



Energy@greenchoiceconsulting.com.au  
1300 864 944

## Energy Efficiency Report

**Address:**

**Lot 6 (#113) Orchard Street, Warriewood, NSW, 2102**

**Building Classification:**

**Class 1**

**GC Consulting Job Number:**

**ER1-T1434**

**Client Job Number:**

**DWG7873-wd4**

**Compliance achieved?**

**Yes**

**Date of Report:**

**1/04/2025**



**Confidentiality**

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# Home Performance

### Target

Heating (MJ/m <sup>2</sup> )	25
Cooling (MJ/m <sup>2</sup> )	18
Total Energy (MJ/m <sup>2</sup> )	-

### Proposed

Heating (MJ/m <sup>2</sup> )	14.8
Cooling (MJ/m <sup>2</sup> )	14.8
Total Energy (MJ/m <sup>2</sup> )	29.5

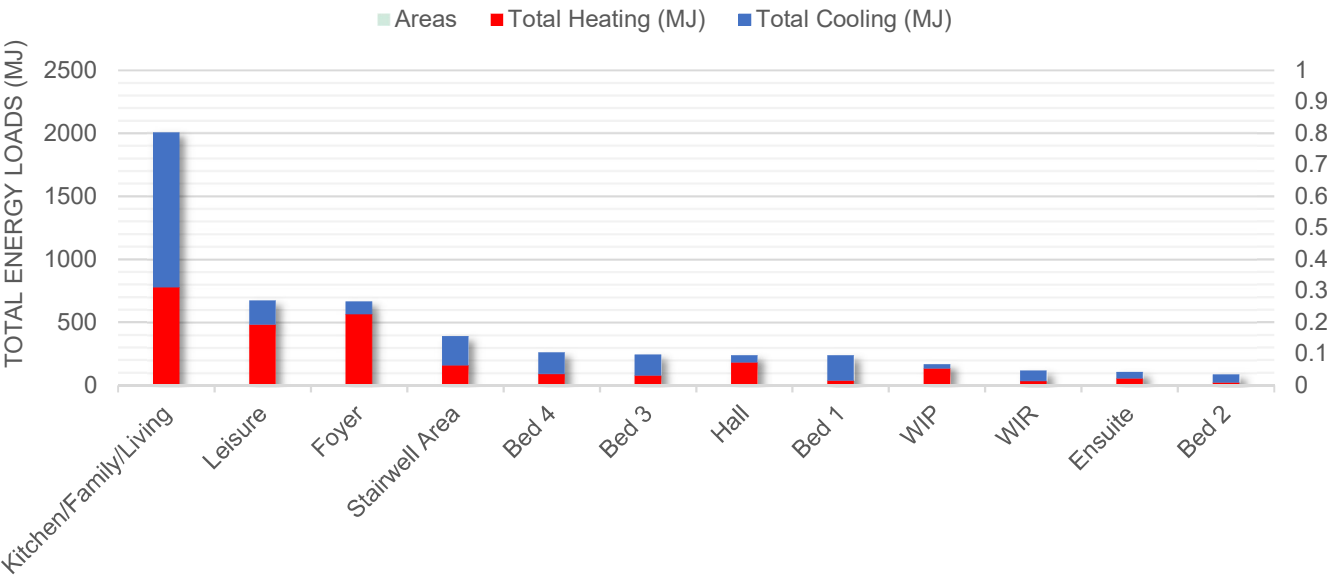
7.1 Stars

Compliance is achieved when the following conditions are met:

- 1. The proposed heating load must be lower than the target heating load.
- 2. The proposed cooling load must be lower than the target cooling load.
- 3. The proposed total Energy must be lower than the target total energy.

NatHERS Climate Zone: 56

### ZONED ENERGY LOAD DISTRIBUTION TOTALS (MJ)



# Building Specifications

External Wall Construction	Insulation	Frame Material	Notes
Single/Double Brick	None	No Frame	Garage
Retaining wall w/stud frame	R2.0 Insulation	Timber Frame	Living
Concrete Blockwork Retaining	None	No Frame	Garage
Brick Veneer	R2.5 Insulation	Timber Frame	Living
Framed	R2.5 Insulation	Timber Frame	Living

If a steel frame is nominated, then a thermal break with an R-Value of 0.2 (or greater) must be installed between the frame and any external cladding, if applicable.

Internal Wall Construction	Insulation	Notes
Stud Frame	None	Throughout
Stud Frame	R2.5 Insulation	To the Garage, Bath & Laundry walls

Floor Construction Type/s	Underfloor Insulation	Slab Edge Insulation	Notes
Waffle Pod 225/85	None	50mm Rigid Insulation	Ground floor (excl. Garage)
Framed Suspended	R4.0 Insulation	None	Floors above outdoor areas
Framed Suspended	None	None	Remainder

Floor coverings as per drawings/client notes (NatHERS Defaults modelled if not specified)

Ceiling Construction Type	Insulation	Notes
Plasterboard	R6.0 Insulation	Throughout
Plasterboard	R3.0 Insulation	To Ceiling Perimeter

Roof Construction Type	Insulation	Notes	Colour
Colorbond	Anticon	As per drawings	Not nominated

All ceiling penetrations are to be sealed.

Glazing Supplier
Not Nominated

Type	Material	U-Value	SHGC	Glass	Notes
Default A	Aluminium	3.60	0.47	DG + Low-E	As per documentation
Default B	Aluminium	3.60	0.54	DG + Low-E	As per documentation
Default B	Aluminium	6.70	0.70	Single Glazed	As per documentation
Sliding Doors	Aluminium	2.18	0.40	TB Double Glazed + Low-E	As per documentation
Hinged Doors	Aluminium	2.17	0.39	TB Double Glazed + Low-E	As per documentation

If the window type is default A the values apply to the following window/door types: Awning, Bi-Fold, Casement, hinged, French and Tilt'n'turn windows.

If the window type is default B the values apply to the following window/door types: Fixed, Double-Hung, Louvre, Sliding, and stacker.

A 5% tolerance is allowed to the nominated SHGC values. The U-Value must be the same or lower than the nominated values.

Your NatHERS Certificate may show codes for other suppliers. In some instances, suppliers do not have all their windows available in the database.

Please contact us if your supplier does not meet the values noted above.


## Energy Efficiency Report

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# Declaration of Compliance

I certify that the details provided within this energy efficiency report are true, correct, and reflective of the plans and specifications of this dwelling. I certify that I am a specialist in the relevant discipline and compliance has been demonstrated with the requirements of the National Construction Code (NCC) as outlined in this report.

Name of assessor: Albert Burton  
Qualification: CPP41212 Certificate IV in NatHERS Assessment  
Accreditation number: DMN/21/2045  
Signature:   
Company Name: Green Choice Consulting Pty Ltd (ABN 63 658 893 415)

Green Choice Consulting Pty Ltd (ACN 658 893 415) holds no responsibility if the project is not constructed in accordance with the requirements of the current National Construction Code (NCC) or and/or the requirements detailed in this report. Any changes to the design elements of the building may void this assessment and require the project to be recertified to confirm compliance.

## Provisions for this assessment

This assessment demonstrates compliance with Part H6 of the NCC. Calculations have been done using FirstRate5 and the Chenath Engine (v3.22).

- (1) Building must comply with Section 13 of the ABCB Housing Provisions clauses—
  - (a) 13.2.2, for building fabric thermal insulation; and
  - (b) 13.2.3(7) and 13.2.5(5), for thermal breaks; and
  - (c) 13.2.3(5), for compensating for a loss of ceiling insulation, other than where the *house energy rating software* has compensated for a loss of ceiling insulation; and
  - (d) 13.2.6(4), 13.2.6(5) and 13.2.6(6) for floor edge insulation; and
  - (e) Part 13.4, for building sealing
- (2) To comply with H6P2, in addition to S42C3, a building must comply with Part 13.7 of the ABC Housing Provisions.

Services must be installed as per Part 13.7.

All metal roof framing must have a thermal break, consisting of a material with an R-Value of greater than or equal to 0.2, installed between the metal sheet roofing and its supporting metal purlins, metal rafters or metal battens.

All metal wall framing must have a thermal break, consisting of a material with an R-Value greater than or equal to 0.2, installed between the external cladding and the metal frame.

## QLD only provisions (to apply if this project is in QLD)

In accordance with the Queensland Development Code Part 4.1—

For applying S42C2 of Specification 42 of the BCA, a reference to climate zones 1 and 2 is taken to be a reference to climate zones 1, 2, 3 or 5.

Toilet cisterns must have a dual flush function, minimum 4-star WELS rating and be compatible with the size of the toilet bowl to allow for proper functioning of the toilet.

## WA only provisions (to apply if this project is in WA)

All tap fittings other than bath outlets and garden taps must be a minimum of 4 stars WELS rated.

All showerheads must be a minimum of 3 stars WELS rated.

All sanitary flushing systems must be a minimum of 4 stars WELS rated dual flush.

An outdoor private swimming pool or spa associated with a Class 1 building must be supplied with a cover, blanket or the like that is designed to reduce water evaporation and is accredited under the Smart Approved Watermark Scheme governed by the Australian Water Association, the Irrigation Association of Australia, the Nursery and Garden Industry Australia and the Water Services Association of Australia.

All internal heated water outlets (such as taps, showers and washing machine water supply fittings) must be connected to a heated water system or a re-circulating heated water system with pipes installed and insulated in accordance with AS/NZS 3500: Plumbing and Drainage, Part 4 Heated Water Services. The pipe from the heated water system or re-circulating heated water system to the furthest heated water outlet must not be more than 20 m in length or 2 liters of internal volume.

## NSW only provisions (to apply if this project is in NSW)

All requirements in this report are in accordance with the BASIX requirements.

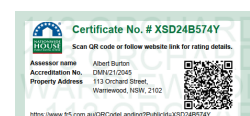
All insulation must be installed as per NSW H6P1.

Building must be sealed as per NSW H6P2.

Domestic services must be selected and have features as per NSW H6P3.

Energy Efficiency Report

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# Nationwide House Energy Rating Scheme®

## NatHERS® Certificate No. XSD24B574Y

Generated on 1 Apr 2025 using FirstRate5: 5.5.5a (3.22)

### Property

**Address** 113 Orchard Street,  
Warriewood, NSW, 2102

**Lot/DP** 6/749791

**NCC Class\*** Class 1a

**Floor/all Floors**

**Type** New Home

### Plans

**Main plan** DWG 7873-wd4/23.06.2023

**Prepared by** Tullipan Homes

### Construction and environment

<b>Assessed floor area [m²]*</b>	<b>Exposure type</b>
Conditioned* 165.4	suburban
Unconditioned* 44.7	<b>NatHERS climate zone</b>
Total 210.1	56 Mascot AMO
Garage 33.4	



### Accredited assessor

**Name** Albert Burton

**Business name** Green Choice Consulting

**Email** Albert@greenchoiceconsulting.com.au

**Phone** 0452191324

**Accreditation No.** DMN/21/2045

**Assessor Accrediting Organisation**  
Design Matters National

**Declaration of interest** No

### NCC Requirements

**NCC provisions** Volume 2

**State/Territory variation** Yes

#### National Construction Code (NCC) requirements

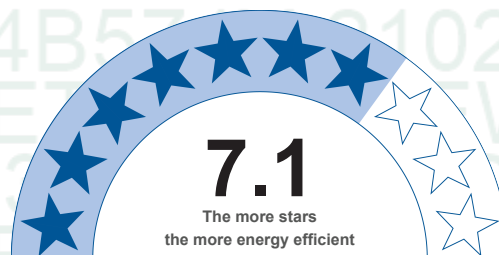
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at [www.abcb.gov.au](http://www.abcb.gov.au).

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

### Thermal performance star rating



**NATIONWIDE  
HOUSE**  
ENERGY RATING SCHEME®

**29.5 MJ/m²**

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see:  
[www.nathers.gov.au](http://www.nathers.gov.au)

### Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
<b>Modelled</b>	14.8	14.8
<b>Load limits</b>	N/A	N/A
<b>Features determining load limits</b>		
Floor type		N/A
(lowest conditioned area)		
NCC climate zone 1 or 2		N/A
Outdoor living area		N/A
Outdoor living area ceiling fan		N/A

### Whole of Home performance rating

No Whole of Home performance rating generated for this certificate

### Verification

To verify this certificate, scan the QR code or visit <https://www.fr5.com.au/QRCodeLandIng?PublicId=XSD24B574Y>. When using either link, ensure you are visiting [www.fr5.com.au](http://www.fr5.com.au).





## About the ratings

### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

## Heating & Cooling Load Limits

### Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

### Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable



## Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

## Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

### Energy use:

No Whole of Home performance assessment conducted for this certificate.

### Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

### Cost:

No Whole of Home performance assessment conducted for this certificate.

### Graph key:



## Certificate check

The checklist covers important items impacting the dwelling's ratings.  
It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item.  
It is not mandatory to complete this checklist.

	Approval stage		Construction stage		Occupancy/other
	Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	
<b>Genuine certificate check</b>					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Thermal performance check</b>					
<b>Windows and glazed doors</b>					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>External walls</b>					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Floor</b>					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling penetrations*</b>					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling</b>					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Roof</b>					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Apartment entrance doors (NCC Class 2 assessments only)</b>					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Exposure*</b>					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and cooling load limits*</b>					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Refer to glossary.



## Certificate check

Continued

	Approval stage		Construction stage		Occupancy/other
	Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	

### Additional NCC requirements for thermal performance (not included in the NatHERS assessment)

#### Thermal bridging

Does the dwelling meet the NCC requirement for thermal bridging?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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#### Insulation installation method

Has the insulation been installed according to the NCC requirements?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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#### Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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### Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)

#### Appliances

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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### Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does the hot water system meet the additional requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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### Provisional values\* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	<input type="checkbox"/>	<input type="checkbox"/>			
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### Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

### Additional notes

Default penetrations used for downlights

Default roof colour of Medium has been used





## Room *schedule*

Room	Zone Type	Area [m <sup>2</sup> ]
Leisure	living	19.9
Foyer	dayTime	14
Garage	garage	33.4
Bed 4	bedroom	10.1
Laundry	unconditioned	4.7
Bath	unconditioned	6.6
WIP	dayTime	3.5
Bed 2	bedroom	10.1
Ensuite	nightTime	4.4
WIR	nightTime	3.6
Bed 1	bedroom	14.2
Bed 3	bedroom	12.1
Hall	dayTime	6
Kitchen/Family/Living	kitchen	65.7
Stairwell Area	dayTime	9.3

## Window and glazed door *type and performance*

### Default\* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ATB-003-01 B	Al Thermally Broken A DG Air Fill Clear-Clear	3.6	0.47	0.45	0.49
ATB-004-01 B	Al Thermally Broken B DG Air Fill Clear-Clear	3.6	0.54	0.51	0.57
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7	0.66	0.74

### Custom\* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-089-62 A	RES SERIES 704 FLUSH SLIDING DOOR DG LightbridgeNeutralSI_638_12_5mm	2.18	0.4	0.38	0.42
BRD-109-11 A	Signature Hinged Door 100TB DG DuoUltraClr L1_638Clr-12-6mm	2.17	0.39	0.37	0.41

## Window and glazed door *schedule*



Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Leisure	ATB-003-01 B	Opening 16	1800	600	awning	60.0	E	No
Leisure	ATB-003-01 B	Opening 17	1800	600	awning	60.0	E	No
Leisure	ATB-003-01 B	Opening 18	1800	600	awning	60.0	E	No
Foyer	ATB-004-01 B	Opening 20	2100	450	fixed	0.0	E	No
Garage	ALM-002-01 A	uncon Garage	900	1200	sliding	45.0	N	No
Bed 4	ATB-004-01 B	Opening 12	1200	1499	sliding	45.0	W	No
Laundry	ALM-002-01 A	uncon laundry	2100	1799	sliding	45.0	N	No
Bath	ALM-002-01 A	uncon Bath	1000	1199	sliding	45.0	N	No
Bed 2	ATB-004-01 B	Opening 9	1200	1499	sliding	45.0	N	No
Ensuite	ATB-004-01 B	Opening 8	900	899	sliding	45.0	N	No
WIR	ATB-003-01 B	Opening 7	1800	600	awning	60.0	E	No
Bed 1	ATB-003-01 B	Opening 4	1800	600	awning	60.0	E	No
Bed 1	ATB-003-01 B	Opening 5	1800	600	awning	60.0	E	No
Bed 1	ATB-003-01 B	Opening 6	1800	600	awning	60.0	E	No
Bed 3	ATB-004-01 B	Opening 13	1200	1499	sliding	45.0	W	No
Kitchen/Family/-Living	AWS-089-62 A	Opening 14	2400	2398	sliding	60.0	S	No
Kitchen/Family/-Living	AWS-089-62 A	Opening 15	2400	2698	sliding	60.0	W	No
Kitchen/Family/-Living	BRD-109-11 A	Opening 1	2100	1639	other	100.0	S	No
Kitchen/Family/-Living	AWS-089-62 A	Opening 2	2100	3597	sliding	45.0	E	No
Stairwell Area	ATB-004-01 B	Opening 3	2100	1799	sliding	45.0	E	No

## Roof window\* type and performance value

### Default\* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

### Custom\* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

## Roof window\* schedule

Location	Window ID	Window no.	Opening %	Area [m²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
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\*Refer to glossary.



No Data Available

Skylight\* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
GEN-04-001a	SC: Single Clear	

Skylight\* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orient-ation	Outdoor shade	Diffuser
Kitchen/Family/Livin- g	GEN-04-001a	Kitchen Rooflig- ht	1000	0.3	N	None	No

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Foyer	2100	820	100.0	E
Garage	2400	5100	100.0	E

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	BV - Brick Veneer - R2.5 Batts	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No
2	C - Earth Retaining Wall with 90mm Stud (R2.0)	0.5	Medium	Glass fibre batt: R2.0 (R2.0)	No
3	S - External Stud Wall - R2.0 Batts	0.5	Medium	Glass fibre batt: R2.0 (R2.0)	No
4	B - Double Brick	0.5	Medium		No
5	B - Single Brick	0.5	Medium		No
6	C - Concrete Blockwork - External Retaining	0.5	Medium		No
7	S - External Stud Wall - R2.5 Batts	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Leisure	1	2740	3920	S	1970	No
Leisure	1	2740	5072	E	2701	Yes
Leisure	2	1400	5072	W	0	No
Leisure	3	1340	5072	W	0	Yes
Foyer	1	2740	1538	S	5006	Yes
Foyer	1	2740	2570	E	2754	No
Foyer	2	1400	2570	W	0	No

\*Refer to glossary.



Foyer	3	1340	2570	W	0	Yes
Garage	4	2740	5831	E	0	No
Garage	5	2740	3980	N	0	Yes
Garage	5	2740	470	E	0	Yes
Garage	5	2740	1627	N	0	No
Garage	6	2740	6301	W	0	No
Garage	1	2740	139	S	0	Yes
Bed 4	1	2740	3896	W	440	No
Bed 4	1	2740	3000	N	560	No
Laundry	1	2740	470	W	590	Yes
Laundry	1	2740	2170	N	590	No
Bath	1	2740	2694	N	590	No
Bed 2	1	2740	2898	N	590	No
Bed 2	1	2740	470	E	590	Yes
Ensuite	7	2740	2173	N	740	Yes
WIR	7	2740	2050	E	500	No
WIR	7	2740	1784	N	750	Yes
Bed 1	7	2740	3532	E	491	No
Bed 3	1	2740	3600	S	650	Yes
Bed 3	1	2740	2996	W	441	No
Kitchen/Family/Living	1	2740	3148	S	5966	Yes
Kitchen/Family/Living	1	2740	6071	W	4450	Yes
Kitchen/Family/Living	1	2740	477	W	490	Yes
Kitchen/Family/Living	1	2740	889	S	580	No
Kitchen/Family/Living	1	2740	4929	S	2550	No
Kitchen/Family/Living	1	2740	899	S	580	No
Kitchen/Family/Living	7	2740	5156	E	2890	Yes
Stairwell Area	7	2740	2568	E	2772	No
Stairwell Area	7	2740	1447	S	5865	Yes

### Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	S - Internal Stud Walls - No Insulation	129	
2	S - Internal Stud Walls -R2.5 Batts	47.3	Glass fibre batt: R2.5 (R2.5)

### Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Leisure	FR5 - 225mm waffle pod, 85mm concrete (R0.60)	19.9	Enclosed	R0.0	Carpet

\*Refer to glossary.





Foyer	FR5 - 225mm waffle pod, 85mm concrete (R0.60)	14	Enclosed	R0.0	Carpet
Garage	FR5 - 225mm waffle pod, 85mm concrete (R0.60)	33.4	Enclosed	R0.0	none
Bed 4	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	9	Enclosed	R4.0	Carpet
Bed 4	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	1	Enclosed	R4.0	Carpet
Laundry	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	4.6	Enclosed	R4.0	Tiles
Laundry	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	0.1	Enclosed	R4.0	Tiles
Bath	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	6.6	Enclosed	R4.0	Tiles
WIP	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	1.9	Enclosed	R4.0	Tiles
WIP	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	1.6	Enclosed	R4.0	Tiles
Bed 2	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	4.7	Enclosed	R4.0	Carpet
Bed 2	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	0.1	Enclosed	R4.0	Carpet
Bed 2	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	5.3	Enclosed	R4.0	Carpet
Ensuite	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	4.4	Enclosed	R4.0	Tiles
WIR	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	0.7	Enclosed	R4.0	Carpet
WIR	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	3	Enclosed	R4.0	Carpet
Bed 1	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	1.2	Enclosed	R4.0	Carpet
Bed 1	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	13.1	Enclosed	R4.0	Carpet



Bed 3	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	11.3	Enclosed	R4.0	Carpet
Bed 3	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	0.8	Enclosed	R4.0	Carpet
Hall	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	6	Enclosed	R4.0	Carpet
Kitchen/Family/L- iving	FRAMED - Internal Framed Suspended Floor (uninsulated)	1.5	Enclosed	R0.0	Tiles
Kitchen/Family/L- iving	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	2.3	Enclosed	R4.0	Tiles
Kitchen/Family/L- iving	FRAMED - Internal Framed Suspended Floor (uninsulated)	24.4	Enclosed	R0.0	Tiles
Kitchen/Family/L- iving	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	1.7	Enclosed	R4.0	Tiles
Kitchen/Family/L- iving	FRAMED - External Framed Suspended Floor (R2.0 Insulation)	0	Enclosed	R2.0	Tiles
Kitchen/Family/L- iving	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	35.8	Enclosed	R4.0	Tiles
Stairwell Area	FRAMED - Internal Framed Suspended Floor (uninsulated)	8.4	Enclosed	R0.0	Tiles
Stairwell Area	FRAMED - Internal Framed Suspended Floor (uninsulated)	0.9	Enclosed	R0.0	Tiles

## Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Leisure	FRAMED - Internal Framed Suspended Floor (uninsulated)	R0.0	No
Foyer	FRAMED - Internal Framed Suspended Floor (uninsulated)	R0.0	No
Garage	FRAMED - External Framed Suspended Floor (R4.0 Insulation)	R4.0	No
Garage	FRAMED - Internal Framed Suspended Floor (uninsulated)	R0.0	No
Bed 4	Plasterboard	R6.0	Yes



Bed 4	Plasterboard	R3.0	Yes
Laundry	Plasterboard	R6.0	Yes
Bath	Plasterboard	R6.0	Yes
WIP	Plasterboard	R6.0	Yes
WIP	Plasterboard	R6.0	Yes
Bed 2	Plasterboard	R6.0	Yes
Bed 2	Plasterboard	R6.0	Yes
Ensuite	Plasterboard	R6.0	Yes
WIR	Plasterboard	R3.0	Yes
WIR	Plasterboard	R6.0	Yes
Bed 1	Plasterboard	R3.0	Yes
Bed 1	Plasterboard	R6.0	Yes
Bed 3	Plasterboard	R6.0	Yes
Bed 3	Plasterboard	R3.0	Yes
Hall	Plasterboard	R6.0	Yes
Kitchen/Family/L- iving	Plasterboard	R3.0	Yes
Kitchen/Family/L- iving	Plasterboard	R6.0	Yes
Kitchen/Family/L- iving	Plasterboard	R6.0	Yes
Kitchen/Family/L- iving	Plasterboard	R3.0	Yes
Kitchen/Family/L- iving	Plasterboard	R6.0	Yes
Stairwell Area	Plasterboard	R6.0	Yes
Stairwell Area	Plasterboard	R3.0	Yes

### Ceiling penetrations\*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Leisure	8	Downlights	100	100	Sealed
Foyer	6	Downlights	100	100	Sealed
Garage	14	Downlights	100	100	Sealed
Bed 4	5	Downlights	100	100	Sealed
Laundry	1	Downlights	100	100	Sealed
Bath	1	Exhaust Fans	250	250	Sealed
Bath	2	Downlights	100	100	Sealed
WIP	1	Downlights	100	100	Sealed
Bed 2	5	Downlights	100	100	Sealed
Ensuite	1	Exhaust Fans	250	250	Sealed
Ensuite	1	Downlights	100	100	Sealed
WIR	1	Downlights	100	100	Sealed
Bed 1	6	Downlights	100	100	Sealed
Bed 3	5	Downlights	100	100	Sealed

\*Refer to glossary.



Hall	2	Downlights	100	100	Sealed
Kitchen/Family/Living	28	Downlights	100	100	Sealed
Kitchen/Family/Living	1	Exhaust Fans	185	185	Sealed
Stairwell Area	2	Downlights	100	100	Sealed

## Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Family/Living	2	1200

## Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Cont:Attic-Continuous	1.3	0.5	Medium
Cont:Attic-Continuous	1.3	0.8	Dark

## Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
No Data Available				

## Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

### Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

### Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

### Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

### Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			



Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

## Explanatory Notes

### About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value\*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

### Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

### Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

## Glossary

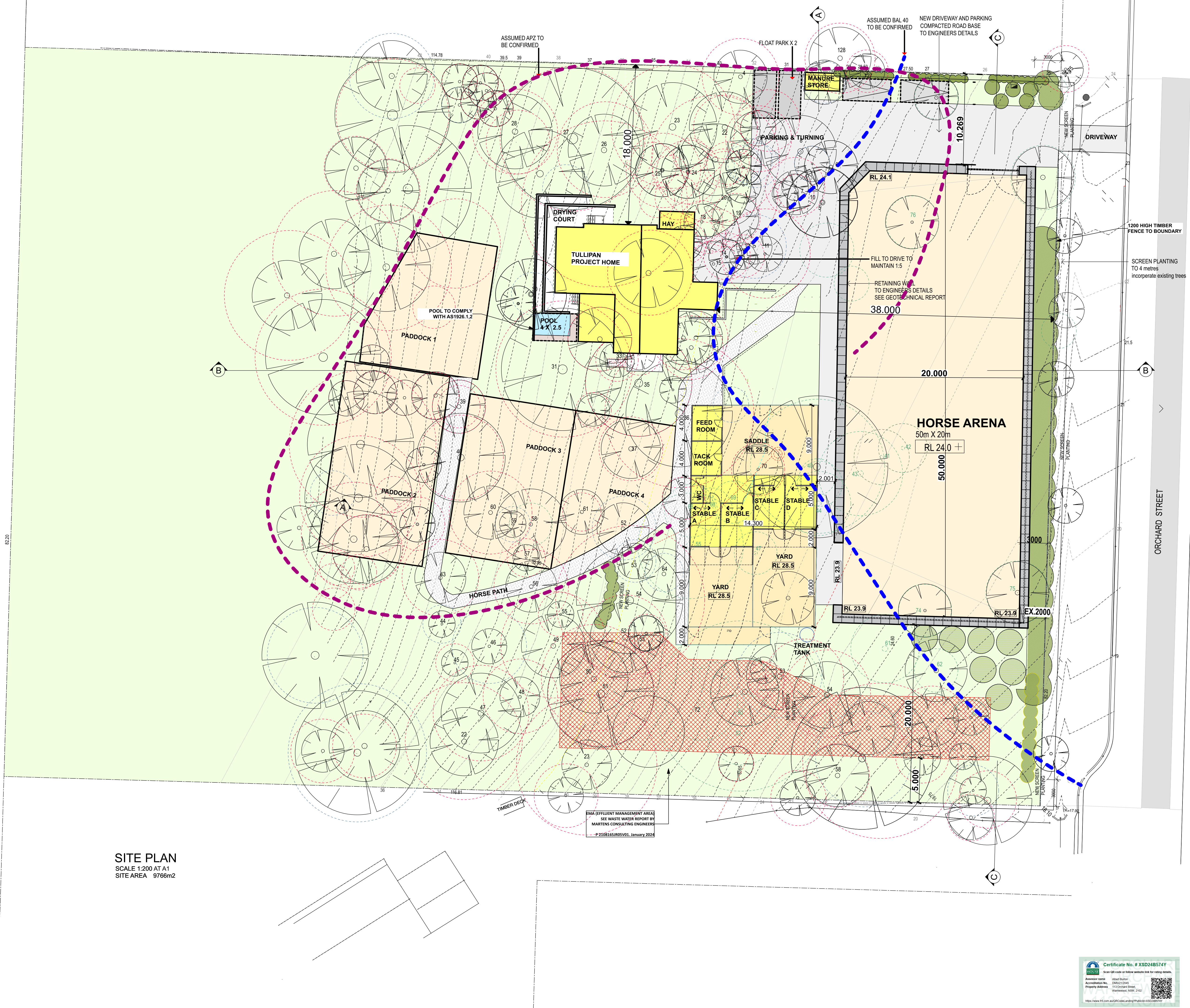
<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>AFRC</b>	Australian Fenestration Rating Council
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>COP</b>	Coefficient of performance
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>EER</b>	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
<b>Energy use</b>	This is your homes rating without solar or batteries.
<b>Energy value</b>	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category – exposed</b>	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category – open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category – suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category – protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Net zero home</b>	a home that achieves a net zero energy value*.
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Recommended capacity</b>	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

\*Refer to glossary.



<b>STCs</b>	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
<b>Thermal breaks</b>	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
<b>Window shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)





- KEY**
- EXISTING VEGETATION - UNBUILT ON AREA WITHIN BOUNDARIES
  - NEW SCREEN PLANTING
  - ARENA, DAY YARDS, TOP PADDOCKS
  - ACCESS DRIVE
  - HORSE PATH
  - NEW STRUCTURES
- CHECK TREE POSITIONS NEAR TO FACILITIES REPORT ANY DISCREPANCIES TO ARCHITECT BEFORE COMMENCING CONSTRUCTION

- EXISTING TREE CANOPY
- TREE PROTECTION ZONE IMPORTANT TREES
- TREE PROTECTION ZONE LESS IMPORTANT TREES
- TREE TO BE REMOVED
- BAL 40
- APZ
- NEW LEVEL
- CUT BERM MAXIMUM 30° SLOPE
- RETAINING WALL
- 1200 HIGH TIMBER FENCE
- RETAINING WALL

Revision	Date	Remarks
N	16.10.24	APPEAL APPLICATION S8.7
M	01.10.24	REVISED SITE PLAN
L	10.09.24	REMOVE HORSE WASH BAY, ARENA REPOSITIONED
K	04.06.24	REMOVE UNUSED SEPTIC TANK AND LINE
J	31.01.24	EMA SHOWN FOR DA
	11.5.23	
Revision	Date	Remarks
Project		
PROPOSED HORSE ARENA AND FACILITIES AND NEW DWELLING		
LOT 6 DP749791		
Address		
113 Orchard St, Warriewood		
Title		
SITE PLAN		
DA		
Tony McLain Architect (Reg. No. 4291)		
Tel 98108631		
Mob 0402223665		
mclainTony@gmail.com		
Scale 1:200 @ A1		
Date NOV 2024		
Project No. 1826		
Drawing No. 01		
Rev. N		





***PROPOSED  
RESIDENCE***

**Client:** *A & S Simpson + N & J Hunter*  
**Site:** *113 Orchard Street*  
*Warriewood NSW 2102*  
*Lot 6, DP 749791*

AA	Front Page
A01	Location Plan
A02	Site Plan - Site Analysis
A03	Ground Floor Plan
A04	First Floor Plan
A05	Elevations
A06	Elevations
A07	Cross Section & Driveway levels
A08	Water Management Plan
A09	Shadow Diagram
A10	Ground Floor Electrical Plan
A11	First Floor Electrical Plan
A12	Gas Plan
A - A	Wet Area Details
A - B	Wet Area Details

## BASIX NOTES

All Showerheads, WC's, Kitchen and bathroom taps to be 3 star rated  
Install 5000 litre water tank  
Swimming pool max volume 10 Kilolitres  
Install photovoltaic system .Generating capacity 1.5 peak kilowatts  
Install windows to bedrooms  
Install skylight to kitchen  
Install 5 star instantaneous gas hot water system  
Double Glazing to the Kitchen,Family,Living and Stairwell glazed areas  
Hinged doors Uw = 4.10 , SHGC = 0.47  
Sliding doors Uw = 4.10 , SHGC = 0.52

<b>Site Details</b>	
Site Area:	9598.8m <sup>2</sup>
Roof Area:	240.9m <sup>2</sup>
Harvested Roof Area:	As per BASIX
Total Garden & Lawn Area:	200m <sup>2</sup>


Issue A1

**SEE DA DRAWINGS No 1826 (1-10) .Issue N1  
PROPOSED HORSE ARENA AND FACILITIES  
AND NEW RESIDENCE  
113 ORCHARD ST, WARRIEWOOD**

Revision	Date	Remarks
----------	------	---------

J	11.5.23	FOR DA
Revision	Date	Remarks

Project  
**PROPOSED HORSE ARENA AND  
AND FACILITIES AND ADDITIONS AND  
NEW DWELLING**

LOT 6 DP749791

Address  
113 Orchard St , Warriewood

Title

TULIPAN RESIDENCE

Tony McLain Architect (Reg. No. 4291)

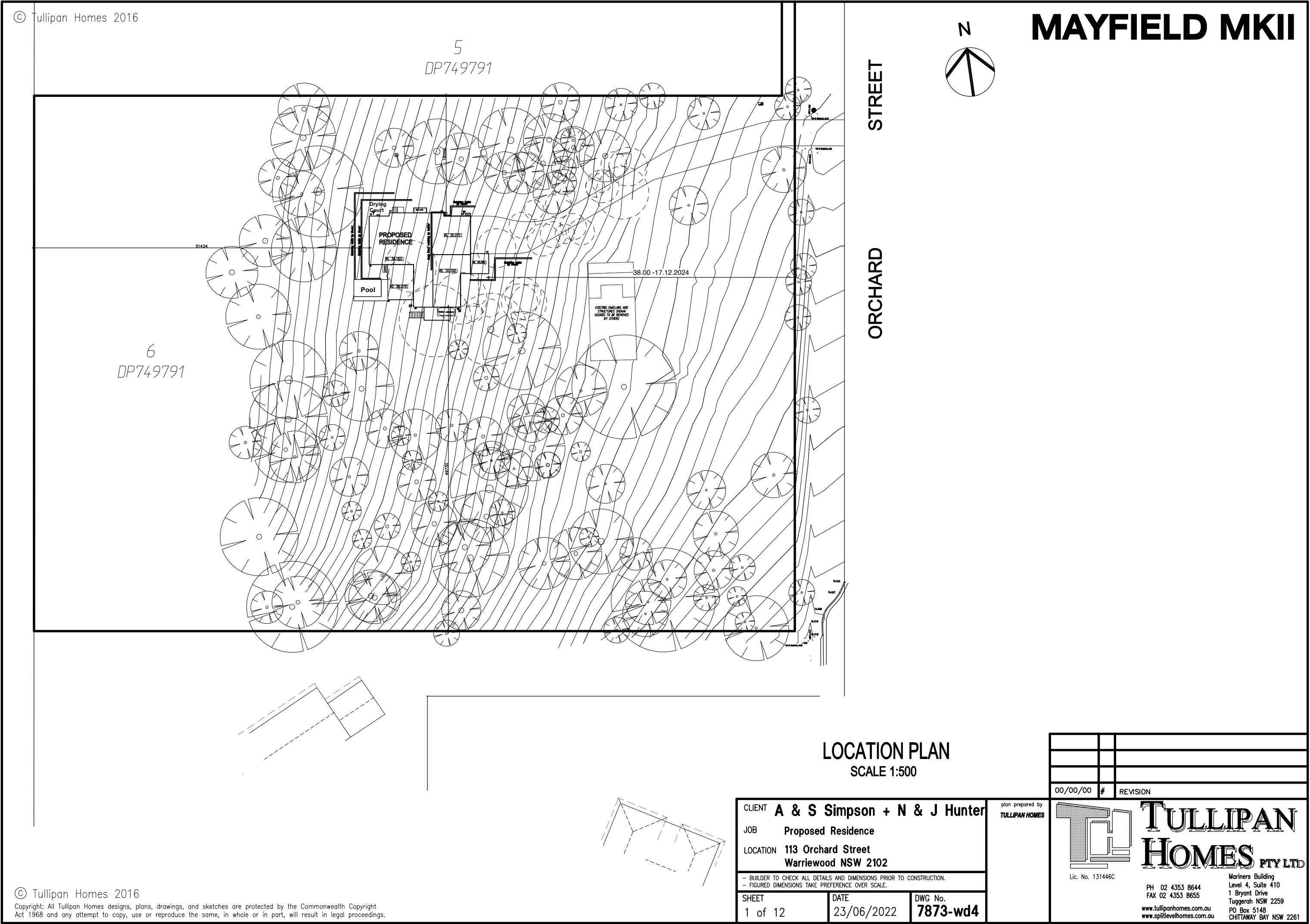
Tel 98108631

Mob 0402223665  
mclaintony@gmail.com

Scale 1:1 @ A1 Date MAY 2023

Project No. <b>1826</b>	Drawing No. <b>20</b>	Rev. <b>J</b>
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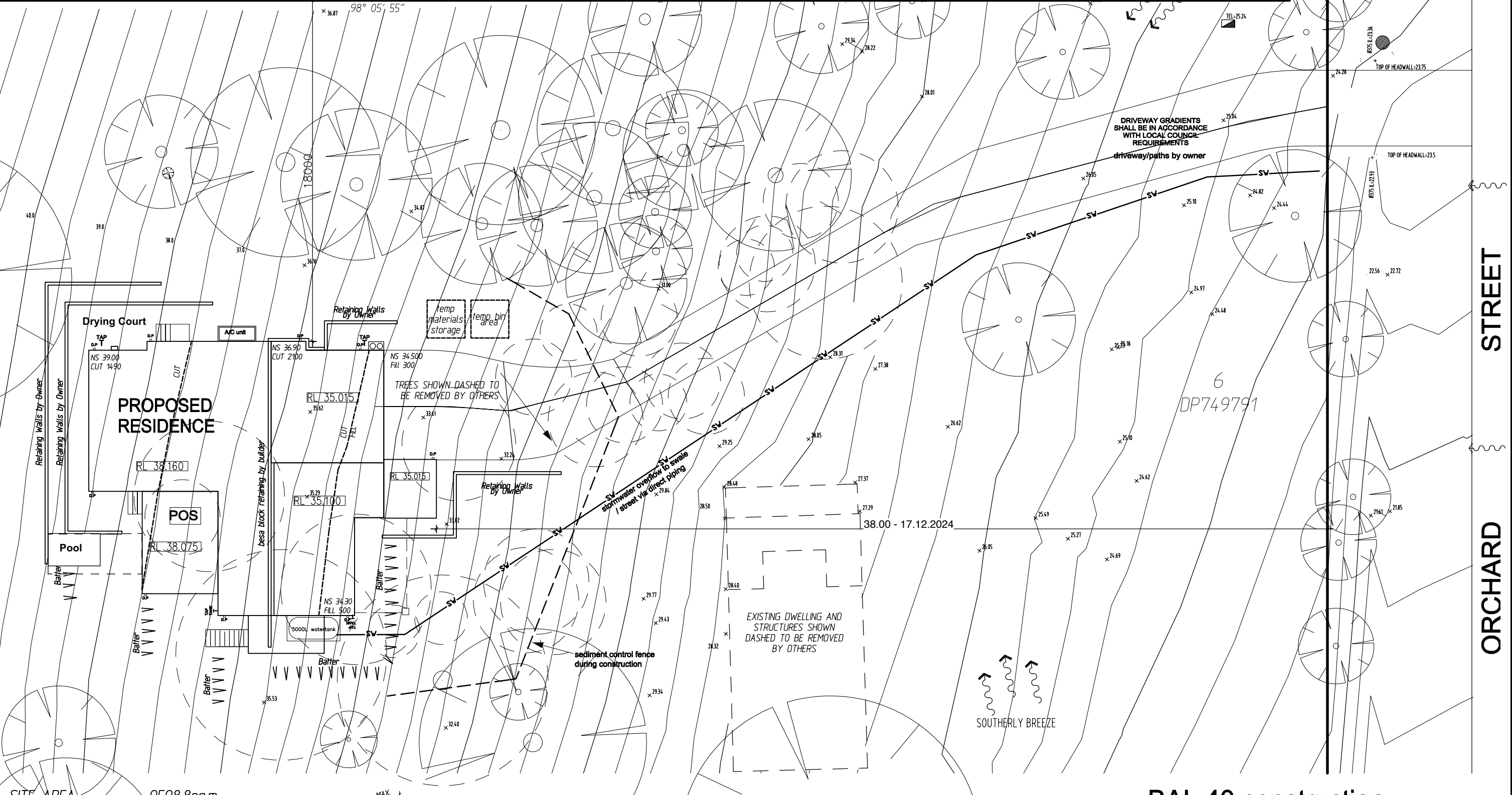
SEE DA DRAWINGS No 1826 (1-10) .Issue N  
PROPOSED HORSE ARENA AND FACILITIES  
AND NEW RESIDENCE  
113 ORCHARD ST, WARRIEWOOD

Revision	Date	Remarks
J	11.5.23	FOR DA
Revision	Date	Remarks
Project		
PROPOSED HORSE ARENA AND FACILITIES AND ADDITIONS AND NEW DWELLING		
LOT 6 DP749791		
Address		
113 Orchard St , Warriewood		
Title		
TULLIPAN RESIDENCE		
Tony McLain Architect (Reg. No. 4291)		
Tel 98108631		
Mob 0402223665		
mclainTony@gmail.com		
Scale 1:1 @ A1		Date MAY 2023
Project No. 1826	Drawing No. 21	Rev. J

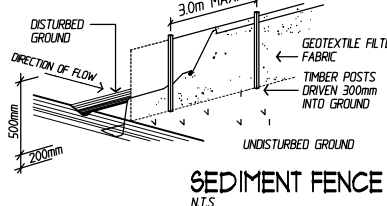




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SITE AREA: 9598.8sqm  
Site Cover: 198.3sqm  
Drive/paths: 185.2sqm  
Open space: 96%

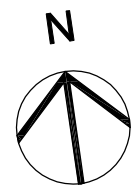


SETOUT NOTE  
BOUNDARY DIMENSIONS AND LOCATION OF DWELLING TO BE CONFIRMED AND SETOUT BY SURVEYOR PRIOR TO COMMENCEMENT OF WORK. BUILDER TO BE PRESENT TO CONFIRM PREFERENCE TO LOCATION.

COUNCIL NOTES:  
- NO WATERWAYS, WATERCOURSES OR EXISTING DRAINAGE PROBLEMS  
- EASEMENTS SHOWN ON SITE PLAN  
- EXISTING VEGETATION SHOWN ON SITE PLAN  
- STORMWATER DISPOSED OF TO COUNCIL'S REQUIREMENTS

BOUNDARY NOTE  
BOUNDARY INFORMATION SUPPLIED BY BUILDER. CONFIRM ALL BOUNDARY INFORMATION PRIOR TO COMMENCEMENT OF WORK.

BAL 40 construction  
SITE PLAN / ANALYSIS  
SCALE 1:200



**CAUTION:**

1. UTILITY SERVICES SHOWN HEREON HAVE BEEN LOCATED WHERE POSSIBLE BY FIELD SURVEY. IF NOT ABLE TO BE LOCATED, SERVICES HAVE BEEN PLOTTED FROM THE RECORDS OF RELEVANT AUTHORITIES WHERE AVAILABLE. PRIOR TO EXCAVATION OR CONSTRUCTION ON THE SITE, THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR CONFIRMATION OF LOCATION OF SERVICES. \*\*\* CALL BEFORE YOU DIG (CALL 1100) \*\*\*

2. THE BOUNDARIES SHOWN HEREON ARE APPROXIMATE ONLY. FOR ANY CONSTRUCTION ACTIVITIES PROPOSED IN CLOSE PROXIMITY TO THE BOUNDARIES, IT IS RECOMMENDED THAT THOSE BOUNDARIES BE MARKED TO AVOID POSSIBILITY OF ENCROACHMENT.

**DIAL 1100 BEFORE YOU DIG**

SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL SHALL BE IMPLEMENTED TO THE STANDARDS OF THE SOIL CONSERVATION OF NSW.

2. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS EARLY AS POSSIBLE DURING DEVELOPMENT.

3. SEDIMENT TRAPS SHALL BE CONSTRUCTED AROUND ALL INLET PITS, CONSISTING OF 300mm WIDE X 300mm DEEP TRENCH.

4. ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A 60% FULL OF SOIL MATERIALS, INCLUDING THE MAINTENANCE PERIOD.

5. ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.

6. SOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.

7. FILTER SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC PROPERLY APPROVED EQUIVALENT BETWEEN POST AT 30m CENTRES FABRIC SHALL BE SURED 150mm ALONG ITS LOWER EDGE.

## LEGEND

- NOISE FROM ROAD TRAFFIC
- VEHICULAR SITE ENTRY
- PRIVATE OPEN SPACE
- PREVAILING WINDS

CLIENT	A & S Simpson + N & J Hunter		
JOB	Proposed Residence		
LOCATION	113 Orchard Street Warriewood NSW 2102		
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SHEET	DATE	DWG No.	
2 of 12	23/06/2022	7873-wd4	

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SEE DA DRAWINGS No 1826 (1-10) .Issue N  
PROPOSED HORSE ARENA AND FACILITIES  
AND NEW RESIDENCE  
113 ORCHARD ST, WARRIEWOOD

Revision Date Remarks

J 11.5.23 FOR DA  
Revision Date Remarks

Project  
PROPOSED HORSE ARENA AND  
AND FACILITIES AND ADDITIONS AND  
NEW DWELLING  
LOT 6 DP749791

Address  
113 Orchard St , Warriewood

Title  
TULLIPAN RESIDENCE

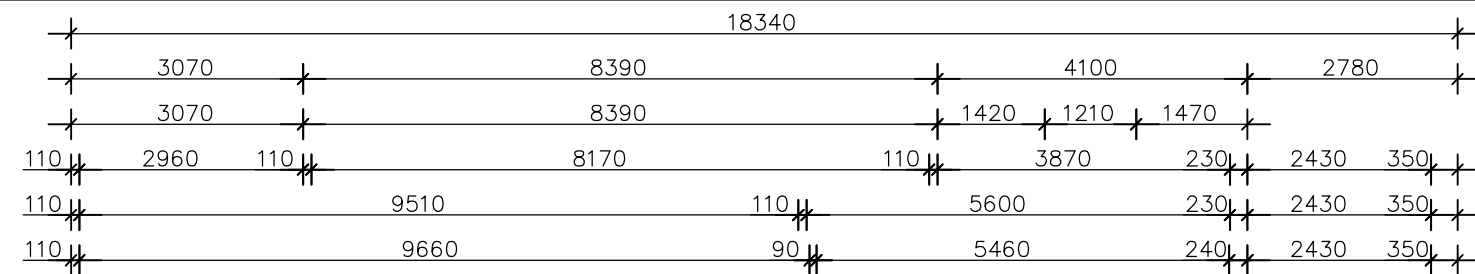
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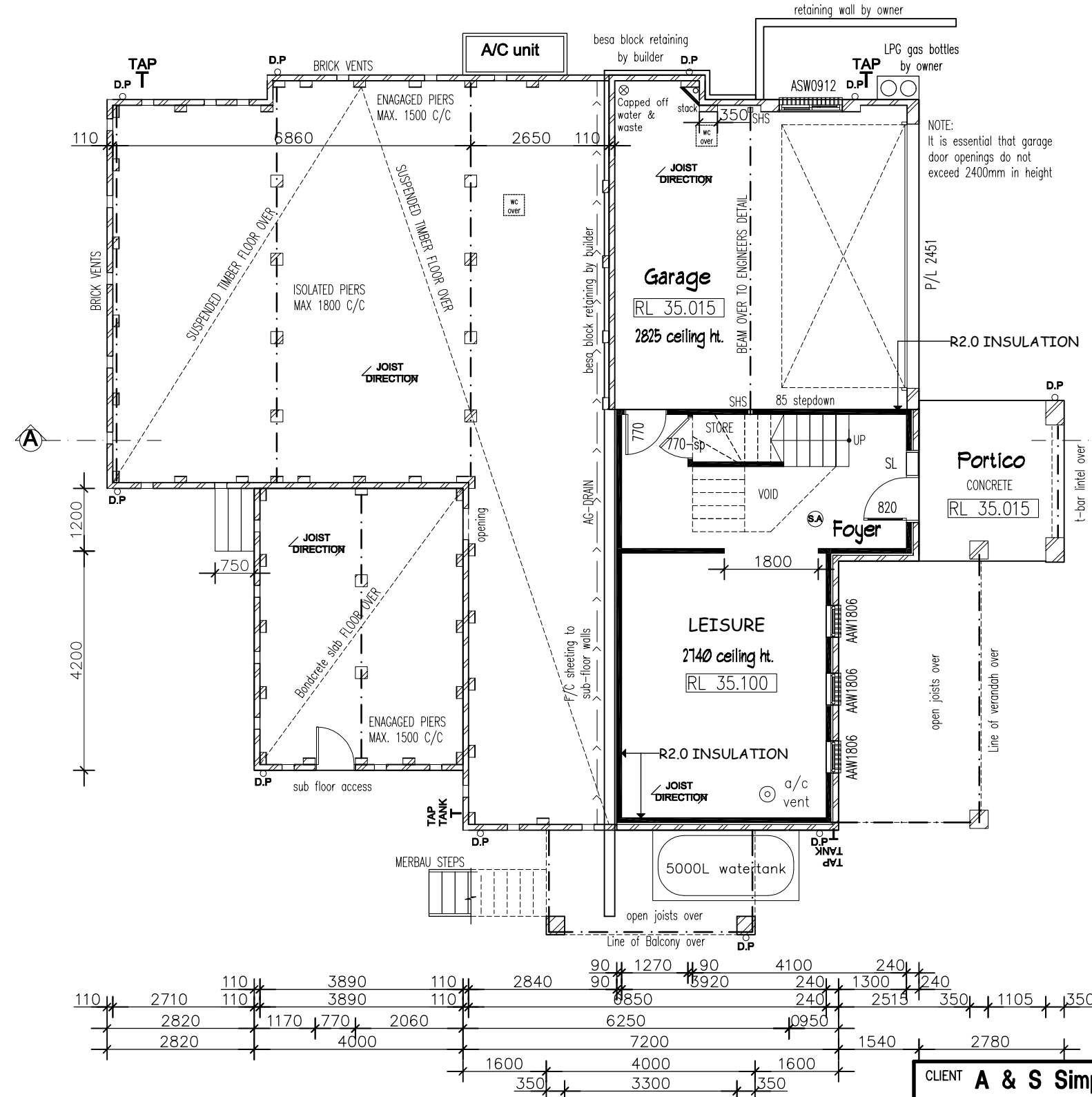
Scale 1:1 @ A1 Date MAY 2023  
Project No. 1826 Drawing No. 22 Rev. J



BULKHEAD AND STACK LOCATION  
TO BUILDERS DISCRETION



A/C VENT  **NOTE: AC VENTS MUST NOT BE POSITIONED WITHIN 500mm OF KITCHEN ISLAND BENCH**



## GROUND FLOOR PLAN

SCALE 1:100

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AREAS:	
Portico:	8.6m <sup>2</sup>
Ground Floor:	38.7m <sup>2</sup>
Garage:	36.1m <sup>2</sup>
First Floor:	169.2m <sup>2</sup>
Verandah:	21.3m <sup>2</sup>
Alfresco:	21.6m <sup>2</sup>
Balcony:	8.0m <sup>2</sup>
TOTAL:	303.5m <sup>2</sup>

All Showerheads, WC's, Kitchen and bathroom taps to be 3 star rated  
Install 5000 litre water tank  
Swimming pool max volume 10 Kilolitres  
Install photovoltaic system .Generating capacity 1.5 peak kilowatts  
Install windows to bathrooms  
Install skylight to kitchen  
Install 5 star instantaneous gas hot water system  
Double Glazing to the Kitchen,Family,Living and Stairwell glazed areas  
Hinged doors  $U_w = 4.10$  ,  $SHGC = 0.47$   
Sliding doors  $U_w = 4.10$  ,  $SHGC = 0.52$

**SEE DA DRAWINGS No 1826 (1-10) .Issue<sup>N</sup>  
PROPOSED HORSE ARENA AND FACILITIES  
AND NEW RESIDENCE  
113 ORCHARD ST, WARRIEWOOD**

Revision			Date			Remarks		
J			11.5.23			FOR DA		
Revision			Date			Remarks		
Project								
<p><b>PROPOSED HORSE ARENA AND AND FACILITIES AND ADDITIONS AND NEW DWELLING</b></p> <p><b>LOT 6 DP749791</b></p>								
Address								
113 Orchard St , Warriewood								
Title								
TULIPAN RESIDENCE								
Tony McLain Architect (Reg. No. 4291)								
Tel 98108631								
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mclaintony@gmail.com								
Scale 1:1 @ A1			Date			MAY 2023		
Project No.			Drawing No.			Rev.		
1826			23			J		

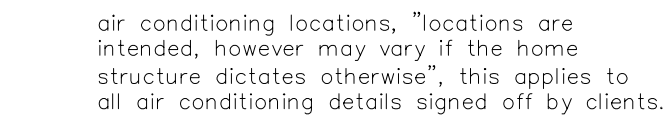




BULKHEAD AND STACK LOCATION  
TO BUILDERS DISCRETION

A/C VENT  NOTE: AC VENTS MUST NOT BE POSITIONED WITHIN 500mm OF KITCHEN ISLAND BENCH

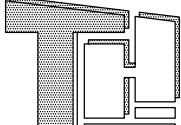
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SHEET	DATE	DWG No.
4 of 12	23/06/2022	<b>7873-wd4</b>

00/00/00	#	REVISION			

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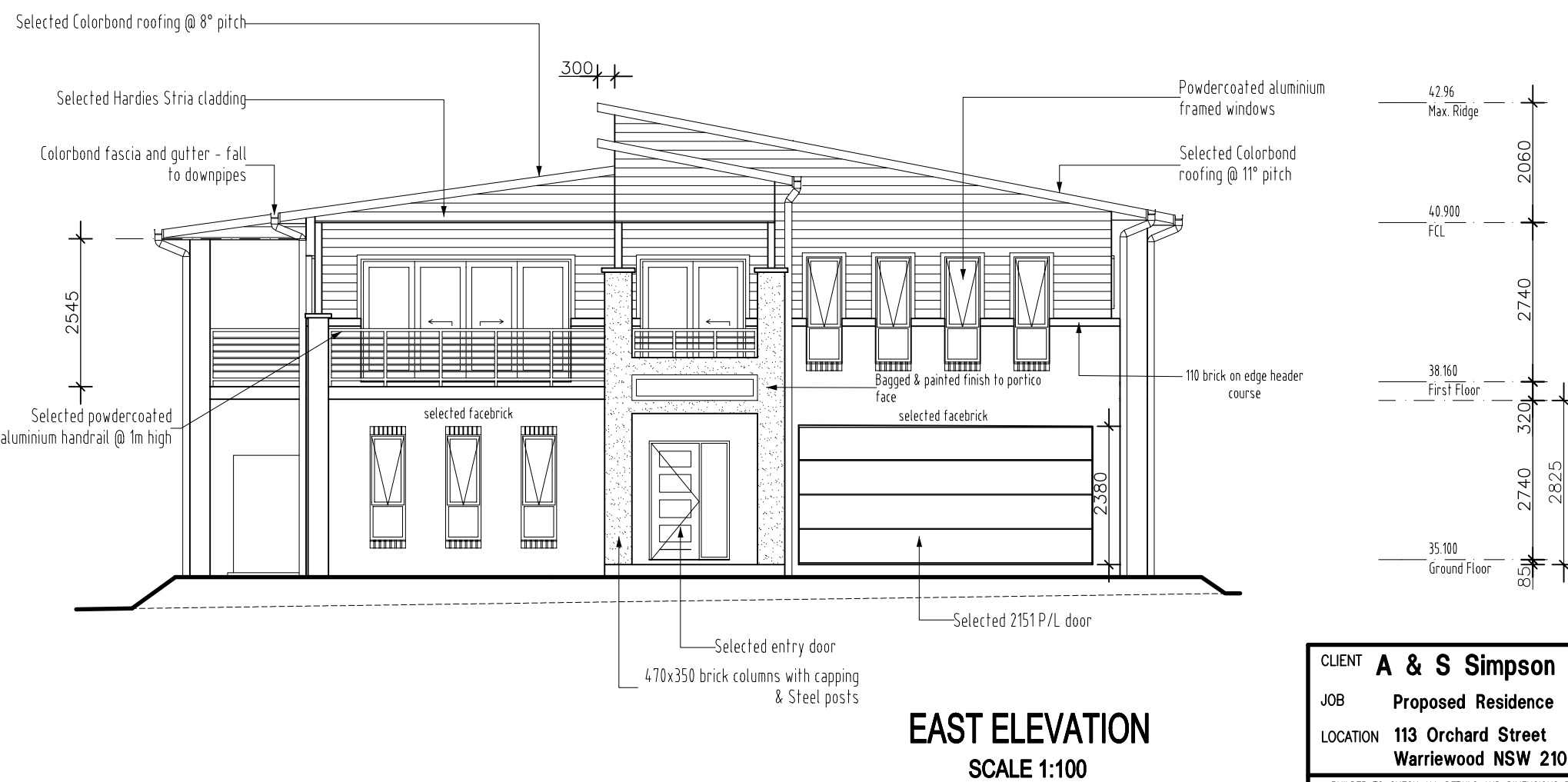
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SHEET	DATE	DWG. No.
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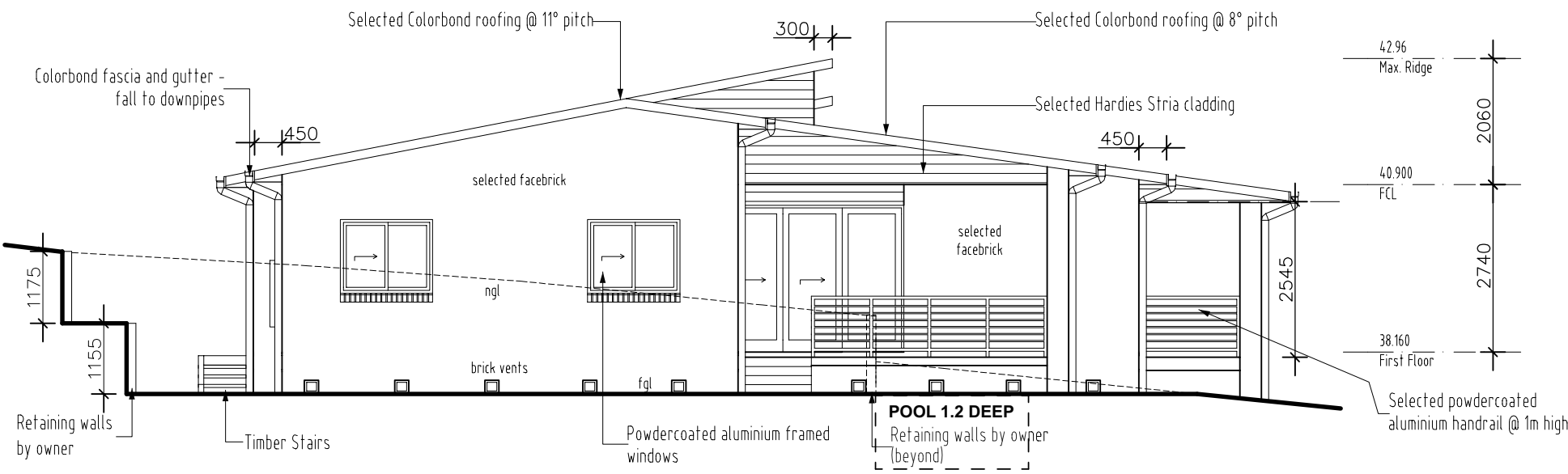
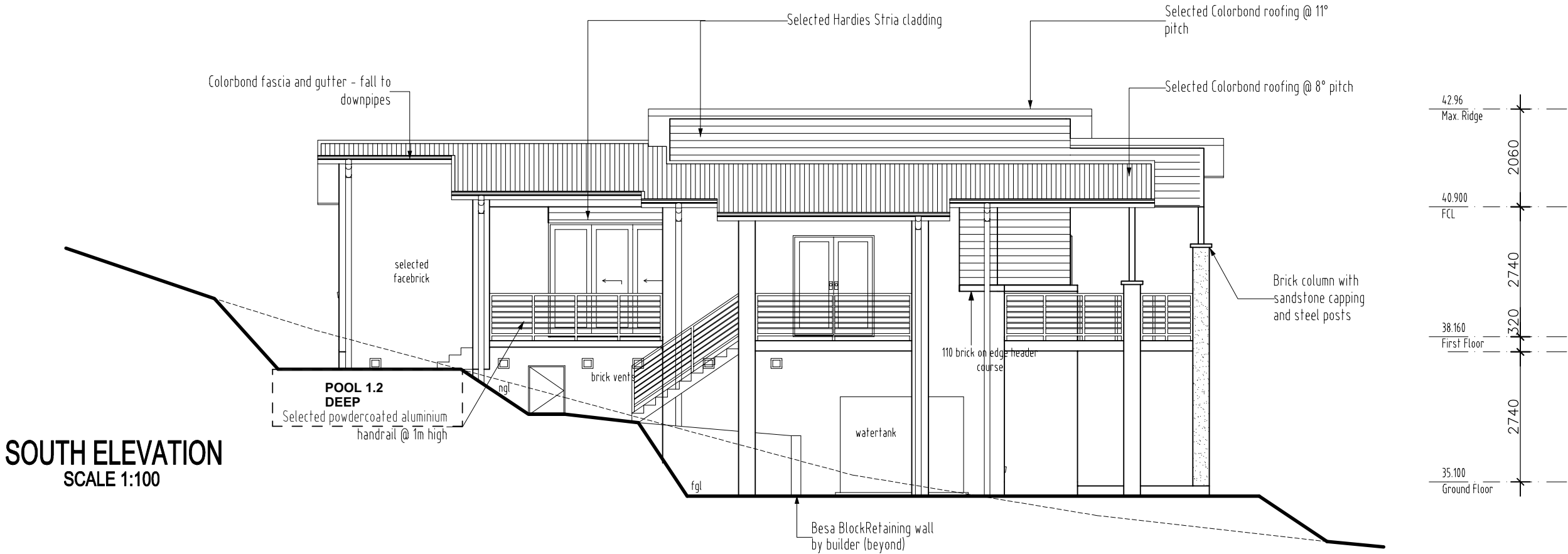


Revision	Date	Remarks
J	11.5.23	FOR DA
Revision	Date	Remarks
Project		
PROPOSED HORSE ARENA AND AND FACILITIES AND ADDITIONS AND NEW DWELLING		
LOT 6 DP749791		
Address		
113 Orchard St , Warriewood		
Title		
TULIPAN RESIDENCE		
Tony McLain Architect (Reg. No. 4291)		



Scale 1:1 @ A1	Date	MAY 2023
Project No.	Drawing No.	Rev.
1826	25	J

BAL 40 construction **MAYFIELD MKII**



CLIENT <b>A &amp; S Simpson + N &amp; J Hunter</b>		
JOB <b>Proposed Residence</b>		
LOCATION <b>113 Orchard Street Warriewood NSW 2102</b>		
- BUILDER TO CHECK ALL DETAILS AND DIMENSIONS PRIOR TO CONSTRUCTION. - REQUIRED DIMENSIONS TAKE PREFERENCE OVER SCALE.		
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**PROPOSED HORSE ARENA AND FACILITIES**  
**AND NEW RESIDENCE**  
**113 ORCHARD ST, WARRIEWOOD**

Revision	Date	Remarks
<b>J</b>	11.5.23	FOR DA
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Title		
<b>TULIPAN RESIDENCE</b>		
Tony McLain Architect (Reg. No. 4291)		
Tel 98108631 Mob 0402223665 mclainTony@gmail.com		
Scale 1:1 @ A1	Date MAY 2023	Rev.
Project No. <b>1826</b>	Drawing No. <b>26</b>	<b>J</b>

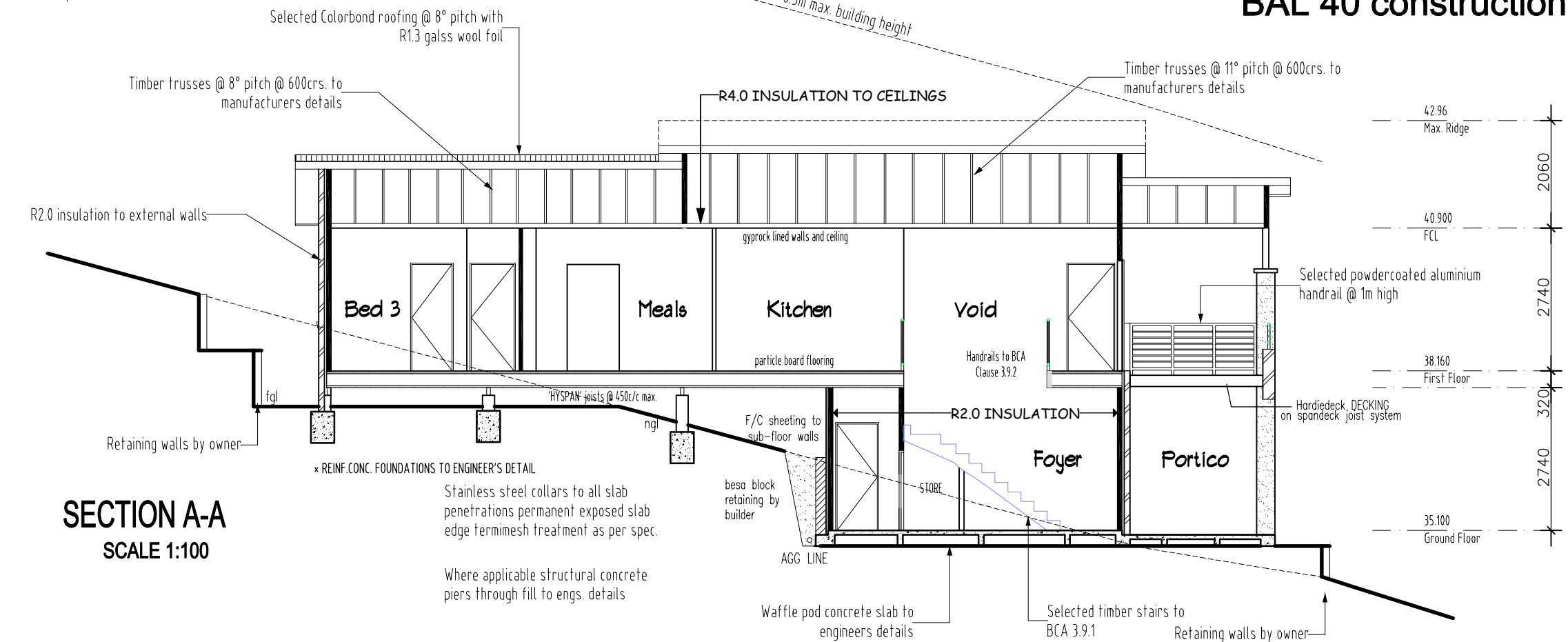




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BAL 40 construction

MAYFIELD MKII



SUSPENDED TIMBER FLOORS  
\* GALVANISED ANT  
CAPPING TO BRICK PIERS  
& FOUNDATION WALLS  
\* REINF.CONC. FOUNDATIONS  
TO ENGINEER'S DETAIL

ALL MECHANICAL VENTILATION  
DISCHARGE POINTS TO COMPLY  
WITH BCA PART 3.8.7.4

BULKHEAD AND STACK  
LOCATION TO BUILDERS  
DISCRETION

BRACING, TIE DOWN AND  
GLAZING DETAILS TO  
ENGINEERS SPECIFICATIONS

STAINLESS STEEL COLLARS TO ALL  
SLAB PENETRATIONS PERMANENT  
EXPOSED SLAB EDGE TERMIMESH  
TREATMENT AS PER SPEC.

19mm COMPRESSED FC SHEETING  
PLUS WET AREA  
WATERPROOFING INSTALLATION  
AS PER AS 3740 TO WET ROOMS

HANDRAILS TO BCA 3.9.2

STAINLESS STEEL WALL TIES &  
GALVANIZING TO ANY EXPOSED  
BEAMS

NOTE:  
BLUE H2-F TIMBER FRAMING  
TO COMPLY WITH AS1684

ALL FIRST FLOOR BEDROOMS WITH  
SILLS LESS THAN 17m WILL HAVE  
DEVICES INSTALLED RESTRICTING  
THE WINDOW OPENING TO COMPLY  
WITH BCA PART 3.9.2.6

### BRICKLAYER

LOCATION OF VERTICAL CONTROL JOINTS SHOWN ON PLAN TO BE USED AS  
GUIDE ONLY. REFER TO BCA 3.3.18(b) BELOW FOR CONFIRMATION.

BCA 3.3.18

(b) Articulation joints must have a width not less than 10mm and be provided

(i) in straight, continuous walls having no openings, at not more than 6m

centres and not closer than the height of the wall away from corners; and

(ii) where the height of the wall changes by more than 20%, at the position

of change in height; and

(iii) where openings more than 900x900mm occur, at not more than 5m

centres, and positioned in line with one edge of the opening; and

(iv) where walls change in thickness; and

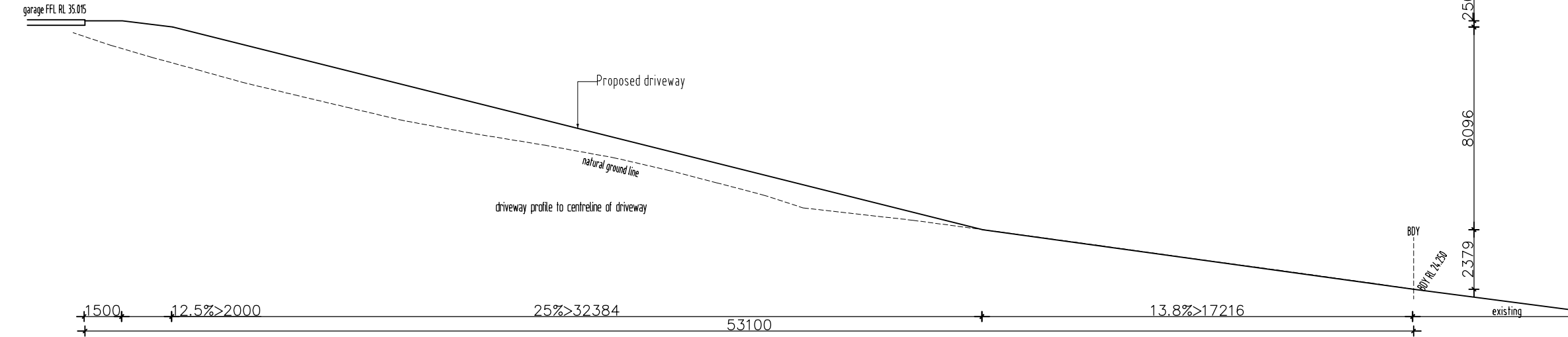
(v) at control or construction joints in footing slabs; and

(vi) at junctions of walls constructed of different masonry materials; and

(vii) at deep chases (rebates) for service pipes.

### ENGINEER

ALL STRUCTURAL REFERENCES MADE ON THIS PLAN ARE TO BE DESIGNED AND ALSO  
STATED ON AN ENGINEERS CERTIFICATE AS BEING WHOLLY APPROVED BEFORE  
COMMENCEMENT OF ANY WORKS. THESE DRAWINGS ARE TO BE THEN READ IN CONJUNCTION  
WITH ENGINEERS PLANS AND DOCUMENTS, WITH ENGINEERS REFERENCES TAKING  
PRECEDENCE.



### DRIVEWAY PROFILE

SCALE 1:200

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7 of 12	23/06/2022	7873-wd4	

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SEE DA DRAWINGS No 1826 (1-10) .Issue N  
PROPOSED HORSE ARENA AND FACILITIES  
AND NEW RESIDENCE  
113 ORCHARD ST, WARRIEWOOD

Revision Date Remarks

J 11.5.23 FOR DA

Revision Date Remarks

Project

PROPOSED HORSE ARENA AND  
AND FACILITIES AND ADDITIONS AND  
NEW DWELLING

LOT 6 DP749791

Address

113 Orchard St , Warriewood

Title

TULLIPAN RESIDENCE

Tony McLain Architect (Reg. No. 4291)

Tel 98108631

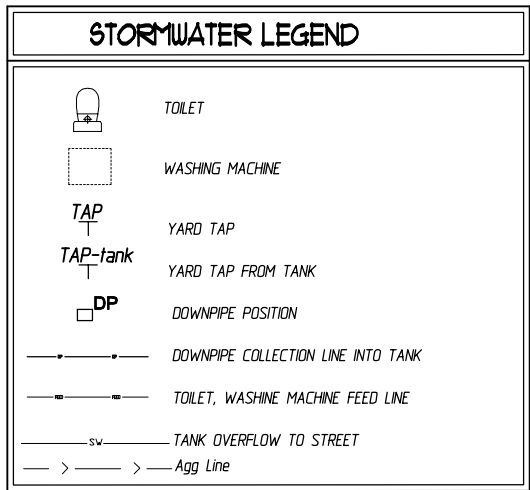
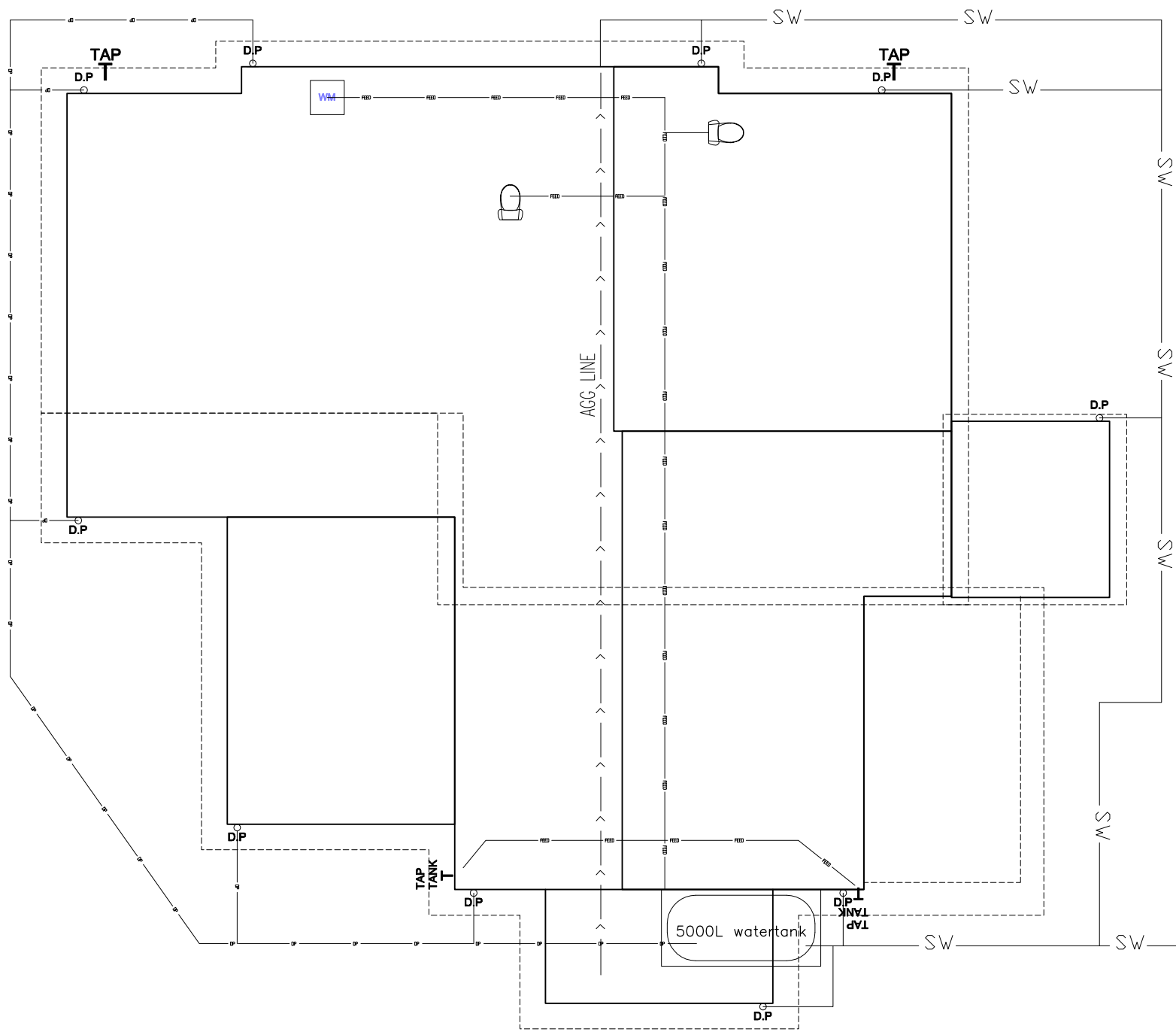
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Project No. 1826	Drawing No. 27	J





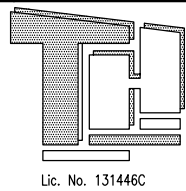


stormwater overflow to swale  
/ street via direct piping

**WATER MANAGEMENT PLAN**  
SCALE 1:100

CLIENT <b>A &amp; S Simpson + N &amp; J Hunter</b>		
JOB <b>Proposed Residence</b>		
LOCATION <b>113 Orchard Street Warriewood NSW 2102</b>		
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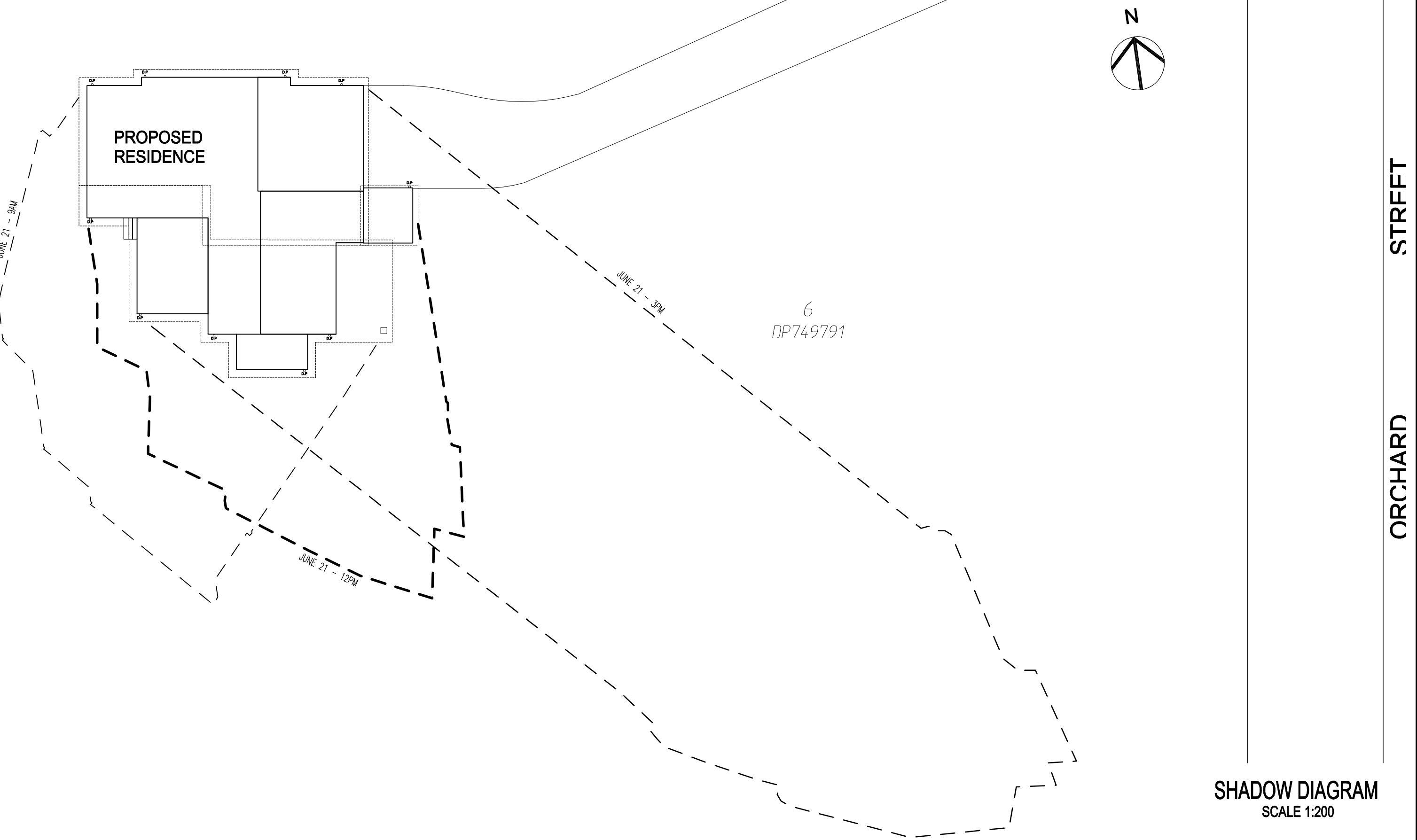
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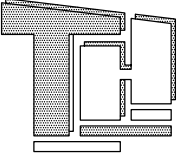
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Project No. 1826 Drawing No. 28 Rev. J





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Address LOT 6 DP749791		
Title 113 Orchard St , Warriewood		
Title TULLIPAN RESIDENCE		
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Project No. 1826	Drawing No. 29	J

