMPROVED ALUMINIUM, SINGLE PYTOLYTIC LOW-E, (U-VALUE: 4.48, SHGC: 0.46)

DOOR SCHEDULE - CHECK ON-SITE BEFORE ORDERING

D2	2100 x 2420	ALUMINIUM SLIDING DOOR	D2	

* SIZES SHOWN ARE NOMINAL SIZES ONLY AND ARE SUBJECT TO MANUFACTURERS STANDARD SIZE AND PROFILE.
* ALL GLAZING IS TO COMPLY WITH A.S 1288. (2006) AND A.S. 2047 (1999).
* ALL NEW WINDOWS AND DOORS ARE TO BE CLEAR GLAZED UNLESS NOTED OTHERWISE.
* ALL NEW WINDOWS TO FIRST FLOOR WINDOWS TO SIT AT 2.1m HEAD HEIGHT
* BUILDER IS TO DRAFTSEAL ALL NEW WINDOWS
* ALL NEW WINDOWS ARE TO BE POSITIONED CENTRE TO THE ROOM, UNLESS OTHERWISE NOTED
* ALL FIRST FLOOR WINDOWS WITH A SILL HEIGHT OF LESS THAN 1.7m HIGH MUST BE RESTRICTED TO AN OPENING OF 125mm ONLY AS PER BCA STANDARDS

DEVELOPMENT APPLICATION ISSUE : 20.01.2025

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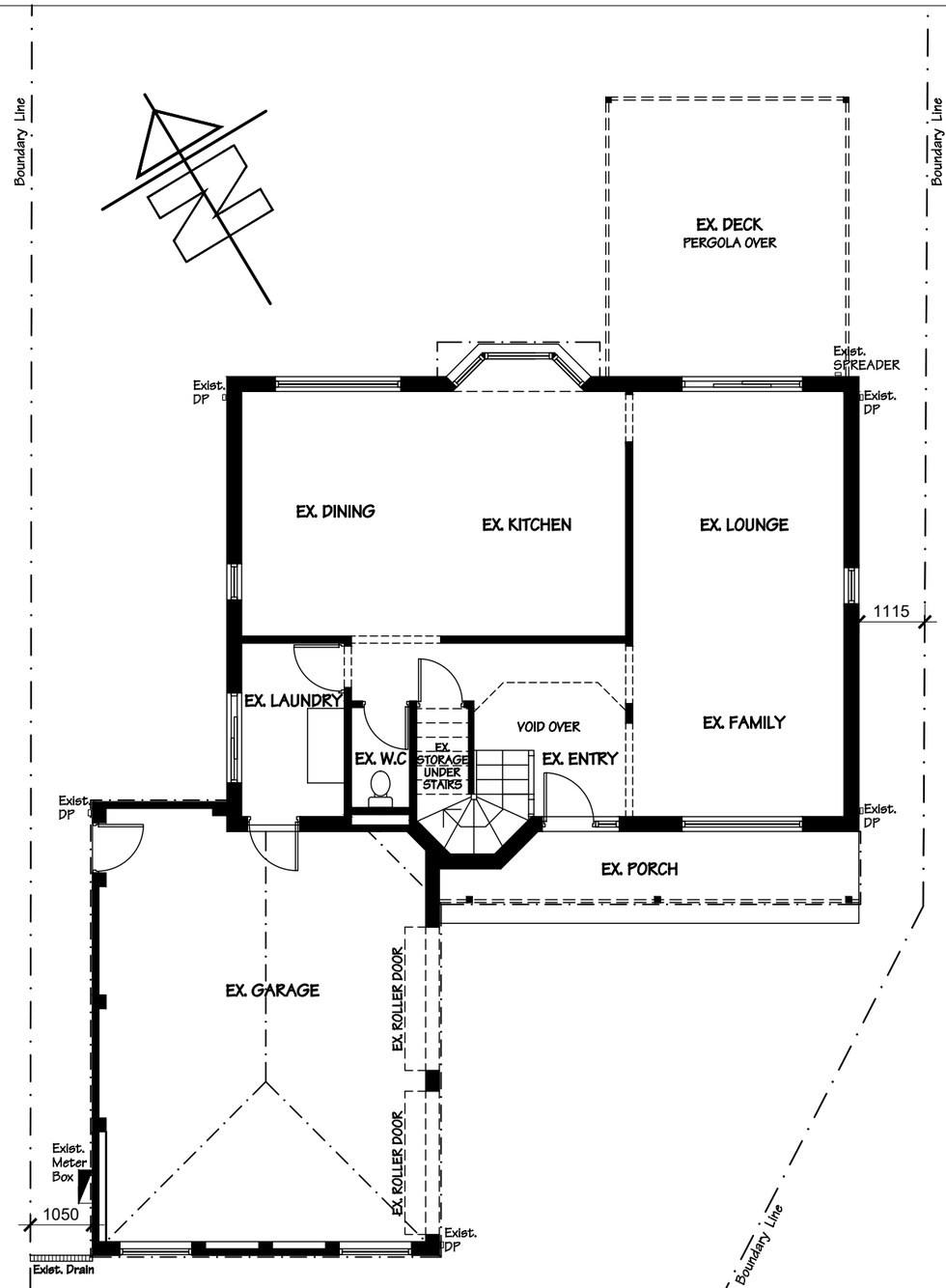
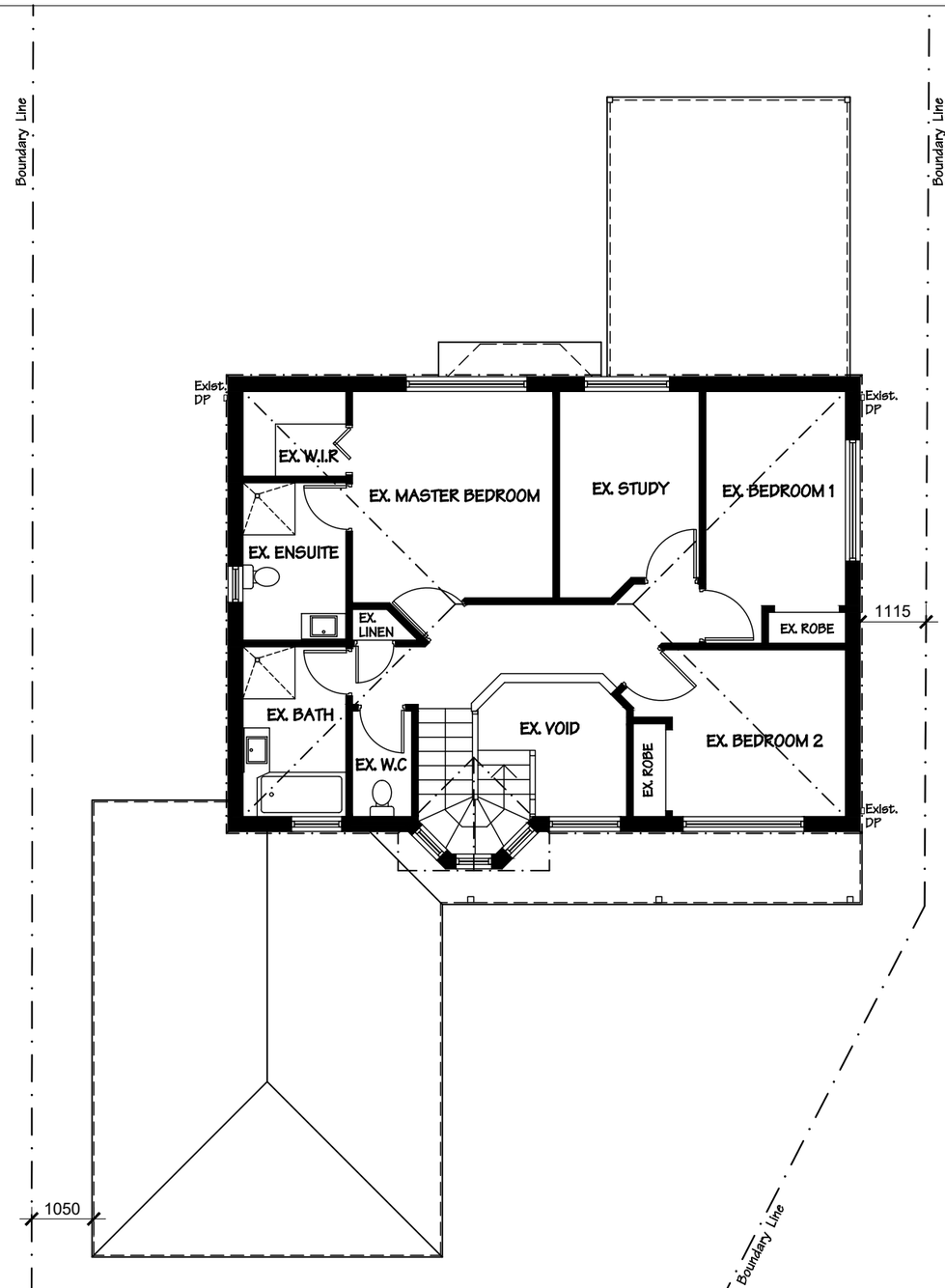
Sheet No. 3 OF 11

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU
ADDRESS : No.16 NOORONG AVENUE, FRENCHS FOREST, NSW, 2086
LOT No: 321 SECTION No: - DP No: 848146
TELEPHONE (M) : - CONTRACT No: 9316
DESIGNER : DAVID MACKENZIE CONTRACT DATE :
DRAFTSPERSON : M. VAROL CHECKED : M. VAROL
COUNCIL : NORTHERN BEACHES COUNCIL
GENERAL DESCRIPTION : GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

SYDNEY EXTENSIONS AND DESIGNS
CUSTOM DESIGNERS AND BUILDERS
No.731 WARRINGAH ROAD, FORESTVILLE, NSW, 2087
Tel : (02) 9882 2448 Fax : (02) 9882 3225
LIC No: 119641C ABN 92 086 626 002 H.I.A No: 595 251



EXISTING GROUND FLOOR PLAN
SCALE 1:100



EXISTING FIRST FLOOR PLAN
SCALE 1:100

DEVELOPMENT APPLICATION ISSUE : 20.01.2025

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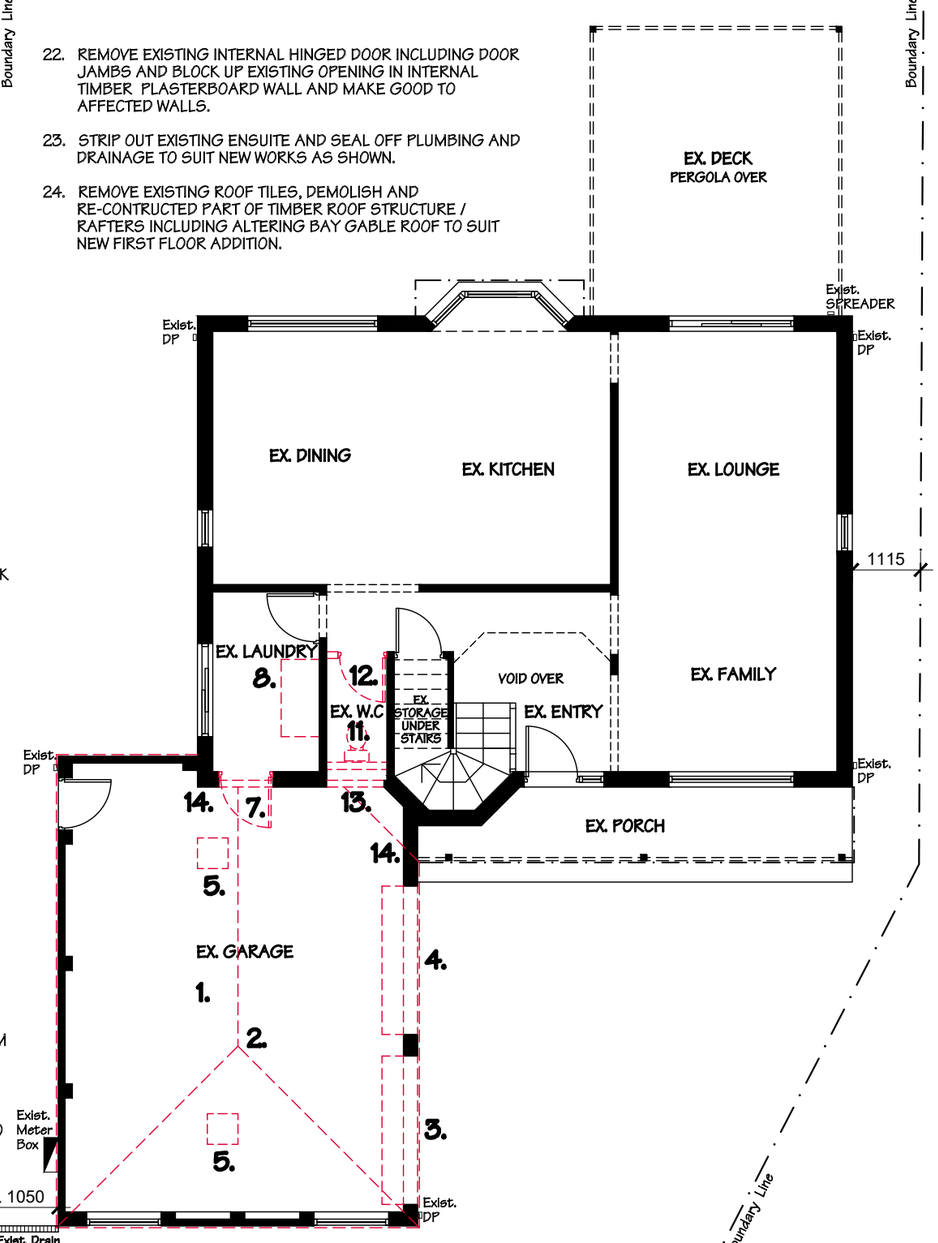
Sheet No. 4 OF 11

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU
ADDRESS: No.16 NOORONG AVENUE, FRENCHS FOREST, NSW, 2086
LOT No: 321 SECTION No: - DP No: 848146
TELEPHONE (M): - CONTRACT No: 9516
DESIGNER: DAVID MACKENZIE CONTRACT DATE: -
DRAFTSPERSON: M. YAROL CHECKED: M. VAROL
COUNCIL: NORTHERN BEACHES COUNCIL
GENERAL DESCRIPTION: GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

SYDNEY
EXTENSIONS AND DESIGNS
CUSTOM DESIGNERS AND BUILDERS
No.731 WARRINGAH ROAD, FORESTVILLE, NSW, 2087
Tel: (02) 9882 2448 Fax: (02) 9882 5225
LIC No: 119641C ABN 92 086 626 002 H.I.A No: 393 251

BUILDER TO:

1. RAISE / LEVEL EXISTING GARAGE FLOOR LEVEL TO SUIT NEW WORKS AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
2. DEMOLISH AND REMOVE COMPLETE EXISTING GARAGE TIMBER ROOF STRUCTURE / RAFTERS INCLUDING ROOF TILES TO SUIT NEW FIRST FLOOR ADDITION.
3. REMOVE EXISTING GARAGE ROLLER DOOR AND CREATE NEW OPENING TO SUIT 2100H x 2420W ALUMINIUM SLIDING DOOR IN DOUBLE BRICK WALL AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
NOTE: OPENING WIDTH TO REMAIN AS IS. SITE CHECK EXACT EXISTING OPENING SIZE BEFORE ORDERING.
4. REMOVE EXISTING GARAGE ROLLER DOOR AND CREATE NEW OPENING TO SUIT 600H x 2420W ALUMINIUM AWNING WINDOW AND BLOCK UP PART PART OF OPENING IN DOUBLE BRICK WALL AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
NOTE: OPENING WIDTH TO REMAIN AS IS. SITE CHECK EXACT EXISTING OPENING SIZE BEFORE ORDERING.
5. REMOVE EXISTING MANHOLE IN GARAGE AND PATCH UP CEILING AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
6. DELETED.
7. REMOVE EXISTING INTERNAL HINGED DOOR INCLUDING DOOR JAMBS AND BLOCK UP OPENING IN INTERNAL BRICK VENEER WALL AND MAKE GOOD TO AFFECTED WALLS.
8. STRIP OUT EXISTING LAUNDRY AND SEAL OFF PLUMBING AND DRAINAGE TO SUIT NEW WORKS AS SHOWN.
9. DELETED.
10. DELETED.
11. STRIP OUT EXISTING GROUND FLOOR W.C AND SEAL OFF PLUMBING AND DRAINAGE TO SUIT NEW WORKS AS SHOWN.
12. DEMOLISH AND REMOVE EXISTING INTERNAL TIMBER PLASTERBOARD WALL INCLUDING REMOVAL OF HINGED DOOR AND DOOR JAMBS AND CREATE FULL HEIGHT x FULL WIDTH OPENING AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
13. DEMOLISH AND REMOVE EXISTING BRICK VENEER WALL AND CREATE FULL HEIGHT x FULL WIDTH OPENING AND MAKE GOOD AFFECTED SURFACES AS NECESSARY. BUILDER TO CHECK WALL VOID REGARDING PLUMBING PIPES TO BE ALTER TO SUIT NEW WORKS.
14. RE-LINE EXISTING EXTERNAL BRICK WALLS WITH PLASTERBOARD TO NEW GROUND FLOOR GAME ROOM AND FIRST FLOOR BEDROOM 3 TO SUIT NEW WORKS AS SHOWN.
15. RE-LINE EXISTING EXTERNAL BRICK WALLS WITH 6mm VILLABOARD TO NEW FIRST FLOOR ENSUITE WALLS TO SUIT NEW WORKS AS SHOWN.
16. STRIP OUT EXISTING BATHROOM AND SEAL OFF PLUMBING AND DRAINAGE TO SUIT NEW WORKS AS SHOWN.
17. STRIP OUT EXISTING FIRST FLOOR W.C AND SEAL OFF PLUMBING AND DRAINAGE TO SUIT NEW WORKS AS SHOWN.
18. STRIP EXISTING FLOOR TILES TO FIRST FLOOR W.C, BATHROOM AND ENSUITE AND RELAY NEW SCYON SHEET FLOORING TO SUITE WORKS.
19. DEMOLISH AND REMOVE EXISTING FIRST FLOOR INTERNAL PLASTERBOARD TIMBER WALL BETWEEN BATHROOM AND W.C AND CREATE FULL HEIGHT X FULL WIDTH OPENING TO SUIT NEW WORKS AS SHOWN AND MAKE GOOD AFFECTED SURFACES AS NECESSARY.
20. CREATE A NEW OPENING IN EXTERNAL BRICK VENEER WALL TO SUIT NEW 900H x 600W ALUMINIUM AWNING WINDOW UNIT AND MAKE GOOD TO AFFECTED WALLS.
21. REMOVE EXISTING WINDOW UNIT AND BLOCK UP OPENING IN EXTERNAL BRICK VENEER WALL AND MAKE GOOD TO AFFECTED WALLS.
22. REMOVE EXISTING INTERNAL HINGED DOOR INCLUDING DOOR JAMBS AND BLOCK UP EXISTING OPENING IN INTERNAL TIMBER PLASTERBOARD WALL AND MAKE GOOD TO AFFECTED WALLS.
23. STRIP OUT EXISTING ENSUITE AND SEAL OFF PLUMBING AND DRAINAGE TO SUIT NEW WORKS AS SHOWN.
24. REMOVE EXISTING ROOF TILES, DEMOLISH AND RE-CONTRUCTED PART OF TIMBER ROOF STRUCTURE / RAFTERS INCLUDING ALTERING BAY GABLE ROOF TO SUIT NEW FIRST FLOOR ADDITION.



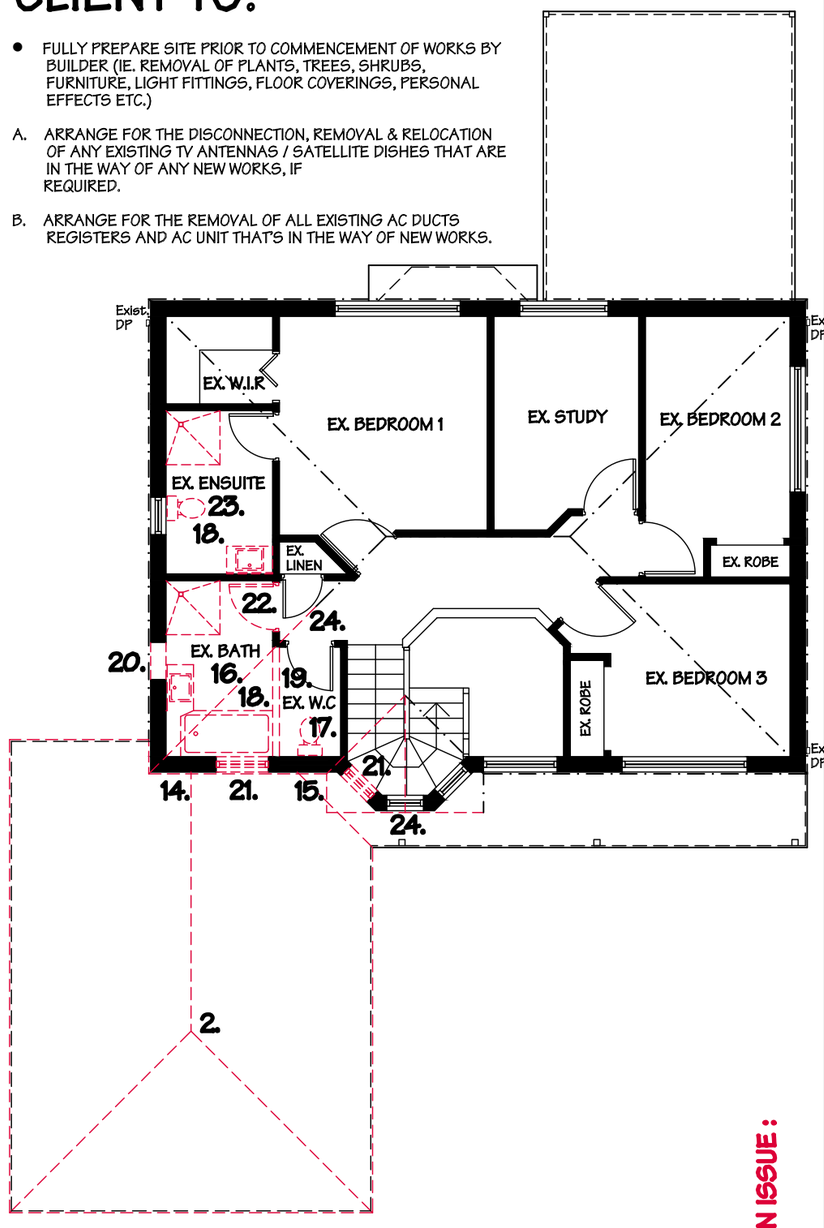
EXISTING GROUND FLOOR DEMOLITION PLAN
SCALE 1:100

CLIENT TO:

- FULLY PREPARE SITE PRIOR TO COMMENCEMENT OF WORKS BY BUILDER (IE. REMOVAL OF PLANTS, TREES, SHRUBS, FURNITURE, LIGHT FITTINGS, FLOOR COVERINGS, PERSONAL EFFECTS ETC.)

A. ARRANGE FOR THE DISCONNECTION, REMOVAL & RELOCATION OF ANY EXISTING TV ANTENNAS / SATELLITE DISHES THAT ARE IN THE WAY OF ANY NEW WORKS, IF REQUIRED.

B. ARRANGE FOR THE REMOVAL OF ALL EXISTING AC DUCTS REGISTERS AND AC UNIT THAT'S IN THE WAY OF NEW WORKS.



EXISTING FIRST FLOOR DEMOLITION PLAN
SCALE 1:100

DEVELOPMENT APPLICATION ISSUE : 20.01.2025

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Sheet No. 5 OF 11

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU
ADDRESS: No.16 NOORONG AVENUE, FRENCHS FOREST, NSW, 2086
LOT No: 321 SECTION No: - DP No: 848146
TELEPHONE (M): - CONTRACT No: 9316
DESIGNER: DAVID MACKENZIE CONTRACT DATE: -
DRAFTSPERSON: M. VAROL CHECKED: M. VAROL
COUNCIL: NORTHERN BEACHES COUNCIL
GENERAL DESCRIPTION: GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

SYDNEY EXTENSIONS AND DESIGNS
CUSTOM DESIGNERS AND BUILDERS
No.731 WARRINGAH ROAD, FORESTVILLE, NSW, 2087
Tel : (02) 9882 2448
Fax : (02) 9882 3225
LIC No: 119641C
ABN 92 086 626 002
H.I.A No: 395 251

BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Alterations and Additions

Certificate number: A1784523

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Friday, 21 February 2025
To be valid, this certificate must be lodged within 3 months of the date of issue.

Project address	
Project name	#9316 GIENAU
Street address	16 NOORONG Avenue FRENCHS FOREST 2086
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan DP848146
Lot number	321
Section number	-
Project type	
Dwelling type	Dwelling house (detached)
Type of alteration and addition	The estimated development cost for my renovation work is $50,000 or more, and does not include a pool (and/or spa).
N/A	N/A
Certificate Prepared by (please complete before submitting to Council or PCA)	
Name / Company Name: JARRA HILLS (N.S.W.) PTY LTD	
ABN (if applicable): 92086626002	

Fixtures and systems

Lighting

The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.

Fixtures

The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.

The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.

The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.

Construction

Insulation requirements

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.

Construction	Additional insulation required (R-value)	Other specifications
floor above existing dwelling or building.	nil	N/A
external wall: brick veneer	R1.16 (or R1.70 including construction)	
external wall: external insulated façade system (EIFS)(façade panel: 75 mm)	nil	
flat ceiling, pitched roof	ceiling: R2.50 (up), roof: foil/sarking	medium (solar absorptance 0.475 - 0.70)

Glazing requirements

Windows and glazed doors

The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.

The following requirements must also be satisfied in relation to each window and glazed door:

Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.

For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.

Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.

Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.

Glazing requirements

Windows and glazed doors glazing requirements

Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type
W1	SE	0.63	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W2	SW	3.6	0	0	eave/ verandah/ pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W3	SW	1.05	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W4	NW	0.54	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W5	SE	1.45	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
D1	NW	1.85	0	0	none	aluminium, double Lo-Tsol/air gap/ clear, (U-value: 4.9, SHGC: 0.33)
D2	SE	5.08	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)

DEVELOPMENT APPLICATION ISSUE :
20.01.2025

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CUSTOM DESIGNERS AND BUILDERS
No.731 WARRINGAH ROAD, FORESTVILLE, NSW, 2087
Tel : (02) 9452 2448
Fax : (02) 9452 5225
LIC No: 119641C
ABN 92 086 626 002
H.I.A No: 395 251

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU
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LOT No : 321 SECTION No : - DP No : 848146
TELEPHONE (M) : - CONTRACT No: 9316
DESIGNER : DAVID MACKENZIE CONTRACT DATE : -
DRAFTSPERSON : M. YAROL CHECKED : M. YAROL
COUNCIL : NORTHERN BEACHES COUNCIL
GENERAL DESCRIPTION : GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

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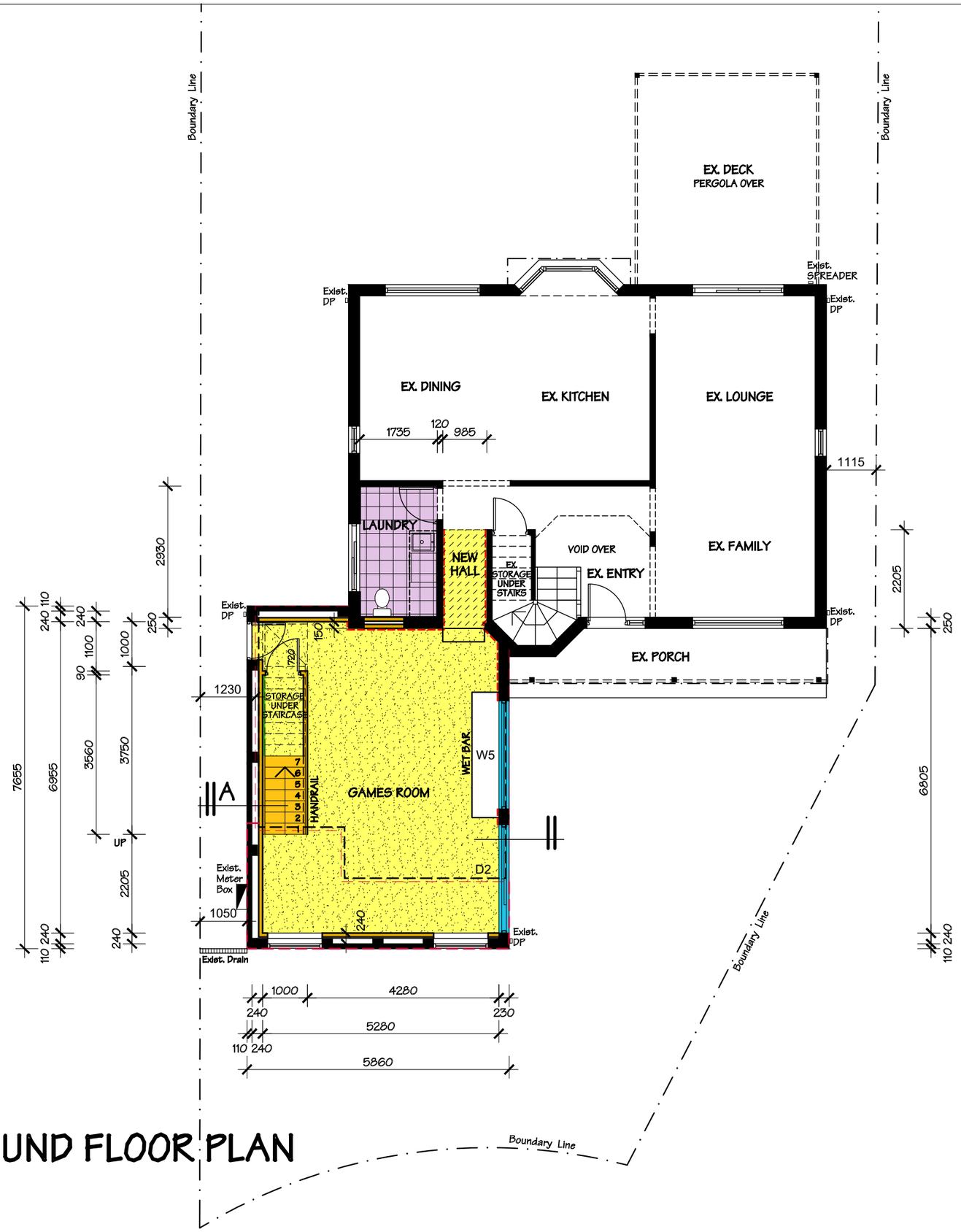

PROPOSED GROUND FLOOR PLAN

SCALE 1:100

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Sheet No. 7 OF 11

A DIVISION OF JAGRA HILLS PTY. LTD. (N.S.W.) — PROPERTY OF COPYRIGHT 1986

CLIENT NAME: Mr. Roland and Mrs. Aleksandra GIENAU

ADDRESS: No.16 NOORONG AVENUE, FRENCHS FOREST, NSW, 2086
LOT No: 321 SECTION No: - DP No: 848146
TELEPHONE (M): - CONTRACT No: 9516

DESIGNER: DAVID MACKENZIE CONTRACT DATE: -
DRAFTSPERSON: M. YAROL CHECKED: M. YAROL
COUNCIL: NORTHERN BEACHES COUNCIL

GENERAL DESCRIPTION: GROUND FLOOR AND FIRST FLOOR ALTERATIONS & ADDITIONS

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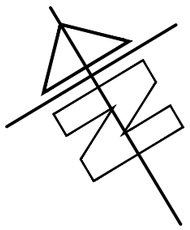
Tel: (02) 9882 2448 Fax: (02) 9882 5225
LIC No: 119641C ABN 92 086 626 002 H.I.A No: 593 251



Boundary Line

Boundary Line

Boundary Line

Boundary Line

Boundary Line

Exist. DP

Exist. SPREADER

Exist. DP

EX. W.I.R

EX. MASTER BEDROOM

EX. STUDY

EX. BEDROOM 1

ENSUITE

1200mm Vanity

EX. LINEN

EX. ROBE

1115

W4

1600mm Bath

AAW0906

BATHROOM

1200mm Vanity

EX. VOID

EX. ROBE

EX. BEDROOM 2

Exist. DP

DOWN

MANHOLE

900mm Vanity

ENSUITE

720 SCD

W1

AAW0709

ROBE

BEDROOM 3

W3

AAW1507

D1

820

W2

AAW1524

Exist. Meter Box

BALCONY

Exist. DP

Exist. Drain

2850

1740

1110

110

1740

2660

2870

1085

1785

1230

1050

90 185 90 335 90 1000 1495 160 310 4865 4775 3100 4330 2715 1140 1575 1410 75 90

90 90 335 385 250 1455 1840 3560 1410 1575 75 90

1095 2240

1000 740 3425

1920 3605

260 75

5860

PROPOSED FIRST FLOOR PLAN

SCALE 1:100

Exist. DP

Exist. DP

Exist. DP

Exist. DP

Exist. DP

1230

1050

Boundary Line

Boundary Line

PROPOSED ROOF FLOOR PLAN

SCALE 1:100

DEVELOPMENT APPLICATION ISSUE : 20.01.2025

A DIVISION OF JARRA HILLS PTY. LTD. (N.S.W.) (PROPERTY OF COPYRIGHT ACT 1968)

INFRINGEMENTS ON THIS COPYRIGHT WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW

Sheet No. 8 OF 11

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LOT No: 321 SECTION No: - DP No: 848146

TELEPHONE (M): - CONTRACT No: 9516

DESIGNER:	DAVID MACKENZIE	CONTRACT DATE:	-
DRAFTSPERSON:	M. VAROL	CHECKED:	M. VAROL
COUNCIL:	NORTHERN BEACHES COUNCIL		

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SYDNEY EXTENSIONS AND DESIGNS

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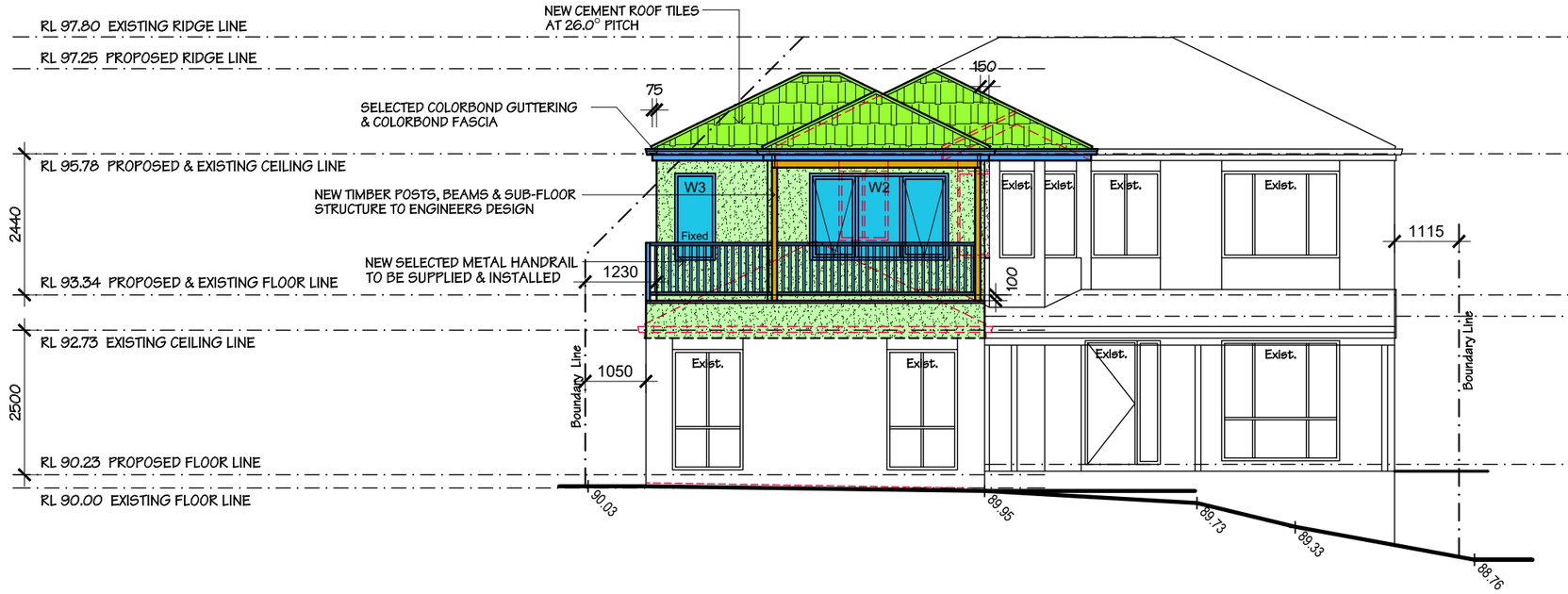
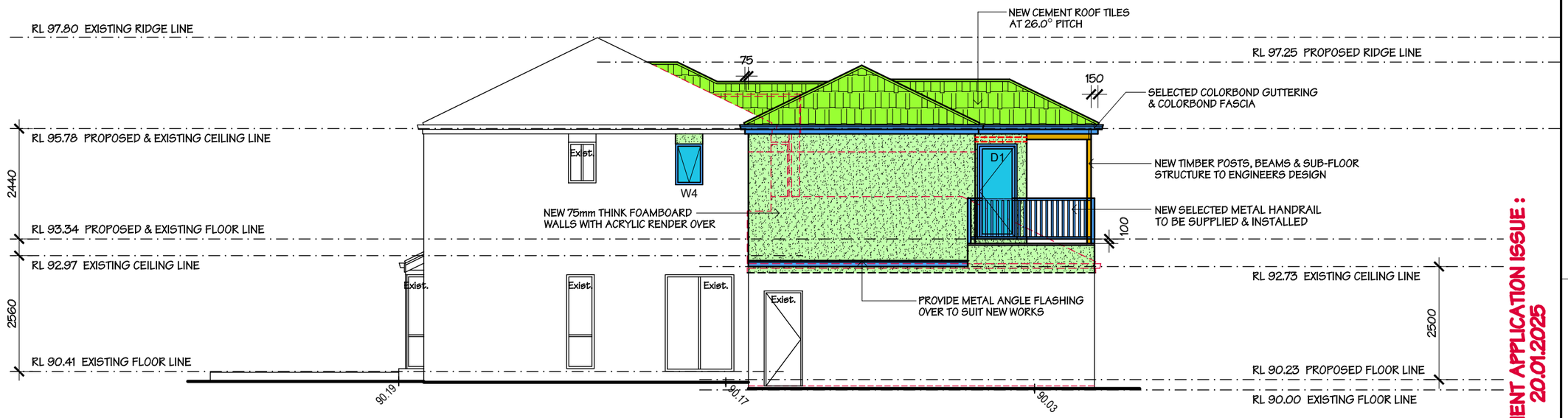
Tel: (02) 9882 2448 Fax: (02) 9882 3225

LIC No: 119641C ABN 92 086 626 002 H.I.A No: 393 251



SOUTH-WESTERN ELEVATION - FRONT

SCALE 1:100



NORTH-WESTERN ELEVATION - SIDE

SCALE 1:100

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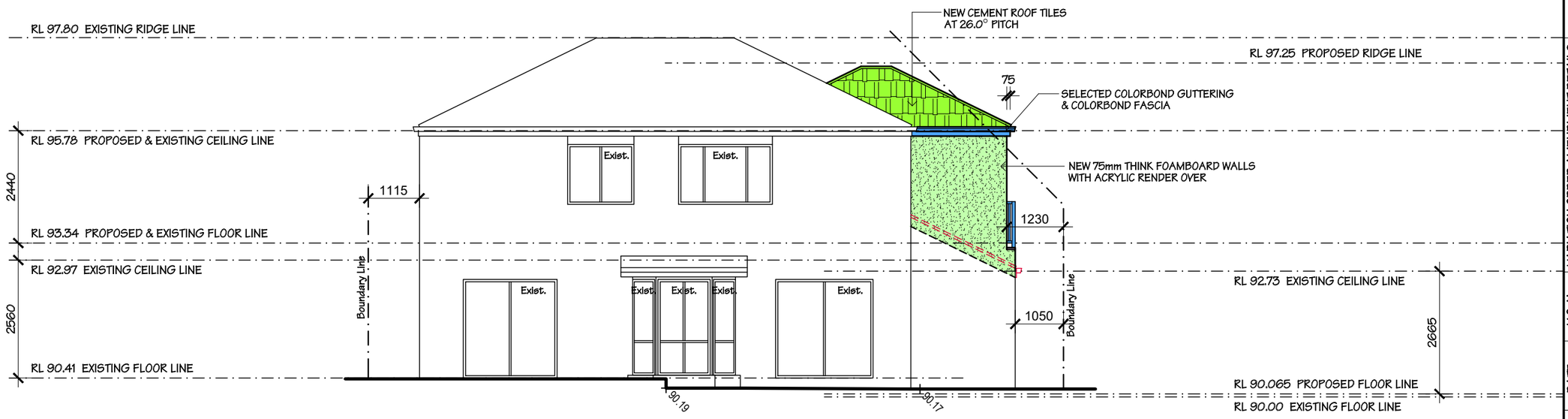
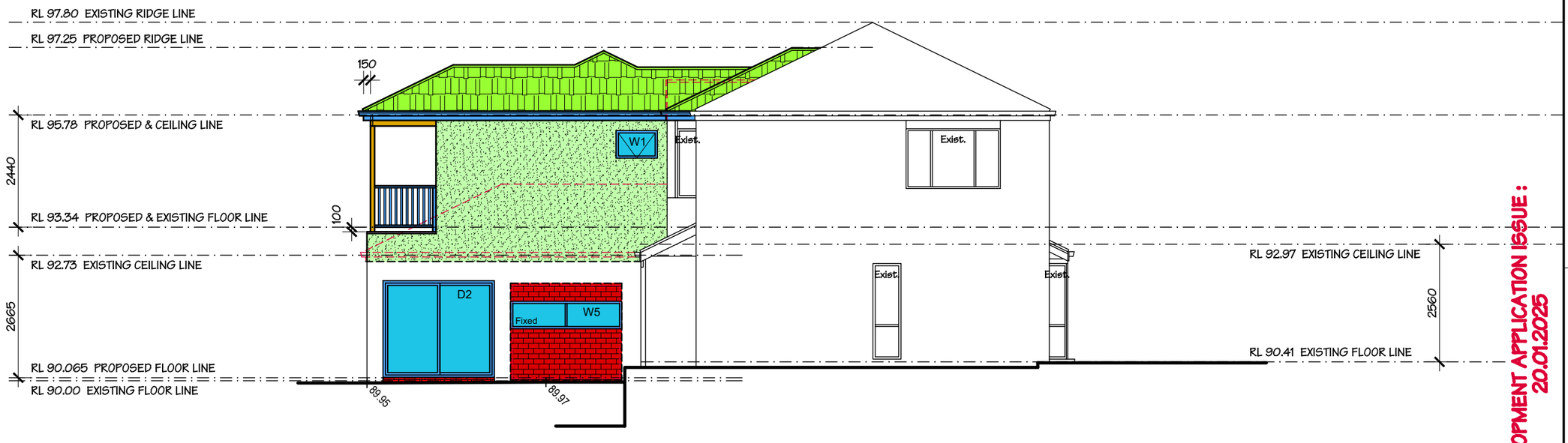


NORTH-EASTERN ELEVATION - REAR

SCALE 1:100



SOUTH-EASTERN ELEVATION - SIDE

SCALE 1:100

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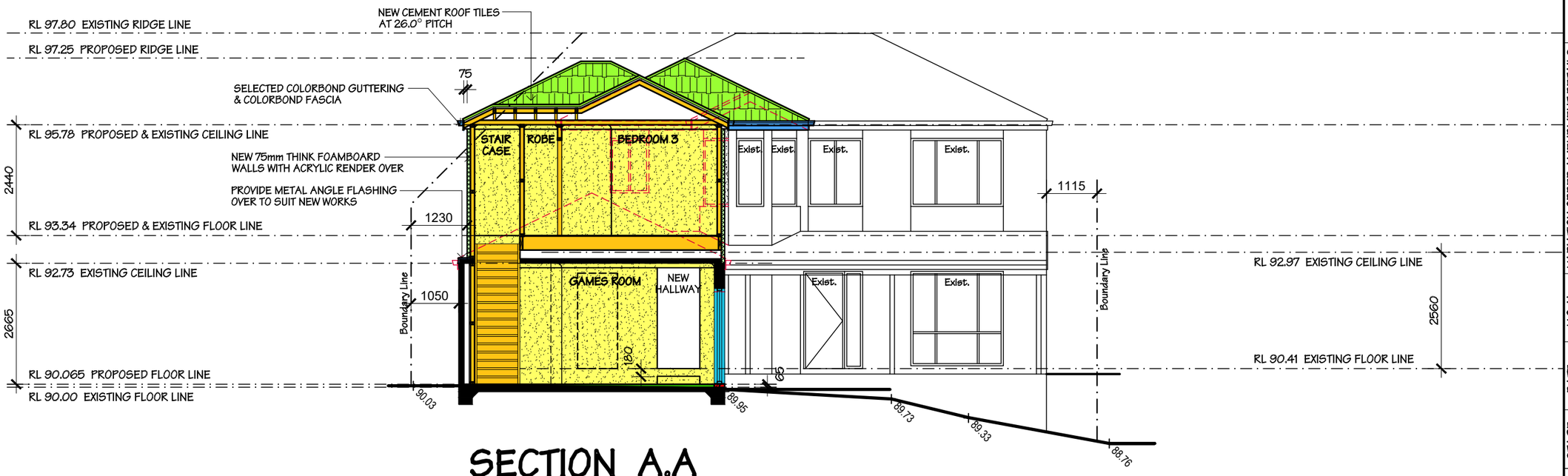

SECTION A.A

SCALE 1:100

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H.I.A No: 393 251

northern beaches council

27 February 2025

Jarra Hills (N.S.W) Pty Ltd
731 Warringah Road
FORESTVILLE NSW 2087

Dear Sir/Madam,

Application No. DA2025/0197 - PAN-510171
Address: 16 Noorong Avenue FRENCHS FOREST

Return of Application

Council has conducted a review of your application in accordance with Council's *Development Application and Modification Lodgement Requirements (21/22)* and is unable to accept the application due to inadequate and/or insufficient information being provided to assess the proposed development.

Accordingly, Council is returning the application to you, which will require you to address the matters listed below and lodge a new application in the NSW Planning Portal, including all relevant plans and documentation as well as the required additional information:

1. **Preliminary Geotechnical Report - Landslip Area "B" and "D" (WLEP 2011)**

   A Preliminary Geotechnical Report (Preliminary Assessment of Site Conditions) as the land is located in Landslip Risk Area "B" or "D" under Council's Landslip Risk Map. The report is to be prepared by a suitably qualified geotechnical consultant.

2. **Landscape Calculation Plan – Warringah**

   A Landscape Calculation Plan, which identifies all areas included in the calculation as per the definition of landscaped open space under the Warringah DCP.

Council has adopted this review and checking procedure in the interests of streamlining the processing of applications, ensuring all applications are *Assessment Ready* and so applications can be processed within reasonable timeframes.

It is very important that you carefully read and understand the reason(s) why your application has been returned, that you refer to the *Development Application and Modification Lodgement Requirements (21/22*), accessible via Council's forms page, to avoid your application being returned.

Visit our "*Lodge your Application"* webpage for more information or to access Planning Portal user guides.

Should you wish to speak to an officer to obtain clarification on the above matter(s) prior to relodging your application, please do not hesitate to contact Council's Planning Officer on 1300 434 434 during our business hours of 8.30am to 5.00pm, Monday to Friday.

Your co-operation in this matter is appreciated.

Yours Faithfully
Development Advisory Service Team