Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0006364939-01

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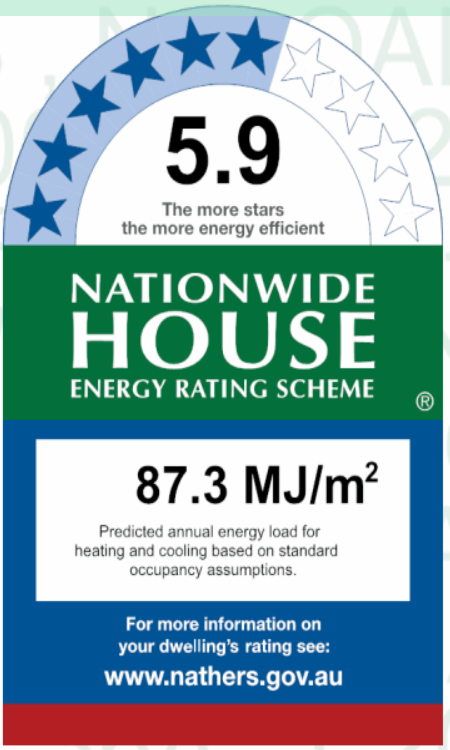

Property

Address	36A Bonner Road , AGNES BANKS , NSW , 2753
Lot/DP	12/1237547
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Bowden
Prepared by	True North Design

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	410.0	Suburban
Unconditioned*	98.0	**NatHERS climate zone**
Total	508.0	28
Garage	73.0	

Thermal performance

Heating	Cooling
54.0 MJ/m^2	**33.3** MJ/m^2

Accredited assessor

Name	Brad Hoad
Business name	Thermal Performance
Email	brad@thermalperformance.com.au
Phone	0458-221-211
Accreditation No.	20731
Assessor Accrediting Organisation	ABSA
Declaration of interest	Declaration completed: no conflicts

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Verification

To verify this certificate, scan the QR code or visit www.hstar.com.au/QR/Generate?p=hWooNKvft.
When using either link, ensure you are visiting www.hstar.com.au

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

* Refer to glossary.

Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

Apartment entrance doors

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.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional notes

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
No Data Available					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
WID-012-04 A	WID-012-04 A Aluminium Awning Window SG 4mmClr	6.4	0.64	0.61	0.67
WID-006-01 A	WID-006-01 A Al Residential Sliding Window SG 3mm Clear	6.4	0.76	0.72	0.80
WID-011-01 A	WID-011-01 A Al Architectural Paragon Stacker Door SG 5mm Clear	6.3	0.63	0.60	0.66

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Master Suite	WID-012-04 A	n/a	2060	2170	n/a	30	NE	No
Master Suite	WID-012-04 A	n/a	2400	3020	n/a	30	SE	No
Master Suite	WID-006-01 A	n/a	2400	1500	n/a	00	SW	No
Ensuite	WID-006-01 A	n/a	450	3010	n/a	00	SE	No
Ensuite	WID-012-04 A	n/a	1800	850	n/a	30	SW	No
Ensuite	WID-012-04 A	n/a	1800	850	n/a	30	SW	No
Ensuite	WID-006-01 A	n/a	600	850	n/a	45	SW	No
Office	WID-012-04 A	n/a	2060	1570	n/a	30	SE	No
Theatre	WID-012-04 A	n/a	2060	1570	n/a	30	SE	No
Bedroom 2	WID-006-01 A	n/a	1030	1570	n/a	45	NW	No
Bedroom 3	WID-006-01 A	n/a	1030	1570	n/a	45	NW	No
Bedroom 4	WID-006-01 A	n/a	1030	1570	n/a	45	NW	No
Guest bed	WID-012-04 A	n/a	2060	1570	n/a	30	SE	No
Ensuite Guest	WID-012-04 A	n/a	1800	610	n/a	30	NE	No
Butlers	WID-012-04 A	n/a	2060	850	n/a	30	NW	No
Laundry	WID-006-01 A	n/a	1030	610	n/a	45	NW	No
Bath	WID-012-04 A	n/a	1460	1570	n/a	30	NW	No
Activities	WID-012-04 A	n/a	2060	2650	n/a	30	SW	No
Activities	WID-011-01 A	n/a	2100	3610	n/a	60	NW	No
Kitchen/Family	WID-012-04 A	n/a	2060	1210	n/a	30	NW	No
Kitchen/Family	WID-012-04 A	n/a	2060	1210	n/a	30	NW	No
Kitchen/Family	WID-012-04 A	n/a	2060	1210	n/a	30	NE	No
Kitchen/Family	WID-006-01 A	n/a	1030	1570	n/a	45	NW	No
Kitchen/Family	WID-011-01 A	n/a	2100	3250	n/a	60	SW	No
Kitchen/Family	WID-012-04 A	n/a	2060	1210	n/a	30	SW	No
Bathroom	WID-012-04 A	n/a	860	610	n/a	30	NW	No

Roof window *type and performance*

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					

* Refer to glossary.

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2750	2410	90	SE
Garage	2750	5410	90	SE
Laundry	2340	820	90	NW
Bathroom	2340	820	90	NW
Entry	2340	1620	90	SE

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.50	Medium	No insulation	No
EW-2	Single Skin Brick	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	Bulk Insulation R2	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Garage	EW-1	3372	1500	NE	600	YES
Garage	EW-2	3372	3200	SE	600	YES
Garage	EW-2	3372	800	NE	3800	YES
Garage	EW-2	3372	6000	SE	600	NO
Garage	EW-1	3372	1500	SW	600	YES
Garage	EW-1	3372	1195	SE	600	YES
Master Suite	EW-3	2750	2000	NE	100	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Master Suite	EW-3	2750	500	SE	4900	YES
Master Suite	EW-3	2750	4300	NE	600	YES
Master Suite	EW-3	2750	6800	SE	600	NO
Master Suite	EW-3	2750	1500	SW	600	YES
Ensuite	EW-3	2750	3395	SE	600	YES
Ensuite	EW-3	2750	6695	SW	600	NO
Office	EW-3	2750	1400	NE	0	YES
Office	EW-3	2750	4195	SE	600	YES
Theatre	EW-3	2750	4495	SE	600	NO
Theatre	EW-3	2750	1400	SW	18700	YES
Bedroom 2	EW-3	2750	3595	NW	600	NO
Bedroom 2	EW-3	2750	800	SW	0	YES
Bedroom 3	EW-3	2750	3590	NW	600	NO
Bedroom 4	EW-3	2750	3495	NW	600	NO
Bedroom 4	EW-3	2750	6095	NE	600	NO
Guest bed	EW-3	2750	3995	NE	600	NO
Guest bed	EW-3	2750	4595	SE	600	YES
Ensuite Guest	EW-3	2750	1690	NE	600	NO
Butlers	EW-3	2750	2290	NW	600	NO
Laundry	EW-3	2750	2095	NW	600	NO
Laundry	EW-3	2750	800	NE	14000	YES
Bath	EW-3	2750	2690	NW	1400	YES
Activities	EW-3	2750	7295	SW	600	NO
Activities	EW-3	2750	6595	NW	9500	NO
Kitchen/Family	EW-3	2750	7700	NW	4100	NO
Kitchen/Family	EW-3	2750	2000	NE	600	YES
Kitchen/Family	EW-3	2750	3395	NW	600	YES
Kitchen/Family	EW-3	2750	5400	SW	9300	YES
Bathroom	EW-3	2750	2090	NW	9500	YES
Entry	EW-3	2750	3190	SE	3500	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		62.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		338.00	No insulation

* Refer to glossary.

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 225 mm 100mm	73.20	None	Waffle Pod 225mm	Bare
Master Suite	Waffle pod slab 225 mm 100mm	67.80	None	Waffle Pod 225mm	Carpet 10mm
Ensuite	Waffle pod slab 225 mm 100mm	21.60	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Office	Waffle pod slab 225 mm 100mm	18.40	None	Waffle Pod 225mm	Carpet 10mm
Theatre	Waffle pod slab 225 mm 100mm	23.80	None	Waffle Pod 225mm	Carpet 10mm
Bedroom 2	Waffle pod slab 225 mm 100mm	16.70	None	Waffle Pod 225mm	Carpet 10mm
Bedroom 3	Waffle pod slab 225 mm 100mm	16.70	None	Waffle Pod 225mm	Carpet 10mm
Bedroom 4	Waffle pod slab 225 mm 100mm	17.50	None	Waffle Pod 225mm	Carpet 10mm
Guest bed	Waffle pod slab 225 mm 100mm	18.00	None	Waffle Pod 225mm	Carpet 10mm
Ensuite Guest	Waffle pod slab 225 mm 100mm	5.60	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Butlers	Waffle pod slab 225 mm 100mm	11.80	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 225 mm 100mm	10.80	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Bath	Waffle pod slab 225 mm 100mm	7.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
WC	Waffle pod slab 225 mm 100mm	2.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Hall to guest	Waffle pod slab 225 mm 100mm	20.50	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Activities	Waffle pod slab 225 mm 100mm	42.60	None	Waffle Pod 225mm	Carpet 10mm
Kitchen/Family	Waffle pod slab 225 mm 100mm	96.20	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Bathroom	Waffle pod slab 225 mm 100mm	6.50	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 225 mm 100mm	29.90	None	Waffle Pod 225mm	Ceramic Tiles 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage	Plasterboard	No insulation	No
Master Suite	Plasterboard	Bulk Insulation R3	No
Ensuite	Plasterboard	Bulk Insulation R3	No
Office	Plasterboard	Bulk Insulation R3	No
Theatre	Plasterboard	Bulk Insulation R3	No
Bedroom 2	Plasterboard	Bulk Insulation R3	No
Bedroom 3	Plasterboard	Bulk Insulation R3	No
Bedroom 4	Plasterboard	Bulk Insulation R3	No
Guest bed	Plasterboard	Bulk Insulation R3	No
Ensuite Guest	Plasterboard	Bulk Insulation R3	No
Butlers	Plasterboard	Bulk Insulation R3	No
Laundry	Plasterboard	Bulk Insulation R3	No
Bath	Plasterboard	Bulk Insulation R3	No
WC	Plasterboard	Bulk Insulation R3	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Hall to guest	Plasterboard	Bulk Insulation R3	No
Activities	Plasterboard	Bulk Insulation R3	No
Kitchen/Family	Plasterboard	Bulk Insulation R3	No
Bathroom	Plasterboard	Bulk Insulation R3	No
Entry	Plasterboard	Bulk Insulation R3	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Master Suite	12	Downlights - LED	150	Sealed
Ensuite	5	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Office	4	Downlights - LED	150	Sealed
Theatre	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bedroom 4	5	Downlights - LED	150	Sealed
Guest bed	4	Downlights - LED	150	Sealed
Ensuite Guest	2	Downlights - LED	150	Sealed
Ensuite Guest	1	Exhaust Fans	300	Sealed
Butlers	3	Downlights - LED	150	Sealed
Laundry	3	Downlights - LED	150	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
WC	1	Downlights - LED	150	Sealed
WC	1	Exhaust Fans	300	Sealed
Hall to guest	4	Downlights - LED	150	Sealed
Activities	7	Downlights - LED	150	Sealed
Kitchen/Family	13	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Entry	4	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

* Refer to glossary.

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark

* Refer to glossary.

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings 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, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, 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.
Conditioned	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.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	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.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).

* Refer to glossary.

Sheet List	
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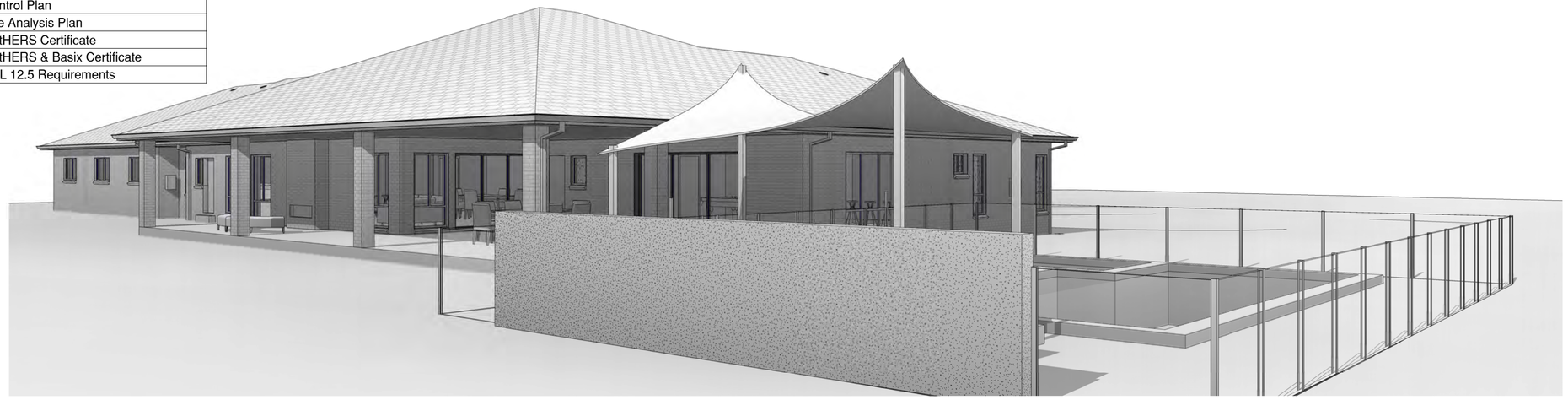
3	Site Plan
4	Dwelling Floor Plan
5	Elevations
6	Elevations
7	Shed Plan, Elevations & Section
8	Section A-A & Pool Details
9	Drainage Plan
10	Waste Management & Sediment Control Plan
11	Site Analysis Plan
12	NatHERS Certificate
13	NatHERS & Basix Certificate
14	BAL 12.5 Requirements



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0006364939-01 10 Oct 2021
Assessor Brad Hoad
Accreditation No. 20731
Address
36A Bonner Road , AGNES BANKS , NSW , 2753
www.hstar.com.au
5.9
NATIONWIDE HOUSE ENERGY RATING SCHEME
87.3 MJ/m²
www.nathers.gov.au

ABSA
Australian Building Sustainability Assessors
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 01/04/2021-31/03/2022
Assessor Name Brad Hoad
Assessor Number 20731
Assessor Signature

New Single Storey Dwelling	
At: 36A Bonner Road, Agnes Banks	
For: Matthew Bowden	
Development Application	
Scale: A2	Issue: 3
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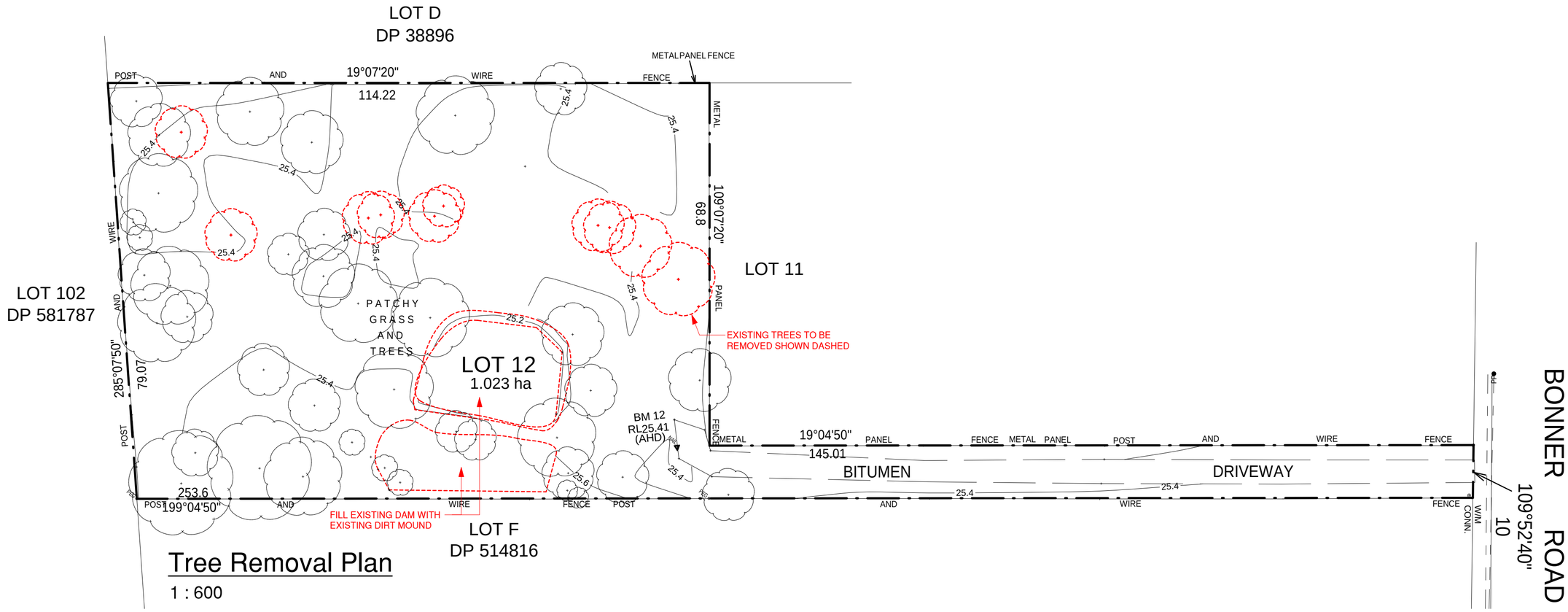
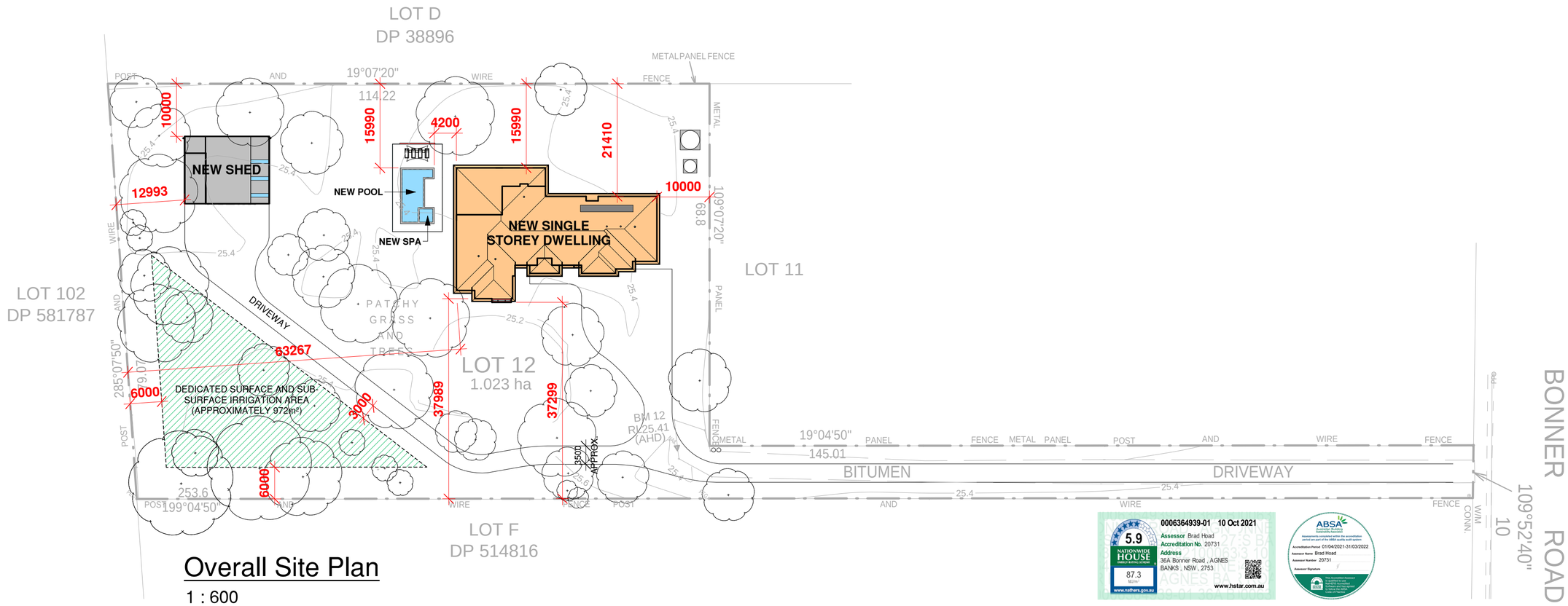
Date: 08/10/2021	
Drawing No: 2023	





New Single Storey Dwelling

At: 36A Bonner Road, Agnes Banks

For: Matthew Bowden

Development Application

True North Design & Drafting Pty Ltd
design@truenorthdd.com.au
www.truenorthdd.com.au

Issue:	Description:	By:	Date:
A	Design Review	D.K.	22/07/2020
B	Variations	D.K.	10/07/2020
C	Variations	D.K.	24/08/2020
D	Variations	D.K.	11/09/2020
E	Variations	D.K.	04/06/2021
1	Issued for DA Submission	D.K.	12/07/2021
2	Client Variation - Design change of Shed	D.K.	06/08/2021
3	Client Variation - Change of Shed and Pool Position	D.K.	08/10/2021

- LEVELS SHOWN ARE APPROX.ONLY AND SHOULD BE VERIFIED ON SITE
- DO NOT SCALE USE DIMENSIONS WHERE AVAILABLE.
- WINDOW SIZES ARE INDICATIVE ONLY FINAL SIZES PROVIDED BY BUILDER AND CONFIRMED ON SITE.
- THE DESIGNER MUST BE NOTIFED OF ANY DISCREPANCIES ON THE DRAWINGS PRIOR TO ANY CONSTRUCTION WORKS.
- COPYRIGHT OF THIS DRAWING AND/OR DESIGN IS THE PROPERTY OF TRUE NORTH DESIGN & DRAFTING PTY LTD AND SHOULD NOT BE REPRODUCED IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.
- DIAL 1100 BEFORE YOU DIG PRIOR TO ANY EARTH EXCAVATION.

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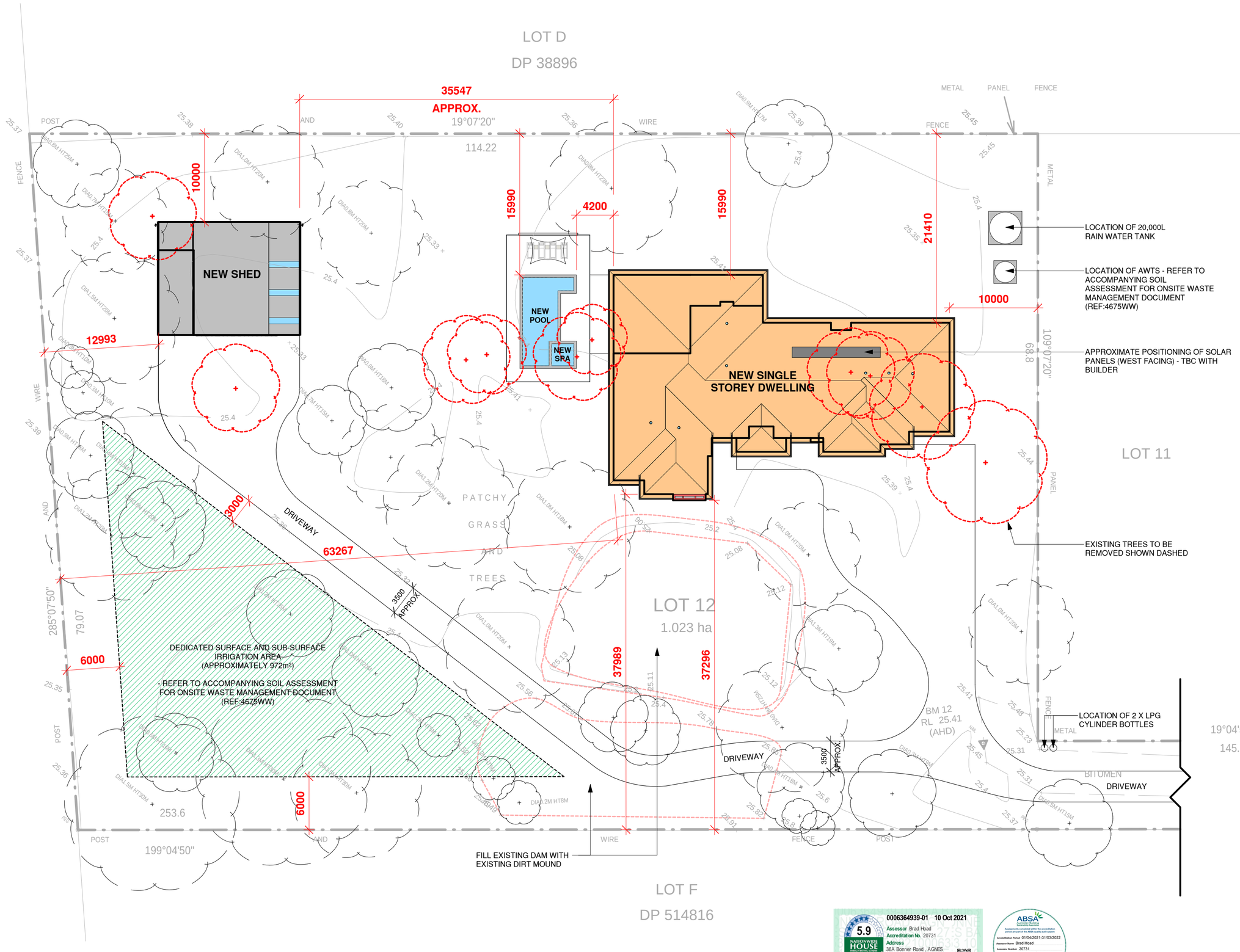
Date:	08/10/2021	
Drawing No:	2023	Issue: 3



Site Plan

1 : 300

Gross Building Area	
Living Area	476.01 m²
Garage	76.37 m²
Alfresco	106.17 m²
Porch	12.44 m²
Detached Shed	166.40 m²
Pool & Spa	58.12 m²
Shed Undercover Area	38.40 m²
Grand total	933.90 m²

New Single Storey Dwelling

At: 36A Bonner Road, Agnes Banks

For: Matthew Bowden

Development Application

True North Design & Drafting Pty Ltd
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www.truenorthdd.com.au

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0006364939-01 10 Oct 2021
Assessor Brad Hoad
Accreditation No. 20731
Address 36A Bonner Road , AGNES BANKS , NSW, 2753
www.hstar.com.au

ABSA Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 01/04/2021-31/03/2022
Assessor Name Brad Hoad
Assessor Number 20731
Assessor Signature

Site Legend

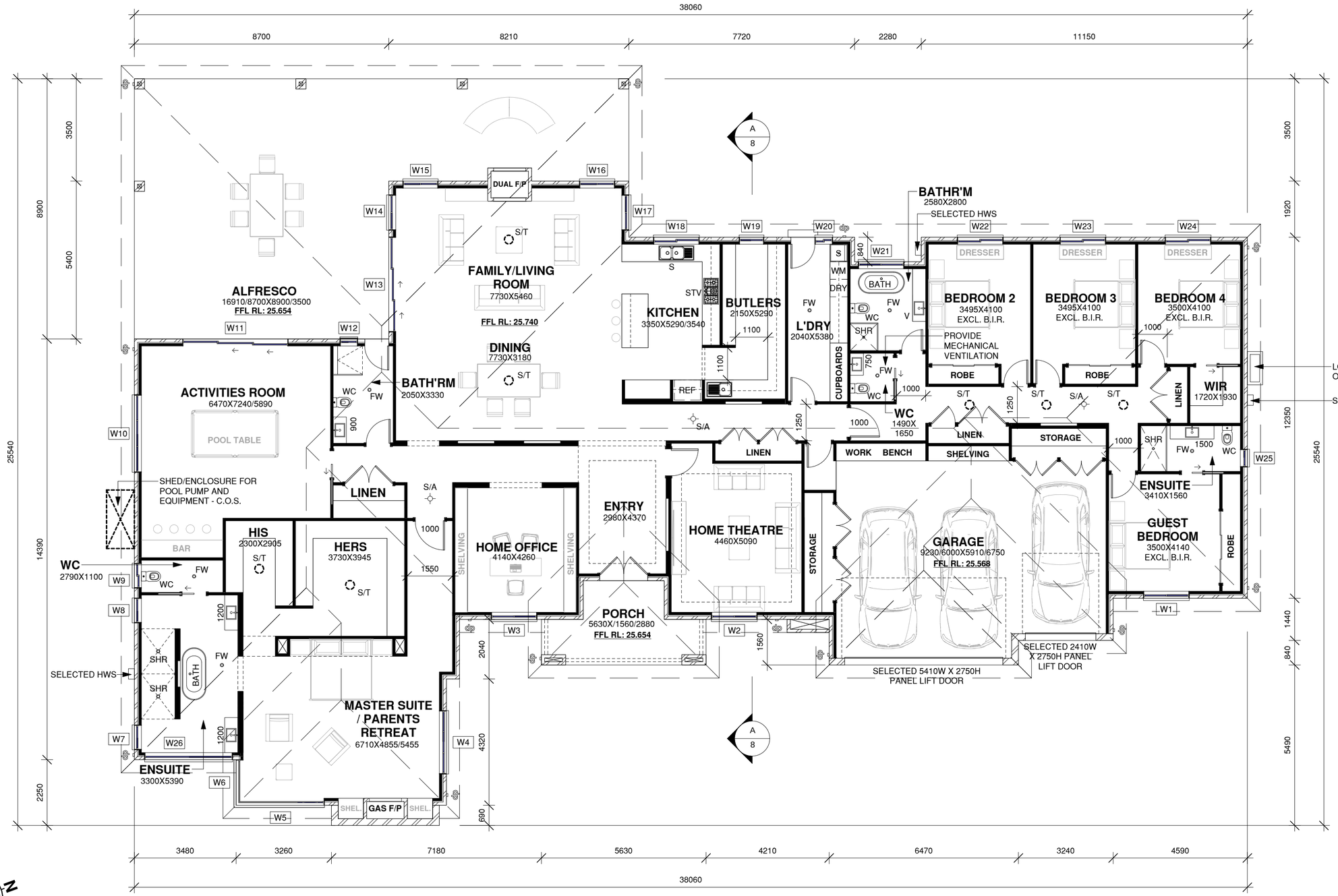
= GROUND FLOOR OUTLINE

Scale:	As indicated	A2
Page:	3 of 14	
Date:	08/10/2021	
Drawing No:	2023	
Issue:	3	

S/A
DENOTES SMOKE ALARM

SMOKE ALARMS TO BE HARDWIRED AND INTERCONNECTED IN ACCORDANCE WITH AS3786-2014 AND BCA CLAUSE 3.7.5

CONSTRUCTION TO COMPLY WITH BAL 12.5 - REFER TO PAGE 14 FOR CONSTRUCTION STANDARDS AND BUSHFIRE HAZARD REPORT (REF NO. 21.08.276)



Dwelling Window Schedule

Mark	Height	Width	Type Comments	Area
W1	2060	1570	Awning Window	3.23 m²
W2	2060	1570	Awning Window	3.23 m²
W3	2060	1570	Awning Window	3.23 m²
W4	2060	2170	Awning Window	4.47 m²
W5	2400	3020	Custom Corner Window (Front Panel)	7.25 m²
W6	2400	1560	Custom Corner Window (Side Panel)	3.74 m²
W7	1800	850	Awning Window - Obscured Glass	1.53 m²
W8	1800	850	Awning Window - Obscured Glass	1.53 m²
W9	600	850	Sliding Window - Obscured Glass	0.51 m²
W10	2060	2650	Awning Window	5.46 m²
W11	2100	3610	Stacker Door	7.58 m²
W12	860	610	Awning Window - Obscured Glass	0.52 m²
W13	2100	3250	Stacker Door	6.83 m²
W14	2060	1210	Awning Window	2.49 m²
W15	2060	1210	Awning Window	2.49 m²
W16	2060	1210	Awning Window	2.49 m²
W17	2060	1210	Awning Window	2.49 m²
W18	1030	1570	Sliding Window	1.62 m²
W19	2060	850	Awning Window	1.75 m²
W20	1030	610	Sliding Window	0.63 m²
W21	1460	1570	Awning Window - Obscured Glass	2.29 m²
W22	1030	1570	Sliding Window	1.62 m²
W23	1030	1570	Sliding Window	1.62 m²
W24	1030	1570	Sliding Window	1.62 m²
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Scale: 1 : 100 A2

Page: 4 of 14

Date: 08/10/2021

Drawing No: 2023

Issue: 3

Dwelling Floor Plan

1 : 100

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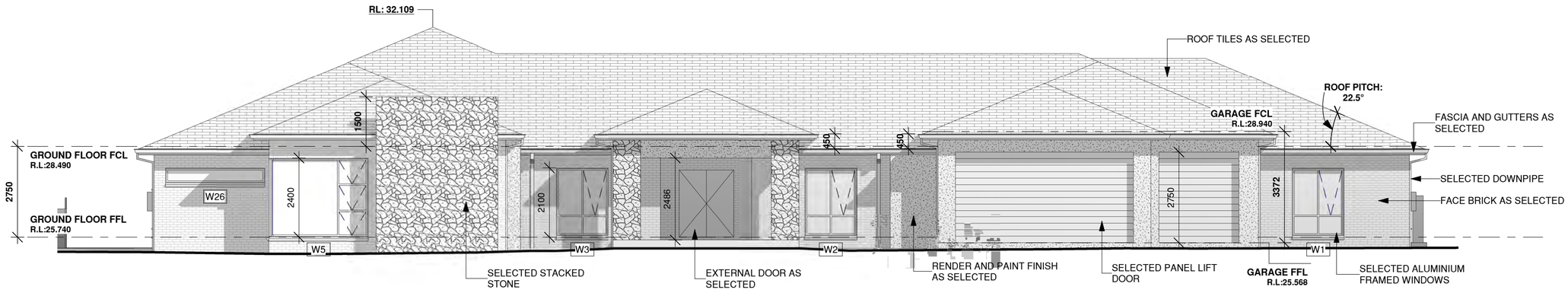
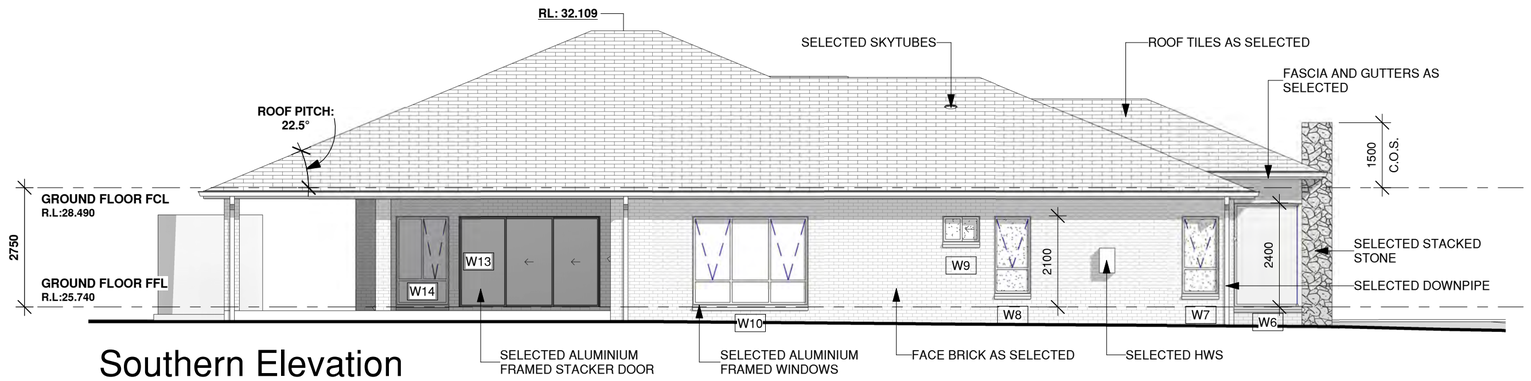


Eastern Elevation

1 : 100



Southern Elevation

1 : 100

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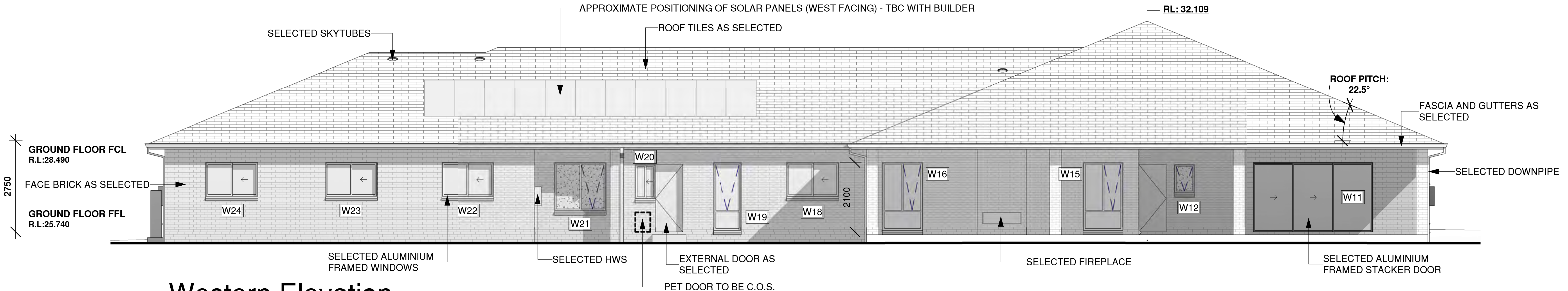
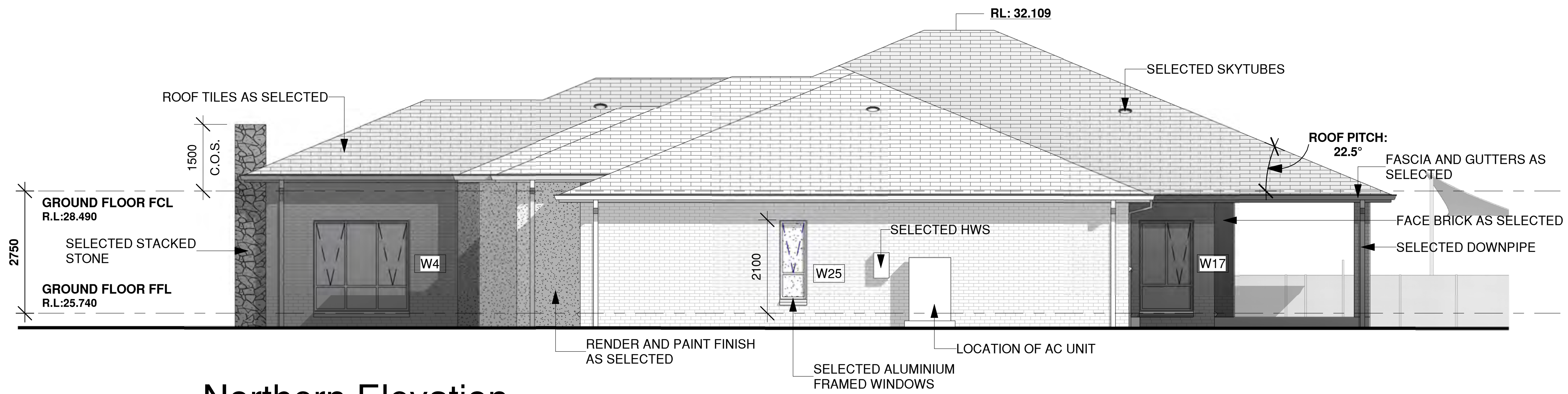


Western Elevation

1 : 100



Northern Elevation

1 : 100

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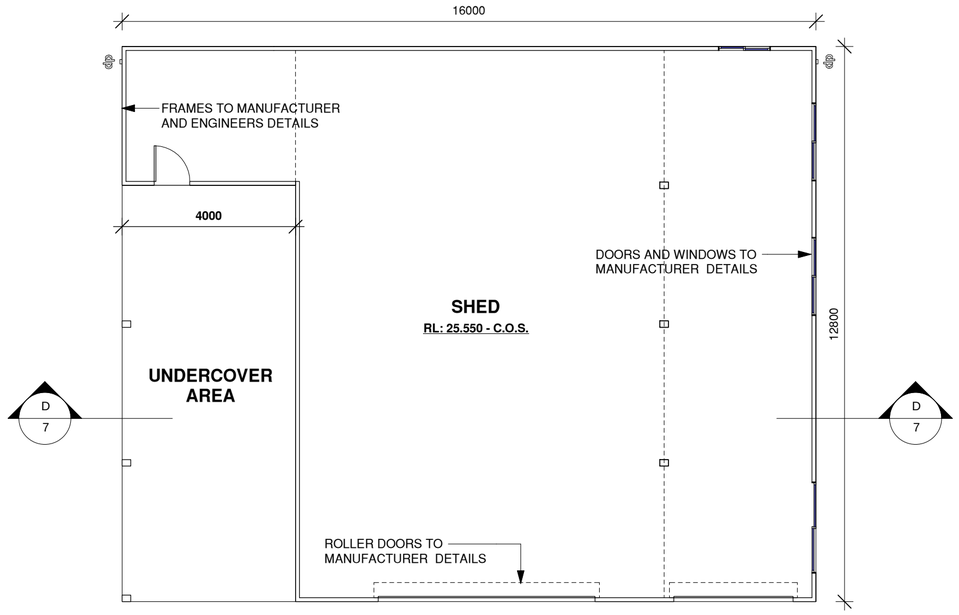
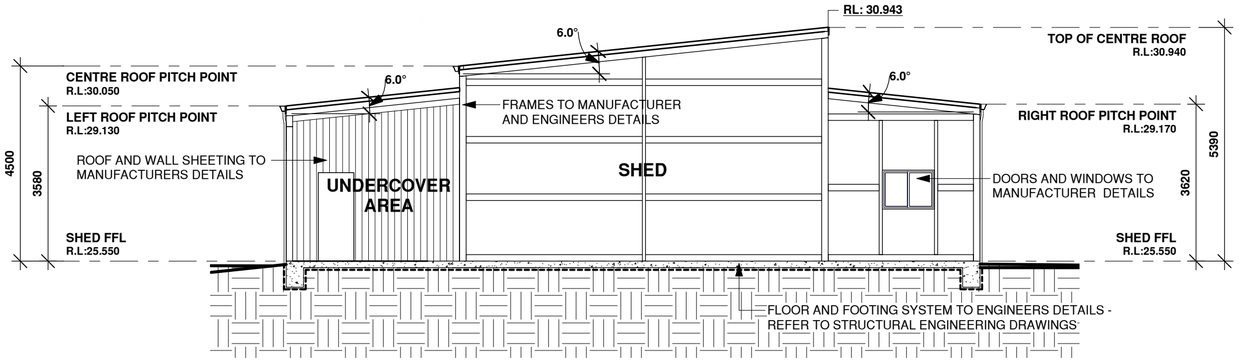


Shed Plan

1 : 100



Section D-D

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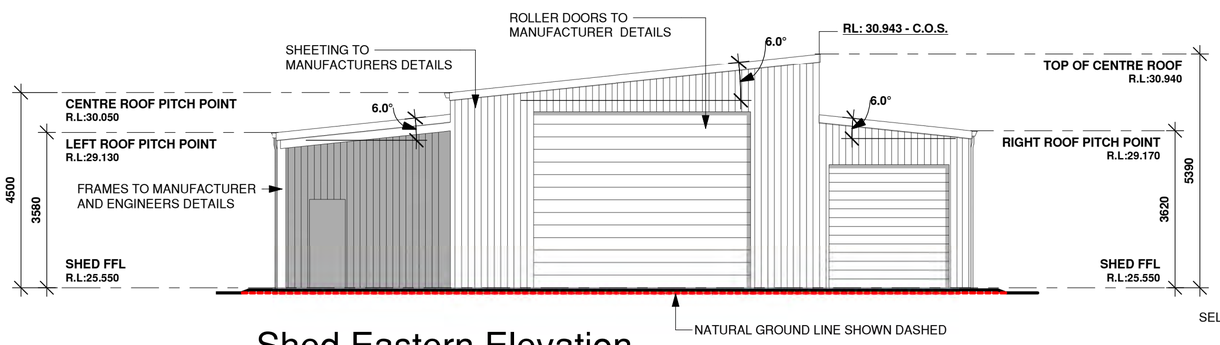
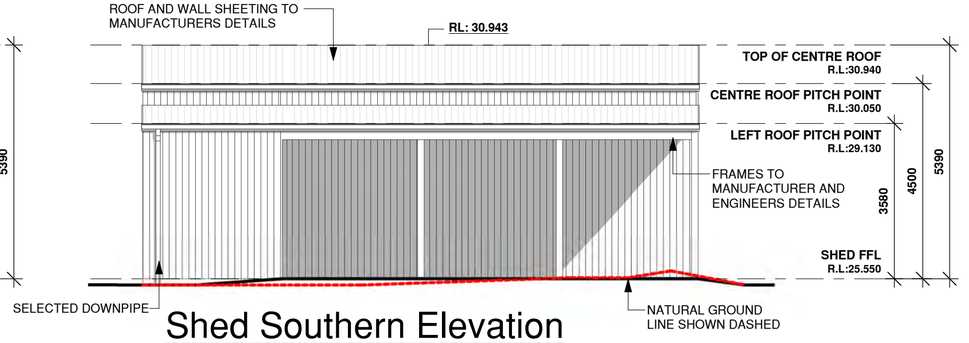


Shed Eastern Elevation

1 : 100



Shed Southern Elevation

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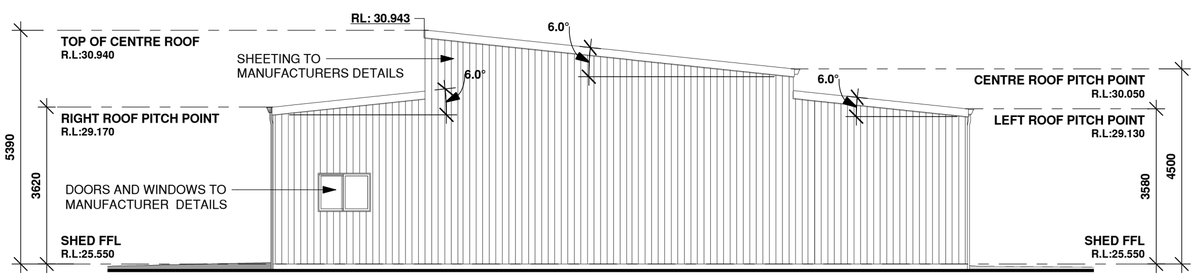

Shed Western Elevation

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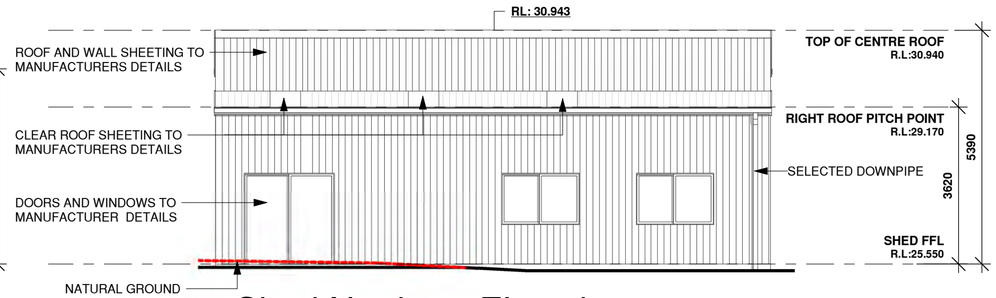

Shed Northern Elevation

1 : 100

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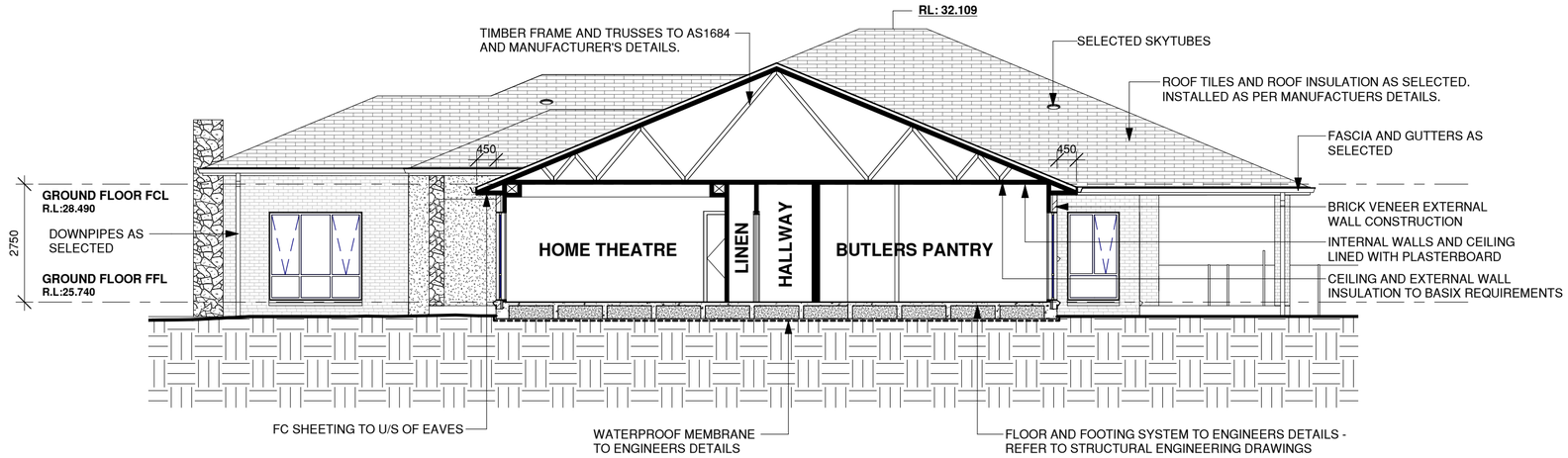
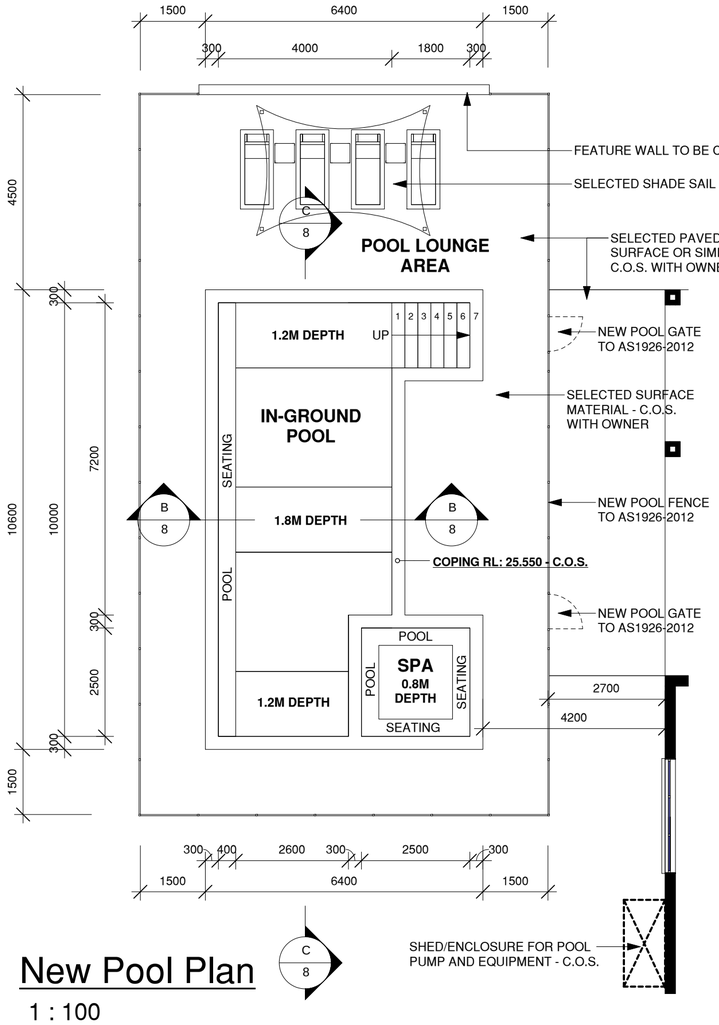


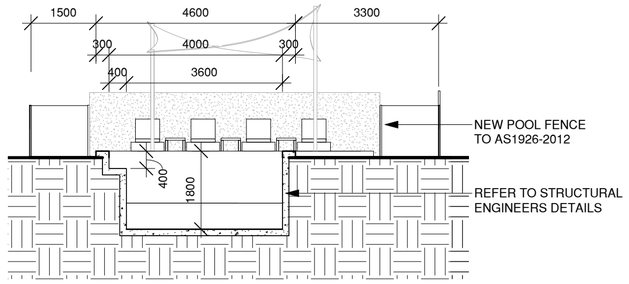
Section A-A

1 : 100



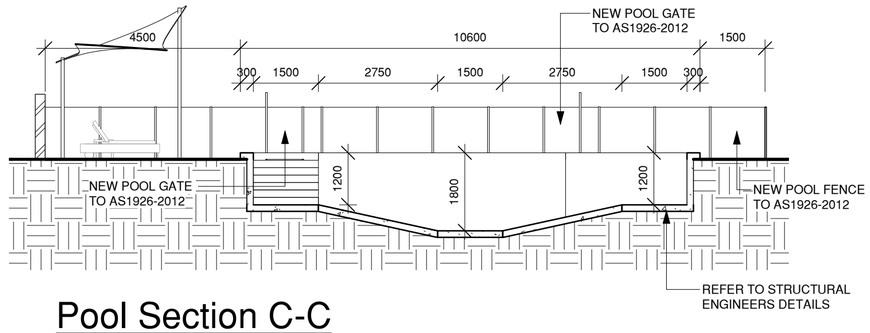
New Pool Plan

1 : 100



Pool Section B-B

1 : 100



Pool Section C-C

1 : 100

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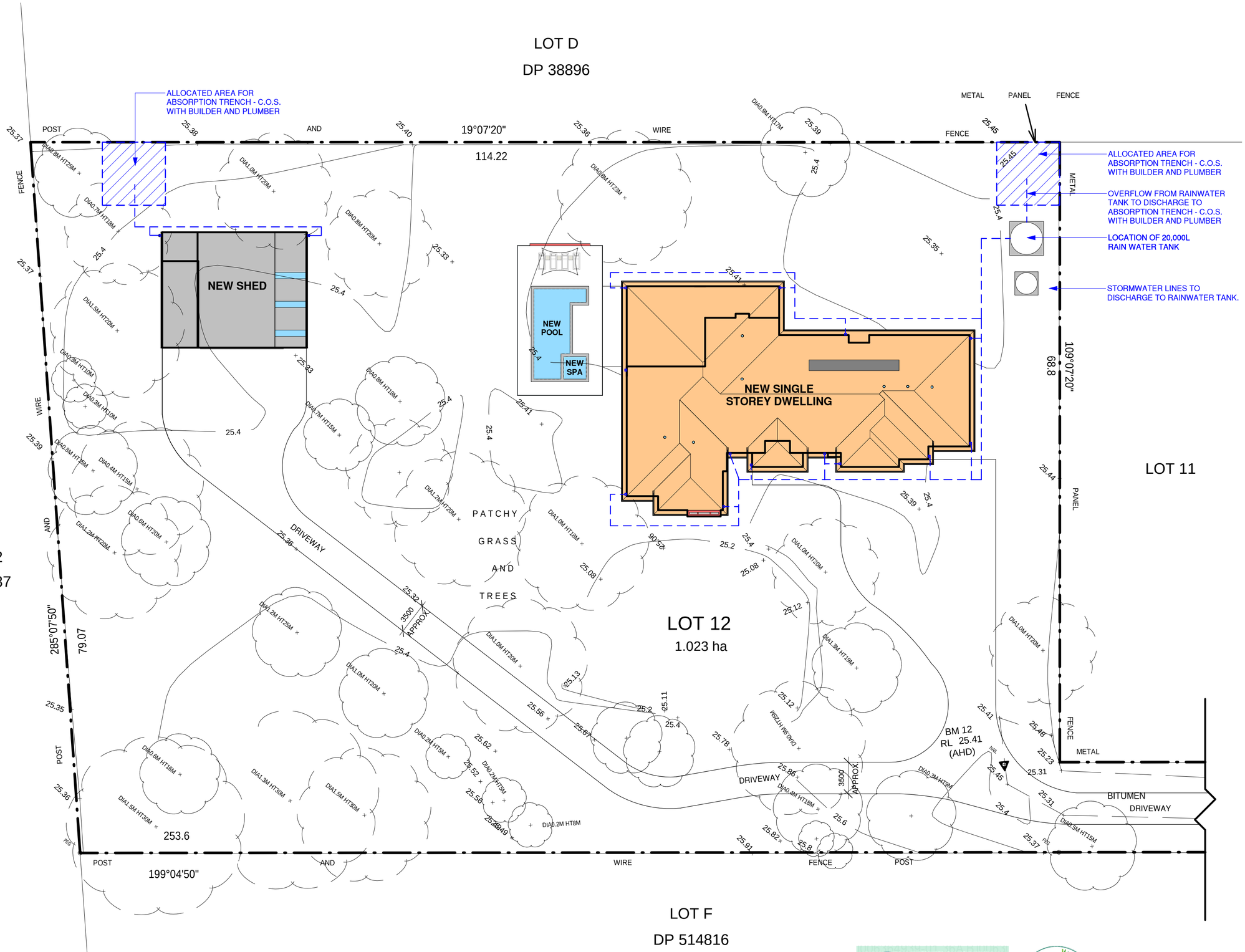
Issue: 3



Drainage Plan

1 : 300

New Single Storey Dwelling	
At:	36A Bonner Road, Agnes Banks
For:	Matthew Bowden
Development Application	

True North Design & Drafting Pty Ltd
design@truenorthdd.com.au
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0006364939-01 10 Oct 2021
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Scale:	1 : 300	A2	Issue: 3
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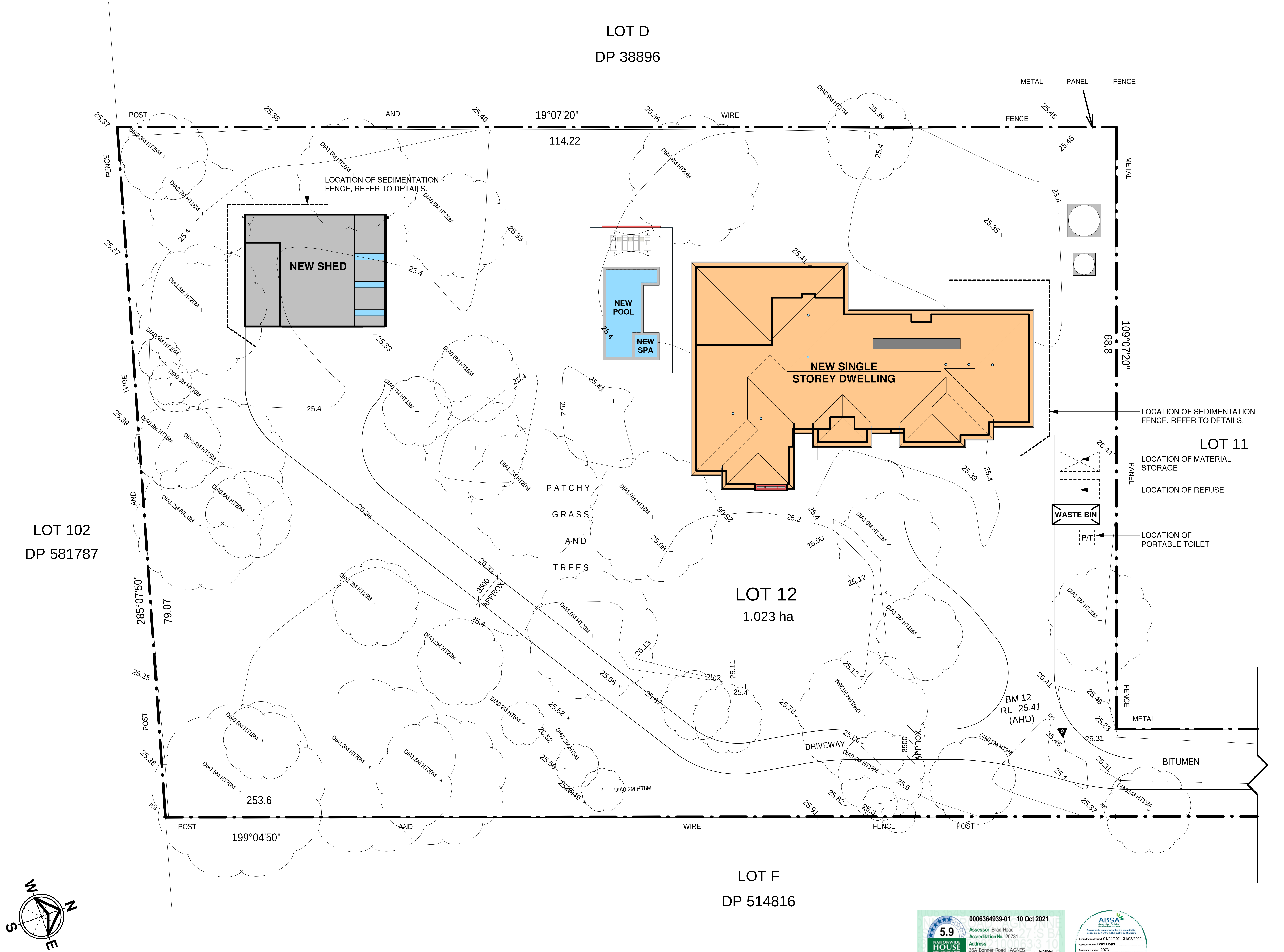
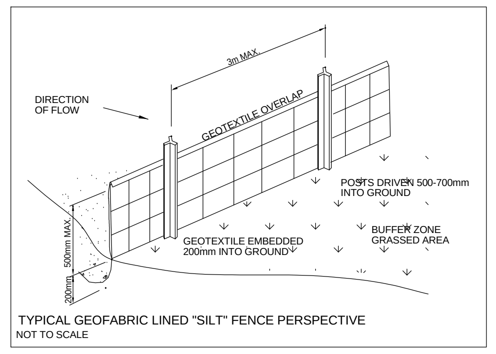
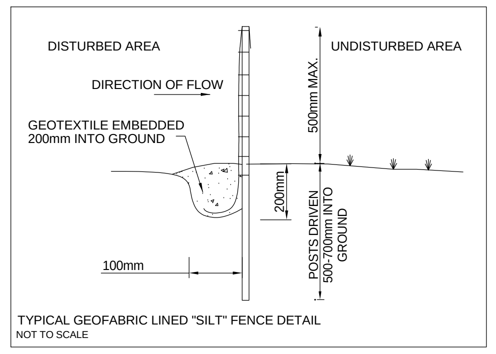


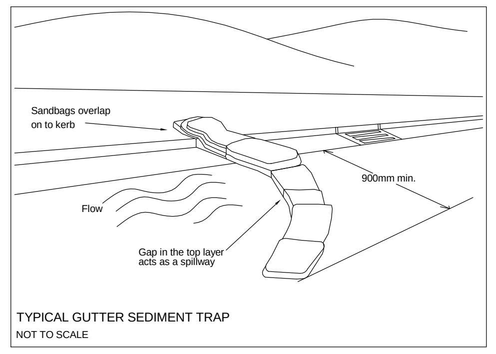
Sediment Control Details



TYPICAL GEOFABRIC LINED "SILT" FENCE PERSPECTIVE
NOT TO SCALE



TYPICAL GEOFABRIC LINED "SILT" FENCE DETAIL
NOT TO SCALE



TYPICAL GUTTER SEDIMENT TRAP
NOT TO SCALE

Waste Management & Sediment Control Plan

1 : 300

New Single Storey Dwelling

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For: Matthew Bowden

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0006364939-01 10 Oct 2021
5.9 NATIONWIDE HOUSE ENERGY RATING SCHEME
87.3 MJ/m²
Assessor Brad Hoad
Accreditation No. 20731
Address 36A Bonner Road , AGNES BANKS , NSW , 2753
www.nathers.gov.au
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ABSA Australian Building Sustainability Association
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 01/04/2021-31/03/2022
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Assessor Signature

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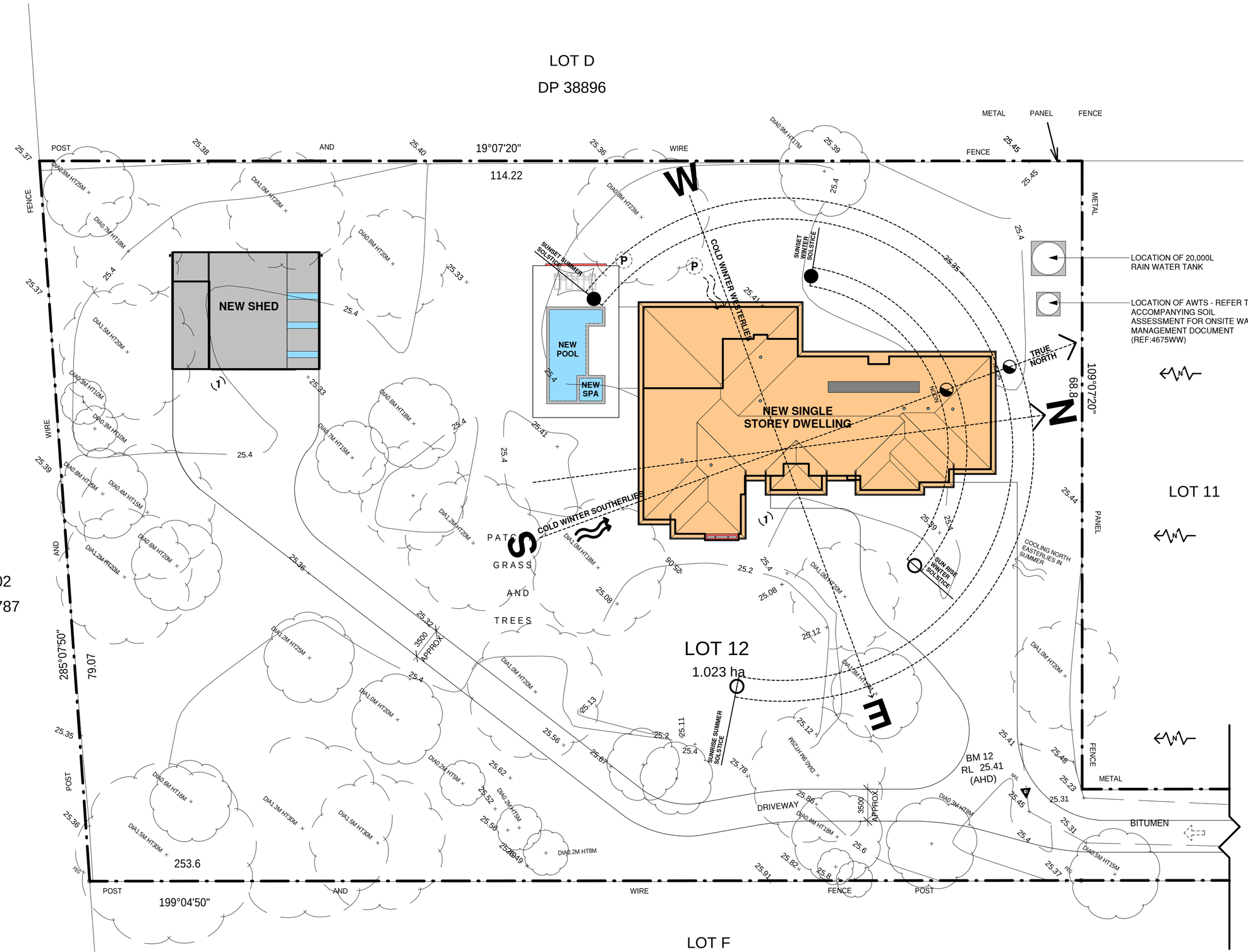

Site Analysis Legend

SUNSET · NOON · SUNRISE

COOLING NORTH EASTERLIES IN SUMMER · COLD WINTER WESTERLIES · COLD WINTER SOUTHERLIES

GRADUAL FALL · EXISTING VEHICULAR CROSSING · PROPOSED VEHICULAR CROSSING

PRIVATE OPEN SPACE · NOISE · NUMBER OF STORIES

Site Analysis Plan

1 : 300

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- Water
  - 20,000 Rain water tank, approx. 80% of roof draining to it, connect to WC, garden tap & washing machine
  - 3 star showerhead 7.5-9 litres/min
  - 4 star wc
  - 4 star taps
  - 58,000 litre pool, no cover with solar heating
  - 3,000 litre spa, no cover with gas heating

- Thermal
  - Medium colour walls
  - Dark colour roof
  - Tiles to living & wet areas
  - Carpet to bedrooms & theatre
  - Wafflepod slab
  - R2.0 wall insulation (incl. Wall between house/garage, excl. Garage external wall)
  - R3.0 ceiling insulation (excl. Garage)
  - Anticon to roof
  - Self sealing exhaust fans to wet areas with shower
  - Weather stripping
  - Downlights
  - Windows (Wideline)
    - Sliding/Fixed Uw 6.4 & shgc 0.76 clear glass
    - Sliding door Uw 6.3 & shgc 0.63 clear glass
    - Awning Uw 6.4 & shgc 0.64 clear glass

- Energy
  - Gas instantaneous HWS 6 stars
  - Three phase reverse cycle a/c
  - Exhaust fan to wet areas, ducted to outside air
  - Rangehood, ducted to outside air
  - Gas cooktop, electric oven
  - External clothesline
  - 4.5 kW PV system

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Construction Standards to Comply with Australian Standard 3959 - 2009 & Appendix 3 of Planning for Bushfire Protection Bushfire Attack Level (BAL) - 12.5 (Low)

SARKING
Sarking, where used for bushfire protection shall be:
a. Non-combustible; or
b. Breather-type sarking complying with AS/NZS4200.1 and with a flammability index of not more than 5 and sarked on the outside of the frame; or
c. An insulation material conforming to the appropriate Australian Standard for that material.

SUBFLOOR SUPPORTS
This Standard does not provide construction requirements for subfloor supports where the subfloor space is enclosed with
1) a wall that complies with the requirements for an external wall below; or
2) a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion resistant steel, bronze or aluminium; or
3) a combination of Items (a) and (b) above.
Where the subfloor space is unenclosed, the support posts, columns, stumps, piers and poles shall be
(1) of non-combustible material; or
(2) of bushfire-resisting timber (refer to the table at the end of this document); or
(3) a combination of Items (i) and (ii) above.
NOTE: This requirement applies to the principal building only. See requirements below for verandas, decks, steps,
ramps and landings.

FLOORS
1) Elevated floors
a) Enclosed subfloor space
The Standard does not provide construction requirements for elevated floors, including bearers, joists and flooring, where the subfloor space is enclosed with -
i) a wall that complies with the standards for an external wall
below; or
ii) a mesh or perforated sheet with a maximum aperture of 2 mm,
made of corrosion resistant steel, bronze or aluminium; or
iii) a combination of Items (a) and (b) above.
b) Unenclosed subfloor space
Where the subfloor space is unenclosed, the bearers, joists and flooring, less than 400 mm above finished ground level, shall be one of the following:
i) materials that comply with the following:
(a) bearers and joists shall be -
i) non-combustible; or
ii) bushfire-resisting timber (refer to the table at the end of this document); or
iii) a combination of Items (i) and (ii) above.
(b) Flooring shall be
i) non-combustible; or
ii) bushfire-resisting timber (refer to the table at the end of this document); or
iii) timber (other than bushfire-resisting timber), particleboard or plywood flooring where the underside is lined with sarkingtype material or mineral wool insulation; or
d) a combination of any of Items (i), (ii) or (iii) above; or
ii) a system complying with AS 1530.8.1
This Standard does not provide construction requirements for elements of elevated floors, including bearers, joists and flooring, if the underside of the element is 400 mm or more above finished ground level.

EXTERNAL WALLS
1) Walls
The exposed components of an external wall that are less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the wall shall be:
(a) Non-combustible material such as cavity brick, masonry veneer walls with an outer leaf of clay, concrete, calcium silicate or natural stone, precast or in situ walls of concrete or aerated concrete or earth walling including mud brick;
or
(b) Timber logs of a species with a density of 680 kg/m3 or greater at a 12 percent moisture content; of a minimum nominal overall thickness of 90 mm and a minimum thickness of 70 mm (see Clause 3.11of Standard); and gauge planed;
or
(c) Cladding that is fixed externally to a timber-framed or a steel-framed wall
and is-
(i) Non-combustible material; or
(ii) Fibre-cement a minimum of 6 mm in thickness; or
(iii) Bushfire-resisting timber (refer to the table at the end of this
document); or
(iv) A timber species as specified in Appendix E of the Standard; or
(v) a combination of any of Items (i), (ii), (iii) or (iv) above; or
(d) A combination of any of Items (a), (b) or (c) above.
2) Joints
All joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed to prevent gaps greater than 3 mm.
3) Vents and weepholes
Vents and weepholes in external walls shall be screened with a mesh with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium, except where the vents and weepholes have an aperture less than 3 mm.
EXTERNAL WINDOWS and DOORS
1) Windows
Window assemblies shall comply with one of the following:
(a) They shall be completely protected by a bushfire shutter that complies with Note 1 below; or
(b) They shall be completely protected externally by screens that comply with Note 2; or
(c) They shall comply with the following:
(i) For window assemblies less than 400 mm from the ground or less
than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame, window frames and window joinery shall be made from:
(A) Bushfire-resisting timber (refer to the table at the end of this
document); or
(B) A timber species as specified in Appendix E of the Standard;
or
(C) Metal; or
(D) Metal-reinforced PVC-U. The reinforcing members shall be
made from aluminium, stainless steel, or corrosion-resistant steel
and the frame and sash shall satisfy the design load, performance and structural strength of the member.
(ii) Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal.
(iii) Where glazing is less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame, the glazing shall be Grade A safety glass minimum 4 mm thickness, or glass blocks with no restriction on glazing methods.
(iv) Where glazing is other than that specified in Item (iii) above,
annealed glass may be used.
(v) The openable portions of windows shall be screened internally or
externally with screens that comply with Note 2 below.

2) Screens
Screening of the openable portions of all windows is required in all BALs to prevent the entry of embers to the building when the window is open. Screening of the openable and fixed portions of some windows is required in some BALs to reduce the effects of radiant heat on some types of glass.
If the screening is required to reduce the effects of radiant heat on the glass, the screening has to be external so that the glass in the openable portion of the window will be 'protected' when it is shut.
If the screening is required only to prevent the entry of embers, the screening may be fitted externally or internally.
3) Doors - Side-hung external doors (including French doors, panel fold and bi-fold doors)
Side-hung external doors, including French doors, panel fold and bi-fold doors, shall comply with one of the following:
(a) Doors and door frames shall be protected by bushfire shutters that comply with Note 1; or
(b) Doors and door frames shall be protected externally by screens that comply with Note 2; or
(c) Doors and door frames shall comply with the following:
(i) Doors shall be-
(A) non-combustible; or
(B) a solid timber, laminated timber or reconstituted timber door,
having a minimum thickness of 35 mm for the first 400 mm above the threshold; or
(C) a door, including a hollow core door, with a non-combustible
kick plate on the outside for the first 400 mm above the threshold; or
(D) a door, including a hollow core door, protected externally by
a screen that complies with Clause Note 2 below;
or
(E) a fully framed glazed door, where the framing is made from
materials specified for bushfire shutters (See Note 2 below), or
from a timber species as specified at the end of this document.
(ii) Where doors incorporate glazing, the glazing shall comply with the glazing requirements for windows.
(iii) Doors shall be tight-fitting to the door frame and to an abutting door, if applicable.
(iv) Where any part of the door frame is less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the door, that part of the door frame shall be made from:
(A) Bushfire-resisting timber (refer to the table at the end of this
document); or
(B) A timber species as specified in Appendix E of the Standard; or
(C) Metal; or
(D) Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel, or corrosion-resistant steel and the door assembly shall satisfy the design load, performance and structural strength of the member.
(v) Weather strips, draught excluders or draught seals shall be installed at the base of side-hung external doors.
(d) Sliding doors
Sliding doors shall comply with one of the following:
(a) They shall be completely protected by a bushfire shutter that
complies with Note 1; or
(b) They shall be completely protected externally by screens that
comply with Note 2; or
(c) They shall comply with the following:
(i) Any glazing incorporated in sliding doors shall be Grade A safety glass complying with AS 1288.
(ii) Both the door frame supporting the sliding door and the framing surrounding any glazing shall be made from:
(A) Bushfire-resisting timber (refer to the table at the end of this document); or
(B) A timber species as specified in Appendix E of
the Standard; or
(C) Metal; or
(D) Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel, or corrosion-resistant steel and the frame and the sash shall satisfy the design load, performance and structural strength of the member.
(iii) There is no requirement to screen the openable part of the sliding door. However, if screened, the screens shall comply with Note 2.
NOTE: The construction of manufactured sliding doors should prevent the entry of embers when the door is closed. There is no requirement to provide screens to the openable part of these doors as it is assumed that a sliding door will be closed if occupants are not present during a bushfire event. Screens of materials other than those specified may not resist ember attack. (iv) Sliding doors shall be tight-fitting in the frames.
(e) Garage Doors
The following apply to vehicle access doors:
(a) The lower portion of a vehicle access door that is within 400 mm of the ground when the door is closed shall be made from
(i) Non-combustible material; or
(ii) Bushfire-resisting timber (refer to the table at the end of this
document); or
(iii) A timber species as specified in Appendix E of the Standard;
or
(iv) Fibre cement sheet, a minimum of 6 mm in thickness; or
(v) A combination of any of Items (i), (ii), (iii) or (iv) above.
(b) Panel lift, tilt doors or side-hung doors shall be fitted with suitable
weather strips, draught excluders, draught seals or guide tracks, as
appropriate to the door type, with a maximum gap no greater than 3
mm.
(c) Roller doors shall have guide tracks with a maximum gap no greater than
3 mm and shall be fitted with a nylon brush that is in contact with the door.
(d) Vehicle access doors shall not include ventilation slots.
Note 1: Where fitted, bushfire shutters shall be made from
a) non-combustible material, or
b) a timber species as specified in Appendix E of the Standard, or
c) bushfire-resisting timber (refer to the table at the end of this document), or
d) a combination of any of Items (a), (b), or (c) above; and
(i) be fixed to the building and be non-removable;
(ii) when in the closed position, have no gap greater than 3 mm between the shutter and the wall, the sill or the head;
(iii) be readily manually operable from either inside or outside;
(iv) protect the entire window assembly or door assembly;
(v) where perforated, have-
(A) uniformly distributed perforations with a maximum aperture of 3 mm when the shutter is providing radiant heat protection or 2 mm when the shutter is also providing ember protection (such as where the openable portion of the window
is not screened in accordance with the requirements of the respective BAL);
and
(B) a perforated area no greater than 20% of the shutter. If bushfire shutters are fitted to all external doors then at least one of those shutters shall be operable from the inside to facilitate safe egress from the building.
Note 2: Where fitted, screens for windows and doors shall have a mesh or perforated sheet with a maximum
aperture of
2 mm, made of corrosion-resistant steel, bronze or aluminium. Gaps between the perimeter of the screen
assembly and the building element to which it is fitted shall not exceed 3 mm.
The frame supporting the mesh or perforated sheet shall be made from metal, bushfire-resisting timber (at
the end of this document; or a timber species as specified in Appendix E of the Standard.
Note 3: Where double glazed units are used the above requirements apply to the external face of the window
assembly only.

ROOFS
(INCLUDING VERANDA AND ATTACHED CARPORT ROOFS, PENETRATIONS, EAVES, FASCIAS,
GABLES, GUTTERS AND DOWNPIPES)
1. General
The following apply to all types of roofs and roofing systems:
(a) roof tiles, roof sheets and roof-covering accessories are to be non-combustible.
b) the roof/wall junction is to be sealed to prevent openings greater than 3 mm, either by the use of fascia and eaves linings or by sealing between the top of the wall and the underside of the roof and between the rafters at the line of the wall.
(c) roof ventilation openings, such as gable and roof vents, are to be fitted with ember guards made of non-combustible material or a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.
2. Tiled roofs.
Tiled roofs shall be fully sarked. The sarking shall-
(a) be located on top of the roof framing, except that the roof battens may be fixed above the sarking;
(b) cover the entire roof area including ridges and hips; and
(c) extend into gutters and valleys.
3. Sheet roofs
Sheet roofs shall-
(a) be fully sarked, except that foil-backed insulation blankets may be installed over the battens; and
(b) have any gaps greater than 3 mm (such as under corrugations or ribs of sheet roofing and between roof components) sealed at the fascia or wall line and at valleys, hips and ridges by
(i) a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium; or
(ii) mineral wool; or
(iii) other non-combustible material; or
(iv) a combination of any of Items (i), (ii) or (iii) above.
Note: Sarking is used as a secondary form of ember protection for the roof space to account for minor gaps that may develop in sheet roofing.
4. Verandah, carport and awning roofs
The following apply to veranda, carport and awning roofs:
(a) A veranda, carport or awning roof forming part of the main roof space shall meet all the requirements for the main roof.
(b) A veranda, carport or awning roof separated from the main roof space by an external wall shall have a non-combustible roof covering.
NOTE: There is no requirement to line the underside of a veranda, carport or awning roof that is separated from the main roof space.
5. Roof penetrations
The following apply to roof penetrations:
(a) Roof penetrations, including roof lights, roof ventilators, roof-mounted evaporative cooling units, aerials, vent pipes and supports for solar collectors, shall be adequately sealed at the roof to prevent gaps greater than 3 mm. The material used to seal the penetration shall be non-combustible.
(b) Openings in vented roof lights, roof ventilators or vent pipes shall be fitted with ember guards made from a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.
This requirement does not apply to the exhaust flues of heating or cooking devices with closed combustion chambers. In the case of gas appliance flues, ember guards shall not be fitted.
NOTE: Gasfitters are required to provide a metal flue pipe above the roof and terminate with a certified gas flue cowl complying with AS 4566. Advice may be obtained from State gas technical regulators.
(c) All overhead glazing shall be Grade A safety glass complying with AS 1288.
(d) Glazed elements in roof lights and skylights may be of polymer provided a Grade A safety glass diffuser, complying with AS 1288, is installed under the glazing. Where glazing is an insulating glazing unit (IGU), Grade A toughened safety glass minimum
4 mm thickness, shall be used in the outer pane of the IGU.
(e) Flashing elements of tubular skylights may be of a fire-retardant material, provided the roof integrity is maintained by an under-flashing of a material having a flammability index no greater than 5.
(f) Evaporative cooling units shall be fitted with non-combustible butterfly closers as close as practicable to the roof level or the unit shall be fitted with non-combustible covers with a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.
(g) Vent pipes made from PVC are permitted.
6. Eaves linings, fascias and gables
The following apply to eaves linings, fascias and gables:
(a) Gables shall comply with the requirements for external walls above.
(b) Eaves penetrations shall be protected the same as for roof penetrations, as specified for roof penetrations.
(c) Eaves ventilation openings greater than 3 mm shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium. Joints in eaves linings, fascias and gables may be sealed with plastic joining strips or timber storm moulds.
NOTE: The Standard does not provide construction requirements for fascias, bargeboards and eaves linings.
7. Gutters and downpipes
The Standard does not provide material requirements for
(a) gutters, with the exception of box gutters; and
(b) downpipes.
If installed, gutter and valley leaf guards shall be non-combustible. Box gutters shall be non-combustible and flashed at the junction with the roof with non-combustible material.

VERANDAHS, DECKS, STEPS, RAMPS AND LANDINGS
1) General
Decking may be spaced.
There is no requirement to enclose the subfloor spaces of verandas, decks, steps, ramps or landings.
2) Enclosed subfloor spaces of verandas, decks, steps, ramps and landings
a) Materials to enclose a subfloor space
The subfloor spaces of verandas, decks, steps, ramps and landings are considered to be 'enclosed' when -
i) the material used to enclose the subfloor space complies
with the standards for external walls above; and
ii) all openings greater than 3 mm are screened with a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze or aluminium.
b) Supports
The Standard does not provide construction requirements for support posts, columns, stumps, stringers, piers and poles.
c) Framing
The Standard does not provide construction requirements for the framing of verandas, decks, ramps or landings (i.e., bearers and joists).
d) Decking, stair treads and the trafficable surfaces of ramps and landings
Decking, stair treads and the trafficable surfaces of ramps and landings shall be
i) of non-combustible material; or
ii) of bushfire-resisting timber (refer to the table at the end of this
document); or
iii) a combination of Items (i) and (ii) above.
b) Framing
Framing of verandas, decks, ramps or landings (i.e., bearers and joists) shall be-
i) of non-combustible material; or
ii) of bushfire-resisting timber (refer to the table at the end of this
document);or
iii) a combination of Items (i) and (ii) above.
c) Decking, stair treads and the trafficable surfaces of ramps and landings
Decking, stair treads and the trafficable surfaces of ramps and landings
shall be-
i) of non-combustible material; or
ii) of bushfire-resisting timber (refer to the table at the end of this
document);or
iii) a combination of Items (i) and (ii) above.
4) Balustrades, handrails or other barriers
Those parts of the handrails and balustrades less than 125 mm from any glazing or any combustible wall shall be-
i) of non-combustible material; or
ii) of bushfire-resisting timber (refer to the table at the end of this
document);or
iii) a combination of Items (i) and (ii) above.
Those parts of the handrails and balustrades that are 125 mm or more from the building have no requirements.

WATER AND GAS SUPPLY PIPES
Above-ground, exposed water and gas supply pipes are to be metal.

BUSH FIRE RESISTING SPECIES
The following species have been tested and meet the requirements for a bush fire resisting timber species:

Standard trade name	Botanical name
Ash silvertop	Eucalyptus sieberi
Blackbutt	Eucalyptus pilularis
Gum, red, river camaldulensis	Eucalyptus
Gum, spotted	Corymbia maculata Corymbia henryi Corymbia citriodora
Ironbark, red sideroxylon	Eucalyptus
Kwila (Merbau)	Intsia bijuga
Turpentine	Syncarpia
glomulifera	

New Single Storey Dwelling

At: 36A Bonner Road,
Agnes Banks

For: Matthew Bowden

Development Application

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Issue:	Description:	By:	Date:
A	Design Review	D.K.	22/07/2020
B	Variations	D.K.	10/07/2020
C	Variations	D.K.	24/08/2020
D	Variations	D.K.	11/09/2020
E	Variations	D.K.	04/06/2021
1	Issued for DA Submission	D.K.	12/07/2021
2	Client Variation - Design change of Shed	D.K.	06/08/2021
3	Client Variation - Change of Shed and Pool Position	D.K.	08/10/2021

- LEVELS SHOWN ARE APPROX.ONLY AND SHOULD BE VERIFIED ON SITE
- DO NOT SCALE USE DIMENSIONS WHERE AVAILABLE
- WINDOW SIZES ARE INDICATIVE ONLY FINAL SIZES PROVIDED BY BUILDER AND CONFIRMED ON SITE.
- THE DESIGNER MUST BE NOTIFIED OF ANY DISCREPANCIES ON THE DRAWINGS PRIOR TO ANY CONSTRUCTION WORKS.

- DIAL 1100 BEFORE YOU DIG PRIOR TO ANY EARTH EXCAVATION.

Scale: A2

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Date: 08/10/2021

Drawing No: 2023

Issue: 3