NCC 2022

energy advance

ABCB NCC 2022 VOLUME TWO (AMENDMENT 2)

Nationally-Accredited NatHERS Energy Efficiency Assessment

Accredited Star Rating
7.1

REFERENCE
758307

SITE ADDRESS
Lot 40 (#89 Unit 1) Ninth Avenue ROSEBUD 3939

DWELLING TYPE
Double Storey

COMMISSIONED BY
Metricon Homes

ASSESSMENT DATE
15/052026

Mornington Peninsula Shire

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THE SUMMARY

Address	Lot 40 (#89 Unit 1) Ninth Avenue ROSEBUD 3939
Dwelling Type	Double Storey
State	Victoria
Site Exposure	Suburban
Ground Floor Type	Concrete Slab-on-Ground

Façade Facing
West

Garage Side (viewed from the front)
Left-Hand Side

NatHERS Climate Zone	62
FirstRate 5 Engine:	Chenath Engine 3.22
Certificate Number	5KLYAAPYLA
Accredited Star Rating	7.1

Modelled Wall Colour
Wall Colour: Medium

Modelled Roof Colour
Solar Absorptance: Medium roof colour

Modelled Glazing Frame Colour
Glazing Frame Colour: Medium

Conditioned Floor Area (m^2)	135.40
Unconditioned Floor (m^2)	11.40
Total (m^2)	146.80

	Area (m2)	Allowance (W/m2)	Total Maximum Watts
Class 1 Total Area	182.10	5.0	910.5
Class 10a Total Area	37.32	3.0	112.0
Total Outdoor Areas	7.03	4.0	28.1

Maximum Ceiling Insulation Penetration	Maximum Allowance	Maximum Penetration (m2)
	0.50%	0.91

If approved fireproof downlight covers, which can be fully covered by insulation, are specified and noted on the electrical plan by the building designer or architect or if IC4-rated downlights are installed, then there is no need to allow for the ceiling penetration.

ASSESSMENT CALCULATIONS & SOFTWARE RESULTS

	Target (MJ/m².pa)	Proposed (MJ/m².pa)	Efficiency Benchmark
Heating:	80.0	67.0	Pass: 17.7%
Cooling:	22.0	15.1	Pass: 37.2%
Total:	102.0	82.1	

THE ANALYSIS

DWELLING OVERVIEW

Operational Energy and Emissions Summary

This home used approximately 2,520 kWh of heating energy, equivalent to driving a petrol car about 13,846 km and producing roughly 1,991 kg of CO_2 emissions. It also used around 568 kWh of cooling energy over the year, comparable to driving 3,120 km and generating about 449 kg of CO_2 emissions from fuel use.

HEATING PERFORMANCE

Heating performance is 18% above the benchmark for this climate zone.
Heating efficiency is strong; glazing, solar exposure and insulation appear to be working effectively.

In this cool-temperate climate zone, low heating demand confirms that insulation, glazing and winter solar design are performing effectively.

COOLING PERFORMANCE

Cooling performance is 37% above the benchmark for this climate zone.
Cooling efficiency is strong; external shading, reflective roofing and low-SHGC glazing appear to be working effectively.

In this cool-temperate climate zone, minimal cooling demand shows that shading, glazing and roof finish are well matched to local summer conditions.

Room-by-Room Energy Use Analysis

This chart shows how much energy each room needs to stay comfortable. Higher bars mean more energy needed to heat or cool that space. The line shows what's considered efficient for that room size. Bars above the line highlight where comfort is costing more energy than it should, and where upgrades can have the biggest impact.

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THE ANALYSIS

GLAZING & INSULATION

Understanding the Window Ratio

The ratio below shows the percentage of the dwelling's exterior that's made up of glass compared to the floor area. Ideally, a lower glazing ratio supports better thermal performance, helping reduce unwanted heat loss or gain, improving comfort and lowering energy bills.
In cool temperate regions, well-insulated and well-oriented glazing improves warmth and comfort during colder months without excessive heat loss.

OPTIMAL: Glazing sizes are fantastic for the best thermal efficiency.

20.8%

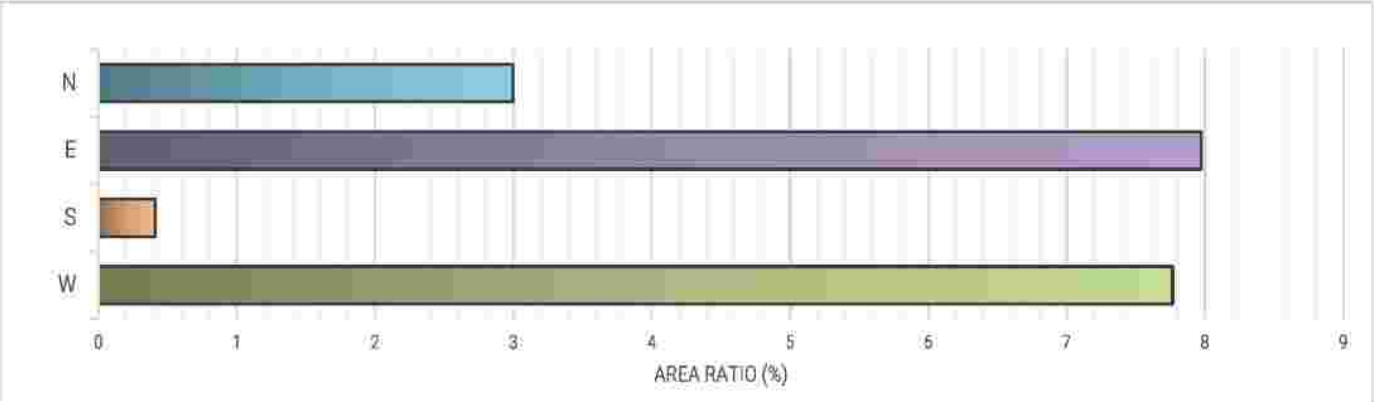
This dwelling's glazing ratio is fantastic, helping maintain a consistent temperature without excessive heating or cooling, leading to energy savings and a smaller environmental footprint. If the rating still falls below compliance, consider reviewing the orientation chart below to see if some windows or doors could be better positioned for natural light and shading balance. Prioritising north-facing glass and strong insulation will keep warmth inside during cooler months.

Sunlight, Heat and Glass: Orientation Overview

This dwelling's glazing distribution varies in suitability depending on the NatHERS climate zone (cool).

Glazing to the west totals 11.4 m² (7.8% of floor area). West glazing causes summer heat and limited winter benefit; minimise or shade. Glazing to the south totals 0.6 m² (0.4% of floor area). South glazing should be moderate to reduce heat loss. Glazing to the east totals 11.7 m² (8.0% of floor area). East glazing provides little winter gain and can cause summer heat; modest areas are best. Glazing to the north totals 4.4 m² (3.0% of floor area). North glazing is highly beneficial for passive winter heating; ensure adequate area and good SHGC.

Adjusting glazing proportions—especially in directions that introduce unnecessary heat gain or loss—can significantly improve comfort and energy efficiency.
Note: NatHERS modelling includes shading and eaves. This summary explains glazing orientation impacts within the climate context.



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THE ANALYSIS

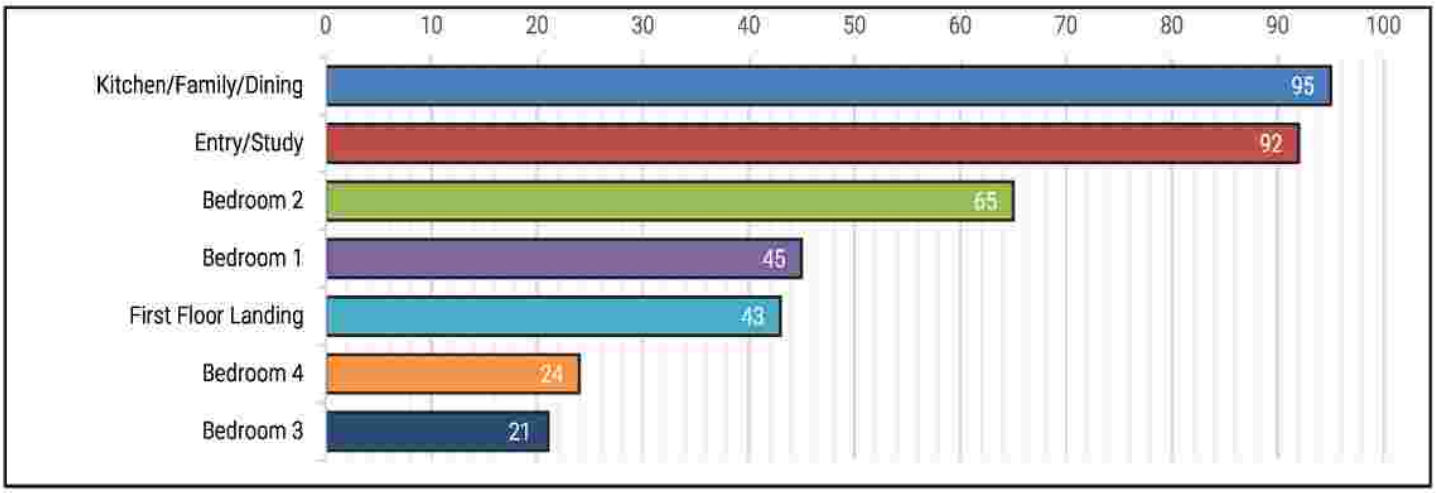
ENERGY IMPACT AND EFFECTIVENESS

Energy Advance Comfort & Performance Impact Index

The Impact Index is Energy Advance's combined performance score for each room. It incorporates climate zone, window-to-floor ratio, heating load, cooling load, and glazing behaviour to show which rooms have the strongest influence on overall energy performance.
A higher Impact Index indicates a room where improvements will deliver greater comfort and efficiency gains.

In this home, the rooms with the highest Impact Index provide the best opportunity to improve comfort and reduce energy use through glazing or possible insulation upgrades.

Rooms with higher Impact Index scores offer the greatest "bang for buck." Upgrades in these areas have the strongest effect on overall energy performance, making them the most effective places to focus improvement efforts.



Wall Power Factor

The Wall Power Factor shows how much of your home's external shell can be improved through insulation. It compares the insulatable wall area with the total area of walls, windows and external doors.
A higher factor means insulation upgrades can meaningfully improve performance, while a lower factor indicates glazing has a greater influence than insulation.

75% Moderate Potential

Insulation upgrades will still provide performance benefits; however, glazing now makes up a significant portion of the external envelope. As glazing transfers heat far more readily than insulated walls, the impact of insulation alone begins to taper off.

Improved insulation can assist with comfort, but the home's overall performance is increasingly shaped by window size, orientation, shading and glass type. Gains in star rating may therefore be more modest unless glazing elements are also addressed.

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SPECIFICATIONS NOTED BELOW: BASE SPEC

THE SPECIFICATIONS

Walls

CONSTRUCTION TYPE AND INSULATION	FRAME TYPE	LOCATION	THERMAL BREAK?
WDF | Brick Veneer | R2.5 Insulation | VP Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	Timber	Internal	N/A
WDF INT | Plasterboard Stud Wall | R2.0 Insulation | No Wrap	Timber	Internal	N/A
WDF | Brick Veneer | Uninsulated | VP Wrap	Timber	External	N/A
OTH | Double Leaf Brick Wall 110mm | Uninsulated	None	External	None
WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	Timber	Internal	N/A
WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	Timber	External	N/A

ADDITIONAL NOTES

Internal wall insulation: Garage, Laundry and Bathroom walls only

Wall Colour: Medium

Roof and Ceiling

CONSTRUCTION TYPE	CEILING INSULATION (R)	SARKING	THERMAL BREAK?	BLANKET (R)
Tiled Roof	6.0	No	No	None
Tiled Roof	2.5	No	No	None
Ceiling with Floor Above	None	No	No	None
Tiled Roof	None	No	No	None

ADDITIONAL NOTES

Solar Absorptance: Medium roof colour

Ceiling Insulation to the House Area only

Floor

CONSTRUCTION TYPE	VENTILATION	FLOOR INSUL (R)	SLAB EDGE (R)	FLOOR AREAS (m^2)
85mm Concrete | 300mm Waffle	Enclosed	Integrated	None	123.7
Framed Suspended Floor | Uninsulated	Enclosed	None	None	62.3
Framed Suspended Floor | R4.1 Insulation	Elevated	4.1	None	0.4

ADDITIONAL NOTES

Glazing

Glazing Frame Colour: Medium

WERS CODE*	CHARACTERISTIC	TYPE	U_w-VALUE	$SHGC_w$	AREA (m^2)	AS-BUILT GLAZING TYPES
CAS-006-08 A	150 S. Double Glazing	Awning Window	3.35	0.54	14.82	SSW-026-300
A&L-026-01 A	150 S. Double Glazing	Fixed Window	3.12	0.69	8.12	SSW-030-003
ALM-002-01 A	Standard Single Glazing	Sidelight/s	6.70	0.70	0.69	Front Door Sidelight
WAS-013-01 A	152 S. Double Glazing	Sliding Door	3.64	0.65	4.41	SSW-040-002

This double storey has been modelled with restricted window openings (%) as per

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THE REGULATIONS

13.7.1 Application of Part 13.7

(1) This Part applies to (a)a Class 1 building, (b)a Class 10a building, and (c)a Class 10b swimming pool associated with a Class 1 or 10a building.
(2) Part 13.7 must be applied as directed in H6D2(2).

13.7.2 Insulation of services

Thermal insulation for central heating water piping and heating and cooling ductwork must—
(a)be protected against the effects of weather and sunlight, and (b)be able to withstand the temperatures within the piping or ductwork; and (c) use thermal insulation material by AS/NZS 4859.1.

13.7.3 Central heating water piping

(1) Central heating water piping that is not within a conditioned space must be thermally insulated to achieve the minimum material R-Values as set out in (2) to (6).
(2) Internal piping including— (a)flow and return piping that is— (i)within an unventilated wall space or
(ii)within an internal floor between storeys; or (iii)between ceiling insulation and a ceiling and
(b)heated water piping encased within a concrete floor slab (except that which is part of a floor heating system), must, in all climate zones, have a minimum material R-Value of 0.4.
(3) Piping located within a ventilated wall space, an enclosed building subfloor or a roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (5).
(4) Piping located outside the building or in an unenclosed building subfloor or roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (6).
(5) Piping referred to in (3) must have a minimum material R-Value of— (a)in climate zones 1, 2, 3 and 5 — 0.6; and
(b)in climate zones 4, 6 and 7 — 0.9; and (c)in climate zone 8 — 1.3.
(6)Piping referred to in (4) must have a minimum material R-value of—
(a)in climate zones 1, 2, 3 and 5 — 0.6; and (b)in climate zones 4, 6 and 7 — 1.3; and (c) in climate zone 8 — 1.3.

13.7.4 Heating and cooling ductwork

(1) Heating and cooling ductwork and fittings must—
(a)achieve the material R-Value in (4), and (b)be sealed against air loss— (i)by closing all openings in the surface, joints and seams of ductwork with adhesives, mastics, sealants or gaskets by AS 4254.1 and AS 4254.2 for a Class C seal; or (ii)for flexible ductwork, with a draw band in conjunction with a sealant or adhesive tape.
(2) Duct insulation must— (a)abut adjoining duct insulation to form a continuous barrier and
(b)be installed so that it maintains its position and thickness, other than at flanges and supports; and where located outside the building, under a suspended floor, in an attached Class 10a building or in a roof space— (i)be protected by an outer sleeve of protective sheeting to prevent the insulation becoming damp, and (ii)have the outer protective sleeve sealed with adhesive tape not less than 48 mm wide creating an airtight and waterproof seal.
(3) The requirements of (1) do not apply to heating and cooling ductwork and fittings located within the insulated building envelope including a service riser within the conditioned space, internal floors between storeys and the like.
(4)The material R-Value required by (1)(a) must be determined by the following: (a)In a heating-only system or cooling-only system including an evaporative cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1 to 7 — 1.0; and (B)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(b)In a combined heating and refrigerated cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1, 3, 4, 6 and 7 — 1.5; and (B)in climate zones 2 and 5 — 1.0; and (C)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(c)For (b)(i), the minimum material R-value required for ductwork may be reduced by 0.5 for combined heating and refrigerated cooling systems in climate zones 1, 3, 4, 6 and 7 if the ducts are— (i)under a suspended floor with an enclosed perimeter; or in a roof space that has an insulation of greater than or equal to R0.5 directly beneath the roofing.

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THE REGULATIONS

13.7.5 Electric resistance space heating

An electric resistance space heating system that serves more than one room must have— (a)separate isolating switches for each room and
(b)a separate temperature controller and time switch for each group of rooms with common heating needs and
(c) power loads of not more than 110 W/m2 for living areas, and 150 W/m2 for bathrooms.

13.7.6 Artificial lighting

(1)The lamp power density or illumination power density of artificial lighting, excluding heaters that emit light, must not exceed the allowance of— (a)5 W/m2 in a Class 1 building and (b)4 W/m2 on a Verandah, balcony or the like attached to a Class 1 building; and (c)3 W/m2 in a Class 10a building associated with a Class 1 building.

(2) The illumination power density allowance in (1) may be increased by dividing it by the relevant illumination power density adjustment factor for a control device in (6) as applicable.
(3) When designing the lamp power density or illumination power density, the power of the proposed installation must be used rather than nominal allowances for exposed batten holders or luminaires.
(4) If halogen lamps are installed, they must be separately switched from fluorescent lamps.
(5) Artificial lighting around the perimeter of a building must— (a)be controlled by a daylight sensor or (b)have an average light source efficacy of not less than 40 Lumens/W.
(6) The following illumination power density adjustment factors apply to control devices for artificial lighting:
(a)Lighting timer for corridor lighting: 0.7. Motion detector —(i)(A) at least 75% of the area of space is controlled by one or more motion detectors; or
(b)an area of less than 200 m2 is switched as a block by one or more motion detectors; and (i)0.7, where up to 6 lights are switched as a block by one or more detectors; and (ii)0.55, where up to 2 lights are switched as a block by one or more detectors.
(c)Manual dimming system where not less than 75% of the space area is controlled by manually operated dimmers: 0.85.
(d)Programmable dimming system where not less than 75% of the space area is controlled by programmable dimmers: 0.85.
(e)Dynamic dimming system, with automatic compensation for lumen depreciation, the design lumen depreciation factor is not less than — (i)0.9 for fluorescent lights or (ii)0.8 for high-pressure discharge lights.
(f)Fixed dimming where at least 75% of the area is controlled by fixed dimmers that reduce the overall lighting level and the power consumption of the lighting — equal to the % of full power to which the dimmer is set divided by 0.95.
(g)Daylight sensor and dynamic lighting control device, with dimmed or stepped switching of lights adjacent to windows: (i)Lights within the space adjacent to windows other than roof lights for a distance from the window equal to the depth of the floor at window head height: 0.5. (ii)Lights within the space adjacent to roof lights: 0.6.
(7) For (6)(c), manual dimming is where lights are controlled by a knob, slider, or other mechanism or where there are pre-selected scenes that are manually selected.
(8) For (6)(d), programmed dimming is where pre-selected scenes or levels are automatically selected by the time of day, photoelectric cell, or occupancy sensor.
(9) For (6)(e), dynamic dimming is where the lighting level is varied automatically by a photoelectric cell to either proportionately compensate for the availability of daylight or the lumen depreciation of the lamps.
(10) For (6)(f), fixed dimming is where lights are controlled to a level, and that level cannot be adjusted by the user.
(11) For (6)(g)(i) and (ii), the illumination power density adjustment factor is only applied to lights controlled by that item — this adjustment factor does not apply to tungsten halogen or other incandescent sources.

13.7.7 Water heater in a heated water supply system

A water heater in a heated water supply system must be designed and installed by Part B2 of NCC Volume Three — Plumbing Code of Australia.

13.7.8 Swimming pool heating and pumping

(1) Heating for a swimming pool must be by— (a)a solar heater not boosted by electric resistance heating or
(b)a heater using reclaimed energy, (c)a gas heater, or (d)a heat pump, or (e)a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the swimming pool must have— (a)a cover with a minimum R-Value of 0.05 unless located in a conditioned space and (b)a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a swimming pool.
(4) For the purposes of 13.7.8, a swimming pool does not include a spa pool.

13.7.9 Spa pool heating and pumping

(1) Heating for a spa pool that shares a water recirculation system with a swimming pool must be by— (a)a solar heater or
(b)a heater using reclaimed energy or a gas heater, or (d) (e) a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the spa pool must have— (a)a cover and (b)a push button and a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a spa pool having a capacity of 680 L or more.

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Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. 5KLYAAPYLA

Generated on 15 May 2026 using FirstRate5: 5.5.5a (3.22)

Property

Address	1, Lot 40 (#89 Unit 1) Ninth Avenue ROSEBUD, 3939, VIC, 3939
Lot/DP	40
NCC Class*	Class 1a
Floor/all Floors	
Type	New Home

Plans

Main plan	758307
Prepared by	Metricon Homes

Construction and environment

Assessed floor area [m²]*		**Exposure type**
Conditioned*	135.4	suburban
Unconditioned*	44.4	**NatHERS climate zone**
Total	179.8	62 Moorabbin Airport
Garage	33	

Accredited assessor

Name	Claude-Francois Sookloll
Business name	Energy Advance
Email	energy@energyadvance.com.au
Phone	1300 850 228
Accreditation No.	DMN/14/1662
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

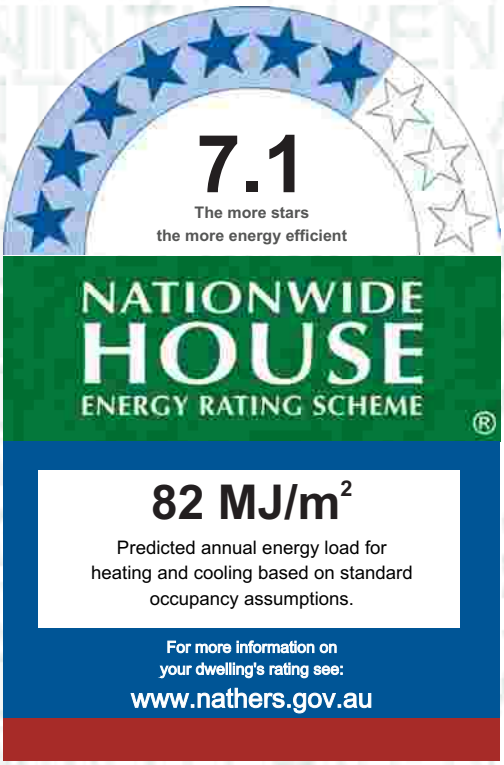
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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

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

Thermal performance star rating



Thermal performance [MJ/m²]

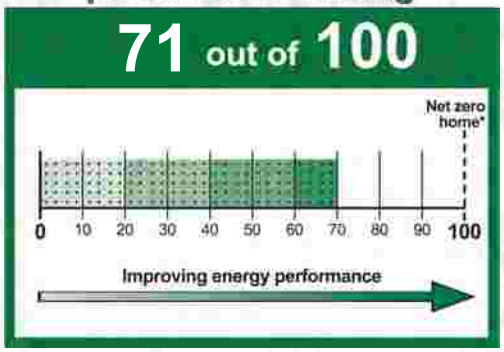
Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	67	15.1
Load limits	80	22

Features determining load limits

Floor type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	N
Outdoor living area	N
Outdoor living area ceiling fan	N

Whole of Home performance rating



Verification

To verify this certificate, scan the QR code or visit https://www.fr5.com.au/QRCodeLanding?PublicId=5KLYAAPYLA When using either link, ensure you are visiting www.fr5.com.au.

*Refer to glossary.

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

Your Whole of Home energy use* rating excluding onsite renewable energy generation is **46 out of 100**

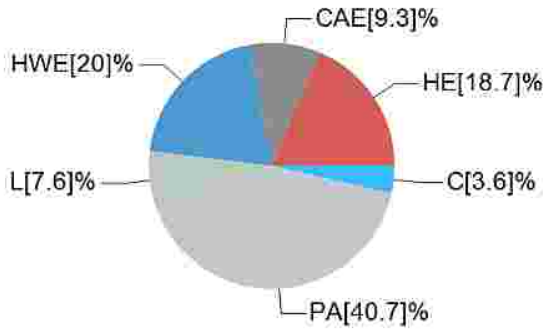
This home's annual greenhouse gas emissions: 2696kg CO2e (with solar) 6421kg CO2e (without solar)

Predicted annual electricity generated: 3327kWh
Exported to the grid: 50%
Used by the home: 50%

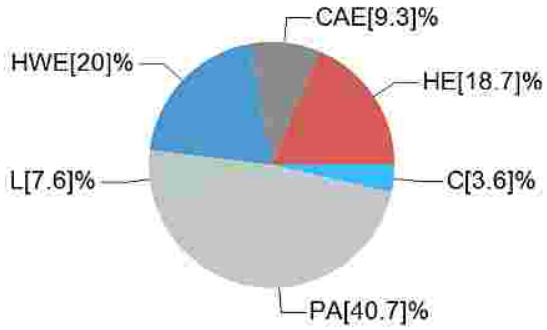
Predicted Whole of Home annual impact by appliance

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

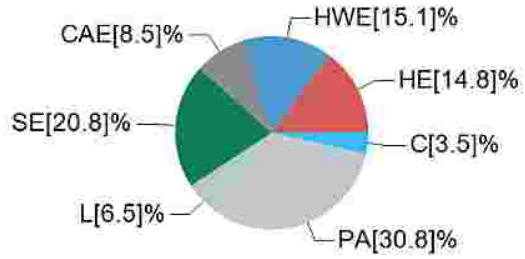
Energy use:



Greenhouse gas emissions:



Cost:



Graph key:

Colour:	Code:	Name:	Fuel type:
	HE	Heating	electric
	HG	Heating	gas
	HW	Heating	wood
	C	Cooling	electric
	HWE	Hot water	electric
	HWG	Hot water	gas
	HWW	Hot water	wood
	L	Lights	electric
	P	Pool/Spa equipment	electric
	PA	Plug-in appliances	electric
	CAE	Cooking appliances	electric
	CAG	Cooking appliances	gas
	SG	Supply charge	gas
	SE	Supply charge	electric

*Refer to glossary.

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		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
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?	☐	☐	☐	☐	☐
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?			☐	☐	☐
External walls					
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?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the *'External wall type'* table on this Certificate?	☐	☐	☐	☐	☐
Floor					
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?	☐	☐	☐	☐	☐
Ceiling penetrations*					
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?	☐	☐	☐	☐	☐
Ceiling					
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?	☐	☐	☐	☐	☐
Roof					
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?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 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".	☐	☐		☐	☐
Heating and cooling load limits*					
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?	☐	☐	☐	☐	☐

*Refer to glossary.

Certificate check

Continued

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in *'Additional notes'* table below?	☐	☐			
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

BCA Climate Zone 6

Please note, a non-reflective vapour permeable wall wrap has been modelled throughout the external walls of this dwelling.

Eaves indicated by the 'Horizontal shading feature* maximum projection (mm)' may not be directly opposing the respective wall (i.e. some eaves may be horizontally offset).

Where applicable, an additional 150mm has been added to the projection of all 'Horizontal shading features & eaves' to account for the Gutter & Fascia Board.

Please note, restricted window openings (%) have been modelled as per NCC requirements.

*Refer to glossary.

Please note, IC/IC-F Class Downlights have been nominated to this dwelling.

Where applicable, proxy WERS codes may be used to meet U-Value and SHGC limitations while maintaining compliance.

Proxy codes refer to performance values from a comparable product when exact test data for the selected window or glazed door is unavailable.

The selected window or glazed door must have a U-Value lower than the value indicated, and the SHGC must be within +/-5% of the specified value to comply.

*Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m²]
Bedroom 1	bedroom	12.5
WIR 1	nightTime	3.9
Ensuite 1	nightTime	5.3
Powder Room	dayTime	2.2
Laundry	unconditioned	4.6
Entry/Study	dayTime	23.8
Kitchen/Family/Dining	kitchen	38.3
Garage	garage	33
Bedroom 2	bedroom	11.8
Bedroom 3	bedroom	13
Bedroom 4	bedroom	12.4
WIR 2	nightTime	3.1
WC	dayTime	3
Bathroom	unconditioned	6.7
First Floor Landing	dayTime	12.8

Window and glazed door *type and performance*

Default* windows

				Substitution tolerance ranges	
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
ALM-002-01 A	Aluminium B SG Clear	6.7	0.7	0.66	0.74

Custom* windows

				Substitution tolerance ranges	
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
CAS-006-08 A	Genesis Awning Window DG 3-12Ar-4EA	3.35	0.54	0.51	0.57
A&L-026-01 A	Al Boutique Fixed Lite Window DG 3/12/3	3.12	0.69	0.66	0.72
WAS-013-01 A	Sliding Door 22mm DG 4/14Ar/4	3.64	0.65	0.62	0.68

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	CAS-006-08 A	Opening 22	1800	1188	awning	90.0	W	No
Bedroom 1	A&L-026-01 A	Opening 23	1800	612	fixed	0.0	W	No

*Refer to glossary.

Ensuite 1	CAS-006-08 A	Opening 24	1000	600	awning	90.0	S	No
Entry/Study	CAS-006-08 A	Opening 19	1800	1188	awning	90.0	W	No
Entry/Study	A&L-026-01 A	Opening 20	1800	612	fixed	0.0	W	No
Entry/Study	ALM-002-01 A	Opening 21	2040	340	fixed	0.0	W	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 25	1800	900	awning	90.0	E	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 26	1800	900	awning	90.0	E	No
Kitchen/Family/-Dining	A&L-026-01 A	Opening 27	1800	876	fixed	0.0	E	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 28	1800	900	awning	90.0	E	No
Kitchen/Family/-Dining	A&L-026-01 A	Opening 29	1800	900	fixed	0.0	E	No
Kitchen/Family/-Dining	WAS-013-01 A	Opening 30	2100	2100	sliding	450.0	N	No
Bedroom 2	CAS-006-08 A	Opening 31	1500	1188	awning	10.0	W	No
Bedroom 2	A&L-026-01 A	Opening 32	1500	612	fixed	0.0	W	No
Bedroom 3	CAS-006-08 A	Opening 37	1000	900	awning	90.0	E	No
Bedroom 3	A&L-026-01 A	Opening 38	1000	900	fixed	0.0	E	No
Bedroom 4	CAS-006-08 A	Opening 35	1000	900	awning	90.0	E	No
Bedroom 4	A&L-026-01 A	Opening 36	1000	900	fixed	0.0	E	No
Bathroom	CAS-006-08 A	Opening 33	500	1500	awning	10.0	W	No
First Floor Landing	CAS-006-08 A	Opening 34	500	1500	awning	10.0	W	No

Roof window* *type and performance value*

Default* roof windows

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

Custom* roof windows

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

Skylight* *type and performance*

*Refer to glossary.

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orient-ation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Laundry	2040	870	100.0	N
Entry/Study	2040	820	100.0	W
Garage	2170	4810	100.0	W
Garage	2040	820	100.0	E

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No
2	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | Uninsulated | VP Wrap	0.5	Medium		No
3	NCC 2022 MISC - OTH | Double Leaf Brick Wall 110mm | Uninsulated	0.5	Medium		No
4	NCC 2022 VAPOUR - TIMBER - WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (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)
Bedroom 1	1	2400	3691	W	601	Yes
Bedroom 1	1	2400	3396	S	604	Yes
Bedroom 1	1	2400	600	N	2640	Yes
Ensuite 1	1	2400	2555	S	604	Yes
Laundry	1	2400	1800	N	600	Yes
Laundry	1	2400	2574	E	600	Yes
Entry/Study	1	2400	3341	W	1560	Yes
Entry/Study	1	2400	591	S	2640	Yes
Entry/Study	1	2400	1596	W	2151	Yes
Kitchen/Family/Dining	1	2400	8738	E	600	Yes
Kitchen/Family/Dining	1	2400	2402	N	0	Yes

*Refer to glossary.

Kitchen/Family/Dining	1	2400	4107	S	600	Yes
Garage	2	2400	5963	N	600	Yes
Garage	3	2400	5538	W	627	Yes
Garage	2	2400	2958	E	600	Yes
Bedroom 2	4	2400	3178	N	650	Yes
Bedroom 2	4	2400	3570	W	650	No
Bedroom 2	4	2400	3311	S	650	Yes
Bedroom 3	4	2400	3202	N	645	No
Bedroom 3	4	2400	4688	E	650	Yes
Bedroom 4	4	2400	3193	S	650	No
Bedroom 4	4	2400	3470	E	659	Yes
WC	4	2400	1301	N	655	No
Bathroom	4	2400	2178	W	650	Yes
Bathroom	4	2400	3091	S	650	No
First Floor Landing	4	2850	1909	N	650	No
First Floor Landing	4	2850	2305	W	650	Yes

Internal wall *type*

Wall ID	Wall type	Area [m²]	Bulk insulation
1	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	109.1	
2	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.0 Insulation | No Wrap	16.6	Glass fibre batt: R2.0 (R2.0)
3	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	20.5	Glass fibre batt: R2.5 (R2.5)

Floor *type*

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	5.8	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	2.4	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	4.3	Enclosed	R0.0	Carpet
WIR 1	FLOOR - 85mm Concrete | 300mm Waffle	3.9	Enclosed	R0.0	Carpet
Ensuite 1	FLOOR - 85mm Concrete | 300mm Waffle	0.7	Enclosed	R0.0	Tiles
Ensuite 1	FLOOR - 85mm Concrete | 300mm Waffle	4.6	Enclosed	R0.0	Tiles

*Refer to glossary.

Powder Room	FLOOR - 85mm Concrete | 300mm Waffle	2.2	Enclosed	R0.0	Tiles
Laundry	FLOOR - 85mm Concrete | 300mm Waffle	2.8	Enclosed	R0.0	Tiles
Laundry	FLOOR - 85mm Concrete | 300mm Waffle	1.8	Enclosed	R0.0	Tiles
Entry/Study	FLOOR - 85mm Concrete | 300mm Waffle	4.6	Enclosed	R0.0	Tiles
Entry/Study	FLOOR - 85mm Concrete | 300mm Waffle	2	Enclosed	R0.0	Tiles
Entry/Study	FLOOR - 85mm Concrete | 300mm Waffle	4.1	Enclosed	R0.0	Carpet
Entry/Study	FLOOR - 85mm Concrete | 300mm Waffle	13.2	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	35	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	3.2	Enclosed	R0.0	Tiles
Garage	FLOOR - 85mm Concrete | 300mm Waffle	33	Enclosed	R0.0	none
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	7.9	Enclosed	R0.0	Carpet
Bedroom 2	FLOOR - Framed Suspended Floor | R4.1 Insulation	0.4	Elevated	R4.1	Carpet
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	3.5	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	9.7	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	3.3	Enclosed	R0.0	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | Uninsulated	9.6	Enclosed	R0.0	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | Uninsulated	2.8	Enclosed	R0.0	Carpet
WIR 2	FLOOR - Framed Suspended Floor | Uninsulated	0.2	Enclosed	R0.0	Carpet
WIR 2	FLOOR - Framed Suspended Floor | Uninsulated	2.9	Enclosed	R0.0	Carpet

*Refer to glossary.

WC	FLOOR - Framed Suspended Floor | Uninsulated	2.4	Enclosed	R0.0	Tiles
WC	FLOOR - Framed Suspended Floor | Uninsulated	0.5	Enclosed	R0.0	Tiles
Bathroom	FLOOR - Framed Suspended Floor | Uninsulated	4.6	Enclosed	R0.0	Tiles
Bathroom	FLOOR - Framed Suspended Floor | Uninsulated	2.2	Enclosed	R0.0	Tiles
First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	1.6	Enclosed	R0.0	Carpet
First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	2.6	Enclosed	R0.0	Carpet
First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	8.4	Enclosed	R0.0	Carpet
First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	0.2	Enclosed	R0.0	Carpet

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Bedroom 1	Plasterboard	R6.0	No
Bedroom 1	Plasterboard	R2.5	No
Bedroom 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
WIR 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Ensuite 1	Plasterboard	R2.5	No
Ensuite 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Powder Room	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Laundry	Plasterboard	R6.0	No
Laundry	Plasterboard	R2.5	No
Entry/Study	Plasterboard	R6.0	No
Entry/Study	Plasterboard	R6.0	No

*Refer to glossary.

Entry/Study	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry/Study	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Kitchen/Family/D- ining	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Kitchen/Family/D- ining	Plasterboard	R2.5	No
Garage	Plasterboard	R0.0	No
Bedroom 2	Plasterboard	R6.0	No
Bedroom 2	Plasterboard	R2.5	No
Bedroom 3	Plasterboard	R6.0	No
Bedroom 3	Plasterboard	R2.5	No
Bedroom 4	Plasterboard	R6.0	No
Bedroom 4	Plasterboard	R2.5	No
WIR 2	Plasterboard	R6.0	No
WC	Plasterboard	R6.0	No
WC	Plasterboard	R2.5	No
Bathroom	Plasterboard	R6.0	No
Bathroom	Plasterboard	R2.5	No
First Floor Landing	Plasterboard	R2.5	No
First Floor Landing	Plasterboard	R6.0	No
First Floor Landing	Plasterboard	R6.0	No

Ceiling *penetrations**

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bedroom 1	3	Downlights	0	0	Sealed
WIR 1	1	Downlights	0	0	Sealed
Ensuite 1	1	Exhaust Fans	250	250	Sealed
Ensuite 1	2	Downlights	0	0	Sealed
Powder Room	1	Exhaust Fans	250	250	Sealed
Powder Room	1	Downlights	0	0	Sealed
Entry/Study	5	Downlights	0	0	Sealed
Kitchen/Family/Dining	1	Exhaust Fans	250	250	Sealed
Kitchen/Family/Dining	8	Downlights	0	0	Sealed
Bedroom 2	3	Downlights	0	0	Sealed
Bedroom 3	3	Downlights	0	0	Sealed
Bedroom 4	3	Downlights	0	0	Sealed
WIR 2	1	Downlights	0	0	Sealed

*Refer to glossary.

WC	1	Exhaust Fans	250	250	Sealed
WC	1	Downlights	0	0	Sealed
Bathroom	1	Exhaust Fans	250	250	Sealed
Bathroom	2	Downlights	0	0	Sealed
First Floor Landing	3	Downlights	0	0	Sealed

Ceiling *fans*

Location	Quantity	Diameter [mm]
No Data Available		

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Disc:Attic-Discontinuous	0.0	0.5	Medium

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
Room refrigerative - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	4.1kW
Unknown or none (Default - Room refrigerative - variable capacity)	Bedroom 1, Bedroom 2, Ensuite 1, WIR 1, Entry/Study, WIR 2, First Floor Landing, Powder Room, Bedroom 3, Bedroom 4, WC	Electricity	2 Star (ZERL)	12.8kW

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Room RAC - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	2.4kW

*Refer to glossary.

Unknown or none (Default - Room RAC - variable capacity)	Bedroom 1, Bedroom 2, Ensuite 1, WIR 1, Entry/Study, WIR 2, First Floor Landing, Powder Room, Bedroom 3, Bedroom 4, WC	Electricity	1 Star (ZERL)	6.4kW

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
Heat pump (continuous)	Electricity	29 STCs	4	27	124L

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

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
Solar PV	88°	3kW

Battery *schedule*

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

System type	Size [battery storage capacity]
No Data Available	

*Refer to glossary.

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

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
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, 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.
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.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	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).
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.
Net zero home	a home that achieves a net zero energy value*.
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
Recommended capacity	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.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap 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 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.

*Refer to glossary.

STCs	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
Thermal breaks	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.
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).
Window shading device	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)

*Refer to glossary.

LOT 40 (NO. 89) NINTH AVENUE, ROSEBUD VIC. 3939

DRAWING LIST

SHEET No.	SHEET NAME
TP00	COVER SHEET
TP01	NEIGHBOURHOOD & SITE DESCRIPTION
TP02	DESIGN RESPONSE PLAN
TP03	GROUND FLOOR AND SITE PLAN
TP04	FIRST FLOOR AND SITE PLAN
TP05	WSUD PLAN
TP06	ELEVATIONS
TP07	ELEVATIONS
TP08	SHADOWCAST_9AM-12PM_SEPTEMBER 22ND
TP09	SHADOWCAST_1PM-3PM_SEPTEMBER 22ND
TP10	CLAUSE 55 REFERENCE

Certificate No. # 5KLYAAPYLA

Scan QR code or follow website link for rating details.

Assessor name	Claude-Francois Sookloll
Accreditation No.	DMN/14/1662
Property Address	1, Lot 40 (#89 Unit 1) Ninth Avenue ROSEBUD, 3939, VIC, 3939

https://www.fr5.com.au/QRCodeLanding?PublicId=5KLYAAPYLA

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

COVER SHEET

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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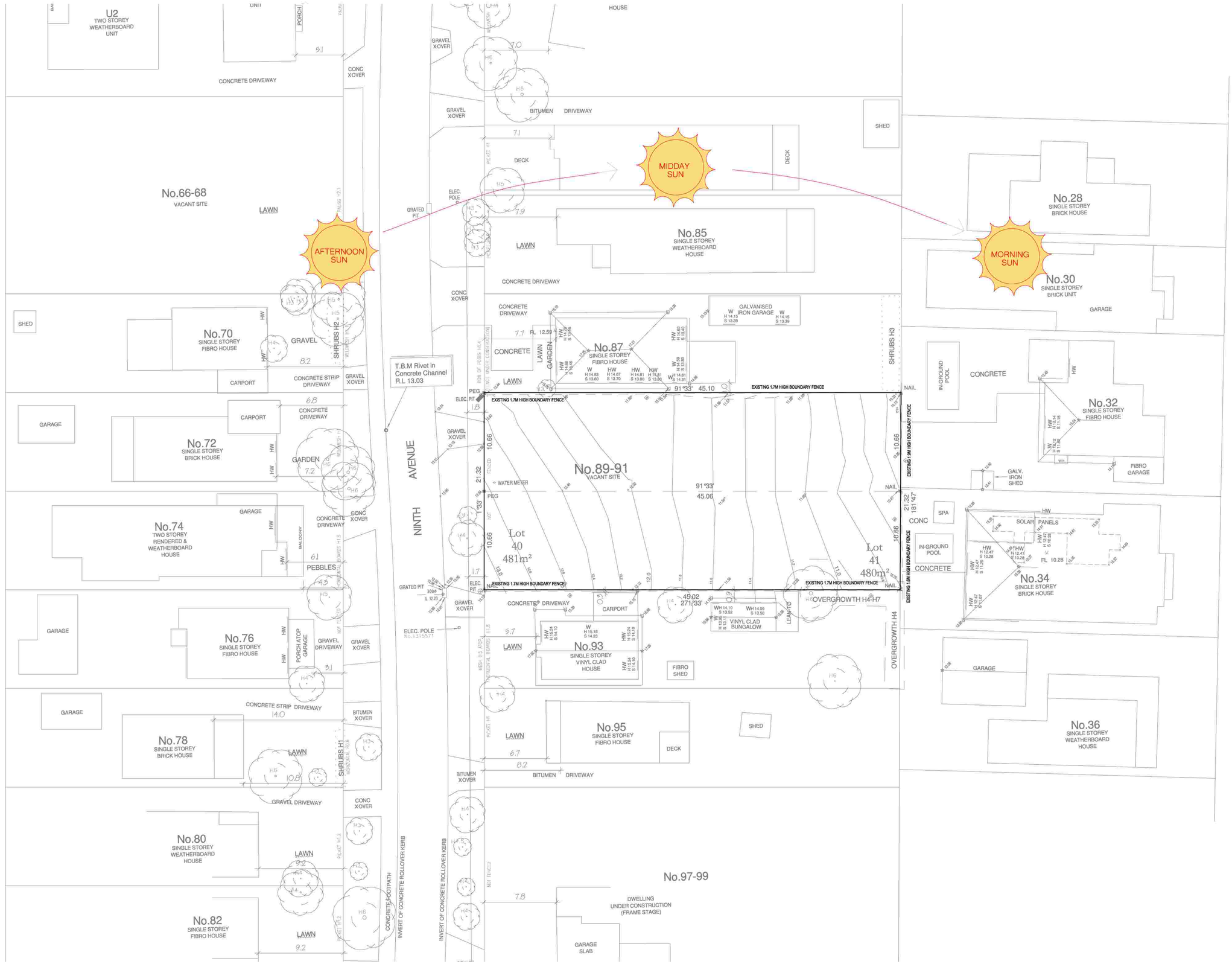

NEIGHBOURHOOD & SITE DESCRIPTION

THE SUBJECT STREET AND THE SURROUNDING NEIGHBOURHOOD IS GENERALLY COMPRISED OF SINGLE & DOUBLE STOREY BRICK & WEATHERBOARD DWELLINGS WITH PITCHED TILED ROOFS.

NEW & RECENT DEVELOPMENT IS COMMON THROUGHOUT THE AREA WITH EVIDENCE NEARBY OF UNIT DEVELOPMENTS, FRONT & BACKS AND DUPLEX TYPE FORMS. BUILDING MATERIALS ARE MIXED WITH DEVELOPMENT FOSTERING CONTEMPORARY MATERIALS THAT COMPLIMENT NEIGHBOURHOOD CHARACTER.

FRONT FENCES ARE UBIQUITOUS & GENERALLY LOW FORM WITH PREDOMINANTLY BRICK CONSTRUCTION TYPE BUT ALSO INCLUDING TIMBER PALING, PICKET AND RENDERED.

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NEIGHBOURHOOD & SITE DESCRIPTION

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

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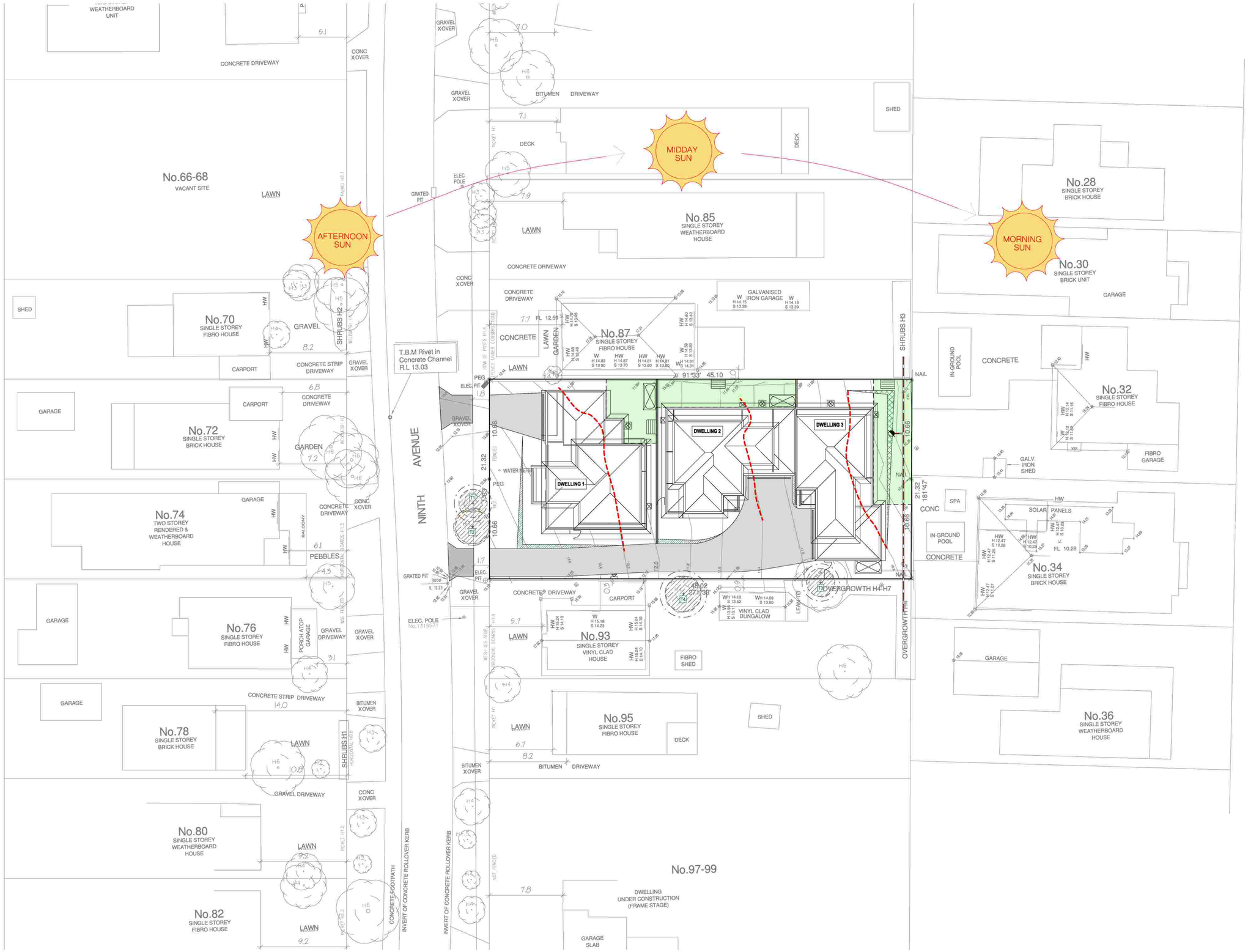

LEGEND:

- METER LOCATIONS.
- 2.0m BY 2.5m CORNER SPLAY, 50% CLEAN OF VISUAL OBSTRUCTIONS LESS THAN 900mm HIGH.
- SOLAR HOT WATER SYSTEM.
- RUBBISH / RECYCLE BINS.
- CLOTHESLINE.
- STEPPING STONES / PAVERS.
- DRIVEWAYS / HARD PAVING.
- FINISHED SURFACE LEVELS.
- EXISTING TREE.
- TREE TO BE REMOVED.
- PROPOSED CANOPY TREE.
- GRASSES / SMALL PLANTS.
- SMALL TREE / SHRUB.
- TREE PROTECTION ZONE.
- STRUCTURAL ROOT ZONE.

IMPORTANT NOTES

- ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7m ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.
- ALL LEVELS ARE TO A.H.D.
- PROPOSED INTERNAL FENCING TO BE 1.8m HIGH TIMBER PALINGS UNLESS OTHERWISE NOTED.
- ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY).
- ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.
- 6.00m³ CUBIC METERS OF STORAGE IS PROVIDED WITHIN GARDEN SHED UNLESS OTHERWISE NOTED.

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Revision

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DESIGN RESPONSE PLAN

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

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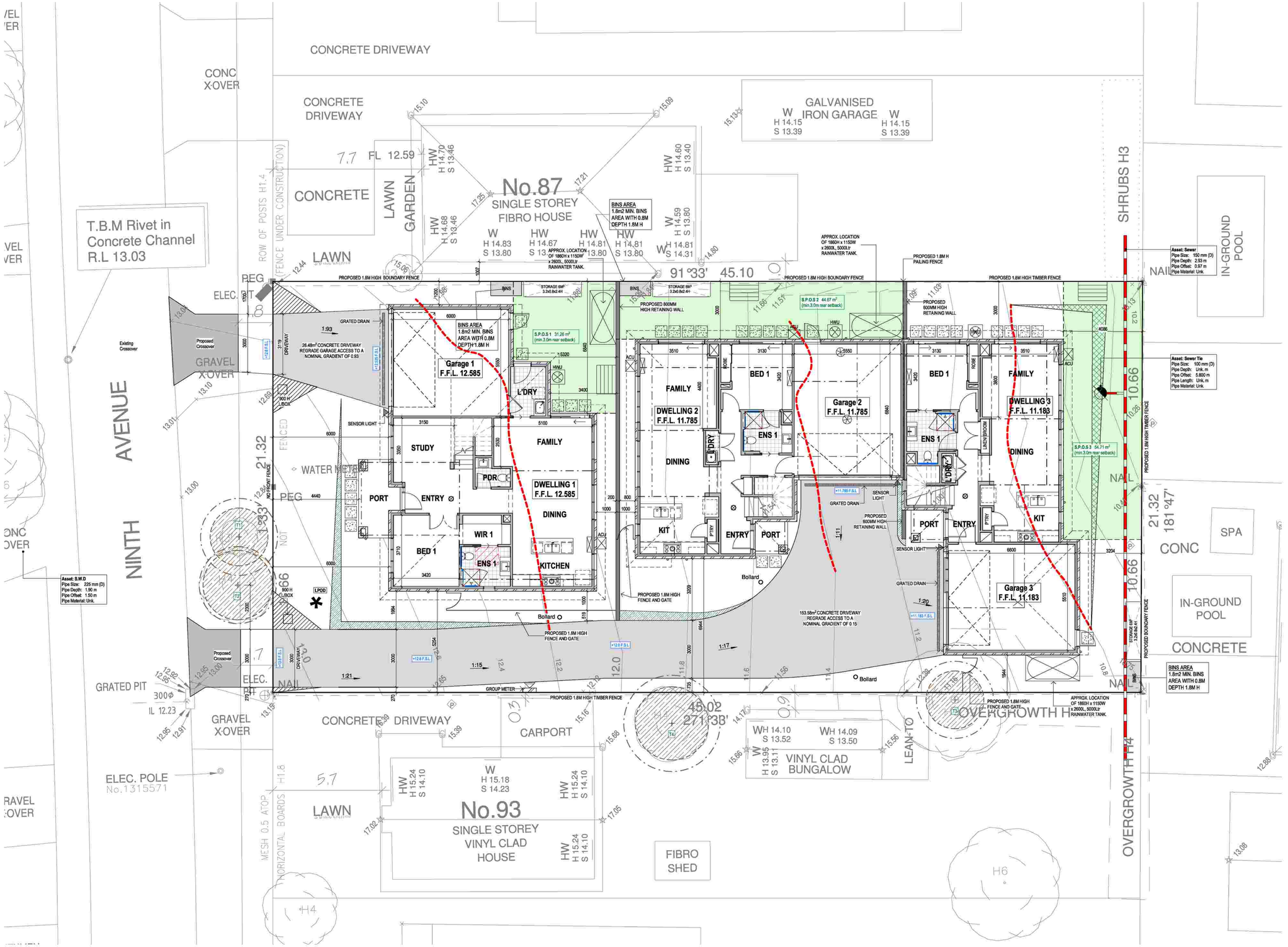

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- RUBBISH / RECYCLE BINS.
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- STEPPING STONES / PAVERS.
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SCHEDULE OF AREAS

Nº OF PROPOSED DWELLINGS		3	
AREA ANALYSIS			
SITE AREA		961.00 m²	
SITE COVERAGE		410.87 m²	42.75%
DRIVEWAY		150.92 m²	15.70%
PERMEABILITY ANALYSIS			
PERMEABLE AREA		399.21 m²	41.54%
GARDEN AREA		351.62 m²	36.59%
DWELLING 1			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	147.56 m²	15.35%
AREAS	FIRST FLOOR	69.60 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	31.26 m²	
DWELLING 2			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	135.33 m²	14.08%
AREAS	FIRST FLOOR	78.47 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	44.67 m²	
DWELLING 3			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	127.98 m²	13.32%
AREAS	FIRST FLOOR	78.96 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	54.71 m²	

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GROUND FLOOR AND SITE PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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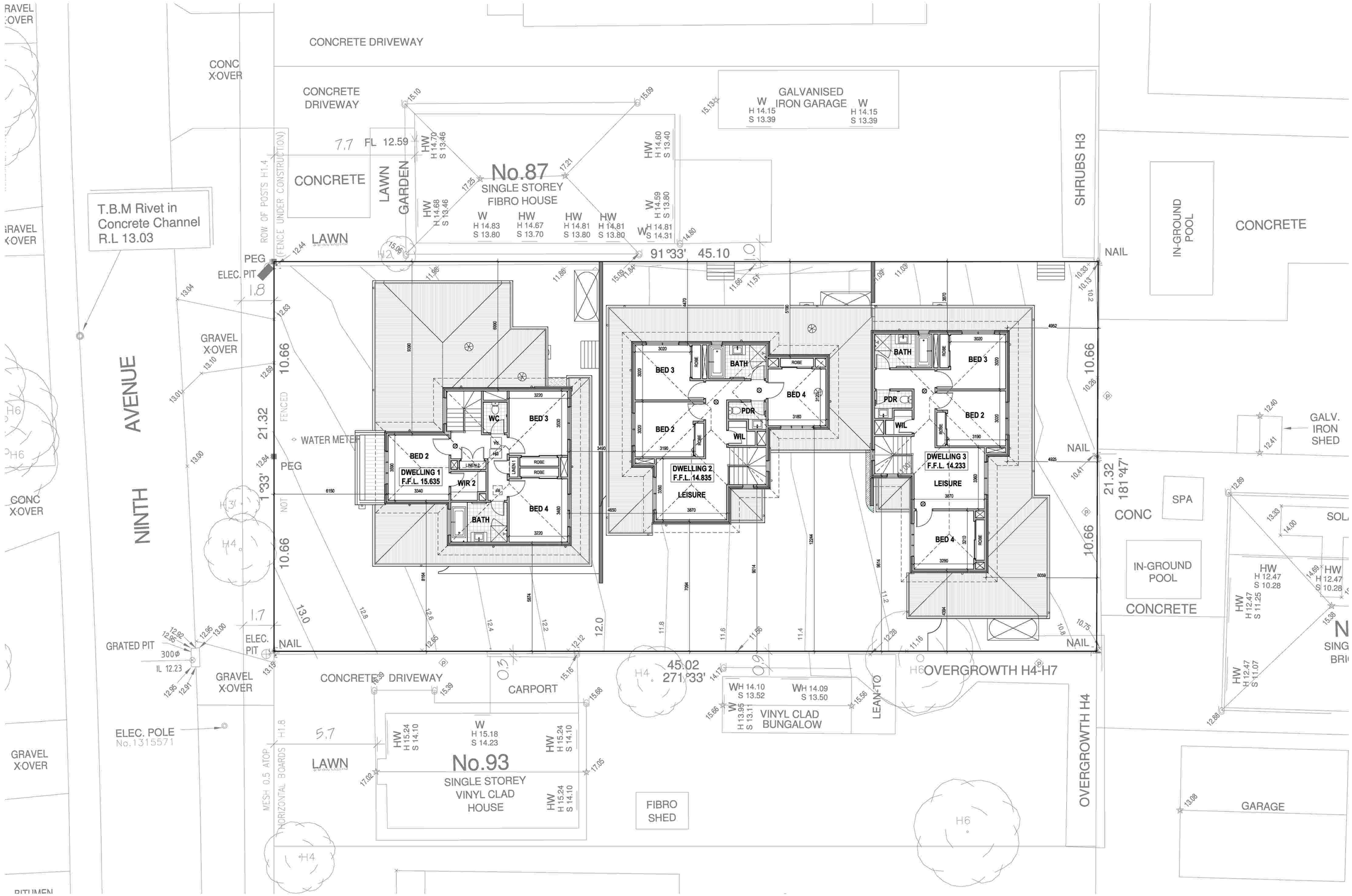

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FIRST FLOOR AND SITE PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

Drawn SS

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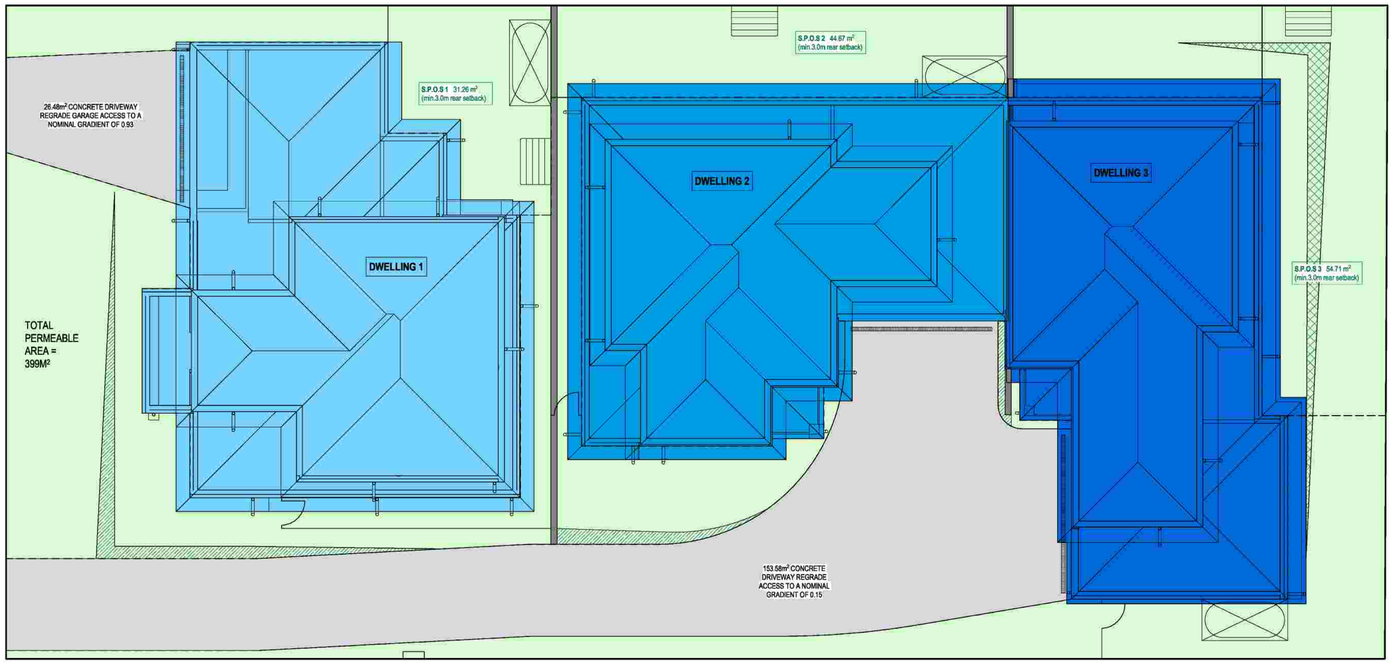

RAINWATER COLLECTION ON SUBJECT SITE (961m²) :

THE RAINWATER FROM DWELLING 1 ROOF CATCHMENT AREA OF 169.9m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 2 ROOF CATCHMENT AREA OF 158.87m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 3 ROOF CATCHMENT AREA OF 158.28m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

PERMEABLE GROUND 399.21m² (41.54%)

180.06m² NON PERMEABLE DRIVEWAY TO STORM WATER SYSTEM - NO TREATMENT

Project # 49AA56E7 - 758307/308/309 - Wang
lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
12 January 2026 8:51 a.m.

BLUE FACTOR.

758307/308/309 - Wang

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

102% SCORE

Project details

Name	758307/308/309 - Wang
Street address	lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
Municipality	Mornington Peninsula
Site area	961 m²
Planning Number	Not Applicable

Unit 1

Unit 1 Roof, 169.9m2

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 5,

Unit 1 Residential Townhouse, 4 bedroom(s)

Unit 2

Unit 2 Roof, 158.87m2

Rainwater Tank 2
Rainwater tank retention volume in kilolitres: 5,

Unit 2 Residential Townhouse, 4 bedroom(s)

Unit 3

Unit 3 Roof, 158.28m2

Rainwater Tank 3
Rainwater tank retention volume in kilolitres: 5,

Unit 3 Residential Townhouse, 4 bedroom(s)

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Revision

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WSUD PLAN

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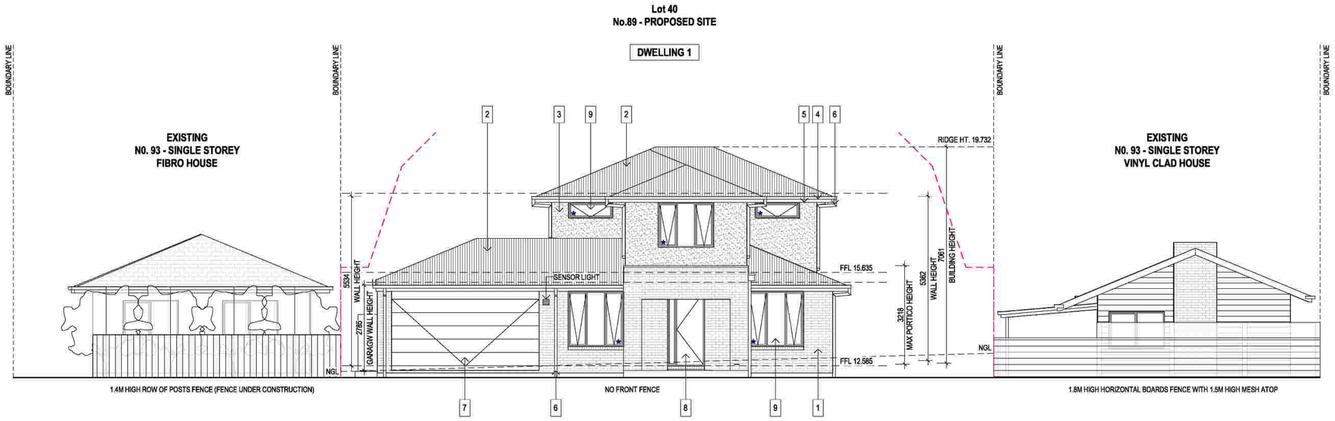
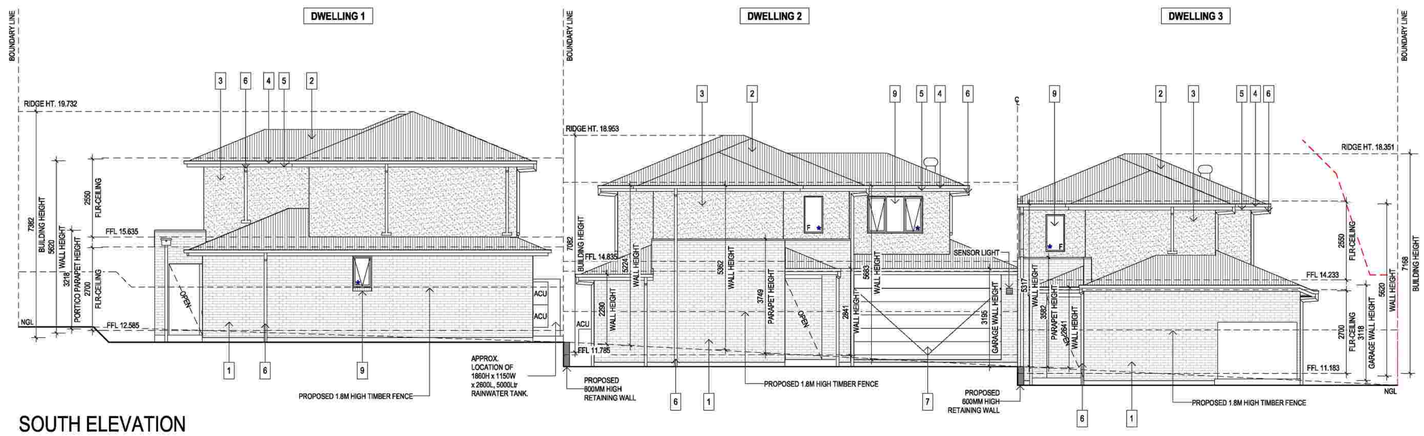
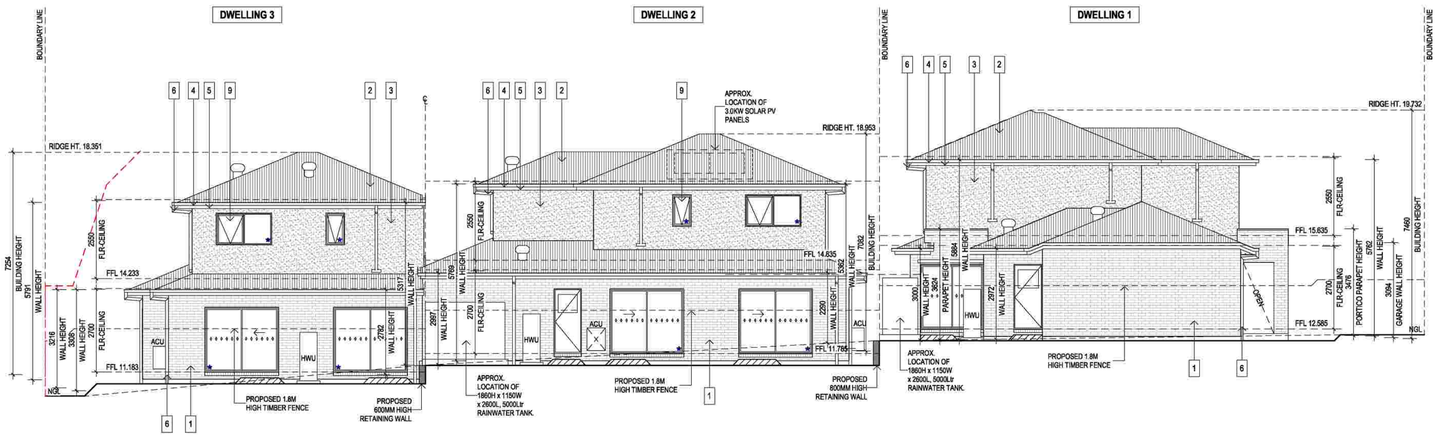


WEST ELEVATION NINTH AVENUE



SOUTH ELEVATION



NORTH ELEVATION

IMPORTANT NOTES

ALL LEVELS ARE TO A.H.D.

ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7M ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.

ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY) UNLESS OTHERWISE NOTED.

ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.

MATERIALS

1	SELECTED BRICKWORK
2	ROOF CLADDING
3	RENDER
4	GUTTER
5	FASCIA
6	DOWN PIPES
7	PANEL LIFT GARAGE DOOR
8	FRONT ENTRY DOOR
9	ALUMINIUM WINDOW FRAMES
10	WALL CLADDING
*	DENOTES DOUBLE GLAZING
	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

DualOcc

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ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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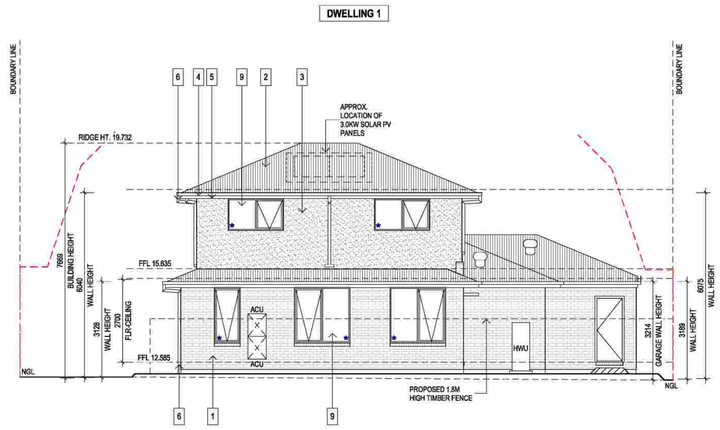
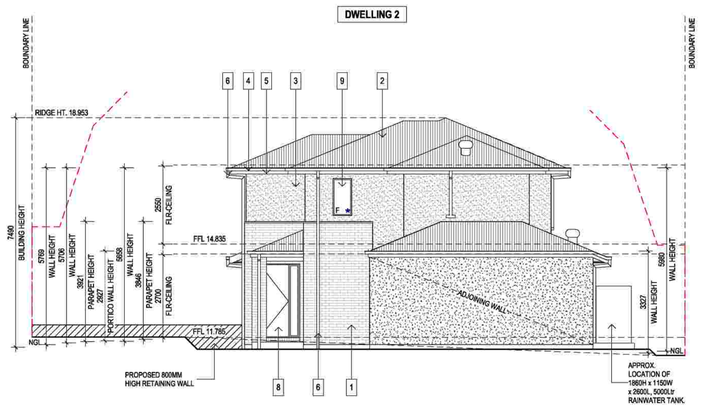
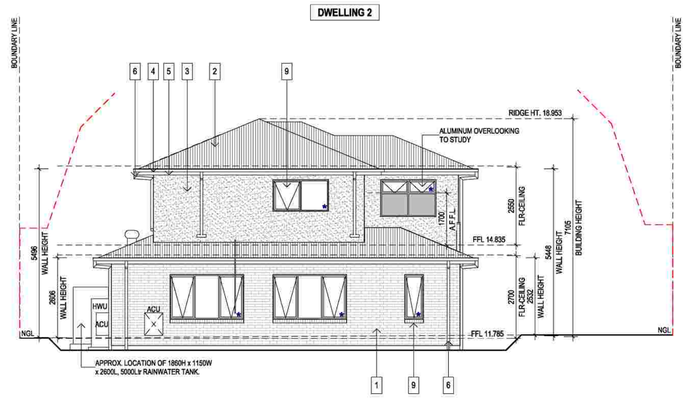


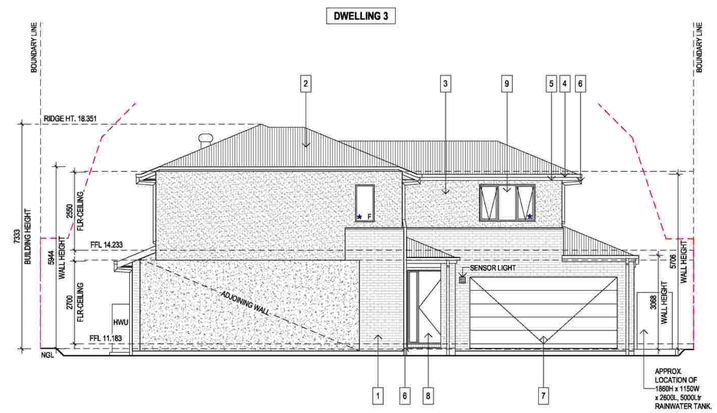
EAST ELEVATION DWELLING 1



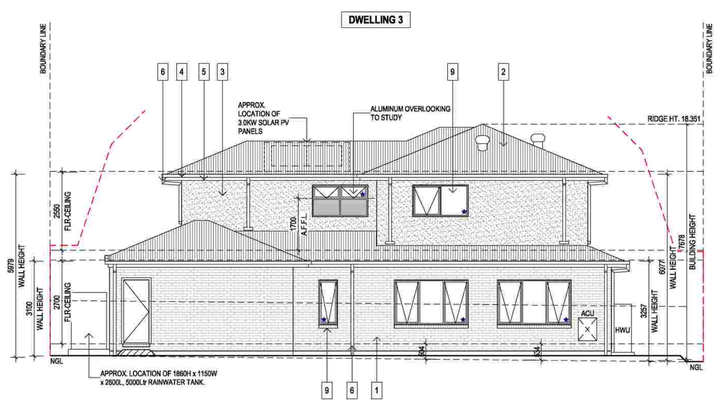
EAST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 3



EAST ELEVATION DWELLING 3

IMPORTANT NOTES

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	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

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ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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SHADOWCAST @ 9AM
1 : 200

SHADOWCAST @ 10AM
1 : 200

SHADOWCAST @ 11AM
1 : 200

SHADOWCAST @ 12PM
1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_9AM-12PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
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SHADOWCAST @ 1PM

1 : 200

SHADOWCAST @ 2PM

1 : 200

SHADOWCAST @ 3PM

1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_1PM-3PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

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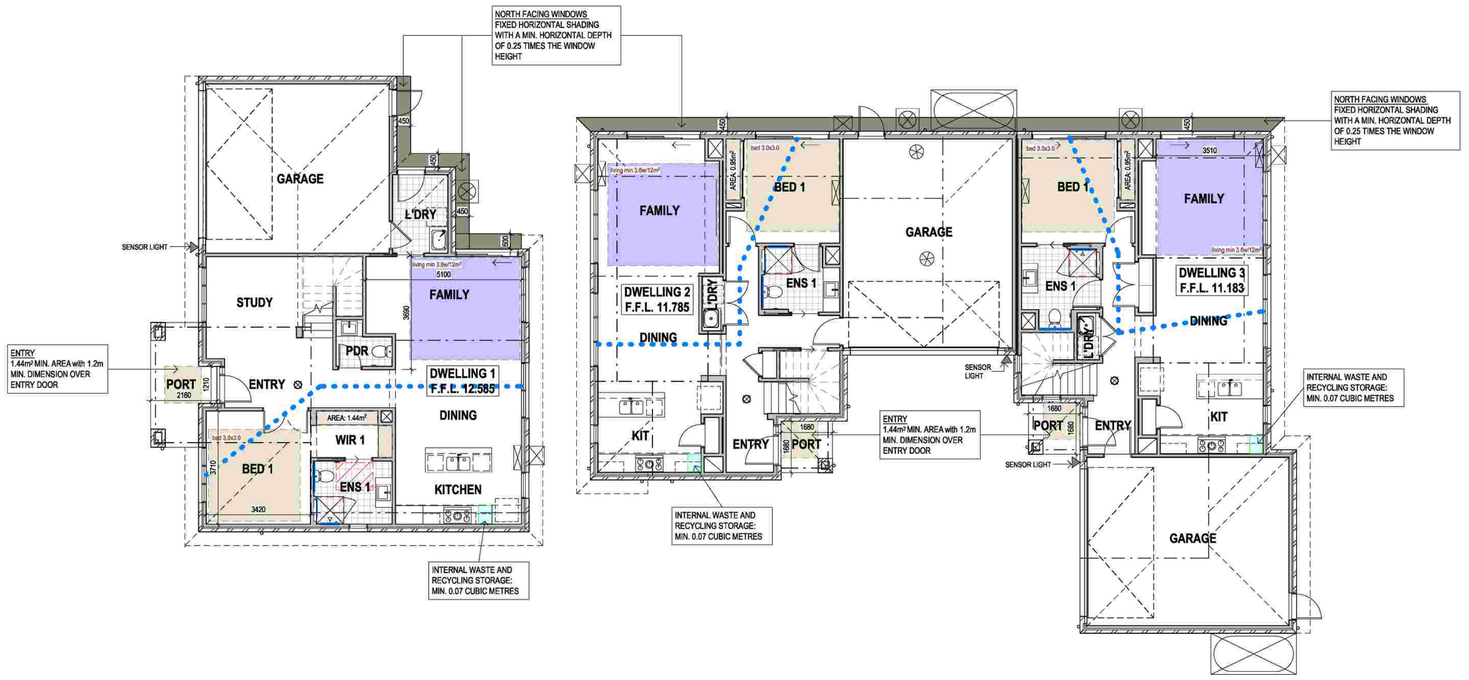


GROUND FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

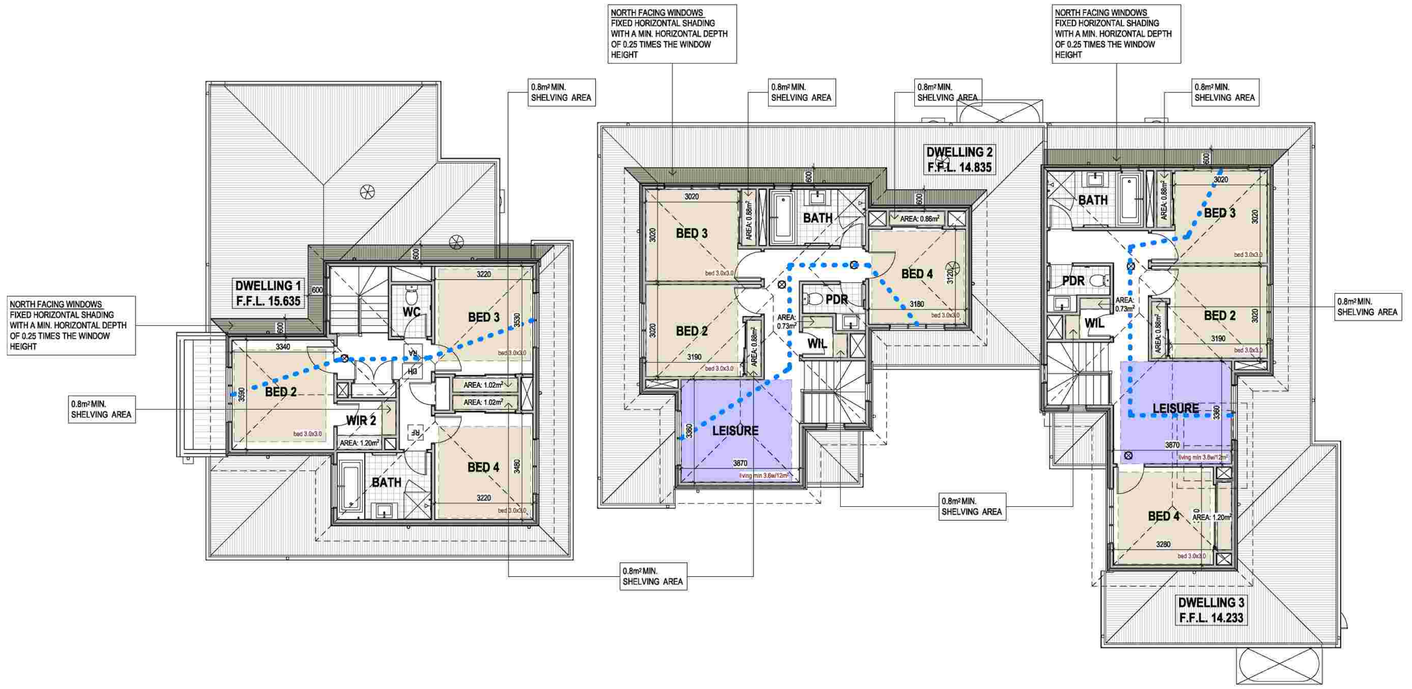
- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT

DWELLING 2 & 3

- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT



FIRST FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
  BED 2, BED 3, & BED 4 - COMPLIANT

DWELLING 2 & 3

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
  STUDY, BED 2, BED 3, & BED 4 - COMPLIANT

	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m² MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT.
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 REFERENCE

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

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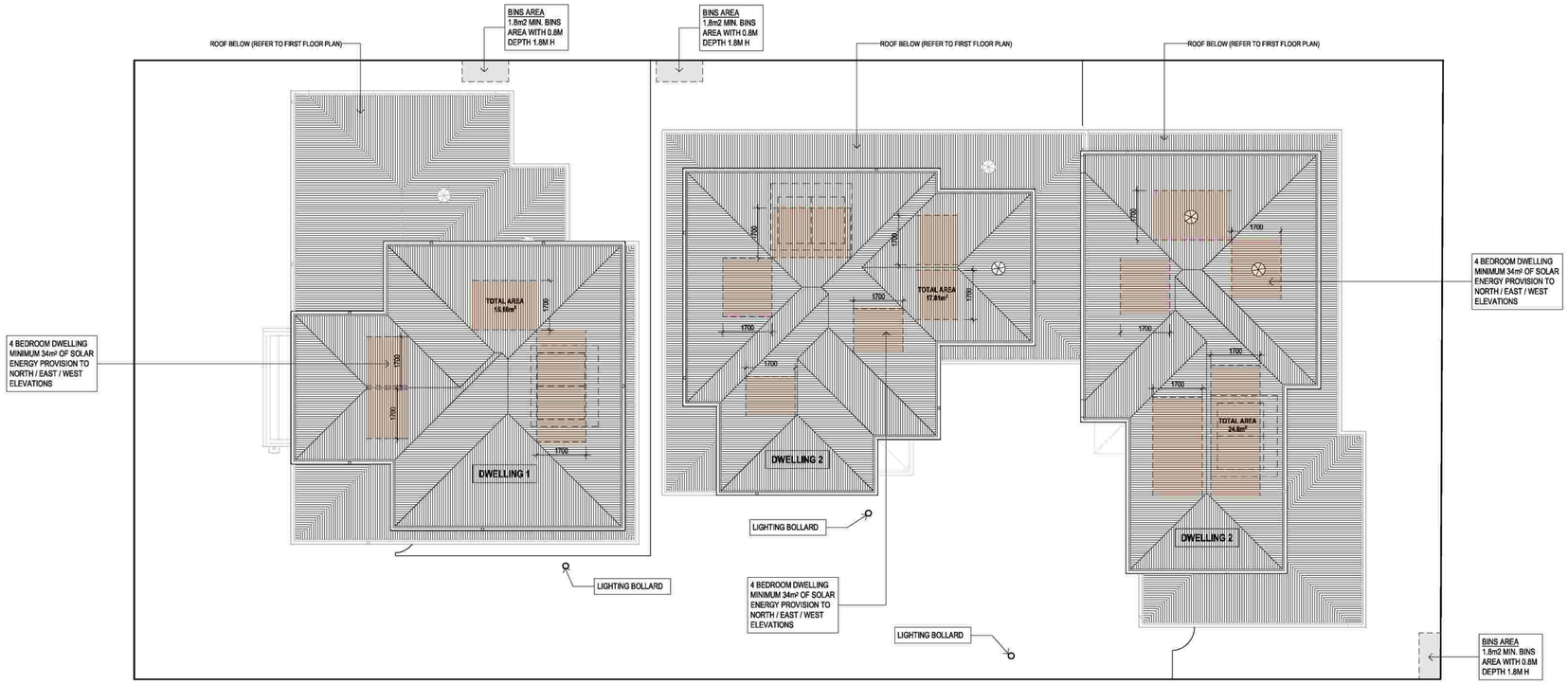
Document Set ID: 8884475
Version: 1, Version Date: 16/06/2026

TOTAL GARDEN AREA
351.621m²
(36.59%)

GROUND FLOOR PLAN GARDEN
1 : 100



	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m² MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT.
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

SITE PLAN - ROOF PLAN
1 : 100

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 GARDEN AREA

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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Version: 1, Version Date: 16/06/2026

NCC 2022

energy advance

ABCB NCC 2022 VOLUME TWO (AMENDMENT 2)

Nationally-Accredited NatHERS Energy Efficiency Assessment

Accredited Star Rating

7.3

REFERENCE

758308

SITE ADDRESS

Lot 40 (#89 Unit 2) Ninth Avenue ROSEBUD 3939

DWELLING TYPE

Double Storey

COMMISSIONED BY

Metricon Homes

ASSESSMENT DATE

15/05/2026

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Document Set ID: 6684479
Version: 1, Version Date: 16/06/2026

THE SUMMARY

Address	Lot 40 (#89 Unit 2) Ninth Avenue ROSEBUD 3939
Dwelling Type	Double Storey
State	Victoria
Site Exposure	Suburban
Ground Floor Type	Concrete Slab-on-Ground

Façade Facing
East

Garage Side (viewed from the front)
Right-Hand Side

NatHERS Climate Zone	62
FirstRate 5 Engine:	Chenath Engine 3.22
Certificate Number	AI7XZGSK6E
Accredited Star Rating	7.3

Modelled Wall Colour
Wall Colour: Medium

Modelled Roof Colour
Solar Absorptance: Medium roof colour

Modelled Glazing Frame Colour
Glazing Frame Colour: Medium

Conditioned Floor Area (m^2)	136.60
Unconditioned Floor (m^2)	6.40
Total (m^2)	143.00

	Area (m2)	Allowance (W/m2)	Total Maximum Watts
Class 1 Total Area	176.20	5.0	881.0
Class 10a Total Area	37.60	3.0	112.8
Total Outdoor Areas	3.24	4.0	13.0

Maximum Ceiling Insulation Penetration	Maximum Allowance	Maximum Penetration (m2)
	0.50%	0.88

If approved fireproof downlight covers, which can be fully covered by insulation, are specified and noted on the electrical plan by the building designer or architect or if IC4-rated downlights are installed, then there is no need to allow for the ceiling penetration.

ASSESSMENT CALCULATIONS & SOFTWARE RESULTS

	Target (MJ/m².pa)	Proposed (MJ/m².pa)	Efficiency Benchmark	
Heating:	80.0	66.2	Pass:	18.9%
Cooling:	22.0	11.8	Pass:	60.4%
Total:	102.0	78.0		

THE ANALYSIS

DWELLING OVERVIEW

Operational Energy and Emissions Summary

This home used approximately 2,512 kWh of heating energy, equivalent to driving a petrol car about 13,802 km and producing roughly 1,984 kg of CO_2 emissions. It also used around 448 kWh of cooling energy over the year, comparable to driving 2,460 km and generating about 354 kg of CO_2 emissions from fuel use.

HEATING PERFORMANCE

Heating performance is 19% above the benchmark for this climate zone.
Heating efficiency is strong; glazing, solar exposure and insulation appear to be working effectively.

In this cool-temperate climate zone, low heating demand confirms that insulation, glazing and winter solar design are performing effectively.

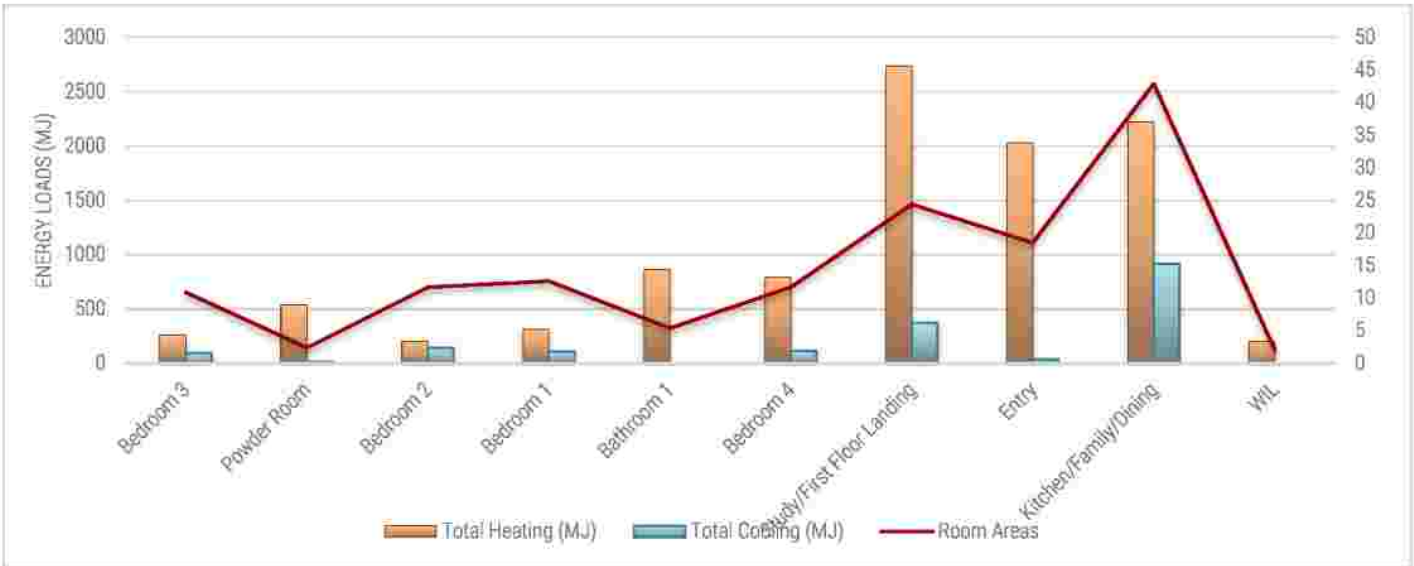
COOLING PERFORMANCE

Cooling performance is 60% above the benchmark for this climate zone.
Cooling efficiency is strong; external shading, reflective roofing and low-SHGC glazing appear to be working effectively.

In this cool-temperate climate zone, minimal cooling demand shows that shading, glazing and roof finish are well matched to local summer conditions.

Room-by-Room Energy Use Analysis

This chart shows how much energy each room needs to stay comfortable. Higher bars mean more energy needed to heat or cool that space. The line shows what's considered efficient for that room size. Bars above the line highlight where comfort is costing more energy than it should, and where upgrades can have the biggest impact.



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THE ANALYSIS

GLAZING & INSULATION

Understanding the Window Ratio

The ratio below shows the percentage of the dwelling's exterior that's made up of glass compared to the floor area. Ideally, a lower glazing ratio supports better thermal performance, helping reduce unwanted heat loss or gain, improving comfort and lowering energy bills.
In cool temperate regions, well-insulated and well-oriented glazing improves warmth and comfort during colder months without excessive heat loss.

OPTIMAL: Glazing sizes are fantastic for the best thermal efficiency.

20.6%

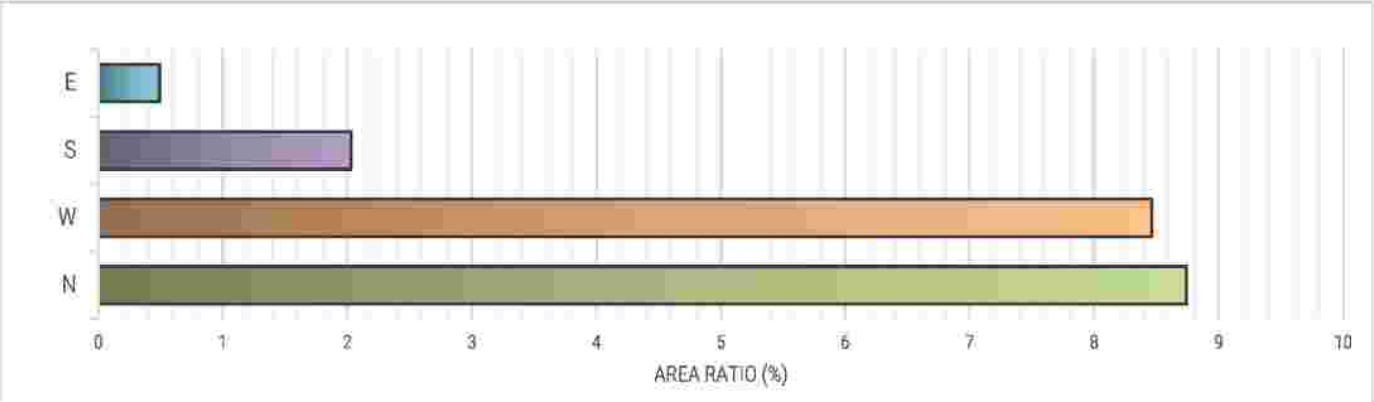
This dwelling's glazing ratio is fantastic, helping maintain a consistent temperature without excessive heating or cooling, leading to energy savings and a smaller environmental footprint. If the rating still falls below compliance, consider reviewing the orientation chart below to see if some windows or doors could be better positioned for natural light and shading balance. Prioritising north-facing glass and strong insulation will keep warmth inside during cooler months.

Sunlight, Heat and Glass: Orientation Overview

This dwelling's glazing distribution varies in suitability depending on the NatHERS climate zone (cool).

Glazing to the north totals 12.5 m² (8.7% of floor area). North glazing is highly beneficial for passive winter heating; ensure adequate area and good SHGC. Glazing to the west totals 12.1 m² (8.5% of floor area). West glazing causes summer heat and limited winter benefit; minimise or shade. Glazing to the south totals 2.9 m² (2.0% of floor area). South glazing should be moderate to reduce heat loss. Glazing to the east totals 0.7 m² (0.5% of floor area). East glazing provides little winter gain and can cause summer heat; modest areas are best.

Adjusting glazing proportions—especially in directions that introduce unnecessary heat gain or loss—can significantly improve comfort and energy efficiency.
Note: NatHERS modelling includes shading and eaves. This summary explains glazing orientation impacts within the climate context.



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THE ANALYSIS

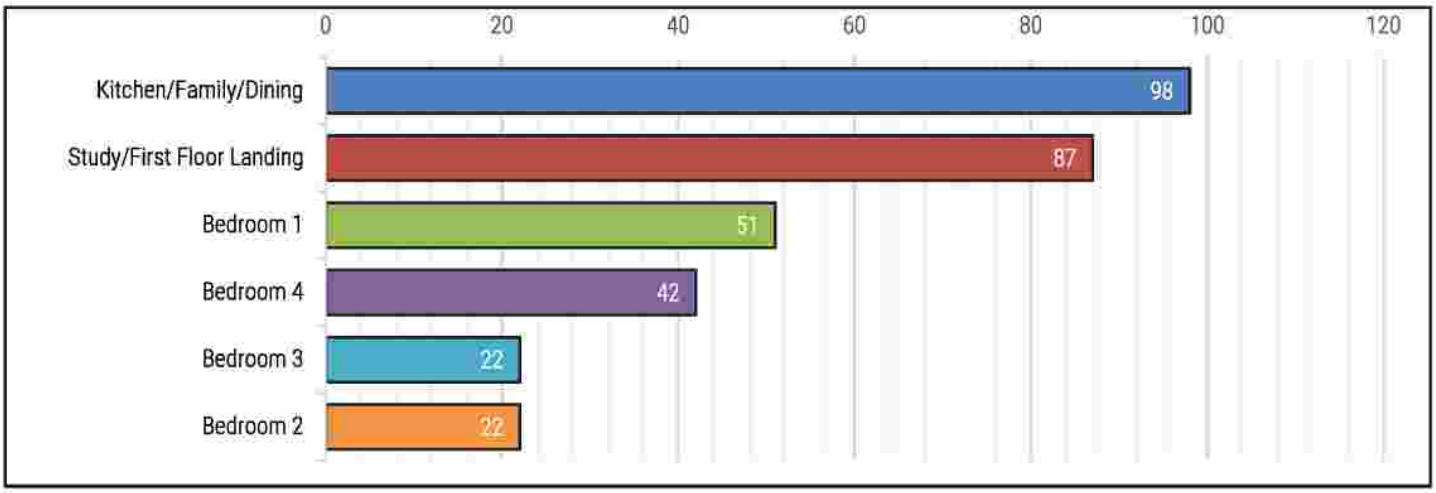
ENERGY IMPACT AND EFFECTIVENESS

Energy Advance Comfort & Performance Impact Index

The Impact Index is Energy Advance's combined performance score for each room. It incorporates climate zone, window-to-floor ratio, heating load, cooling load, and glazing behaviour to show which rooms have the strongest influence on overall energy performance. A higher Impact Index indicates a room where improvements will deliver greater comfort and efficiency gains.

In this home, the rooms with the highest Impact Index provide the best opportunity to improve comfort and reduce energy use through glazing or possible insulation upgrades.

Rooms with higher Impact Index scores offer the greatest "bang for buck." Upgrades in these areas have the strongest effect on overall energy performance, making them the most effective places to focus improvement efforts.



Wall Power Factor

The Wall Power Factor shows how much of your home's external shell can be improved through insulation. It compares the insulatable wall area with the total area of walls, windows and external doors.
A higher factor means insulation upgrades can meaningfully improve performance, while a lower factor indicates glazing has a greater influence than insulation.

78% Good Potential

A large share of your home's external envelope can accept upgraded insulation, offering good potential for meaningful improvements to both comfort and efficiency. Insulation upgrades help to reduce heating and cooling demand and support more consistent indoor conditions throughout the year.

While glazing does affect thermal performance, upgraded wall insulation remains an important pathway to improving overall energy efficiency and achieving a higher star rating.

PRELIMINARY REPORT
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SPECIFICATIONS NOTED BELOW: BASE SPEC

THE SPECIFICATIONS

Walls

CONSTRUCTION TYPE AND INSULATION	FRAME TYPE	LOCATION	THERMAL BREAK?
WDF | Brick Veneer | R2.5 Insulation | VP Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	Timber	Internal	N/A
WDF | Brick Veneer | Uninsulated | VP Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	Timber	Internal	N/A
OTH | Double Leaf Brick Wall 110mm | Uninsulated	None	External	None
WDF | Partiwall | R2.5 Insulation | No Wrap	Timber	External	N/A
WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | R2.0 Insulation | No Wrap	Timber	Internal	N/A

ADDITIONAL NOTES

Internal wall insulation: Garage, Laundry and Bathroom walls only

Wall Colour: Medium

Roof and Ceiling

CONSTRUCTION TYPE	CEILING INSULATION (R)	SARKING	THERMAL BREAK?	BLANKET (R)
Ceiling with Floor Above	None	No	No	None
Tiled Roof	2.5	No	No	None
Tiled Roof	6.0	No	No	None
Tiled Roof	None	No	No	None

ADDITIONAL NOTES

Solar Absorptance: Medium roof colour

Ceiling Insulation to the House Area only

Floor

CONSTRUCTION TYPE	VENTILATION	FLOOR INSUL (R)	SLAB EDGE (R)	FLOOR AREAS (m^2)
85mm Concrete | 300mm Waffle	Enclosed	Integrated	None	117.0
Framed Suspended Floor | Uninsulated	Enclosed	None	None	58.0
Framed Suspended Floor | R4.1 Insulation	Enclosed	4.1	None	11.7

ADDITIONAL NOTES

Glazing

Glazing Frame Colour: Medium

WERS CODE*	CHARACTERISTIC	TYPE	U_w-VALUE	$SHGC_w$	AREA (m^2)	AS-BUILT GLAZING TYPES
WAS-013-01 A	152 S. Double Glazing	Sliding Door	3.64	0.65	10.08	SSW-040-002
CAS-006-08 A	150 S. Double Glazing	Awning Window	3.35	0.54	10.56	SSW-026-300
A&L-026-01 A	150 S. Double Glazing	Fixed Window	3.12	0.69	7.50	SSW-030-003

This double storey has been modelled with restricted window openings (%) as per NCC Protection of Openable Windows Advisory Note.

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THE REGULATIONS

13.7.1 Application of Part 13.7

(1) This Part applies to (a)a Class 1 building, (b)a Class 10a building, and (c)a Class 10b swimming pool associated with a Class 1 or 10a building.
(2) Part 13.7 must be applied as directed in H6D2(2).

13.7.2 Insulation of services

Thermal insulation for central heating water piping and heating and cooling ductwork must—
(a)be protected against the effects of weather and sunlight, and (b)be able to withstand the temperatures within the piping or ductwork; and (c) use thermal insulation material by AS/NZS 4859.1.

13.7.3 Central heating water piping

(1) Central heating water piping that is not within a conditioned space must be thermally insulated to achieve the minimum material R-Values as set out in (2) to (6).
(2) Internal piping including— (a)flow and return piping that is— (i)within an unventilated wall space or
(ii)within an internal floor between storeys; or (iii)between ceiling insulation and a ceiling and
(b)heated water piping encased within a concrete floor slab (except that which is part of a floor heating system), must, in all climate zones, have a minimum material R-Value of 0.4.
(3) Piping located within a ventilated wall space, an enclosed building subfloor or a roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (5).
(4) Piping located outside the building or in an unenclosed building subfloor or roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (6).
(5) Piping referred to in (3) must have a minimum material R-Value of— (a)in climate zones 1, 2, 3 and 5 — 0.6; and
(b)in climate zones 4, 6 and 7 — 0.9; and (c)in climate zone 8 — 1.3.
(6)Piping referred to in (4) must have a minimum material R-value of—
(a)in climate zones 1, 2, 3 and 5 — 0.6; and (b)in climate zones 4, 6 and 7 — 1.3; and (c) in climate zone 8 — 1.3.

13.7.4 Heating and cooling ductwork

(1) Heating and cooling ductwork and fittings must—
(a)achieve the material R-Value in (4), and (b)be sealed against air loss— (i)by closing all openings in the surface, joints and seams of ductwork with adhesives, mastics, sealants or gaskets by AS 4254.1 and AS 4254.2 for a Class C seal; or (ii)for flexible ductwork, with a draw band in conjunction with a sealant or adhesive tape.
(2) Duct insulation must— (a)abut adjoining duct insulation to form a continuous barrier and
(b)be installed so that it maintains its position and thickness, other than at flanges and supports; and where located outside the building, under a suspended floor, in an attached Class 10a building or in a roof space— (i)be protected by an outer sleeve of protective sheeting to prevent the insulation becoming damp, and (ii)have the outer protective sleeve sealed with adhesive tape not less than 48 mm wide creating an airtight and waterproof seal.
(3) The requirements of (1) do not apply to heating and cooling ductwork and fittings located within the insulated building envelope including a service riser within the conditioned space, internal floors between storeys and the like.
(4)The material R-Value required by (1)(a) must be determined by the following: (a)In a heating-only system or cooling-only system including an evaporative cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1 to 7 — 1.0; and (B)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(b)In a combined heating and refrigerated cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1, 3, 4, 6 and 7 — 1.5; and (B)in climate zones 2 and 5 — 1.0; and (C)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(c)For (b)(i), the minimum material R-value required for ductwork may be reduced by 0.5 for combined heating and refrigerated cooling systems in climate zones 1, 3, 4, 6 and 7 if the ducts are— (i)under a suspended floor with an enclosed perimeter; or in a roof space that has an insulation of greater than or equal to R0.5 directly beneath the roofing.

PRELIMINARY REPORT
COMPLIANCE STAMP NOT REQUIRED

THE REGULATIONS

13.7.5 Electric resistance space heating

An electric resistance space heating system that serves more than one room must have— (a)separate isolating switches for each room and
(b)a separate temperature controller and time switch for each group of rooms with common heating needs and
(c) power loads of not more than 110 W/m2 for living areas, and 150 W/m2 for bathrooms.

13.7.6 Artificial lighting

(1)The lamp power density or illumination power density of artificial lighting, excluding heaters that emit light, must not exceed the allowance of— (a)5 W/m2 in a Class 1 building and (b)4 W/m2 on a Verandah, balcony or the like attached to a Class 1 building; and (c)3 W/m2 in a Class 10a building associated with a Class 1 building.

(2) The illumination power density allowance in (1) may be increased by dividing it by the relevant illumination power density adjustment factor for a control device in (6) as applicable.
(3) When designing the lamp power density or illumination power density, the power of the proposed installation must be used rather than nominal allowances for exposed batten holders or luminaires.
(4) If halogen lamps are installed, they must be separately switched from fluorescent lamps.
(5) Artificial lighting around the perimeter of a building must— (a)be controlled by a daylight sensor or (b)have an average light source efficacy of not less than 40 Lumens/W.
(6) The following illumination power density adjustment factors apply to control devices for artificial lighting:
(a)Lighting timer for corridor lighting: 0.7. Motion detector —(i)(A) at least 75% of the area of space is controlled by one or more motion detectors; or
(b)an area of less than 200 m2 is switched as a block by one or more motion detectors; and (i)0.7, where up to 6 lights are switched as a block by one or more detectors; and (ii)0.55, where up to 2 lights are switched as a block by one or more detectors.
(c)Manual dimming system where not less than 75% of the space area is controlled by manually operated dimmers: 0.85.
(d)Programmable dimming system where not less than 75% of the space area is controlled by programmable dimmers: 0.85.
(e)Dynamic dimming system, with automatic compensation for lumen depreciation, the design lumen depreciation factor is not less than — (i)0.9 for fluorescent lights or (ii)0.8 for high-pressure discharge lights.
(f)Fixed dimming where at least 75% of the area is controlled by fixed dimmers that reduce the overall lighting level and the power consumption of the lighting — equal to the % of full power to which the dimmer is set divided by 0.95.
(g)Daylight sensor and dynamic lighting control device, with dimmed or stepped switching of lights adjacent to windows: (i)Lights within the space adjacent to windows other than roof lights for a distance from the window equal to the depth of the floor at window head height: 0.5. (ii)Lights within the space adjacent to roof lights: 0.6.
(7) For (6)(c), manual dimming is where lights are controlled by a knob, slider, or other mechanism or where there are pre-selected scenes that are manually selected.
(8) For (6)(d), programmed dimming is where pre-selected scenes or levels are automatically selected by the time of day, photoelectric cell, or occupancy sensor.
(9) For (6)(e), dynamic dimming is where the lighting level is varied automatically by a photoelectric cell to either proportionately compensate for the availability of daylight or the lumen depreciation of the lamps.
(10) For (6)(f), fixed dimming is where lights are controlled to a level, and that level cannot be adjusted by the user.
(11) For (6)(g)(i) and (ii), the illumination power density adjustment factor is only applied to lights controlled by that item — this adjustment factor does not apply to tungsten halogen or other incandescent sources.

13.7.7 Water heater in a heated water supply system

A water heater in a heated water supply system must be designed and installed by Part B2 of NCC Volume Three — Plumbing Code of Australia.

13.7.8 Swimming pool heating and pumping

(1) Heating for a swimming pool must be by— (a)a solar heater not boosted by electric resistance heating or
(b)a heater using reclaimed energy, (c)a gas heater, or (d)a heat pump, or (e)a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the swimming pool must have— (a)a cover with a minimum R-Value of 0.05 unless located in a conditioned space and (b)a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a swimming pool.
(4) For the purposes of 13.7.8, a swimming pool does not include a spa pool.

13.7.9 Spa pool heating and pumping

(1) Heating for a spa pool that shares a water recirculation system with a swimming pool must be by— (a)a solar heater or
(b)a heater using reclaimed energy or a gas heater, or (d) (e) a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the spa pool must have— (a)a cover and (b)a push button and a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a spa pool having a capacity of 680 L or more.

PRELIMINARY REPORT
COMPLIANCE STAMP NOT
REQUIRED

Nationwide House Energy Rating Scheme® NatHERS® Certificate No. AI7XZGSK6E

Generated on 15 May 2026 using FirstRate5: 5.5.5a (3.22)

Property

Address	2, Lot 40 (#89 Unit 2) Ninth Avenue ROSEBUD, 3939, VIC, 3939
Lot/DP	40
NCC Class*	Class 1a
Floor/all Floors	
Type	New Home

Plans

Main plan	758308
Prepared by	Metricon Homes

Construction and environment

Assessed floor area [m²]*		**Exposure type**
Conditioned*	136.6	suburban
Unconditioned*	44	**NatHERS climate zone**
Total	180.6	62 Moorabbin Airport
Garage	37.6	

Accredited assessor

Name	Claude-Francois Sookloll
Business name	Energy Advance
Email	energy@energyadvance.com.au
Phone	1300 850 228
Accreditation No.	DMN/14/1662
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

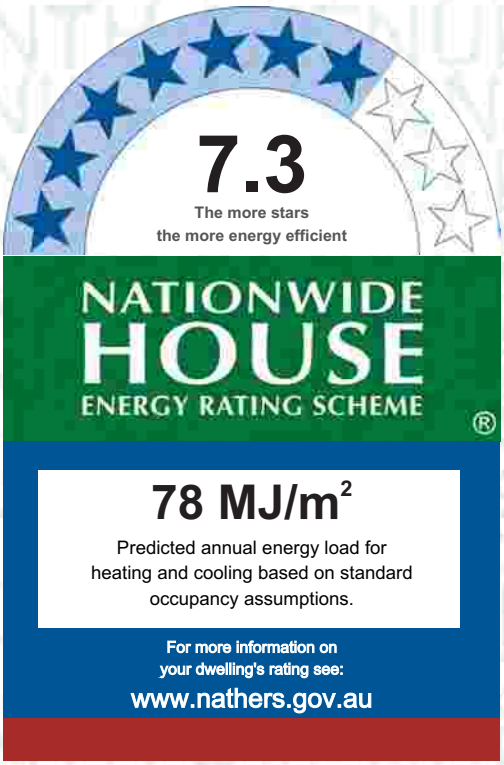
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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

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

Thermal performance star rating



Thermal performance [MJ/m²]

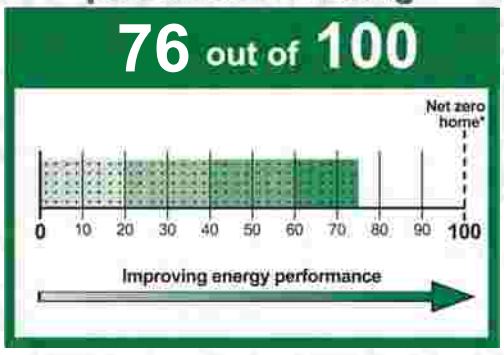
Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	66.2	11.8
Load limits	80	22

Features determining load limits

Floor type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	N
Outdoor living area	N
Outdoor living area ceiling fan	N

Whole of Home performance rating



Verification

To verify this certificate, scan the QR code or visit https://www.fr5.com.au/QRCodeLanding?PublicId=AI7XZGSK6E When using either link, ensure you are visiting www.fr5.com.au.

*Refer to glossary.

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

Your Whole of Home energy use* rating excluding onsite renewable energy generation is **46 out of 100**

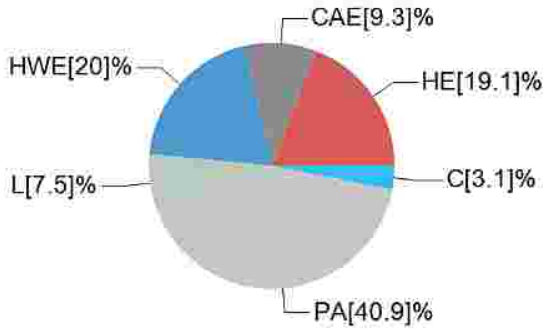
This home's annual greenhouse gas emissions: 1617kg CO2e (with solar) 6374kg CO2e (without solar)

Predicted annual electricity generated: 4248kWh
Exported to the grid: 55%
Used by the home: 45%

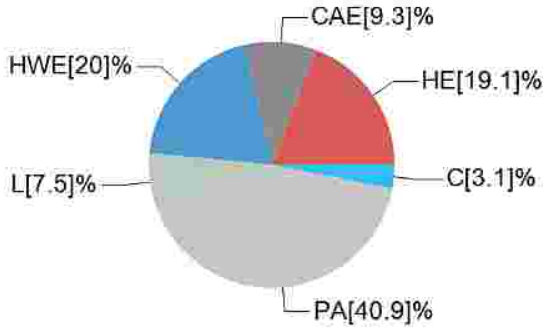
Predicted Whole of Home annual impact by appliance

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

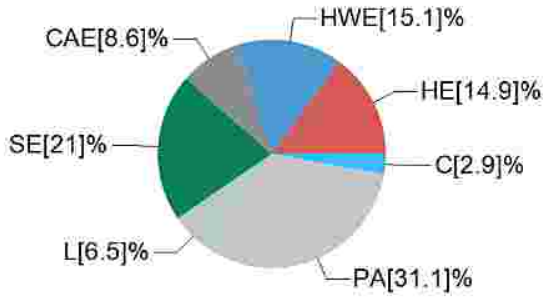
Energy use:



Greenhouse gas emissions:



Cost:



Graph key:

Colour:	Code:	Name:	Fuel type:
	HE	Heating	electric
	HG	Heating	gas
	HW	Heating	wood
	C	Cooling	electric
	HWE	Hot water	electric
	HWG	Hot water	gas
	HWW	Hot water	wood
	L	Lights	electric
	P	Pool/Spa equipment	electric
	PA	Plug-in appliances	electric
	CAE	Cooking appliances	electric
	CAG	Cooking appliances	gas
	SG	Supply charge	gas
	SE	Supply charge	electric

*Refer to glossary.

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		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
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?	☐	☐	☐	☐	☐
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?			☐	☐	☐
External walls					
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?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the *'External wall type'* table on this Certificate?	☐	☐	☐	☐	☐
Floor					
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?	☐	☐	☐	☐	☐
Ceiling penetrations*					
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?	☐	☐	☐	☐	☐
Ceiling					
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?	☐	☐	☐	☐	☐
Roof					
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?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 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".	☐	☐		☐	☐
Heating and cooling load limits*					
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?	☐	☐	☐	☐	☐

*Refer to glossary.

Certificate check

Continued

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in *'Additional notes'* table below?	☐	☐			
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

BCA Climate Zone 6

Please note, a non-reflective vapour permeable wall wrap has been modelled throughout the external walls of this dwelling.

Eaves indicated by the 'Horizontal shading feature* maximum projection (mm)' may not be directly opposing the respective wall (i.e. some eaves may be horizontally offset).

Where applicable, an additional 150mm has been added to the projection of all 'Horizontal shading features & eaves' to account for the Gutter & Fascia Board.

Please note, restricted window openings (%) have been modelled as per NCC requirements.

*Refer to glossary.

Please note, IC/IC-F Class Downlights have been nominated to this dwelling.

Where applicable, proxy WERS codes may be used to meet U-Value and SHGC limitations while maintaining compliance.

Proxy codes refer to performance values from a comparable product when exact test data for the selected window or glazed door is unavailable.

The selected window or glazed door must have a U-Value lower than the value indicated, and the SHGC must be within +/-5% of the specified value to comply.

*Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m²]
Bedroom 1	bedroom	12.6
Bathroom 1	dayTime	5.4
Entry	dayTime	18.5
Kitchen/Family/Dining	kitchen	42.9
Garage	garage	37.6
Bedroom 2	bedroom	11.7
Bedroom 3	bedroom	10.9
Bedroom 4	bedroom	11.7
WIL	dayTime	2.1
Powder Room	dayTime	2.4
Bathroom 2	unconditioned	6.4
Study/First Floor Landing	dayTime	24.4

Window and glazed door *type and performance*

Default* windows

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

Custom* windows

				Substitution tolerance ranges	
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
WAS-013-01 A	Sliding Door 22mm DG 4/14Ar/4	3.64	0.65	0.62	0.68
CAS-006-08 A	Genesis Awning Window DG 3-12Ar-4EA	3.35	0.54	0.51	0.57
A&L-026-01 A	AI Boutique Fixed Lite Window DG 3/12/3	3.12	0.69	0.66	0.72

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	WAS-013-01 A	Opening 21	2100	2400	sliding	45.0	N	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 15	1500	600	awning	90.0	W	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 16	1500	1584	awning	45.0	W	No

*Refer to glossary.

Kitchen/Family/-Dining	A&L-026-01 A	Opening 17	1500	816	fixed	0.0	W	No
Kitchen/Family/-Dining	CAS-006-08 A	Opening 18	1500	1584	awning	45.0	W	No
Kitchen/Family/-Dining	A&L-026-01 A	Opening 19	1500	816	fixed	0.0	W	No
Kitchen/Family/-Dining	WAS-013-01 A	Opening 20	2100	2400	sliding	45.0	N	No
Bedroom 2	CAS-006-08 A	Opening 22	1000	900	awning	90.0	W	No
Bedroom 2	A&L-026-01 A	Opening 23	1000	900	fixed	0.0	W	No
Bedroom 3	CAS-006-08 A	Opening 31	1000	900	awning	90.0	N	No
Bedroom 3	A&L-026-01 A	Opening 32	1000	900	fixed	0.0	N	No
Bedroom 4	CAS-006-08 A	Opening 28	1200	1188	awning	90.0	S	No
Bedroom 4	A&L-026-01 A	Opening 29	1200	612	fixed	0.0	S	No
Bathroom 2	CAS-006-08 A	Opening 30	1000	600	awning	90.0	N	No
Study/First Floor Landing	CAS-006-08 A	Opening 24	1200	900	awning	90.0	W	No
Study/First Floor Landing	A&L-026-01 A	Opening 25	1200	900	fixed	0.0	W	No
Study/First Floor Landing	A&L-026-01 A	Opening 26	1200	600	fixed	0.0	S	No
Study/First Floor Landing	A&L-026-01 A	Opening 27	1200	600	fixed	0.0	E	No

Roof window* *type and performance value*

Default* roof windows

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

Custom* roof windows

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

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

*Refer to glossary.

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orient-ation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Entry	2040	820	100.0	E
Garage	2040	820	100.0	N
Garage	2170	4810	100.0	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No
2	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | Uninsulated | VP Wrap	0.5	Medium		No
3	NCC 2022 MISC - OTH | Double Leaf Brick Wall 110mm | Uninsulated	0.5	Medium		No
4	NCC 2022 STANDARD - TIMBER - WDF | Partiwall | R2.5 Insulation | No Wrap	0.5	Medium	Glass fibre batt: R2.5 (R2.5);Glass fibre batt: R2.5 (R2.5)	No
5	NCC 2022 VAPOUR - TIMBER - WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (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)
Bedroom 1	1	2700	3683	N	592	Yes
Entry	1	2700	1927	E	1820	Yes
Entry	1	2700	2164	S	1820	Yes
Entry	1	2700	2146	E	0	Yes
Entry	1	2700	1528	S	603	Yes
Kitchen/Family/Dining	1	2700	10900	W	600	Yes
Kitchen/Family/Dining	1	2700	4077	S	600	Yes
Kitchen/Family/Dining	1	2700	4077	N	601	Yes
Garage	2	2700	5515	N	601	Yes
Garage	3	2700	5515	S	0	Yes
Garage	4	2700	6823	E	0	No

*Refer to glossary.

Bedroom 2	5	2400	3387	W	650	Yes
Bedroom 2	5	2400	1052	S	650	Yes
Bedroom 3	5	2400	3570	N	651	No
Bedroom 3	5	2400	3014	W	661	No
Bedroom 4	5	2400	3166	N	650	Yes
Bedroom 4	5	2400	3165	S	650	Yes
Bedroom 4	5	2400	3701	E	650	Yes
WIL	5	2400	772	E	652	Yes
Powder Room	5	2400	188	E	0	Yes
Bathroom 2	5	2400	3462	N	658	No
Bathroom 2	5	2400	720	E	650	Yes
Study/First Floor Landing	5	2400	3076	W	650	Yes
Study/First Floor Landing	1	875	3848	S	605	No
Study/First Floor Landing	5	1525	3848	S	650	No
Study/First Floor Landing	1	875	1919	E	605	Yes
Study/First Floor Landing	5	1525	1919	E	650	Yes
Study/First Floor Landing	1	875	2148	S	605	Yes
Study/First Floor Landing	5	1975	2148	S	650	Yes
Study/First Floor Landing	1	875	2054	E	615	Yes
Study/First Floor Landing	5	1975	2054	E	660	Yes

Internal wall *type*

Wall ID	Wall type	Area [m²]	Bulk insulation
1	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	106.5	
2	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	17.8	Glass fibre batt: R2.5 (R2.5)
3	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.0 Insulation | No Wrap	15	Glass fibre batt: R2.0 (R2.0)

Floor *type*

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	8.5	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	1.7	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	2.4	Enclosed	R0.0	Carpet
Bathroom 1	FLOOR - 85mm Concrete | 300mm Waffle	5.4	Enclosed	R0.0	Tiles

*Refer to glossary.

Entry	FLOOR - 85mm Concrete | 300mm Waffle	4.3	Enclosed	R0.0	Carpet
Entry	FLOOR - 85mm Concrete | 300mm Waffle	1.4	Enclosed	R0.0	Tiles
Entry	FLOOR - 85mm Concrete | 300mm Waffle	12.9	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	29.9	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	2.3	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	0.8	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	2.7	Enclosed	R0.0	Tiles
Kitchen/Family/D- ining	FLOOR - 85mm Concrete | 300mm Waffle	7.2	Enclosed	R0.0	Tiles
Garage	FLOOR - 85mm Concrete | 300mm Waffle	13.8	Enclosed	R0.0	none
Garage	FLOOR - 85mm Concrete | 300mm Waffle	23.8	Enclosed	R0.0	none
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	1.9	Enclosed	R0.0	Carpet
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	9.8	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	8.2	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	2.8	Enclosed	R0.0	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | R4.1 Insulation	7.7	Enclosed	R4.1	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | R4.1 Insulation	4.1	Enclosed	R4.1	Carpet
WIL	FLOOR - Framed Suspended Floor | Uninsulated	1.8	Enclosed	R0.0	Carpet
WIL	FLOOR - Framed Suspended Floor | Uninsulated	0.4	Enclosed	R0.0	Carpet
Powder Room	FLOOR - Framed Suspended Floor | Uninsulated	0.3	Enclosed	R0.0	Tiles

*Refer to glossary.

Powder Room	FLOOR - Framed Suspended Floor | Uninsulated	2.2	Enclosed	R0.0	Tiles
Bathroom 2	FLOOR - Framed Suspended Floor | Uninsulated	4.5	Enclosed	R0.0	Tiles
Bathroom 2	FLOOR - Framed Suspended Floor | Uninsulated	1.9	Enclosed	R0.0	Tiles
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	16.3	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	2.5	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	1.6	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	4	Enclosed	R0.0	Carpet

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Bedroom 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Bedroom 1	Plasterboard	R2.5	No
Bedroom 1	Plasterboard	R6.0	No
Bathroom 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Kitchen/Family/D- ining	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Kitchen/Family/D- ining	Plasterboard	R6.0	No
Kitchen/Family/D- ining	Plasterboard	R2.5	No
Kitchen/Family/D- ining	Plasterboard	R6.0	No

*Refer to glossary.

Kitchen/Family/D- ining	Plasterboard	R2.5	No
Garage	FLOOR - Framed Suspended Floor | R4.1 Insulation	R4.1	No
Garage	Plasterboard	R0.0	No
Bedroom 2	Plasterboard	R2.5	No
Bedroom 2	Plasterboard	R6.0	No
Bedroom 3	Plasterboard	R6.0	No
Bedroom 3	Plasterboard	R2.5	No
Bedroom 4	Plasterboard	R6.0	No
Bedroom 4	Plasterboard	R2.5	No
WIL	Plasterboard	R6.0	No
Powder Room	Plasterboard	R6.0	No
Bathroom 2	Plasterboard	R6.0	No
Bathroom 2	Plasterboard	R2.5	No
Study/First Floor Landing	Plasterboard	R6.0	No
Study/First Floor Landing	Plasterboard	R6.0	No
Study/First Floor Landing	Plasterboard	R2.5	No
Study/First Floor Landing	Plasterboard	R2.5	No

Ceiling *penetrations**

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bedroom 1	3	Downlights	0	0	Sealed
Bathroom 1	1	Exhaust Fans	250	250	Sealed
Bathroom 1	2	Downlights	0	0	Sealed
Entry	1	Exhaust Fans	250	250	Sealed
Entry	4	Downlights	0	0	Sealed
Kitchen/Family/Dining	1	Exhaust Fans	250	250	Sealed
Kitchen/Family/Dining	9	Downlights	0	0	Sealed
Bedroom 2	3	Downlights	0	0	Sealed
Bedroom 3	3	Downlights	0	0	Sealed
Bedroom 4	3	Downlights	0	0	Sealed
WIL	1	Downlights	0	0	Sealed
Powder Room	1	Exhaust Fans	250	250	Sealed
Powder Room	1	Downlights	0	0	Sealed
Bathroom 2	1	Exhaust Fans	250	250	Sealed
Bathroom 2	2	Downlights	0	0	Sealed
Study/First Floor Landing	5	Downlights	0	0	Sealed

*Refer to glossary.

Ceiling *fans*

Location	Quantity	Diameter [mm]
No Data Available		

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Disc:Attic-Discontinuous	0.0	0.5	Medium

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
Room refrigerative - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	6.3kW
Unknown or none (Default - Room refrigerative - variable capacity)	Bedroom 1, Bedroom 3, Study/First Floor Landing, Entry, Bathroom 1, Wil, Powder Room, Bedroom 2, Bedroom 4	Electricity	2 Star (ZERL)	13.8kW

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Room RAC - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	2.6kW
Unknown or none (Default - Room RAC - variable capacity)	Bedroom 1, Bedroom 3, Study/First Floor Landing, Entry, Bathroom 1, Wil, Powder Room, Bedroom 2, Bedroom 4	Electricity	1 Star (ZERL)	6.7kW

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load

*Refer to glossary.

Heat pump (continuous)	Electricity	29 STCs	4	27	123L

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

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
Solar PV	2°	3kW

Battery *schedule*

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

System type	Size [battery storage capacity]
No Data Available	

*Refer to glossary.

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

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
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, 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.
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.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	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).
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.
Net zero home	a home that achieves a net zero energy value*.
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
Recommended capacity	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.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap 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 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.

*Refer to glossary.

STCs	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
Thermal breaks	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.
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).
Window shading device	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)

*Refer to glossary.

LOT 40 (NO. 89) NINTH AVENUE, ROSEBUD VIC. 3939

DRAWING LIST

SHEET No.	SHEET NAME
TP00	COVER SHEET
TP01	NEIGHBOURHOOD & SITE DESCRIPTION
TP02	DESIGN RESPONSE PLAN
TP03	GROUND FLOOR AND SITE PLAN
TP04	FIRST FLOOR AND SITE PLAN
TP05	WSUD PLAN
TP06	ELEVATIONS
TP07	ELEVATIONS
TP08	SHADOWCAST_9AM-12PM_SEPTEMBER 22ND
TP09	SHADOWCAST_1PM-3PM_SEPTEMBER 22ND
TP10	CLAUSE 55 REFERENCE

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

COVER SHEET

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

Certificate No. # AI7XZGSK6E

Scan QR code or follow website link for rating details.

Assessor name	Claude-Francois Sookloll
Accreditation No.	DMN/14/1662
Property Address	2, Lot 40 (#89 Unit 2) Ninth Avenue ROSEBUD, 3939, VIC, 3939

https://www.fr5.com.au/QRCodeLanding?PublicId=AI7XZGSK6E

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NEIGHBOURHOOD & SITE DESCRIPTION

THE SUBJECT STREET AND THE SURROUNDING NEIGHBOURHOOD IS GENERALLY COMPRISED OF SINGLE & DOUBLE STOREY BRICK & WEATHERBOARD DWELLINGS WITH PITCHED TILED ROOFS.

NEW & RECENT DEVELOPMENT IS COMMON THROUGHOUT THE AREA WITH EVIDENCE NEARBY OF UNIT DEVELOPMENTS, FRONT & BACKS AND DUPLEX TYPE FORMS. BUILDING MATERIALS ARE MIXED WITH DEVELOPMENT FOSTERING CONTEMPORARY MATERIALS THAT COMPLIMENT NEIGHBOURHOOD CHARACTER.

FRONT FENCES ARE UBIQUITOUS & GENERALLY LOW FORM WITH PREDOMINANTLY BRICK CONSTRUCTION TYPE BUT ALSO INCLUDING TIMBER PALING, PICKET AND RENDERED.

STREET

SPRAY

MIDDAY SUN

AFTERNOON SUN

MORNING SUN

NINTH AVENUE

Lot 40 481m²

Lot 41 480m²

No.89-91 VACANT SITE

No.87 SINGLE STOREY FIBRO HOUSE

No.85 SINGLE STOREY WEATHERBOARD HOUSE

No.93 SINGLE STOREY VINYL CLAD HOUSE

No.95 SINGLE STOREY FIBRO HOUSE

No.97-99 DWELLING UNDER CONSTRUCTION (FRAME STAGE)

No.66-68 VACANT SITE

No.70 SINGLE STOREY FIBRO HOUSE

No.72 SINGLE STOREY BRICK HOUSE

No.74 TWO STOREY RENDERED & WEATHERBOARD HOUSE

No.76 SINGLE STOREY FIBRO HOUSE

No.78 SINGLE STOREY BRICK HOUSE

No.80 SINGLE STOREY WEATHERBOARD HOUSE

No.82 SINGLE STOREY FIBRO HOUSE

No.28 SINGLE STOREY BRICK HOUSE

No.30 SINGLE STOREY BRICK UNIT

No.32 SINGLE STOREY FIBRO HOUSE

No.34 SINGLE STOREY BRICK HOUSE

No.36 SINGLE STOREY WEATHERBOARD HOUSE

U2 TWO STOREY WEATHERBOARD UNIT

T.B.M Rivet in Concrete Channel R.L 13.03

EXISTING 1.7M HIGH BOUNDARY FENCE

EXISTING 1.8M HIGH BOUNDARY FENCE

91°33' 45.10

91°33' 45.06

45.02 271°33'

21.32 181°47'

10.66

Revision

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DualOcc

NEIGHBOURHOOD & SITE DESCRIPTION

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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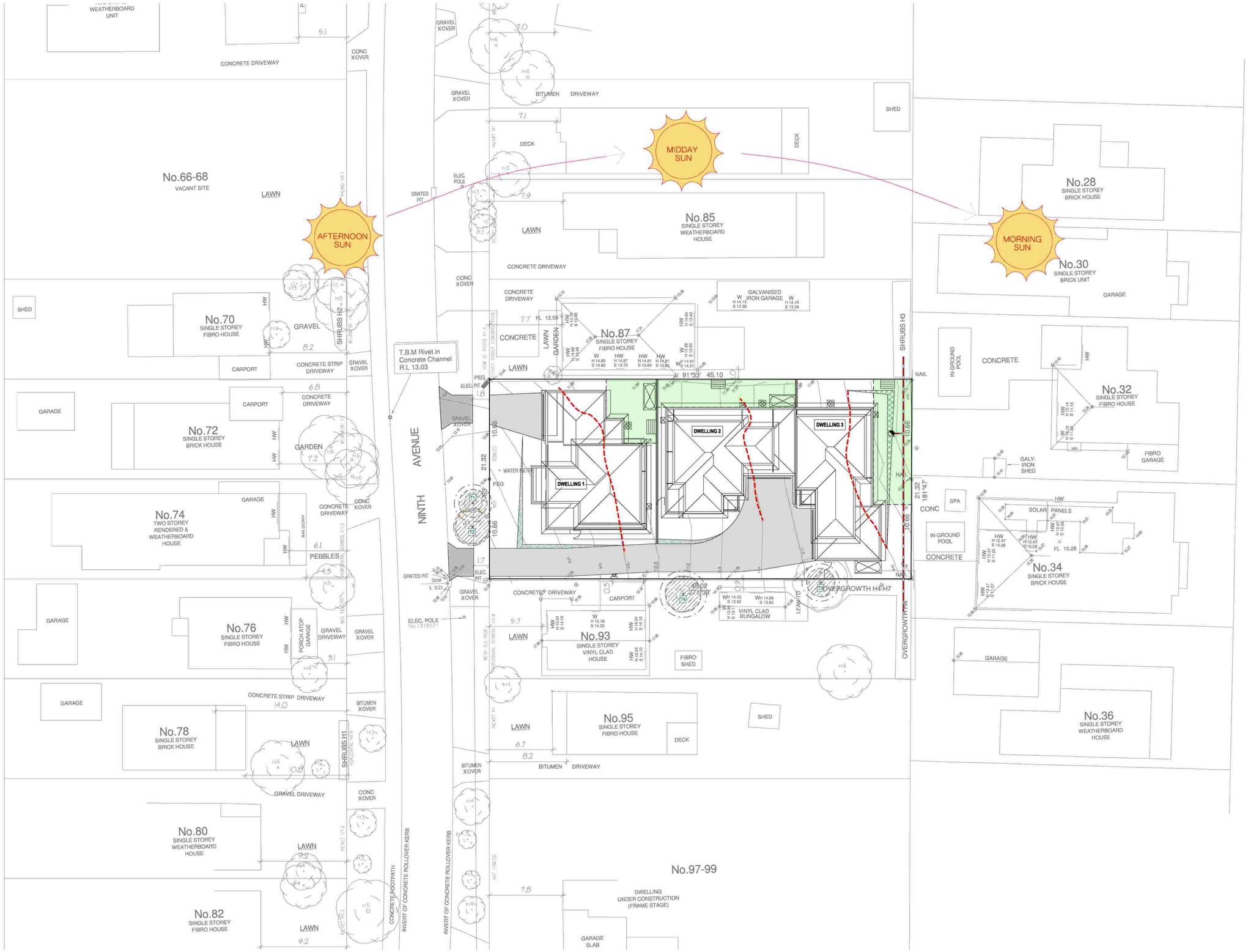

LEGEND:

- METER LOCATIONS.
- 2.0m BY 2.5m CORNER SPLAY, 50% CLEAN OF VISUAL OBSTRUCTIONS LESS THAN 900mm HIGH.
- SOLAR HOT WATER SYSTEM.
- RUBBISH / RECYCLE BINS.
- CLOTHESLINE.
- STEPPING STONES / PAVERS.
- DRIVEWAYS / HARD PAVING.
- FINISHED SURFACE LEVELS.
- EXISTING TREE.
- TREE TO BE REMOVED.
- PROPOSED CANOPY TREE.
- GRASSES / SMALL PLANTS.
- SMALL TREE / SHRUB.
- TREE PROTECTION ZONE.
- STRUCTURAL ROOT ZONE.

IMPORTANT NOTES

- ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7m ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.
- ALL LEVELS ARE TO A.H.D.
- PROPOSED INTERNAL FENCING TO BE 1.8m HIGH TIMBER PALINGS UNLESS OTHERWISE NOTED.
- ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY).
- ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.
- 6.00m³ CUBIC METERS OF STORAGE IS PROVIDED WITHIN GARDEN SHED UNLESS OTHERWISE NOTED.

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DESIGN RESPONSE PLAN

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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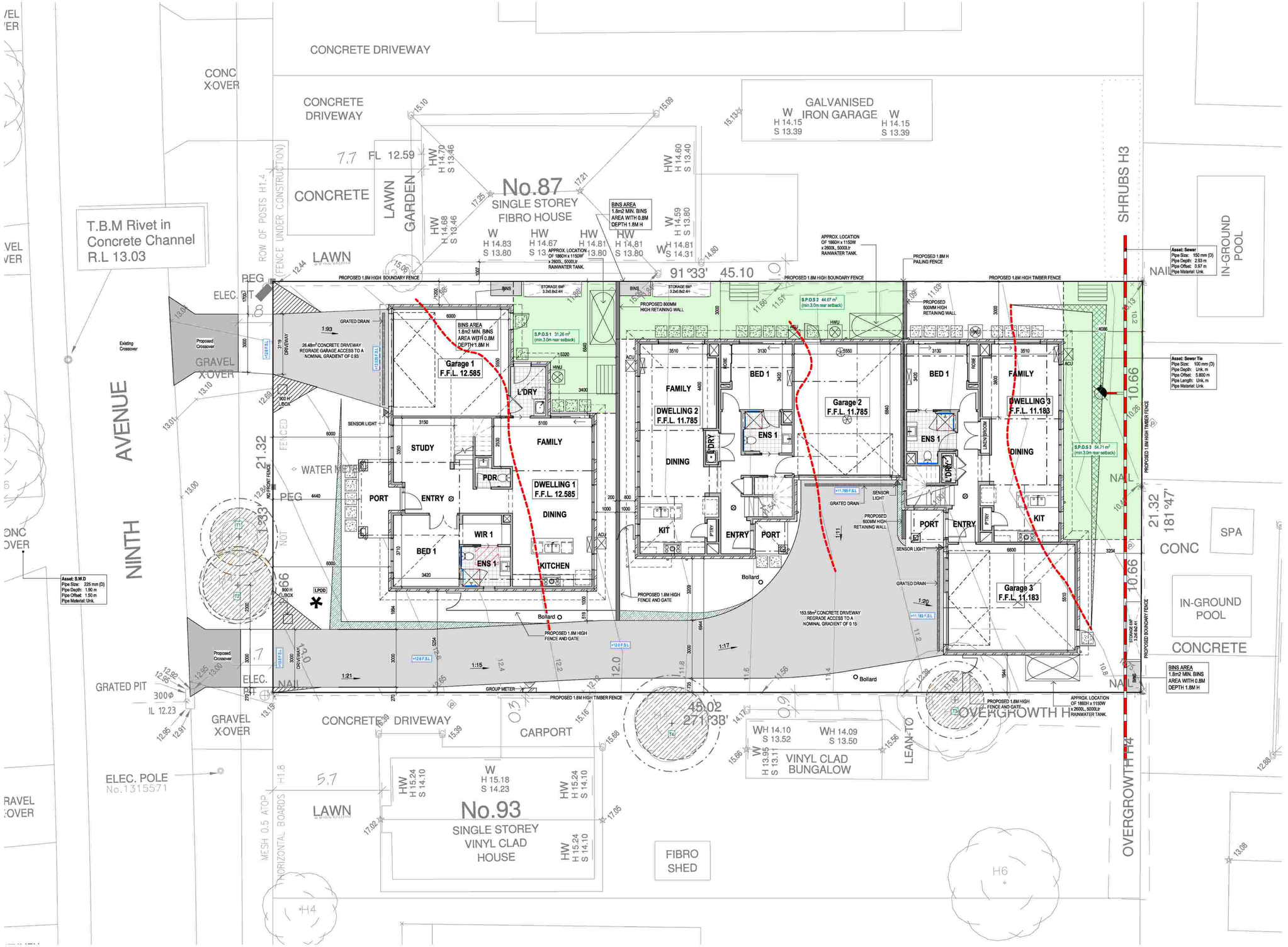

LEGEND:

- METER LOCATIONS.
- 2.0m BY 2.5m CORNER SPLAY, 50% CLEAN OF VISUAL OBSTRUCTIONS LESS THAN 900mm HIGH.
- SOLAR HOT WATER SYSTEM.
- RUBBISH / RECYCLE BINS.
- CLOTHESLINE.
- STEPPING STONES / PAVERS.
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SCHEDULE OF AREAS

Nº OF PROPOSED DWELLINGS		3	
AREA ANALYSIS			
SITE AREA		961.00 m²	
SITE COVERAGE		410.87 m²	42.75%
DRIVEWAY		150.92 m²	15.70%
PERMEABILITY ANALYSIS			
PERMEABLE AREA		399.21 m²	41.54%
GARDEN AREA		351.62 m²	36.59%
DWELLING 1			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	147.56 m²	15.35%
AREAS	FIRST FLOOR	69.60 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	31.26 m²	
DWELLING 2			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	135.33 m²	14.08%
AREAS	FIRST FLOOR	78.47 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	44.67 m²	
DWELLING 3			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	127.98 m²	13.32%
AREAS	FIRST FLOOR	78.96 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	54.71 m²	

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GROUND FLOOR AND SITE PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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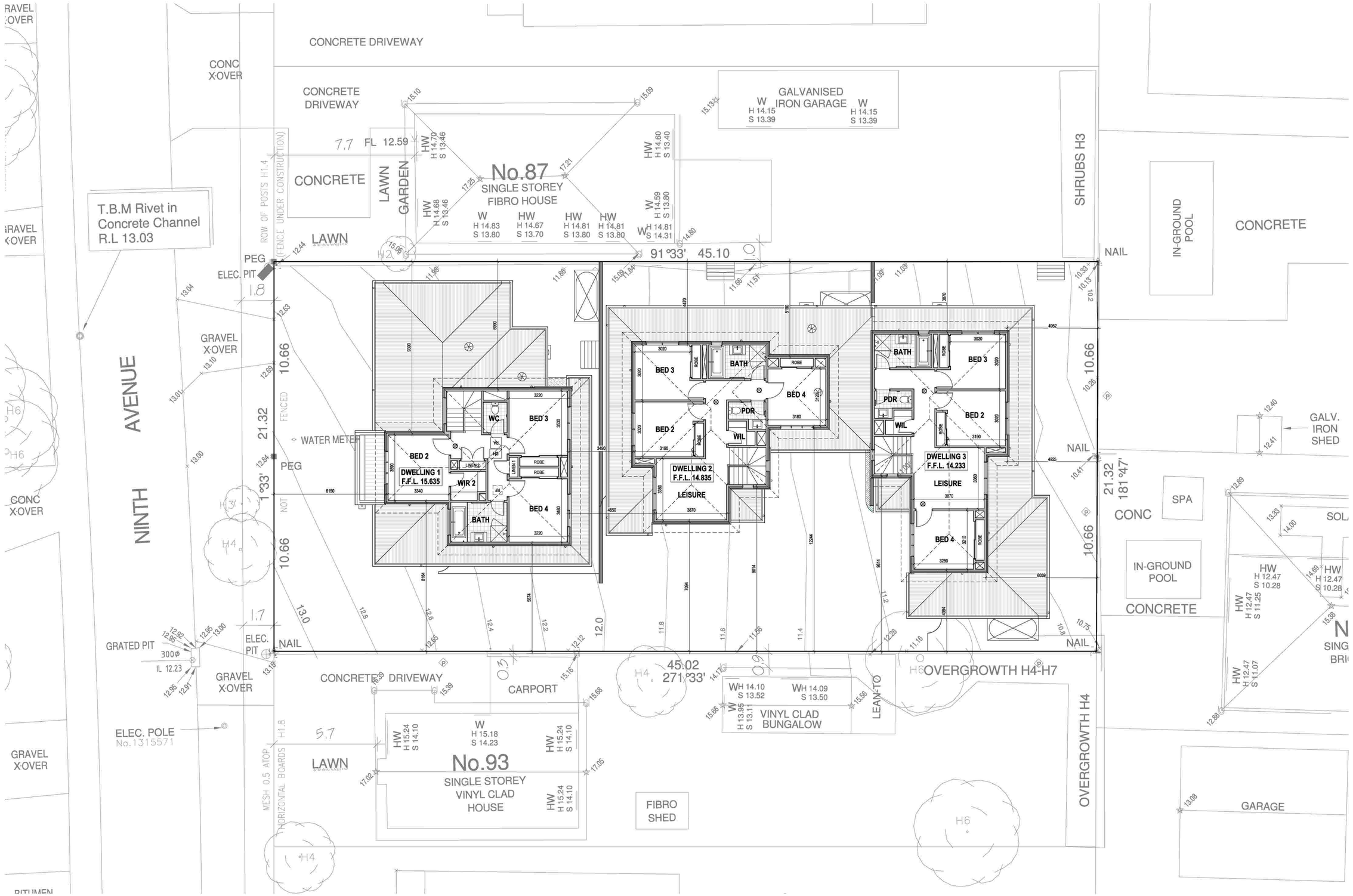

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FIRST FLOOR AND SITE PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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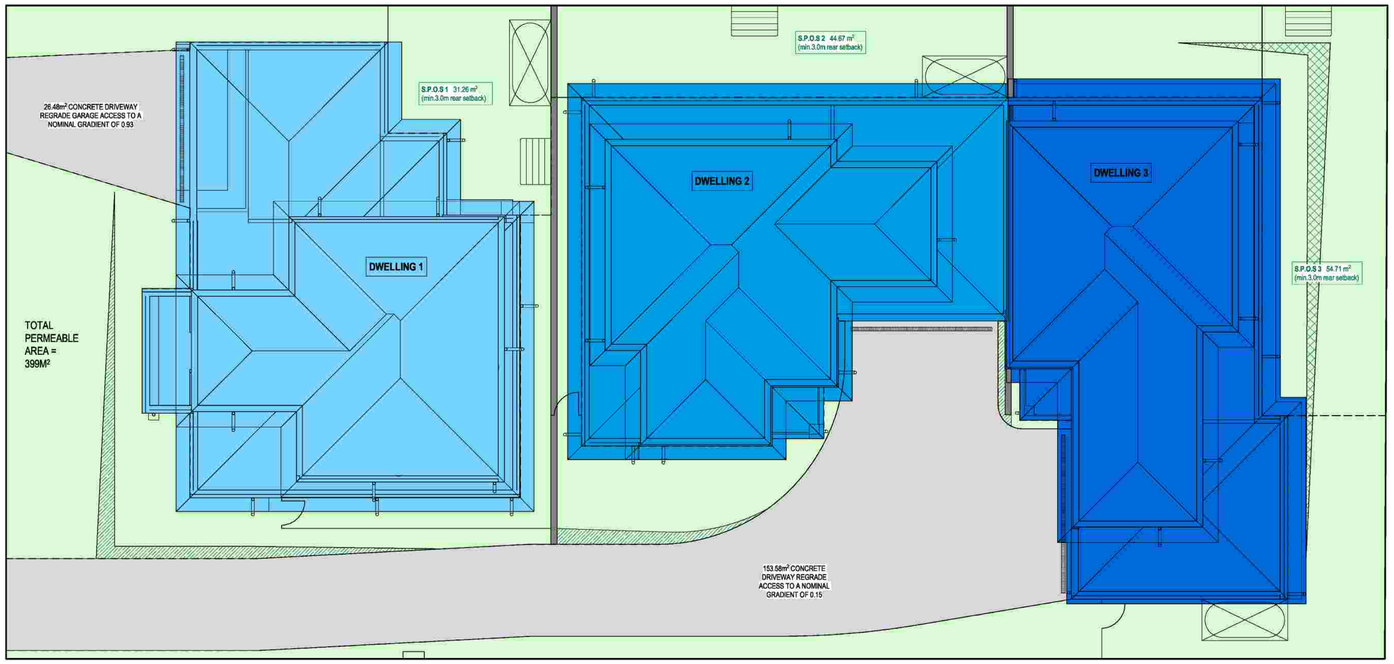

RAINWATER COLLECTION ON SUBJECT SITE (961m²) :

THE RAINWATER FROM DWELLING 1 ROOF CATCHMENT AREA OF 169.9m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 2 ROOF CATCHMENT AREA OF 158.87m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 3 ROOF CATCHMENT AREA OF 158.28m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

PERMEABLE GROUND 399.21m² (41.54%)

180.06m² NON PERMEABLE DRIVEWAY TO STORM WATER SYSTEM - NO TREATMENT

Project # 49AA56E7 - 758307/308/309 - Wang
lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
12 January 2026 8:51 a.m.

BLUE FACTOR.

758307/308/309 - Wang

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

102% SCORE

Project details

Name	758307/308/309 - Wang
Street address	lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
Municipality	Mornington Peninsula
Site area	961 m²
Planning Number	Not Applicable

Unit 1

Unit 1 Roof, 169.9m2

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 5,

Unit 1 Residential Townhouse, 4 bedroom(s)

Unit 2

Unit 2 Roof, 158.87m2

Rainwater Tank 2
Rainwater tank retention volume in kilolitres: 5,

Unit 2 Residential Townhouse, 4 bedroom(s)

Unit 3

Unit 3 Roof, 158.28m2

Rainwater Tank 3
Rainwater tank retention volume in kilolitres: 5,

Unit 3 Residential Townhouse, 4 bedroom(s)

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WSUD PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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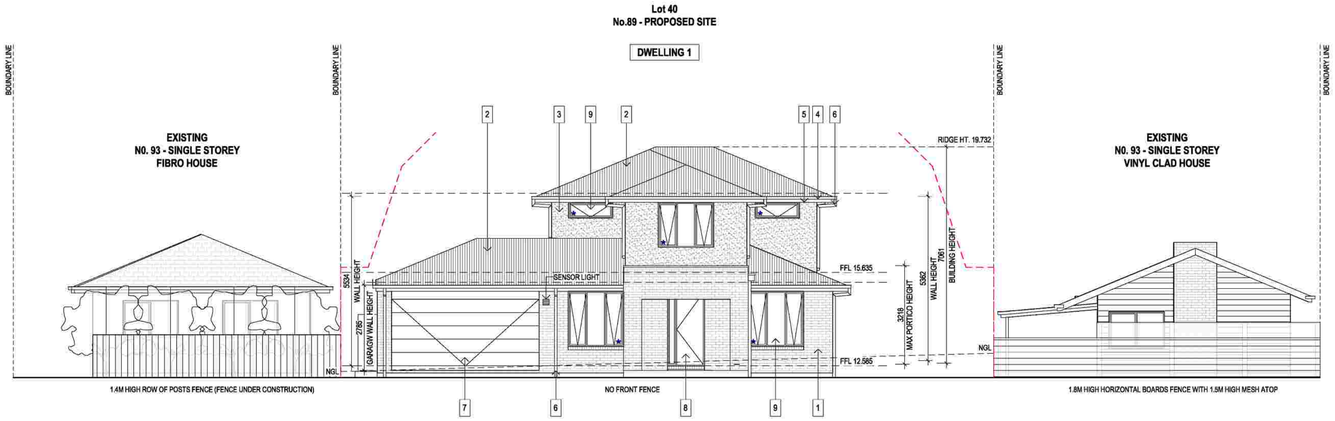
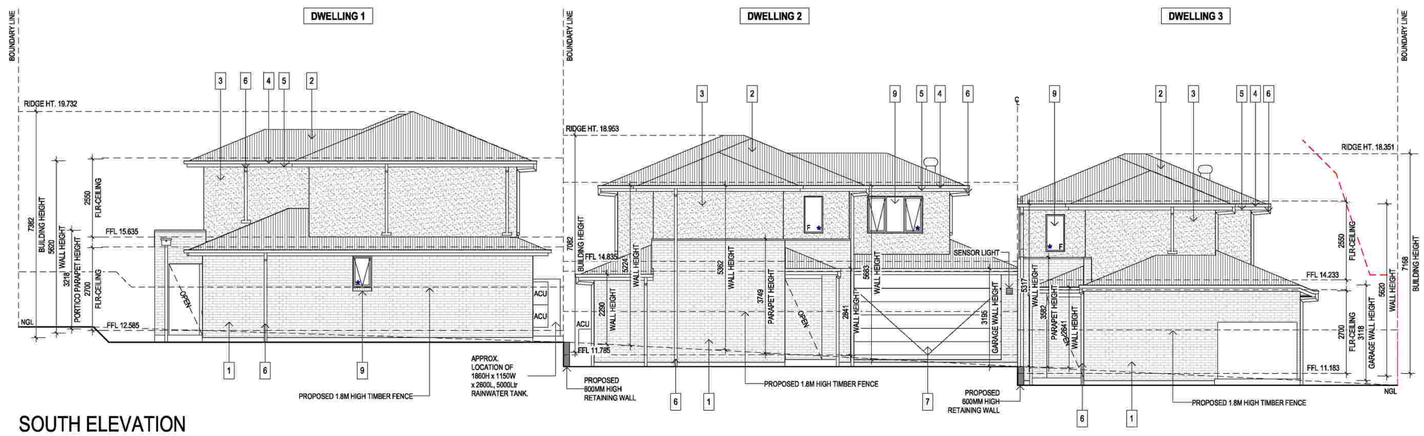
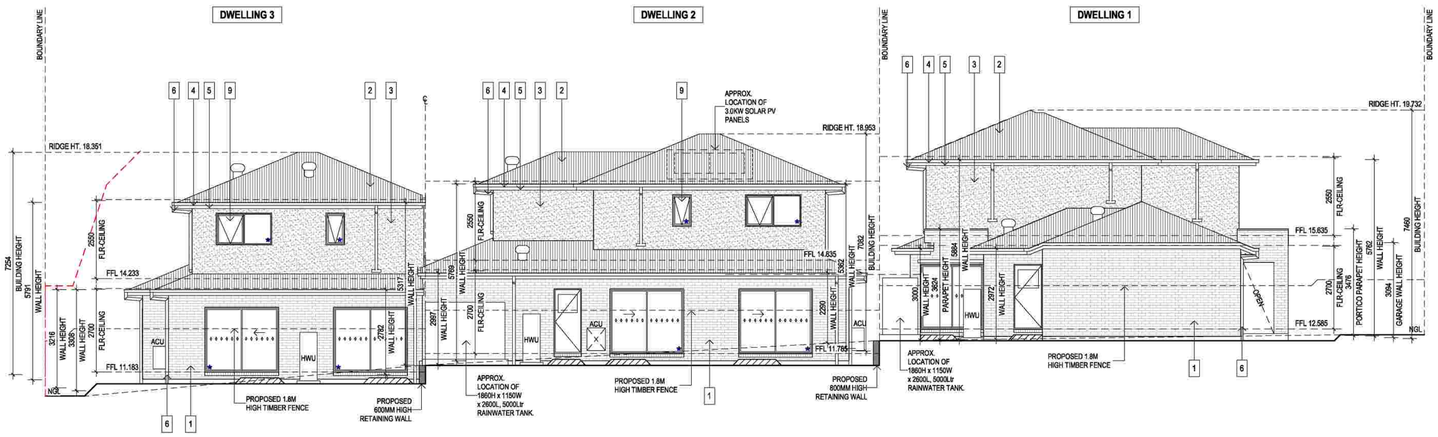


WEST ELEVATION NINTH AVENUE



SOUTH ELEVATION



NORTH ELEVATION

IMPORTANT NOTES

ALL LEVELS ARE TO A.H.D.

ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7M ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.

ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY) UNLESS OTHERWISE NOTED.

ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.

MATERIALS

1	SELECTED BRICKWORK
2	ROOF CLADDING
3	RENDER
4	GUTTER
5	FASCIA
6	DOWN PIPES
7	PANEL LIFT GARAGE DOOR
8	FRONT ENTRY DOOR
9	ALUMINIUM WINDOW FRAMES
10	WALL CLADDING
*	DENOTES DOUBLE GLAZING
	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

N

1 : –

Date
Scale
Drawn

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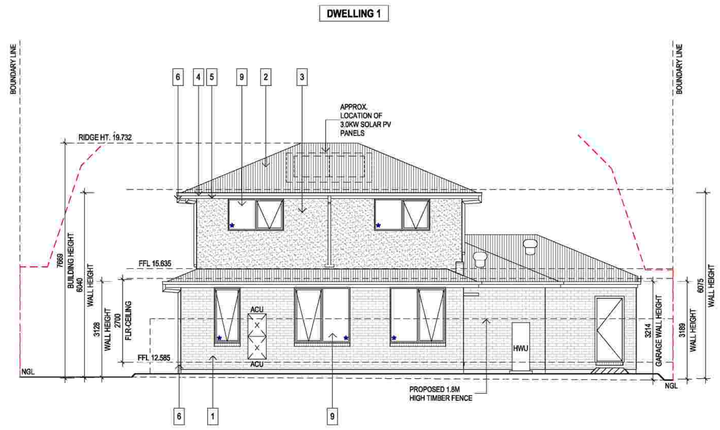
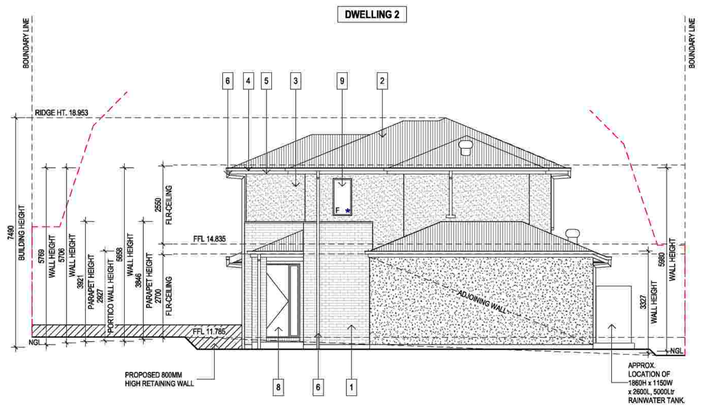
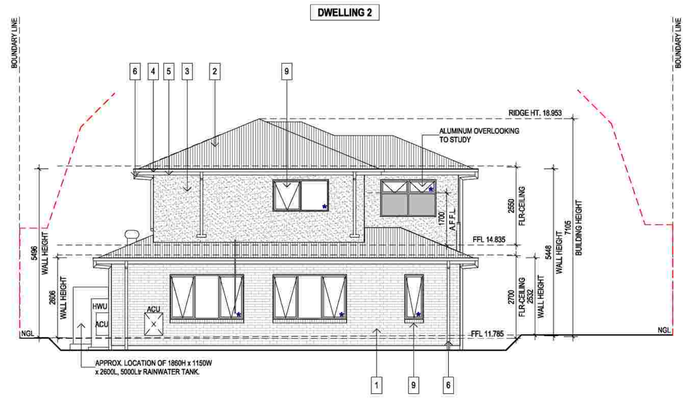


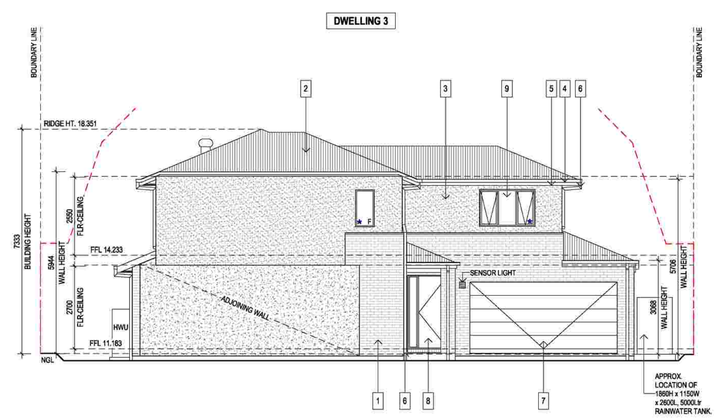
EAST ELEVATION DWELLING 1



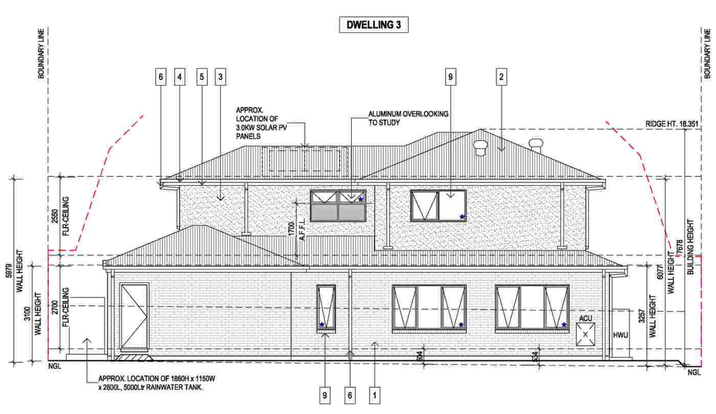
EAST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 3



EAST ELEVATION DWELLING 3

IMPORTANT NOTES

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ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.

MATERIALS

1	SELECTED BRICKWORK
2	ROOF CLADDING
3	RENDER
4	GUTTER
5	FASCIA
6	DOWN PIPES
7	PANEL LIFT GARAGE DOOR
8	FRONT ENTRY DOOR
9	ALUMINIUM WINDOW FRAMES
10	WALL CLADDING
*	DENOTES DOUBLE GLAZING
	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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SHADOWCAST @ 9AM
1 : 200

SHADOWCAST @ 10AM
1 : 200

SHADOWCAST @ 11AM
1 : 200

SHADOWCAST @ 12PM
1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

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REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_9AM-12PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

Date
Scale
Drawn

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SHADOWCAST @ 1PM

1 : 200

SHADOWCAST @ 2PM

1 : 200

SHADOWCAST @ 3PM

1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_1PM-3PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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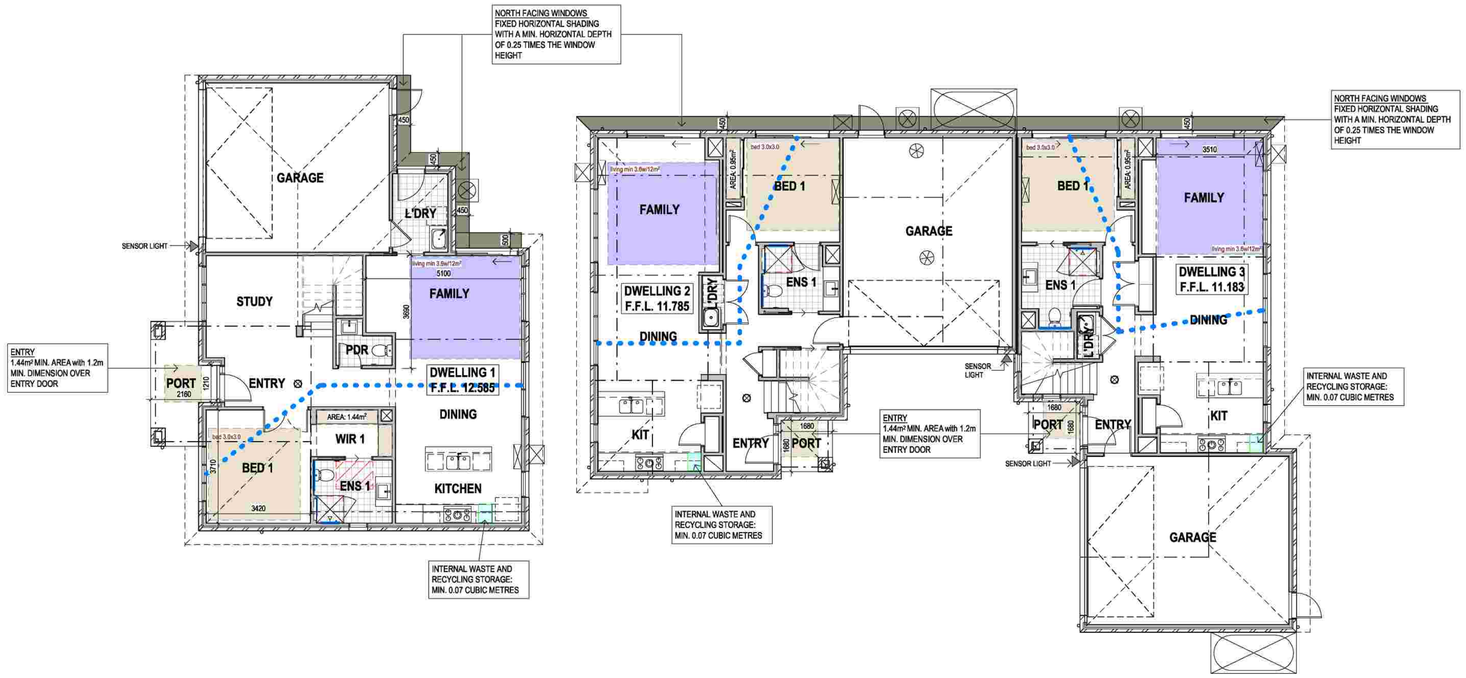


GROUND FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

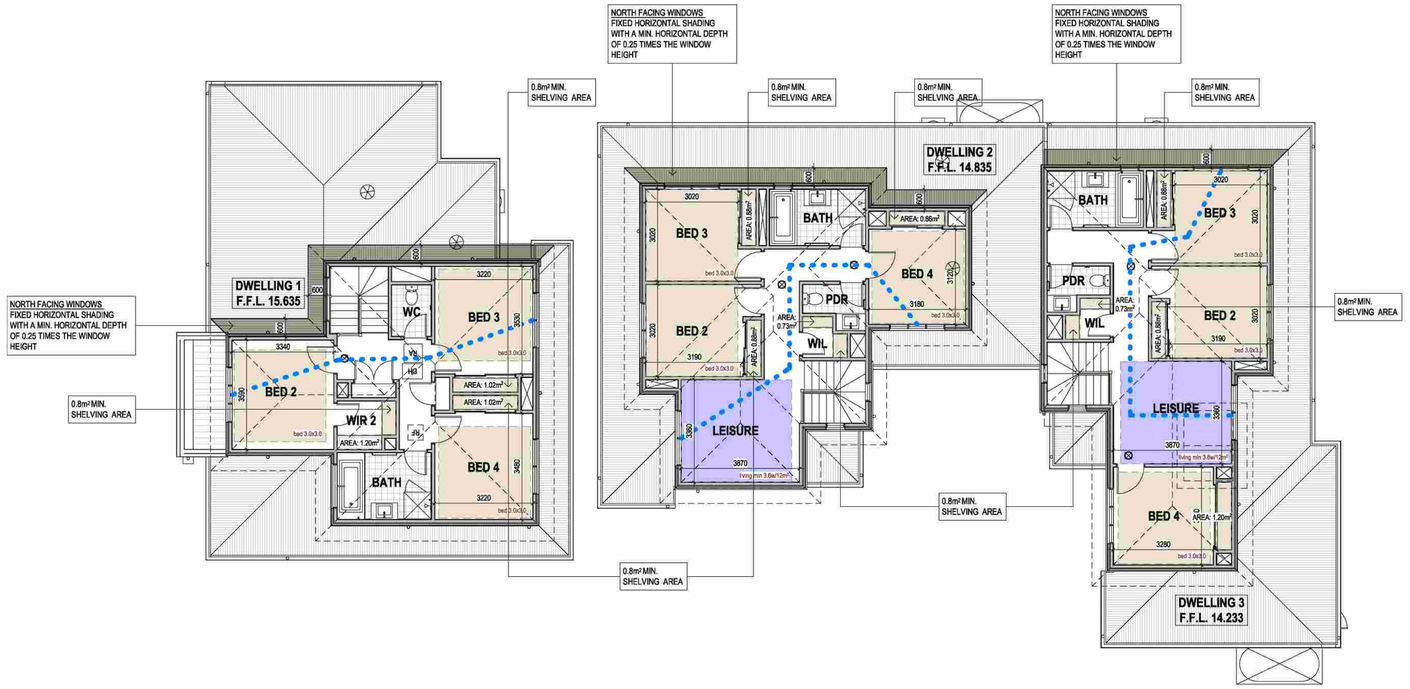
- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT

DWELLING 2 & 3

- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT



FIRST FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT: BED 2, BED 3, & BED 4 - COMPLIANT

DWELLING 2 & 3

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT: STUDY, BED 2, BED 3, & BED 4 - COMPLIANT

	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m³ MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT.
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 REFERENCE

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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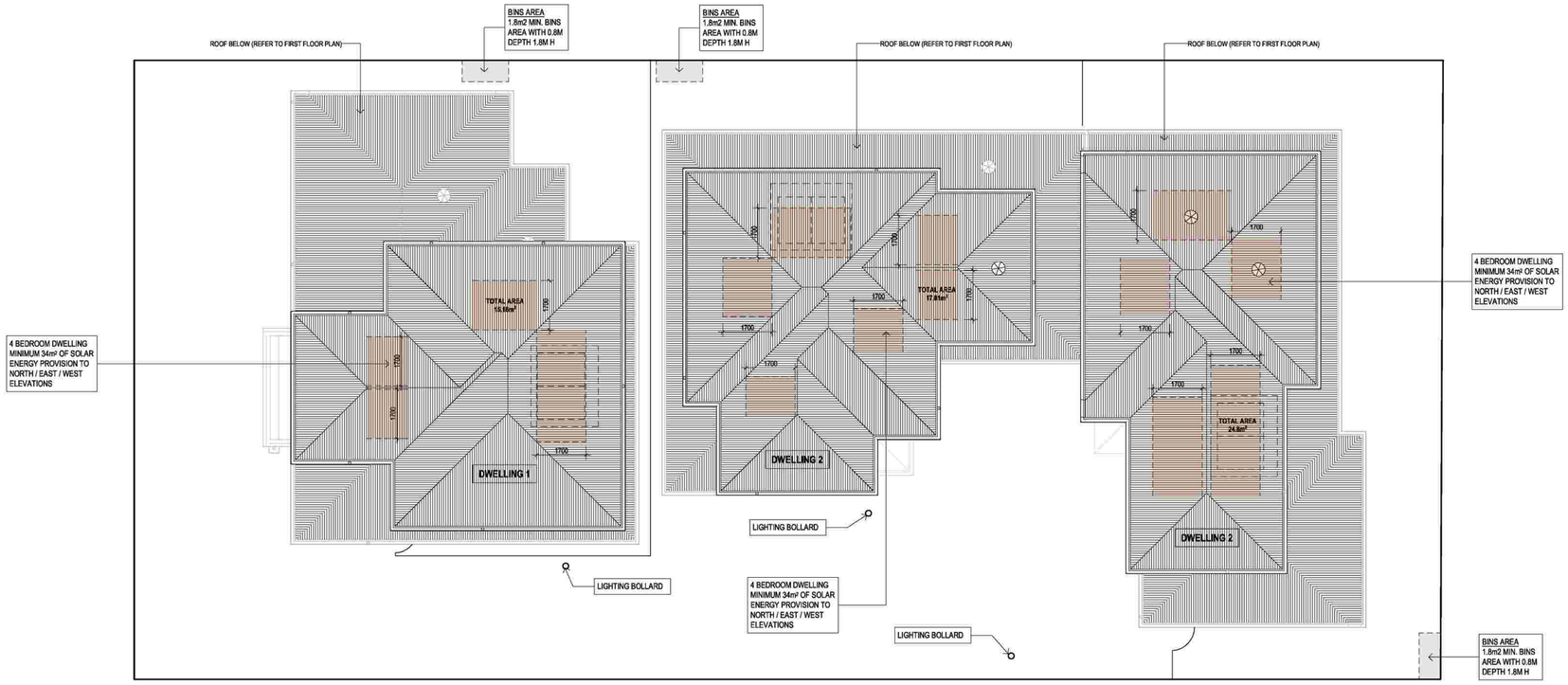
GROUND FLOOR PLAN GARDEN

1 : 100

TOTAL GARDEN AREA
351.621m²
(36.59%)



SITE PLAN - ROOF PLAN

1 : 100

	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m² MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT_
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 GARDEN AREA

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

N

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Version: 1, Version Date: 16/06/2026

NCC 2022

energy advance

ABCB NCC 2022 VOLUME TWO (AMENDMENT 2)

Nationally-Accredited NatHERS Energy Efficiency Assessment

Accredited Star Rating

7.6

REFERENCE

758309

SITE ADDRESS

Lot 40 (#89 Unit 3) Ninth Avenue ROSEBUD 3939

DWELLING TYPE

Double Storey

COMMISSIONED BY

Metricon Homes

ASSESSMENT DATE

13/01/2026

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Document Set ID: 6684477
Version: 1, Version Date: 16/06/2026

THE SUMMARY

Address	Lot 40 (#89 Unit 3) Ninth Avenue ROSEBUD 3939
Dwelling Type	Double Storey
State	Victoria
Site Exposure	Suburban
Ground Floor Type	Concrete Slab-on-Ground
NatHERS Climate Zone	62
FirstRate 5 Engine:	Chenath Engine 3.22
Certificate Number	SDP6R5F3R0
Accredited Star Rating	7.6

Façade Facing
West

Garage Side (viewed from the front)
Right-Hand Side

Modelled Wall Colour
Wall Colour: Medium

Modelled Roof Colour
Solar Absorptance: Medium roof colour

Modelled Glazing Frame Colour
Glazing Frame Colour: Medium

Conditioned Floor Area (m^2)	132.90
Unconditioned Floor (m^2)	6.40
Total (m^2)	139.30

	Area (m2)	Allowance (W/m2)	Total Maximum Watts
Class 1 Total Area	170.84	5.0	854.2
Class 10a Total Area	36.10	3.0	108.3
Total Outdoor Areas	3.64	4.0	14.6

Maximum Ceiling Insulation Penetration	Maximum Allowance	Maximum Penetration (m2)
	0.50%	0.85

If approved fireproof downlight covers, which can be fully covered by insulation, are specified and noted on the electrical plan by the building designer or architect or if IC4-rated downlights are installed, then there is no need to allow for the ceiling penetration.

ASSESSMENT CALCULATIONS & SOFTWARE RESULTS

	Target (MJ/m².pa)	Proposed (MJ/m².pa)	Efficiency Benchmark	
Heating:	80.0	58.9	Pass:	30.4%
Cooling:	22.0	12.3	Pass:	56.6%
Total:	102.0	71.2		

THE ANALYSIS

DWELLING OVERVIEW

Operational Energy and Emissions Summary

This home used approximately 2,174 kWh of heating energy, equivalent to driving a petrol car about 11,947 km and producing roughly 1,718 kg of CO_2 emissions. It also used around 454 kWh of cooling energy over the year, comparable to driving 2,495 km and generating about 359 kg of CO_2 emissions from fuel use.

HEATING PERFORMANCE

Heating performance is 30% above the benchmark for this climate zone.
Heating efficiency is strong; glazing, solar exposure and insulation appear to be working effectively.

In this cool-temperate climate zone, low heating demand confirms that insulation, glazing and winter solar design are performing effectively.

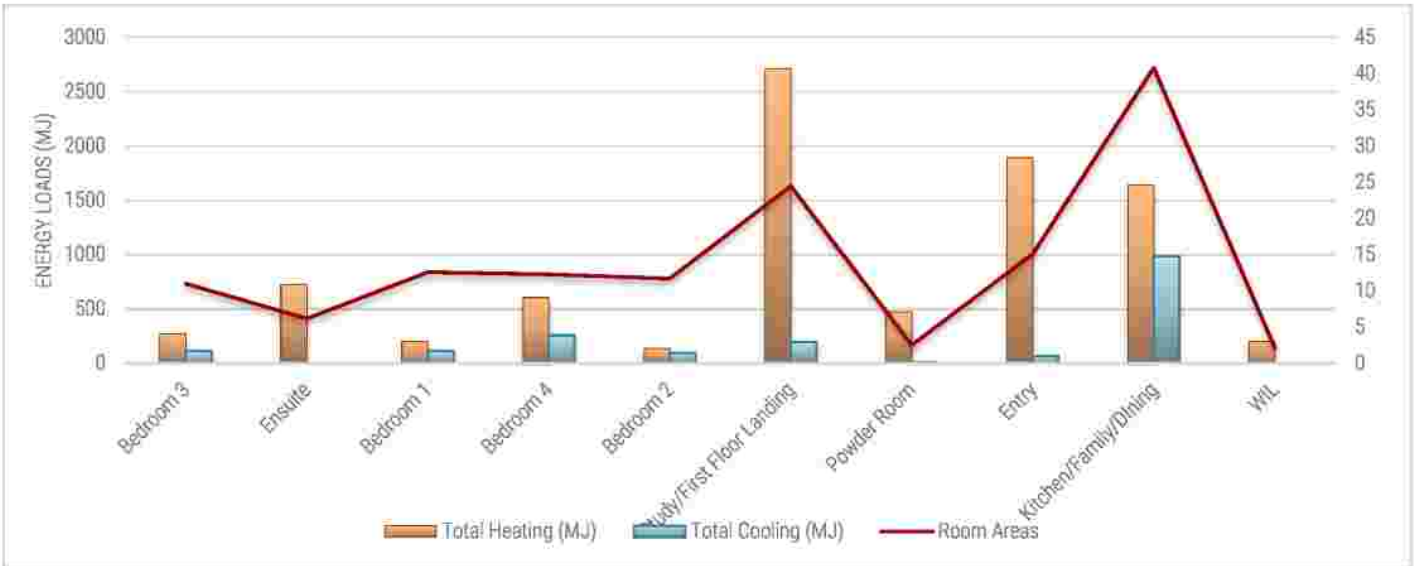
COOLING PERFORMANCE

Cooling performance is 57% above the benchmark for this climate zone.
Cooling efficiency is strong; external shading, reflective roofing and low-SHGC glazing appear to be working effectively.

In this cool-temperate climate zone, minimal cooling demand shows that shading, glazing and roof finish are well matched to local summer conditions.

Room-by-Room Energy Use Analysis

This chart shows how much energy each room needs to stay comfortable. Higher bars mean more energy needed to heat or cool that space. The line shows what's considered efficient for that room size. Bars above the line highlight where comfort is costing more energy than it should, and where upgrades can have the biggest impact.



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THE ANALYSIS

GLAZING & INSULATION

Understanding the Window Ratio

The ratio below shows the percentage of the dwelling's exterior that's made up of glass compared to the floor area. Ideally, a lower glazing ratio supports better thermal performance, helping reduce unwanted heat loss or gain, improving comfort and lowering energy bills.
In cool temperate regions, well-insulated and well-oriented glazing improves warmth and comfort during colder months without excessive heat loss.

OPTIMAL: Glazing sizes are fantastic for the best thermal efficiency.

20.4%

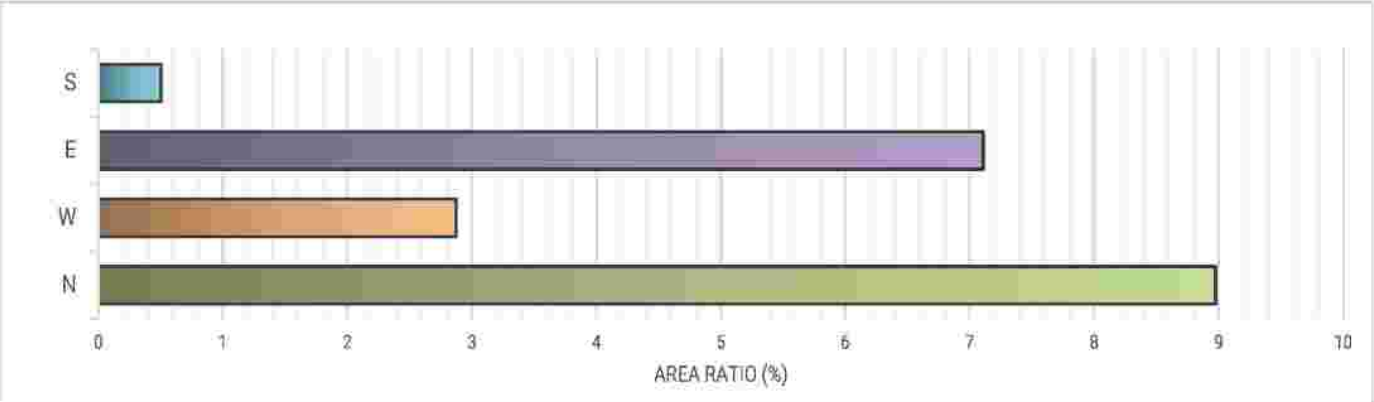
This dwelling's glazing ratio is fantastic, helping maintain a consistent temperature without excessive heating or cooling, leading to energy savings and a smaller environmental footprint. If the rating still falls below compliance, consider reviewing the orientation chart below to see if some windows or doors could be better positioned for natural light and shading balance. Prioritising north-facing glass and strong insulation will keep warmth inside during cooler months.

Sunlight, Heat and Glass: Orientation Overview

This dwelling's glazing distribution varies in suitability depending on the NatHERS climate zone (cool).

Glazing to the north totals 12.5 m² (9.0% of floor area). North glazing is highly beneficial for passive winter heating; ensure adequate area and good SHGC. Glazing to the west totals 4.0 m² (2.9% of floor area). West glazing causes summer heat and limited winter benefit; minimise or shade. Glazing to the east totals 9.9 m² (7.1% of floor area). East glazing provides little winter gain and can cause summer heat; modest areas are best. Glazing to the south totals 0.7 m² (0.5% of floor area). South glazing should be moderate to reduce heat loss.

Adjusting glazing proportions—especially in directions that introduce unnecessary heat gain or loss—can significantly improve comfort and energy efficiency.
Note: NatHERS modelling includes shading and eaves. This summary explains glazing orientation impacts within the climate context.



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THE ANALYSIS

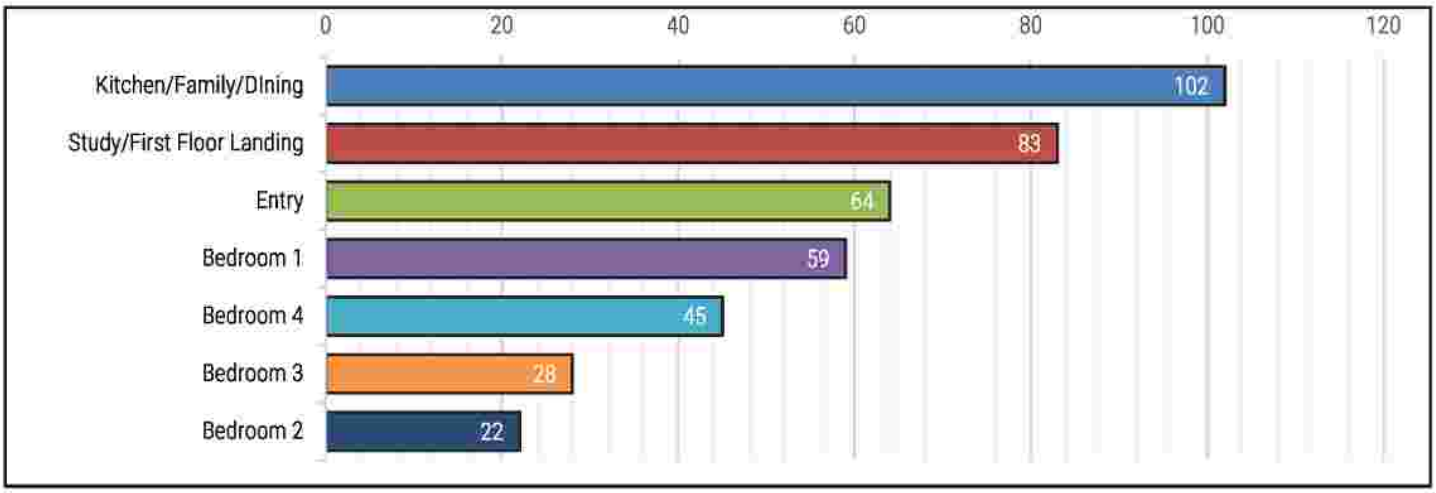
ENERGY IMPACT AND EFFECTIVENESS

Energy Advance Comfort & Performance Impact Index

The Impact Index is Energy Advance's combined performance score for each room. It incorporates climate zone, window-to-floor ratio, heating load, cooling load, and glazing behaviour to show which rooms have the strongest influence on overall energy performance.
A higher Impact Index indicates a room where improvements will deliver greater comfort and efficiency gains.

In this home, the rooms with the highest Impact Index provide the best opportunity to improve comfort and reduce energy use through glazing or possible insulation upgrades.

Rooms with higher Impact Index scores offer the greatest "bang for buck." Upgrades in these areas have the strongest effect on overall energy performance, making them the most effective places to focus improvement efforts.



Wall Power Factor

The Wall Power Factor shows how much of your home's external shell can be improved through insulation. It compares the insulatable wall area with the total area of walls, windows and external doors.
A higher factor means insulation upgrades can meaningfully improve performance, while a lower factor indicates glazing has a greater influence than insulation.

75% Moderate Potential

Insulation upgrades will still provide performance benefits; however, glazing now makes up a significant portion of the external envelope. As glazing transfers heat far more readily than insulated walls, the impact of insulation alone begins to taper off.

Improved insulation can assist with comfort, but the home's overall performance is increasingly shaped by window size, orientation, shading and glass type. Gains in star rating may therefore be more modest unless glazing elements are also addressed.

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SPECIFICATIONS NOTED BELOW: BASE SPEC

THE SPECIFICATIONS

Walls

CONSTRUCTION TYPE AND INSULATION	FRAME TYPE	LOCATION	THERMAL BREAK?
WDF | Brick Veneer | R2.5 Insulation | VP Wrap	Timber	External	N/A
WDF | Partiwall | R2.5 Insulation | No Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	Timber	Internal	N/A
WDF | Brick Veneer | Uninsulated | VP Wrap	Timber	External	N/A
WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	Timber	Internal	N/A
OTH | Double Leaf Brick Wall 110mm | Uninsulated	None	External	None
WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	Timber	External	N/A
WDF | Brick Veneer/EPS Cladding 75mm | R2.5 Insulation | VP Wrap	Timber	External	N/A

ADDITIONAL NOTES

Internal wall insulation: Garage, Laundry and Bathroom walls only

Wall Colour: Medium

Roof and Ceiling

CONSTRUCTION TYPE	CEILING INSULATION (R)	SARKING	THERMAL BREAK?	BLANKET (R)
Ceiling with Floor Above	None	No	No	None
Tiled Roof	2.5	No	No	None
Tiled Roof	6.0	No	No	None
Tiled Roof	None	No	No	None

ADDITIONAL NOTES

Solar Absorptance: Medium roof colour

Ceiling Insulation to the House Area only

Floor

CONSTRUCTION TYPE	VENTILATION	FLOOR INSUL (R)	SLAB EDGE (R)	FLOOR AREAS (m^2)
85mm Concrete | 300mm Waffle	Enclosed	Integrated	None	111.0
Framed Suspended Floor | Uninsulated	Enclosed	None	None	58.2
Framed Suspended Floor | R4.1 Insulation	Enclosed	4.1	None	12.3

ADDITIONAL NOTES

Glazing

Glazing Frame Colour: Medium

WERS CODE*	CHARACTERISTIC	TYPE	U_w-VALUE	$SHGC_w$	AREA (m^2)	AS-BUILT GLAZING TYPES
WAS-013-01 A	152 S. Double Glazing	Sliding Door	3.64	0.65	10.08	SSW-040-002
TIM-002-01 W	Standard Single Glazing	Sidelight/s	5.40	0.63	1.15	Front Door Sidelight
ECO-101-03 A	150 S. Double Glazing	Awning Window	3.40	0.59	9.48	SSW-026-300
A&L-026-01 A	150 S. Double Glazing	Fixed Window	3.12	0.69	6.42	SSW-030-003

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THE REGULATIONS

13.7.1 Application of Part 13.7

(1) This Part applies to (a)a Class 1 building, (b)a Class 10a building, and (c)a Class 10b swimming pool associated with a Class 1 or 10a building.
(2) Part 13.7 must be applied as directed in H6D2(2).

13.7.2 Insulation of services

Thermal insulation for central heating water piping and heating and cooling ductwork must—
(a)be protected against the effects of weather and sunlight, and (b)be able to withstand the temperatures within the piping or ductwork; and (c) use thermal insulation material by AS/NZS 4859.1.

13.7.3 Central heating water piping

(1) Central heating water piping that is not within a conditioned space must be thermally insulated to achieve the minimum material R-Values as set out in (2) to (6).
(2) Internal piping including— (a)flow and return piping that is— (i)within an unventilated wall space or
(ii)within an internal floor between storeys; or (iii)between ceiling insulation and a ceiling and
(b)heated water piping encased within a concrete floor slab (except that which is part of a floor heating system), must, in all climate zones, have a minimum material R-Value of 0.4.
(3) Piping located within a ventilated wall space, an enclosed building subfloor or a roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (5).
(4) Piping located outside the building or in an unenclosed building subfloor or roof space, including—
(a)flow and return piping; and (b)cold water supply piping within 500 mm of the connection to the central water heating system; and (c)relief valve piping within 500 mm of the connection to the central water heating system, must have a minimum material R-Value by (6).
(5) Piping referred to in (3) must have a minimum material R-Value of— (a)in climate zones 1, 2, 3 and 5 — 0.6; and
(b)in climate zones 4, 6 and 7 — 0.9; and (c)in climate zone 8 — 1.3.
(6)Piping referred to in (4) must have a minimum material R-value of—
(a)in climate zones 1, 2, 3 and 5 — 0.6; and (b)in climate zones 4, 6 and 7 — 1.3; and (c) in climate zone 8 — 1.3.

13.7.4 Heating and cooling ductwork

(1) Heating and cooling ductwork and fittings must—
(a)achieve the material R-Value in (4), and (b)be sealed against air loss— (i)by closing all openings in the surface, joints and seams of ductwork with adhesives, mastics, sealants or gaskets by AS 4254.1 and AS 4254.2 for a Class C seal; or (ii)for flexible ductwork, with a draw band in conjunction with a sealant or adhesive tape.
(2) Duct insulation must— (a)abut adjoining duct insulation to form a continuous barrier and
(b)be installed so that it maintains its position and thickness, other than at flanges and supports; and where located outside the building, under a suspended floor, in an attached Class 10a building or in a roof space— (i)be protected by an outer sleeve of protective sheeting to prevent the insulation becoming damp, and (ii)have the outer protective sleeve sealed with adhesive tape not less than 48 mm wide creating an airtight and waterproof seal.
(3) The requirements of (1) do not apply to heating and cooling ductwork and fittings located within the insulated building envelope including a service riser within the conditioned space, internal floors between storeys and the like.
(4)The material R-Value required by (1)(a) must be determined by the following: (a)In a heating-only system or cooling-only system including an evaporative cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1 to 7 — 1.0; and (B)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(b)In a combined heating and refrigerated cooling system— (i)ductwork must have a minimum material R-Value of— (A)in climate zones 1, 3, 4, 6 and 7 — 1.5; and (B)in climate zones 2 and 5 — 1.0; and (C)in climate zone 8 — 1.5; and (ii)fittings must have a minimum material R-Value of 0.4.
(c)For (b)(i), the minimum material R-value required for ductwork may be reduced by 0.5 for combined heating and refrigerated cooling systems in climate zones 1, 3, 4, 6 and 7 if the ducts are— (i)under a suspended floor with an enclosed perimeter; or in a roof space that has an insulation of greater than or equal to R0.5 directly beneath the roofing.

PRELIMINARY REPORT
COMPLIANCE STAMP NOT REQUIRED

THE REGULATIONS

13.7.5 Electric resistance space heating

An electric resistance space heating system that serves more than one room must have— (a)separate isolating switches for each room and
(b)a separate temperature controller and time switch for each group of rooms with common heating needs and
(c) power loads of not more than 110 W/m2 for living areas, and 150 W/m2 for bathrooms.

13.7.6 Artificial lighting

(1)The lamp power density or illumination power density of artificial lighting, excluding heaters that emit light, must not exceed the allowance of— (a)5 W/m2 in a Class 1 building and (b)4 W/m2 on a Verandah, balcony or the like attached to a Class 1 building; and (c)3 W/m2 in a Class 10a building associated with a Class 1 building.

(2) The illumination power density allowance in (1) may be increased by dividing it by the relevant illumination power density adjustment factor for a control device in (6) as applicable.
(3) When designing the lamp power density or illumination power density, the power of the proposed installation must be used rather than nominal allowances for exposed batten holders or luminaires.
(4) If halogen lamps are installed, they must be separately switched from fluorescent lamps.
(5) Artificial lighting around the perimeter of a building must— (a)be controlled by a daylight sensor or (b)have an average light source efficacy of not less than 40 Lumens/W.
(6) The following illumination power density adjustment factors apply to control devices for artificial lighting:
(a)Lighting timer for corridor lighting: 0.7. Motion detector —(i)(A) at least 75% of the area of space is controlled by one or more motion detectors; or
(b)an area of less than 200 m2 is switched as a block by one or more motion detectors; and (i)0.7, where up to 6 lights are switched as a block by one or more detectors; and (ii)0.55, where up to 2 lights are switched as a block by one or more detectors.
(c)Manual dimming system where not less than 75% of the space area is controlled by manually operated dimmers: 0.85.
(d)Programmable dimming system where not less than 75% of the space area is controlled by programmable dimmers: 0.85.
(e)Dynamic dimming system, with automatic compensation for lumen depreciation, the design lumen depreciation factor is not less than — (i)0.9 for fluorescent lights or (ii)0.8 for high-pressure discharge lights.
(f)Fixed dimming where at least 75% of the area is controlled by fixed dimmers that reduce the overall lighting level and the power consumption of the lighting — equal to the % of full power to which the dimmer is set divided by 0.95.
(g)Daylight sensor and dynamic lighting control device, with dimmed or stepped switching of lights adjacent to windows: (i)Lights within the space adjacent to windows other than roof lights for a distance from the window equal to the depth of the floor at window head height: 0.5. (ii)Lights within the space adjacent to roof lights: 0.6.
(7) For (6)(c), manual dimming is where lights are controlled by a knob, slider, or other mechanism or where there are pre-selected scenes that are manually selected.
(8) For (6)(d), programmed dimming is where pre-selected scenes or levels are automatically selected by the time of day, photoelectric cell, or occupancy sensor.
(9) For (6)(e), dynamic dimming is where the lighting level is varied automatically by a photoelectric cell to either proportionately compensate for the availability of daylight or the lumen depreciation of the lamps.
(10) For (6)(f), fixed dimming is where lights are controlled to a level, and that level cannot be adjusted by the user.
(11) For (6)(g)(i) and (ii), the illumination power density adjustment factor is only applied to lights controlled by that item — this adjustment factor does not apply to tungsten halogen or other incandescent sources.

13.7.7 Water heater in a heated water supply system

A water heater in a heated water supply system must be designed and installed by Part B2 of NCC Volume Three — Plumbing Code of Australia.

13.7.8 Swimming pool heating and pumping

(1) Heating for a swimming pool must be by— (a)a solar heater not boosted by electric resistance heating or
(b)a heater using reclaimed energy, (c)a gas heater, or (d)a heat pump, or (e)a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the swimming pool must have— (a)a cover with a minimum R-Value of 0.05 unless located in a conditioned space and (b)a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a swimming pool.
(4) For the purposes of 13.7.8, a swimming pool does not include a spa pool.

13.7.9 Spa pool heating and pumping

(1) Heating for a spa pool that shares a water recirculation system with a swimming pool must be by— (a)a solar heater or
(b)a heater using reclaimed energy or a gas heater, or (d) (e) a combination of (a) to (d).
(2) Where some or all of the heating required by (1) is by a gas heater or a heat pump, the spa pool must have— (a)a cover and (b)a push button and a time switch to control the operation of the heater.
(3)A time switch must be provided to control the operation of a circulation pump for a spa pool having a capacity of 680 L or more.

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Nationwide House Energy Rating Scheme®
NatHERS® Certificate No. SDP6R5F3R0

Generated on 15 May 2026 using FirstRate5: 5.5.5a (3.22)

Property

Address	3, Lot 40 (#89 Unit 3) Ninth Avenue ROSEBUD, 3939, VIC, 3939
Lot/DP	40
NCC Class*	Class 1a
Floor/all Floors	
Type	New Home

Plans

Main plan	758309
Prepared by	Metricon Homes

Construction and environment

Assessed floor area [m²]*		**Exposure type**
Conditioned*	132.9	suburban
Unconditioned*	42.5	**NatHERS climate zone**
Total	175.4	62 Moorabbin Airport
Garage	36.1	

Accredited assessor

Name	Claude-Francois Sookloll
Business name	Energy Advance
Email	energy@energyadvance.com.au
Phone	1300 850 228
Accreditation No.	DMN/14/1662
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

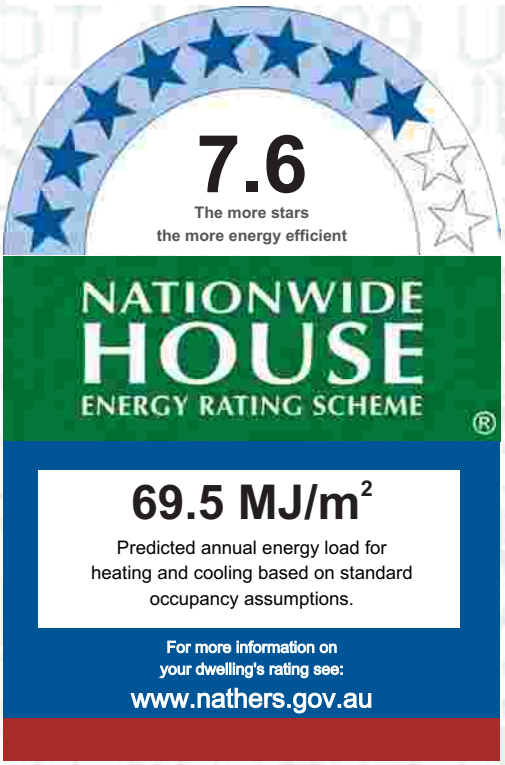
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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

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

Thermal performance star rating



Thermal performance [MJ/m²]

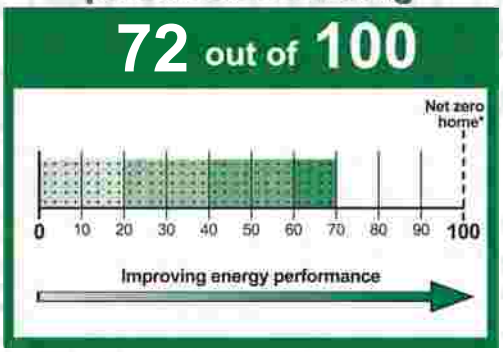
Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	57.6	11.9
Load limits	80	22

Features determining load limits

Floor type (lowest conditioned area)	CSOG
NCC climate zone 1 or 2	N
Outdoor living area	N
Outdoor living area ceiling fan	N

Whole of Home performance rating



Verification

To verify this certificate, scan the QR code or visit https://www.fr5.com.au/QRCodeLanding?PublicId=SDP6R5F3R0 When using either link, ensure you are visiting www.fr5.com.au.

*Refer to glossary.

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

Your Whole of Home energy use* rating excluding onsite renewable energy generation is **48 out of 100**

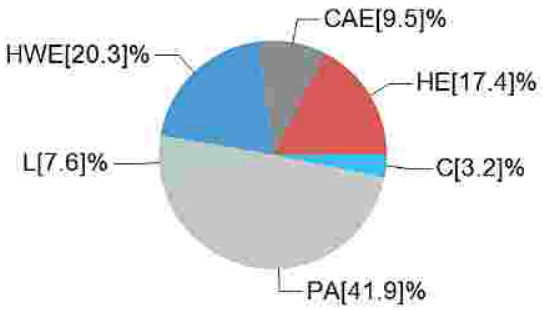
This home's annual greenhouse gas emissions: 2519kg CO2e (with solar) 6203kg CO2e (without solar)

Predicted annual electricity generated: 3290kWh
Exported to the grid: 50%
Used by the home: 50%

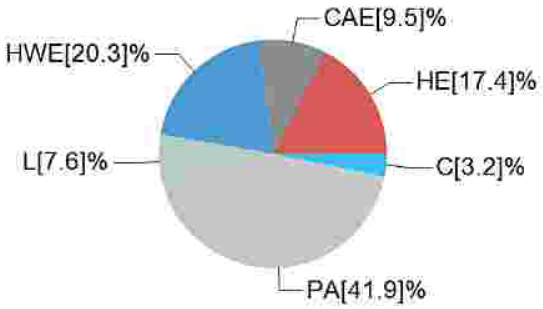
Predicted Whole of Home annual impact by appliance

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

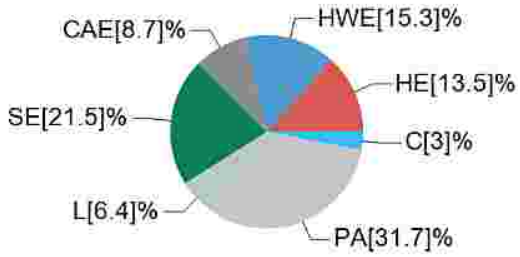
Energy use:



Greenhouse gas emissions:



Cost:



Graph key:

Colour:	Code:	Name:	Fuel type:
	HE	Heating	electric
	HG	Heating	gas
	HW	Heating	wood
	C	Cooling	electric
	HWE	Hot water	electric
	HWG	Hot water	gas
	HWW	Hot water	wood
	L	Lights	electric
	P	Pool/Spa equipment	electric
	PA	Plug-in appliances	electric
	CAE	Cooking appliances	electric
	CAG	Cooking appliances	gas
	SG	Supply charge	gas
	SE	Supply charge	electric

*Refer to glossary.

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		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
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?	☐	☐	☐	☐	☐
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?			☐	☐	☐
External walls					
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?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the *'External wall type'* table on this Certificate?	☐	☐	☐	☐	☐
Floor					
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?	☐	☐	☐	☐	☐
Ceiling penetrations*					
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?	☐	☐	☐	☐	☐
Ceiling					
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?	☐	☐	☐	☐	☐
Roof					
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?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 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".	☐	☐		☐	☐
Heating and cooling load limits*					
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?	☐	☐	☐	☐	☐

*Refer to glossary.

Certificate check

Continued

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Additional NCC requirements for thermal performance (not included in the NatHERS assessment)					
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
Insulation installation method					
Has the insulation been installed according to the NCC requirements?			☐	☐	☐
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
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?	☐	☐	☐	☐	☐
Additional NCC Requirements for Services (not included in the NatHERS assessment)					
Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in *'Additional notes'* table below?	☐	☐			
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

BCA Climate Zone 6

Please note, a non-reflective vapour permeable wall wrap has been modelled throughout the external walls of this dwelling.

Eaves indicated by the 'Horizontal shading feature* maximum projection (mm)' may not be directly opposing the respective wall (i.e. some eaves may be horizontally offset).

Where applicable, an additional 150mm has been added to the projection of all 'Horizontal shading features & eaves' to account for the Gutter & Fascia Board.

Please note, restricted window openings (%) have been modelled as per NCC requirements.

*Refer to glossary.

Please note, IC/IC-F Class Downlights have been nominated to this dwelling.

Where applicable, proxy WERS codes may be used to meet U-Value and SHGC limitations while maintaining compliance.

Proxy codes refer to performance values from a comparable product when exact test data for the selected window or glazed door is unavailable.

The selected window or glazed door must have a U-Value lower than the value indicated, and the SHGC must be within +/-5% of the specified value to comply.

*Refer to glossary.

Room *schedule*

Room	Zone Type	Area [m²]
Bedroom 1	bedroom	12.6
Ensuite	dayTime	6.2
Entry	dayTime	15.1
Kitchen/Family/DIning	kitchen	40.8
Garage	garage	36.1
Bedroom 2	bedroom	11.7
Bedroom 3	bedroom	11
Bedroom 4	bedroom	12.3
WIL	dayTime	2.2
Powder Room	dayTime	2.5
Bathroom	unconditioned	6.4
Study/First Floor Landing	dayTime	24.5

Window and glazed door *type and performance*

Default* windows

				Substitution tolerance ranges	
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
TIM-002-01 W	Timber B SG Clear	5.4	0.63	0.6	0.66

Custom* windows

				Substitution tolerance ranges	
Window ID	Window description	Maximum U-value*	SHGC*	SHGC lower limit	SHGC upper limit
WAS-013-01 A	Sliding Door 22mm DG 4/14Ar/4	3.64	0.65	0.62	0.68
CAS-006-08 A	Genesis Awning Window DG 3-12Ar-4EA	3.35	0.54	0.51	0.57
A&L-026-01 A	Al Boutique Fixed Lite Window DG 3/12/3	3.12	0.69	0.66	0.72

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	WAS-013-01 A	Opening 21	2100	2400	sliding	45.0	N	No
Entry	TIM-002-01 W	Opening 13	2400	480	fixed	0.0	W	No
Kitchen/Family/-DIning	CAS-006-08 A	Opening 15	1500	600	awning	90.0	E	No
Kitchen/Family/-DIning	CAS-006-08 A	Opening 16	1500	1584	awning	45.0	E	No

*Refer to glossary.

Kitchen/Family/-DIning	A&L-026-01 A	Opening 17	1500	816	fixed	0.0	E	No
Kitchen/Family/-DIning	CAS-006-08 A	Opening 18	1500	1584	awning	45.0	E	No
Kitchen/Family/-DIning	A&L-026-01 A	Opening 19	1500	816	fixed	0.0	E	No
Kitchen/Family/-DIning	WAS-013-01 A	Opening 20	2100	2400	sliding	45.0	N	No
Bedroom 2	CAS-006-08 A	Opening 25	1000	900	awning	90.0	E	No
Bedroom 2	A&L-026-01 A	Opening 26	1000	900	fixed	0.0	E	No
Bedroom 3	CAS-006-08 A	Opening 23	1000	900	awning	90.0	N	No
Bedroom 3	A&L-026-01 A	Opening 24	1000	900	fixed	0.0	N	No
Bedroom 4	CAS-006-08 A	Opening 27	1200	1188	awning	90.0	W	No
Bedroom 4	A&L-026-01 A	Opening 28	1200	612	fixed	0.0	W	No
Bathroom	CAS-006-08 A	Opening 22	1000	600	awning	10.0	N	No
Study/First Floor Landing	A&L-026-01 A	Opening 30	1200	600	fixed	0.0	W	No
Study/First Floor Landing	A&L-026-01 A	Opening 29	1200	600	fixed	0.0	S	No

Roof window* *type and performance value*

Default* roof windows

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

Custom* roof windows

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

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orient-ation	Outdoor shade	Diffuser

*Refer to glossary.

No Data Available

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Entry	2400	820	100.0	W
Garage	2170	4810	100.0	W
Garage	2040	820	100.0	E

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No
2	NCC 2022 STANDARD - TIMBER - WDF | Partiwall | R2.5 Insulation | No Wrap	0.5	Medium	Glass fibre batt: R2.5 (R2.5);Glass fibre batt: R2.5 (R2.5)	No
3	NCC 2022 VAPOUR - TIMBER - WDF | Brick Veneer | Uninsulated | VP Wrap	0.5	Medium		No
4	NCC 2022 MISC - OTH | Double Leaf Brick Wall 110mm | Uninsulated	0.5	Medium		No
5	NCC 2022 VAPOUR - TIMBER - WDF | EPS Cladding 75mm | R2.5 Insulation | VP Wrap	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (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)
Bedroom 1	1	2700	3703	N	0	Yes
Bedroom 1	2	2700	3412	W	0	No
Ensuite	2	2700	2691	W	0	No
Entry	2	2700	747	W	0	No
Entry	1	2700	1300	W	0	Yes
Entry	1	2700	2147	S	1830	Yes
Entry	1	2700	1922	W	1841	Yes
Kitchen/Family/DIning	1	2700	10294	E	750	Yes
Kitchen/Family/DIning	1	2700	4086	N	750	Yes
Garage	3	2700	835	N	750	Yes
Garage	4	2700	5488	W	0	Yes
Garage	3	2700	6580	S	0	Yes
Garage	3	2700	5487	E	750	Yes
Bedroom 2	5	2400	1046	S	600	Yes
Bedroom 2	5	2400	3379	E	615	No

*Refer to glossary.

Bedroom 3	5	2400	3594	N	608	No
Bedroom 3	5	2400	3005	E	610	No
Bedroom 4	5	2400	3844	S	600	No
Bedroom 4	5	2400	3189	E	593	Yes
Bedroom 4	1	725	3189	W	555	Yes
Bedroom 4	5	1675	3189	W	600	Yes
WIL	5	2400	780	W	600	Yes
Powder Room	5	2400	1499	W	600	Yes
Bathroom	5	2400	1856	W	600	Yes
Bathroom	5	2400	3469	N	601	No
Study/First Floor Landing	5	2400	1058	W	600	Yes
Study/First Floor Landing	5	2750	375	W	600	Yes
Study/First Floor Landing	5	2400	3096	E	600	Yes
Study/First Floor Landing	1	725	1665	W	555	Yes
Study/First Floor Landing	5	2025	1665	W	600	Yes
Study/First Floor Landing	1	725	2170	S	555	Yes
Study/First Floor Landing	5	2025	2170	S	600	Yes
Study/First Floor Landing	1	725	1942	W	560	Yes
Study/First Floor Landing	5	1675	1942	W	605	Yes

Internal wall *type*

Wall ID	Wall type	Area [m²]	Bulk insulation
1	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | Uninsulated | No Wrap	109.1	
2	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.5 Insulation | No Wrap	15.2	Glass fibre batt: R2.5 (R2.5)
3	NCC 2022 STANDARD - TIMBER - WDF INT | Plasterboard Stud Wall | R2.0 Insulation | No Wrap	12.4	Glass fibre batt: R2.0 (R2.0)

Floor *type*

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	10.7	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - 85mm Concrete | 300mm Waffle	1.9	Enclosed	R0.0	Carpet
Ensuite	FLOOR - 85mm Concrete | 300mm Waffle	6.2	Enclosed	R0.0	Tiles
Entry	FLOOR - 85mm Concrete | 300mm Waffle	1.3	Enclosed	R0.0	Tiles

*Refer to glossary.

Entry	FLOOR - 85mm Concrete | 300mm Waffle	9.8	Enclosed	R0.0	Tiles
Entry	FLOOR - 85mm Concrete | 300mm Waffle	4.1	Enclosed	R0.0	Carpet
Kitchen/Family/D- Ining	FLOOR - 85mm Concrete | 300mm Waffle	2.9	Enclosed	R0.0	Tiles
Kitchen/Family/D- Ining	FLOOR - 85mm Concrete | 300mm Waffle	6.9	Enclosed	R0.0	Tiles
Kitchen/Family/D- Ining	FLOOR - 85mm Concrete | 300mm Waffle	0.7	Enclosed	R0.0	Tiles
Kitchen/Family/D- Ining	FLOOR - 85mm Concrete | 300mm Waffle	30.4	Enclosed	R0.0	Tiles
Garage	FLOOR - 85mm Concrete | 300mm Waffle	13.8	Enclosed	R0.0	none
Garage	FLOOR - 85mm Concrete | 300mm Waffle	22.3	Enclosed	R0.0	none
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	9.9	Enclosed	R0.0	Carpet
Bedroom 2	FLOOR - Framed Suspended Floor | Uninsulated	1.8	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	8.3	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Suspended Floor | Uninsulated	2.6	Enclosed	R0.0	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | R4.1 Insulation	8.1	Enclosed	R4.1	Carpet
Bedroom 4	FLOOR - Framed Suspended Floor | R4.1 Insulation	4.2	Enclosed	R4.1	Carpet
WIL	FLOOR - Framed Suspended Floor | Uninsulated	1.8	Enclosed	R0.0	Carpet
WIL	FLOOR - Framed Suspended Floor | Uninsulated	0.3	Enclosed	R0.0	Carpet
Powder Room	FLOOR - Framed Suspended Floor | Uninsulated	0.6	Enclosed	R0.0	Tiles
Powder Room	FLOOR - Framed Suspended Floor | Uninsulated	1.8	Enclosed	R0.0	Tiles
Bathroom	FLOOR - Framed Suspended Floor | Uninsulated	4.3	Enclosed	R0.0	Tiles

*Refer to glossary.

Bathroom	FLOOR - Framed Suspended Floor | Uninsulated	2.1	Enclosed	R0.0	Tiles
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	2.5	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	17.2	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	1.1	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	1.7	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	1.5	Enclosed	R0.0	Carpet
Study/First Floor Landing	FLOOR - Framed Suspended Floor | Uninsulated	0.5	Enclosed	R0.0	Carpet

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Bedroom 1	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Bedroom 1	Plasterboard	R2.5	No
Ensuite	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Entry	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No
Kitchen/Family/D- Ining	Plasterboard	R6.0	No
Kitchen/Family/D- Ining	Plasterboard	R2.5	No
Kitchen/Family/D- Ining	Plasterboard	R2.5	No
Kitchen/Family/D- Ining	FLOOR - Framed Suspended Floor | Uninsulated	R0.0	No

*Refer to glossary.

Garage	FLOOR - Framed Suspended Floor | R4.1 Insulation	R4.1	No
Garage	Plasterboard	R0.0	No
Bedroom 2	Plasterboard	R6.0	No
Bedroom 2	Plasterboard	R2.5	No
Bedroom 3	Plasterboard	R6.0	No
Bedroom 3	Plasterboard	R2.5	No
Bedroom 4	Plasterboard	R6.0	No
Bedroom 4	Plasterboard	R2.5	No
WIL	Plasterboard	R6.0	No
Powder Room	Plasterboard	R2.5	No
Powder Room	Plasterboard	R6.0	No
Bathroom	Plasterboard	R6.0	No
Bathroom	Plasterboard	R2.5	No
Study/First Floor Landing	Plasterboard	R6.0	No
Study/First Floor Landing	Plasterboard	R6.0	No
Study/First Floor Landing	Plasterboard	R2.5	No
Study/First Floor Landing	Plasterboard	R2.5	No
Study/First Floor Landing	Plasterboard	R2.5	No

Ceiling *penetrations**

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bedroom 1	3	Downlights	0	0	Sealed
Ensuite	1	Exhaust Fans	250	250	Sealed
Ensuite	2	Downlights	0	0	Sealed
Entry	1	Exhaust Fans	250	250	Sealed
Entry	4	Downlights	0	0	Sealed
Kitchen/Family/DIning	9	Downlights	0	0	Sealed
Bedroom 2	3	Downlights	0	0	Sealed
Bedroom 3	3	Downlights	0	0	Sealed
Bedroom 4	3	Downlights	0	0	Sealed
WIL	1	Downlights	0	0	Sealed
Powder Room	1	Exhaust Fans	250	250	Sealed
Powder Room	1	Downlights	0	0	Sealed
Bathroom	1	Exhaust Fans	250	250	Sealed
Bathroom	2	Downlights	0	0	Sealed
Study/First Floor Landing	5	Downlights	0	0	Sealed

*Refer to glossary.

Ceiling *fans*

Location	Quantity	Diameter [mm]
No Data Available		

Roof *type*

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Disc:Attic-Discontinuous	0.0	0.5	Medium

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
Room refrigerative - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	5kW
Unknown or none (Default - Room refrigerative - variable capacity)	Bedroom 1, Bedroom 3, Study/First Floor Landing, Ensuite, Entry, Wil, Powder Room, Bedroom 2, Bedroom 4	Electricity	2 Star (ZERL)	11.6kW

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
Room RAC - variable capacity	Kitchen/Family/Dining	Electricity	2.1 Star (GEMS 2013)	2.5kW
Unknown or none (Default - Room RAC - variable capacity)	Bedroom 1, Bedroom 3, Study/First Floor Landing, Ensuite, Entry, Wil, Powder Room, Bedroom 2, Bedroom 4	Electricity	1 Star (ZERL)	6.4kW

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load

*Refer to glossary.

Heat pump (continuous)	Electricity	29 STCs	4	27	122L

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

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
Solar PV	92°	3kW

Battery *schedule*

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

System type	Size [battery storage capacity]
No Data Available	

*Refer to glossary.

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

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
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, 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.
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.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	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).
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.
Net zero home	a home that achieves a net zero energy value*.
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
Recommended capacity	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.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap 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 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.

*Refer to glossary.

STCs	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
Thermal breaks	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.
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).
Window shading device	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)

*Refer to glossary.

LOT 40 (NO. 89) NINTH AVENUE, ROSEBUD VIC. 3939

DRAWING LIST

SHEET No.	SHEET NAME
TP00	COVER SHEET
TP01	NEIGHBOURHOOD & SITE DESCRIPTION
TP02	DESIGN RESPONSE PLAN
TP03	GROUND FLOOR AND SITE PLAN
TP04	FIRST FLOOR AND SITE PLAN
TP05	WSUD PLAN
TP06	ELEVATIONS
TP07	ELEVATIONS
TP08	SHADOWCAST_9AM-12PM_SEPTEMBER 22ND
TP09	SHADOWCAST_1PM-3PM_SEPTEMBER 22ND
TP10	CLAUSE 55 REFERENCE

DualOcc

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COVER SHEET

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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Certificate No. # SDP6R5F3R0

Scan QR code or follow website link for rating details.

Assessor name: Claude-Francois Sookloll
Accreditation No.: DMN/14/1662
Property Address: 3, Lot 40 (#89 Unit 3) Ninth Avenue ROSEBUD, 3939, VIC, 3939

https://www.fr5.com.au/QRCodeLanding?PublicId=SDP6R5F3R0

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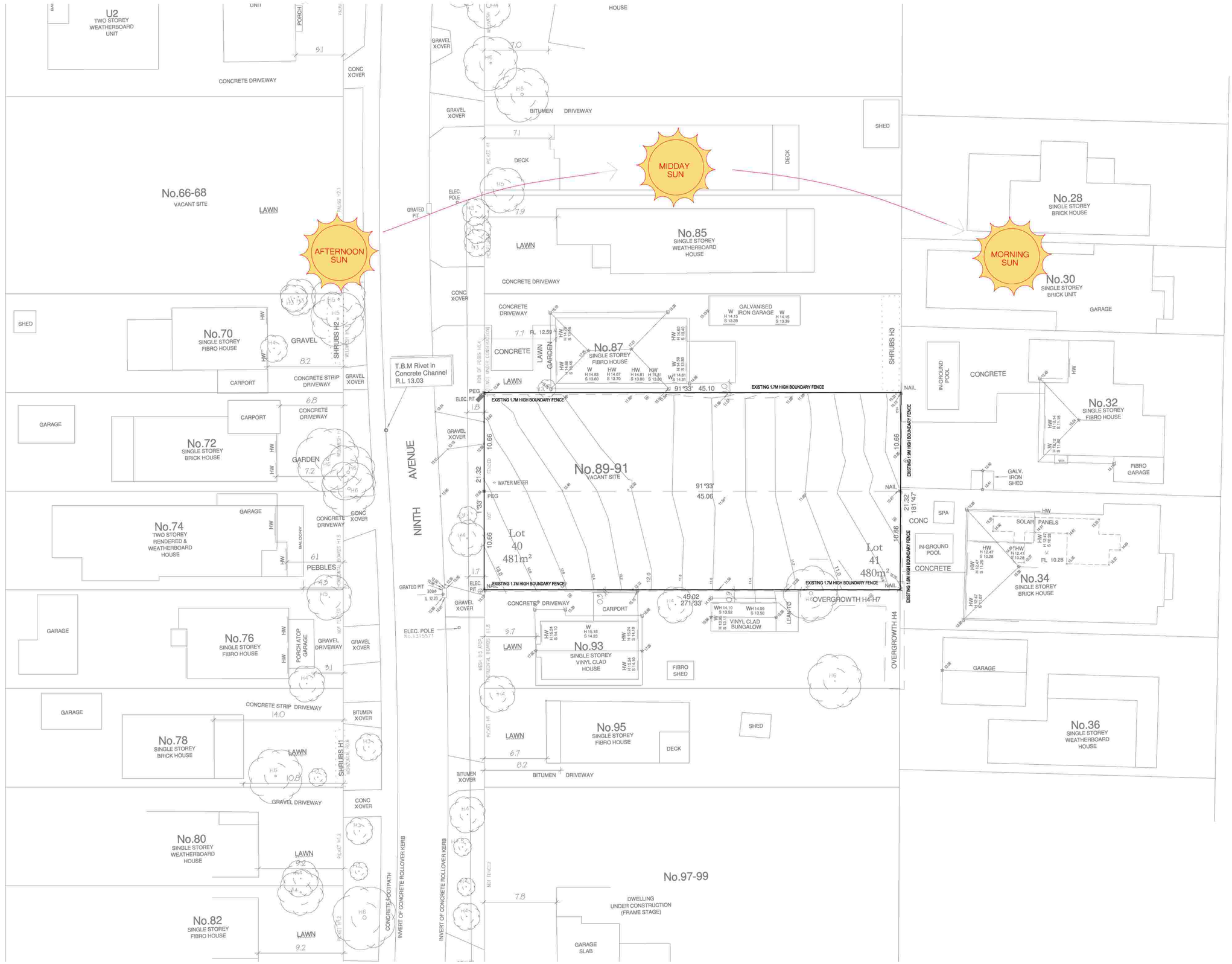

NEIGHBOURHOOD & SITE DESCRIPTION

THE SUBJECT STREET AND THE SURROUNDING NEIGHBOURHOOD IS GENERALLY COMPRISED OF SINGLE & DOUBLE STOREY BRICK & WEATHERBOARD DWELLINGS WITH PITCHED TILED ROOFS.

NEW & RECENT DEVELOPMENT IS COMMON THROUGHOUT THE AREA WITH EVIDENCE NEARBY OF UNIT DEVELOPMENTS, FRONT & BACKS AND DUPLEX TYPE FORMS. BUILDING MATERIALS ARE MIXED WITH DEVELOPMENT FOSTERING CONTEMPORARY MATERIALS THAT COMPLIMENT NEIGHBOURHOOD CHARACTER.

FRONT FENCES ARE UBIQUITOUS & GENERALLY LOW FORM WITH PREDOMINANTLY BRICK CONSTRUCTION TYPE BUT ALSO INCLUDING TIMBER PALING, PICKET AND RENDERED.

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NEIGHBOURHOOD & SITE DESCRIPTION

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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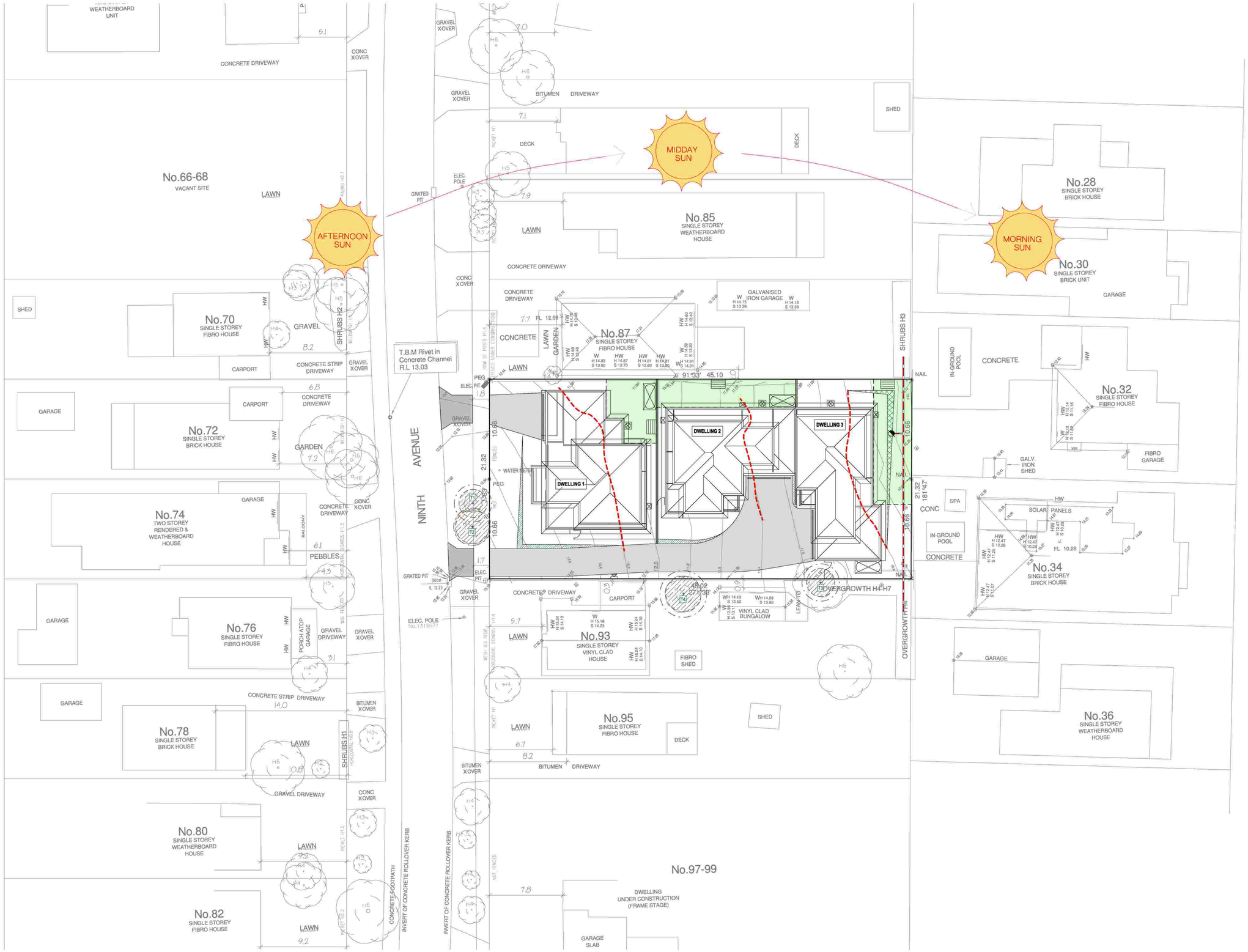

LEGEND:

- METER LOCATIONS.
- 2.0m BY 2.5m CORNER SPLAY, 50% CLEAN OF VISUAL OBSTRUCTIONS LESS THAN 900mm HIGH.
- SOLAR HOT WATER SYSTEM.
- RUBBISH / RECYCLE BINS.
- CLOTHESLINE.
- STEPPING STONES / PAVERS.
- DRIVEWAYS / HARD PAVING.
- FINISHED SURFACE LEVELS.
- EXISTING TREE.
- TREE TO BE REMOVED.
- PROPOSED CANOPY TREE.
- GRASSES / SMALL PLANTS.
- SMALL TREE / SHRUB.
- TREE PROTECTION ZONE.
- STRUCTURAL ROOT ZONE.

IMPORTANT NOTES

- ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7m ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.
- ALL LEVELS ARE TO A.H.D.
- PROPOSED INTERNAL FENCING TO BE 1.8m HIGH TIMBER PALINGS UNLESS OTHERWISE NOTED.
- ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY).
- ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.
- 6.00m³ CUBIC METERS OF STORAGE IS PROVIDED WITHIN GARDEN SHED UNLESS OTHERWISE NOTED.

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DESIGN RESPONSE PLAN

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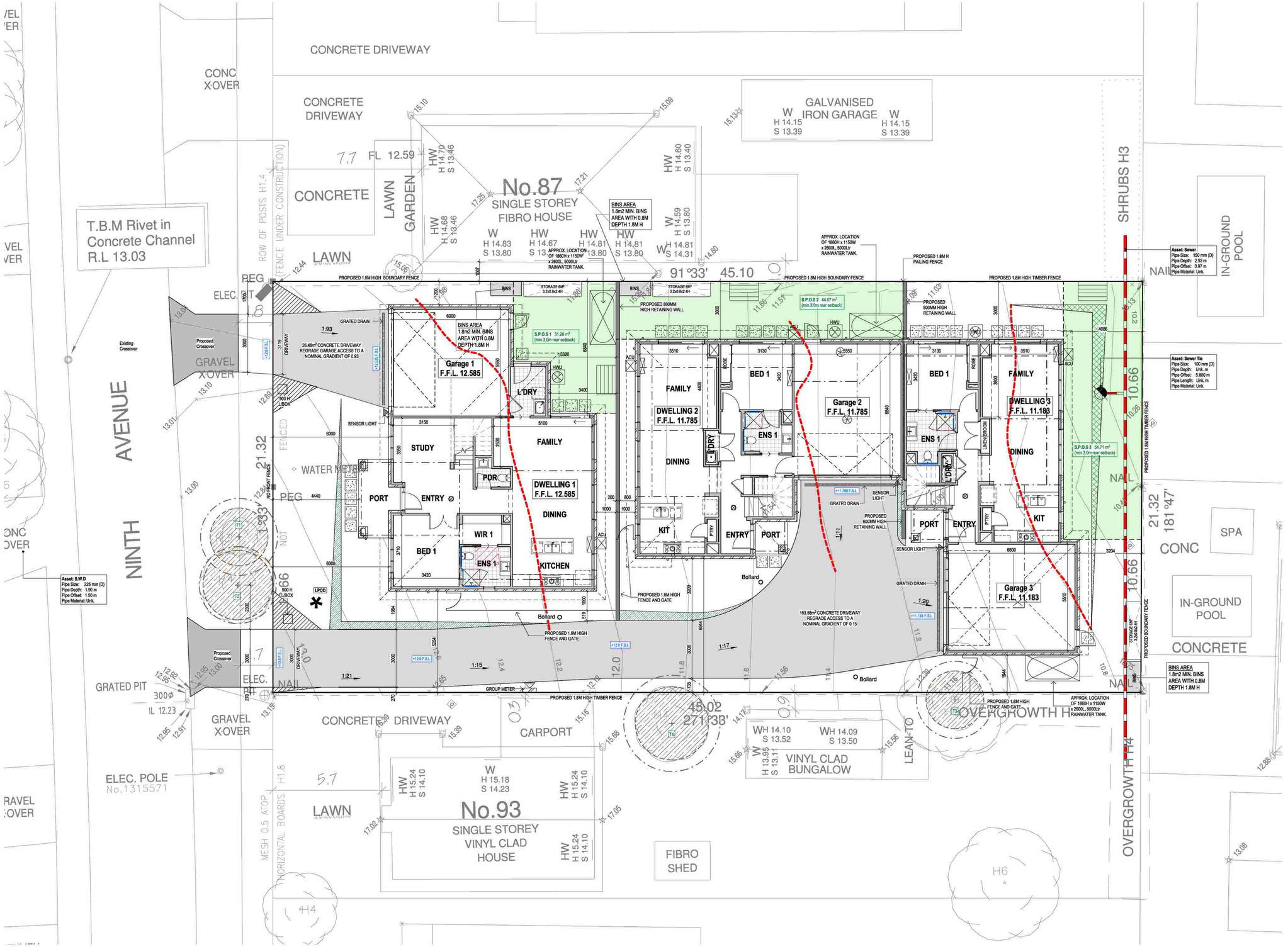

LEGEND:

- METER LOCATIONS.
- 2.0m BY 2.5m CORNER SPLAY, 50% CLEAN OF VISUAL OBSTRUCTIONS LESS THAN 900mm HIGH.
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- RUBBISH / RECYCLE BINS.
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SCHEDULE OF AREAS

	Nº OF PROPOSED DWELLINGS	3	
AREA ANALYSIS			
	SITE AREA	961.00 m²	
	SITE COVERAGE	410.87 m²	42.75%
	DRIVEWAY	150.92 m²	15.70%
PERMEABILITY ANALYSIS			
	PERMEABLE AREA	399.21 m²	41.54%
	GARDEN AREA	351.62 m²	36.59%
DWELLING 1			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	147.56 m²	15.35%
AREAS	FIRST FLOOR	69.60 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	31.26 m²	
DWELLING 2			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	135.33 m²	14.08%
AREAS	FIRST FLOOR	78.47 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	44.67 m²	
DWELLING 3			
AREAS	GROUND FLOOR (BUILDING FOOTPRINT)	127.98 m²	13.32%
AREAS	FIRST FLOOR	78.96 m²	
AREAS	BEDROOMS	4	
AREAS	ALLOCATED CAR PARKING	2	
AREAS	S.P.O.S & P.O.S	54.71 m²	

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GROUND FLOOR AND SITE PLAN

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CONCRETE DRIVEWAY

CONC X-OVER

CONCRETE DRIVEWAY

GALVANISED IRON GARAGE

W H 14.15 S 13.39

W H 14.15 S 13.39

SHRUBS H3

IN-GROUND POOL

CONCRETE

T.B.M Rivet in Concrete Channel R.L 13.03

ROW OF POSTS H1.4 (FENCE UNDER CONSTRUCTION)

CONCRETE

LAWN

GARDEN

7.7

FL 12.59

No.87

SINGLE STOREY FIBRO HOUSE

HW H 14.70 S 13.46

HW H 14.60 S 13.40

HW H 14.68 S 13.46

W H 14.59 S 13.80

W H 14.83 S 13.80

HW H 14.67 S 13.70

HW H 14.81 S 13.80

HW H 14.81 S 13.80

W H 14.81 S 14.31

LAWN

PEG

ELEC. PIT

1.8

91°33' 45.10

NAIL

GRAVEL X-OVER

AVENUE

NINTH

10.66

21.32

91°33'

FENCED

WATER METER

PEG

NOT

DWELLING 1 F.F.L. 15.635

BED 2

WIR 2

BED 3

WC

LINEN 2

LINEN 1

ROBE

BED 4

BATH

DWELLING 2 F.F.L. 14.835

BED 3

BATH

ROBE

BED 4

PDR

WIL

BED 2

LEISURE

DWELLING 3 F.F.L. 14.233

BATH

BED 3

ROBE

PDR

WIL

BED 2

LEISURE

BED 4

NAIL

10.66

21.32

181°47'

SPA

CONC

IN-GROUND POOL

CONCRETE

GALV. IRON SHED

SOL

SING BRI

HW H 12.47 S 10.28

HW H 12.47 S 11.25

HW H 12.47 S 11.07

GRATED PIT

300Φ

IL 12.23

ELEC. PIT

1.7

NAIL

GRAVEL X-OVER

CONCRETE DRIVEWAY

CARPORT

45.02

271°33'

WH 14.10 S 13.52

WH 14.09 S 13.50

W H 13.95 S 13.11

VINYL CLAD BUNGALOW

LEAN-TO

H6 OVERGROWTH H4-H7

NAIL

ELEC. POLE No.1315571

GRAVEL X-OVER

MESH 0.5 ATOP HORIZONTAL BOARDS H1.8

5.7

LAWN

No.93

SINGLE STOREY VINYL CLAD HOUSE

HW H 15.24 S 14.10

W H 15.18 S 14.23

HW H 15.24 S 14.10

HW H 15.24 S 14.10

FIBRO SHED

OVERGROWTH H4

GARAGE

RITUMEN

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FIRST FLOOR AND SITE PLAN

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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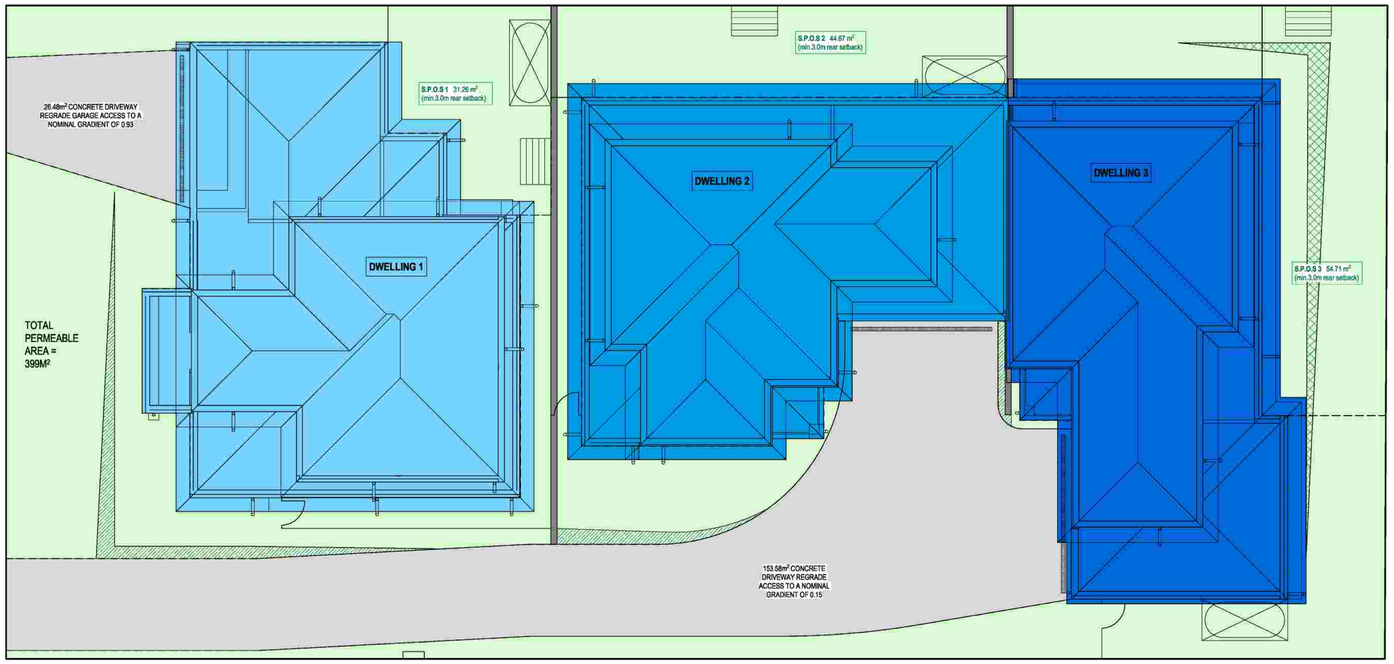

RAINWATER COLLECTION ON SUBJECT SITE (961m²) :

THE RAINWATER FROM DWELLING 1 ROOF CATCHMENT AREA OF 169.9m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 2 ROOF CATCHMENT AREA OF 158.87m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

THE RAINWATER FROM DWELLING 3 ROOF CATCHMENT AREA OF 158.28m² IS TO BE COLLECTED AND DISCHARGE VIA FULLY CHARGED SYSTEM INTO A 5000LT CAPACITY RAINWATER TANK WHICH IS TO BE CONNECTED TO ALL TOILET FLUSHING.

PERMEABLE GROUND 399.21m² (41.54%)

180.06m² NON PERMEABLE DRIVEWAY TO STORM WATER SYSTEM - NO TREATMENT

Project # 49AA56E7 - 758307/308/309 - Wang
lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
12 January 2026 8:51 a.m.

BLUE FACTOR.

758307/308/309 - Wang

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

102% SCORE

Project details

Name	758307/308/309 - Wang
Street address	lot 40/89 Ninth Ave, Rosebud VIC 3939, Australia
Municipality	Mornington Peninsula
Site area	961 m²
Planning Number	Not Applicable

Unit 1

Unit 1 Roof, 169.9m2

Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 5,

Unit 1 Residential Townhouse, 4 bedroom(s)

Unit 2

Unit 2 Roof, 158.87m2

Rainwater Tank 2
Rainwater tank retention volume in kilolitres: 5,

Unit 2 Residential Townhouse, 4 bedroom(s)

Unit 3

Unit 3 Roof, 158.28m2

Rainwater Tank 3
Rainwater tank retention volume in kilolitres: 5,

Unit 3 Residential Townhouse, 4 bedroom(s)

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WSUD PLAN

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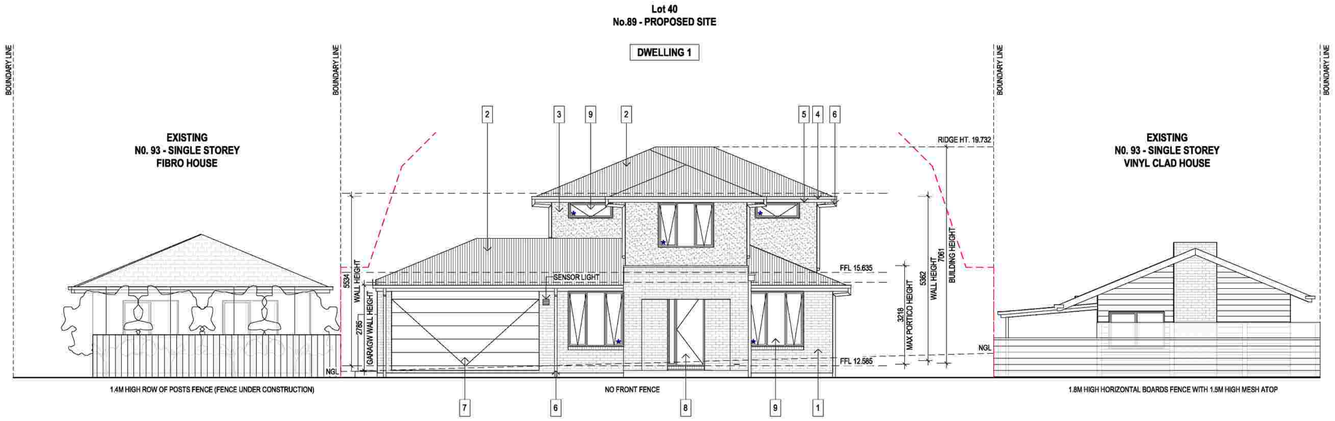
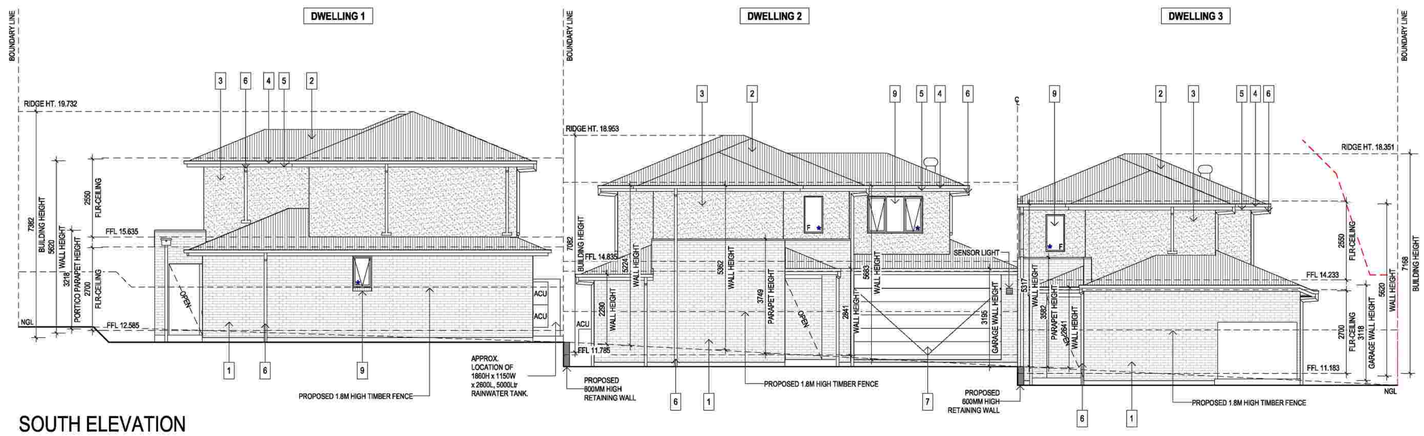
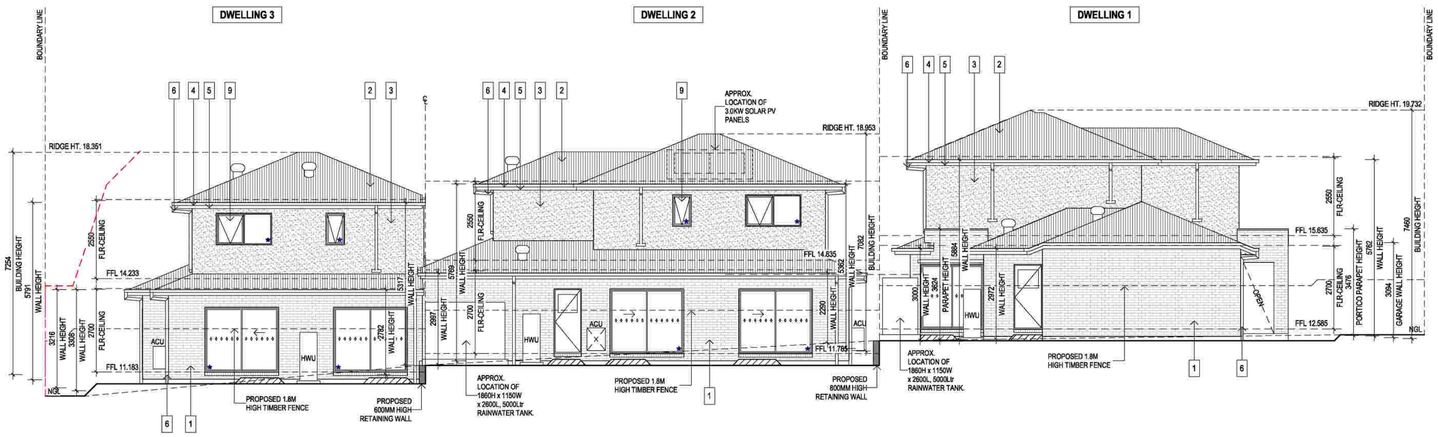


WEST ELEVATION NINTH AVENUE



SOUTH ELEVATION



NORTH ELEVATION

IMPORTANT NOTES

ALL LEVELS ARE TO A.H.D.

ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7M ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.

ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY) UNLESS OTHERWISE NOTED.

ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.

MATERIALS

1	SELECTED BRICKWORK
2	ROOF CLADDING
3	RENDER
4	GUTTER
5	FASCIA
6	DOWN PIPES
7	PANEL LIFT GARAGE DOOR
8	FRONT ENTRY DOOR
9	ALUMINIUM WINDOW FRAMES
10	WALL CLADDING
*	DENOTES DOUBLE GLAZING
	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

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ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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N

1:1

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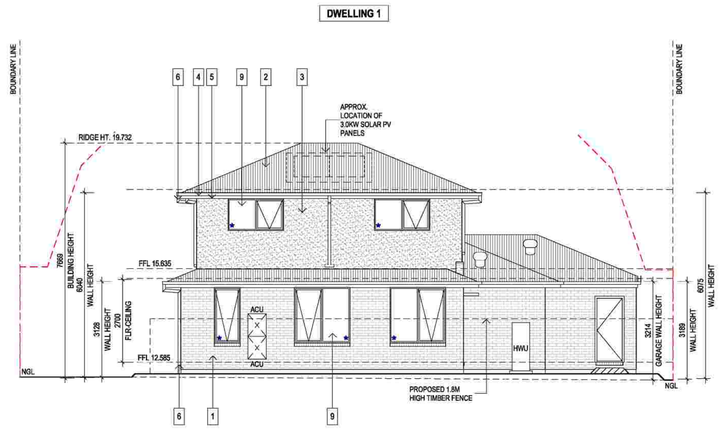
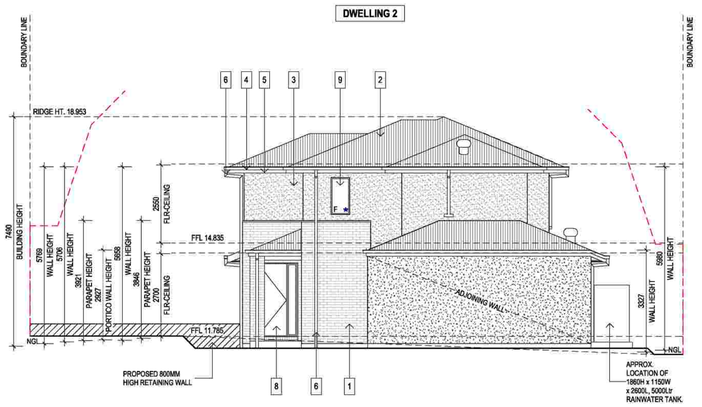
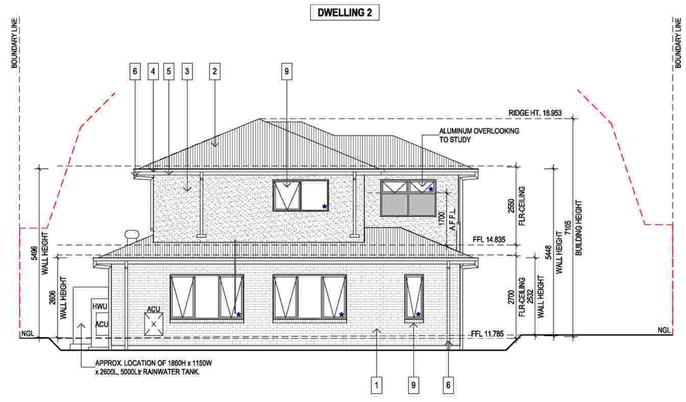


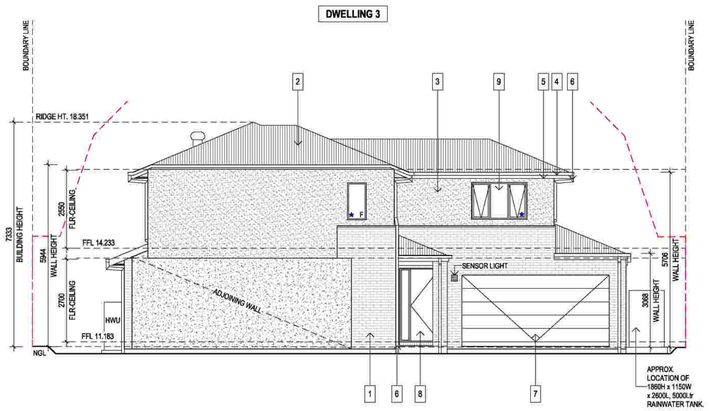
EAST ELEVATION DWELLING 1



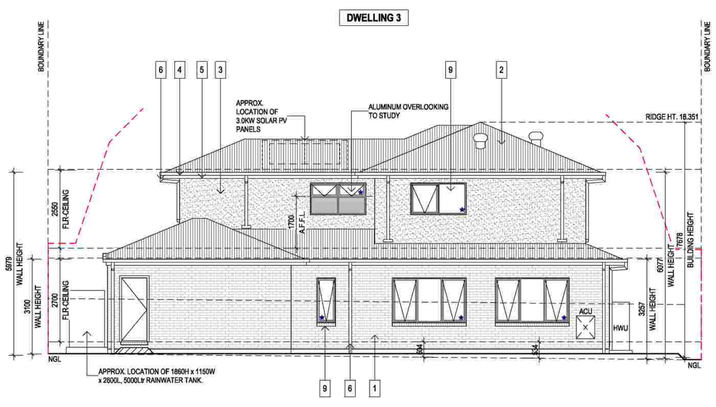
EAST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 2



WEST ELEVATION DWELLING 3



EAST ELEVATION DWELLING 3

IMPORTANT NOTES

ALL LEVELS ARE TO A.H.D.

ALL NOMINATED OVERLOOKING WINDOWS WILL HAVE FIXED AND MANUFACTURED OBSCURE GLASS UP TO 1.7M ABOVE FFL IN ACCORDANCE WITH CLAUSE 55.04-6.

ALL BOUNDARY FENCES ARE EXISTING AND ARE TO REMAIN (EXCEPT WHERE WALL PROPOSED ON BOUNDARY) UNLESS OTHERWISE NOTED.

ALL LANDSCAPING SHOWN IS CONCEPTUAL AND INDICATIVE ONLY.

MATERIALS

1	SELECTED BRICKWORK
2	ROOF CLADDING
3	RENDER
4	GUTTER
5	FASCIA
6	DOWN PIPES
7	PANEL LIFT GARAGE DOOR
8	FRONT ENTRY DOOR
9	ALUMINIUM WINDOW FRAMES
10	WALL CLADDING
*	DENOTES DOUBLE GLAZING
	DENOTES FIXED OBSCURE GLAZING WITHIN 1.7M ABOVE FFL. COMPLIANT WITH STANDARD B22
	DENOTES OPENABLE WINDOWS

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

ELEVATIONS

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

N

Date
Scale
Drawn

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SHADOWCAST @ 9AM
1 : 200

SHADOWCAST @ 10AM
1 : 200

SHADOWCAST @ 11AM
1 : 200

SHADOWCAST @ 12PM
1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_9AM-12PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

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SHADOWCAST @ 1PM

1 : 200

SHADOWCAST @ 2PM

1 : 200

SHADOWCAST @ 3PM

1 : 200

HATCH DENOTES EXTENT OF SHADOW CAST BY PROPOSED BUILDING.

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING BUILDINGS

HATCH DENOTES EXTENT OF SHADOW CAST BY EXISTING FENCE

HATCH DENOTES EXTENT OF ADDITIOANL SHADOW CAST BY PROPOSED BUILDING.

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

SHADOWCAST_1PM-3PM_SEPTEMBER 22ND

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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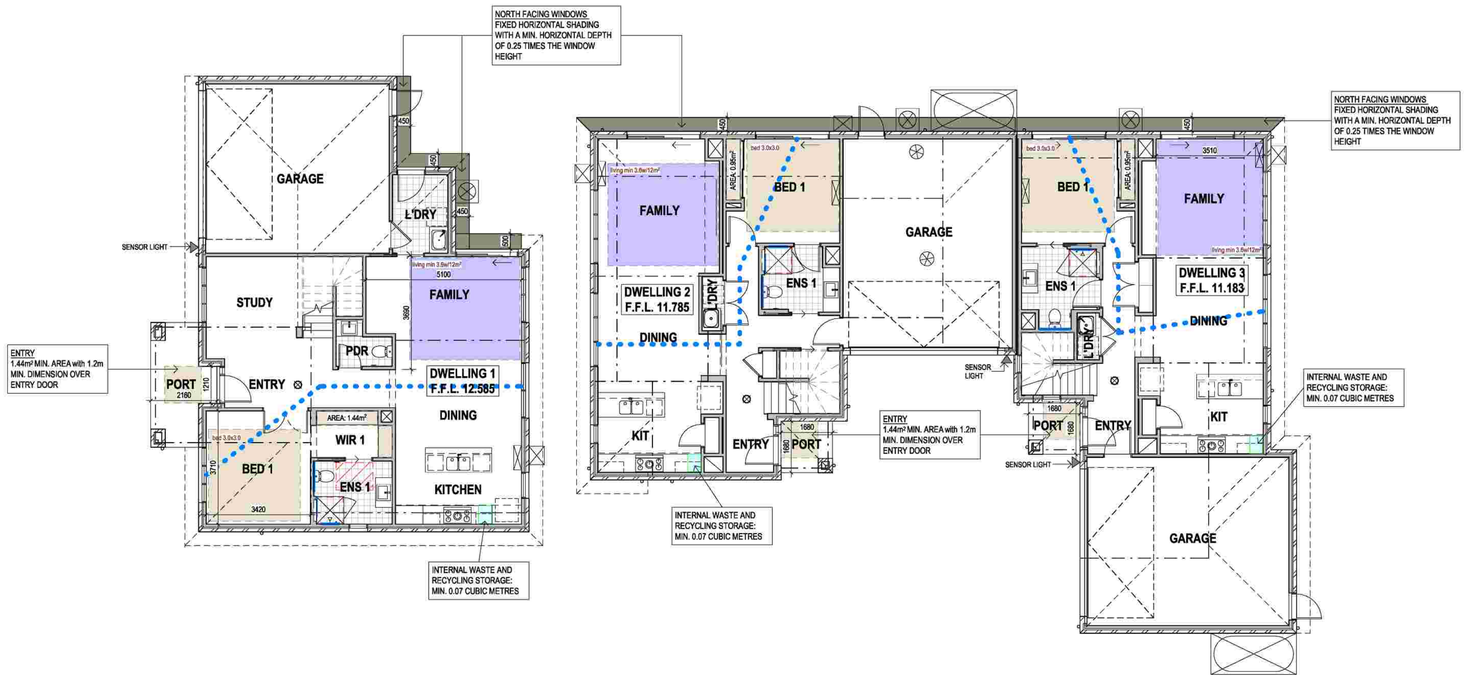


GROUND FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

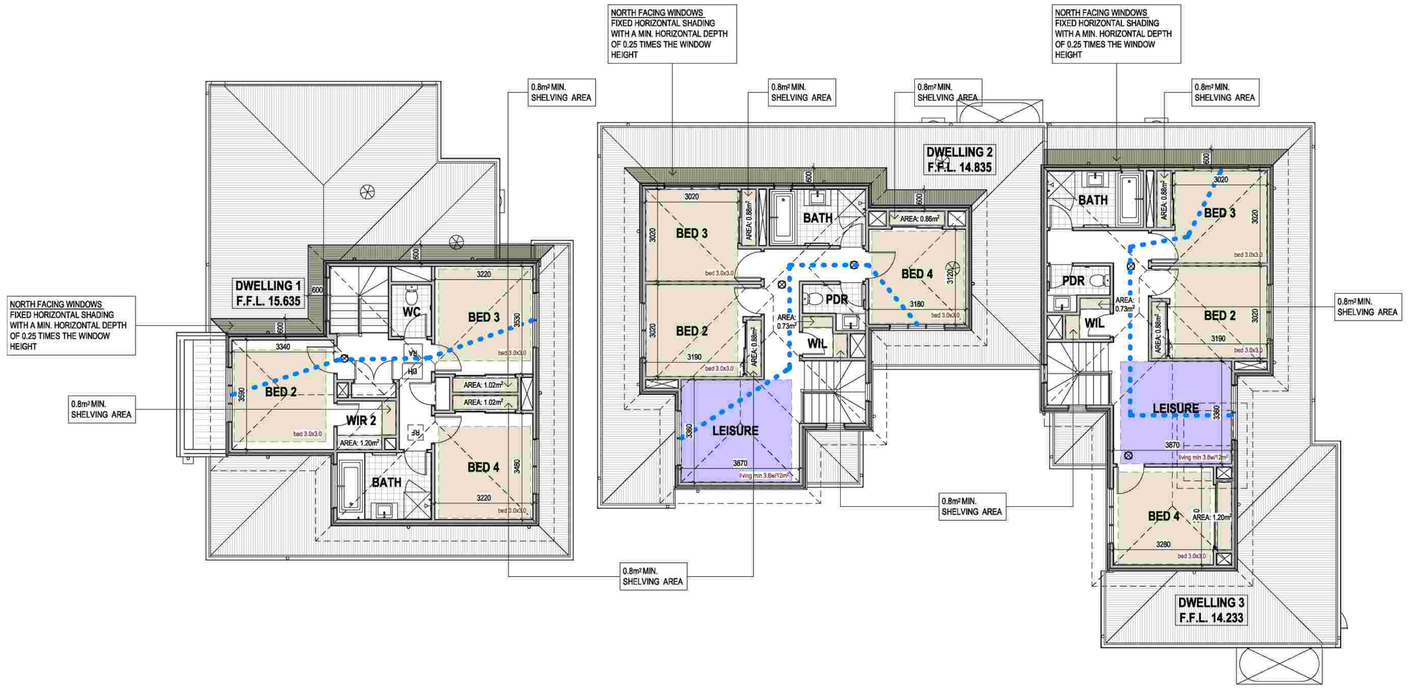
- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT

DWELLING 2 & 3

- GROUND FLOOR CEILING HEIGHT: 2.7m
- MAX. SINGLE ASPECT ROOM DEPTH ALLOWED: 6.75m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
- FAMILY & BED 1 - COMPLIANT



FIRST FLOOR PLAN
1 : 100

ROOM DEPTH COMPLIANCE

DWELLING 1

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
  BED 2, BED 3, & BED 4 - COMPLIANT

DWELLING 2 & 3

- FIRST FLOOR CEILING HEIGHT: 2.55m
- MAX SINGLE ASPECT ROOM DEPTH ALLOWED: 6.375m DEPTH

- HABITABLE ROOMS WITH SINGLE ASPECT:
  STUDY, BED 2, BED 3, & BED 4 - COMPLIANT

	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m² MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT.
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

DualOcc

Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 REFERENCE

Lot 40 (No.89) Ninth Avenue,
Rosebud Vic. 3939

N

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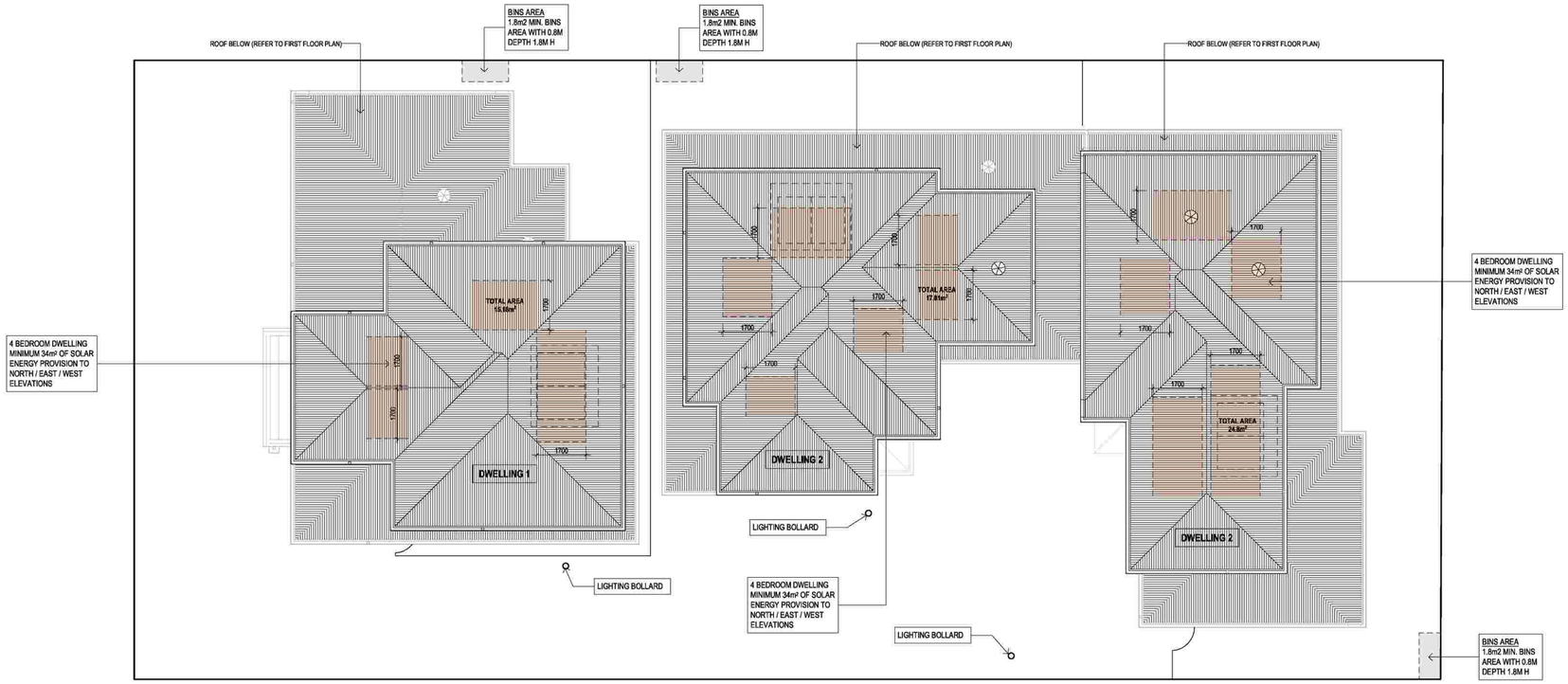
GROUND FLOOR PLAN GARDEN

1 : 100

TOTAL GARDEN AREA
351.621m²
(36.59%)



SITE PLAN - ROOF PLAN

1 : 100

	TREES DEEP SOIL AREA FOR TREES TYPES A, B, & C
	1.8m² MIN. BINS AREA WITH 0.8m DEPTH 1.8mH
	FIXED HORIZONTAL SHADING WITH A MIN. HORIZONTAL DEPTH OF 0.25 TIMES THE WINDOW HEIGHT.
	1.44m² MIN. AREA WITH 1.2m MIN. DIMENSION OVER ENTRY DOOR
	MINIMUM BEDROOMS AREA DIMENSION
	MINIMUM ROBE AREA
	MINIMUM LIVING AREA DIMENSION
	INTERNAL WASTE AND RECYCLING STORAGE: 0.45X0.45X.04=0.08 CUBIC METRES
	MINIMUM 34m² OF SOLAR ENERGY PROVISION TO NORTH / EAST / WEST ELEVATIONS
	CROSSFLOW VENTILATION PATH

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Revision

REV.	DESCRIPTION	DATE	DRAWN	CHECKED

CLAUSE 55 GARDEN AREA

Lot 40 (No.89) Ninth Avenue, Rosebud Vic. 3939

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