

Nationwide House Energy Rating Scheme®

NatHERS® Certificate No.

9XYJWD69WU-03

Generated on 31 Jul 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 156 Wyadra Avenue,
North Manly, NSW, 2100
Lot/DP 34/DP6171
NCC Class* Class 1a
Floor/all Floors
Type New Home

Plans

Main plan IH2501 Rev C/17.03.25
Prepared by JR Design & Drafting

Construction and environment

Assessed floor area [m²]*	Exposure type
Conditioned* 258.9	suburban
Unconditioned* 58.6	NatHERS climate zone
Total 317.5	56 Mascot AMO
Garage 32.9	



Accredited assessor

Name Andrew Champness
Business name Aerotight
Email andrew@erotight.com.au
Phone 0488990065
Accreditation No. 101591
Assessor Accrediting Organisation
ABSA
Declaration of interest Yes, managed

NCC Requirements

NCC provisions Volume 2
State/Territory variation Yes

National Construction Code (NCC) requirements

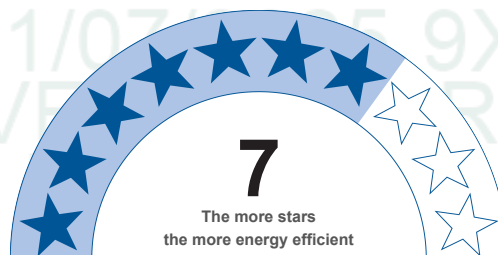
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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



**NATIONWIDE
HOUSE**
ENERGY RATING SCHEME®

30 MJ/m²

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

For more information on your dwelling's rating see:
www.nathers.gov.au

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	14.6	15.4
Load limits	N/A	N/A
Features determining load limits		
Floor type (lowest conditioned area)		N/A
NCC climate zone 1 or 2		N/A
Outdoor living area		N/A
Outdoor living area ceiling fan		N/A

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate

Verification

To verify this certificate, scan the QR code or visit <https://www.fr5.com.au/QRCodeLanding?PublicId=9XYJWD69WU-03> When using either link, ensure you are visiting www.fr5.com.au.





About the ratings

Thermal performance rating

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

Whole of Home performance rating

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

Heating & Cooling Load Limits

Additional information

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

Setting options:

Floor type:

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

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

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

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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	
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?	☐	☐	☐	☐	☐

Certificate check

Continued

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

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

Thermal bridging

Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
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Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
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Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)

Appliances

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

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
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Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
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Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
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Other NCC requirements

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

Additional notes

1. All specifications written in this report must be followed in the design and construction of the project. To achieve the 7-star requirement, the client has been advised to ensure that the specifications reflected in this assessment are accurately shown on the plans. Should there be any inconsistencies between the plans and this assessment, the details in this report (NatHERS certificate) shall prevail.
2. Waffle pod system was used as the project's slab on ground system (w/ R-0.6).
3. Floor finishes are as follows:
 - All living areas at the ground floor are in tile floor finishes.
 - All enclosed living areas at the ground floor are in carpet floor finishes.

*Refer to glossary.



- All living and common areas at the first floor are in carpet floor finishes.
- All bedrooms are in carpet floor finishes.
- All wet areas are in tile floor finishes.
- 4. Exterior and internal wall colours have been modelled as 0.50 SA.
- 5. Roof colour has been modelled according to the project's external colour schedule.
- 6. Recessed light fittings have been modelled as 90mmx90mm.
- 7. Exhaust fans have been modelled as 200mmx200mm.
- 8. The following provisions for assumed neighbouring buildings have been applied:
 - The sizes of the neighboring buildings have been modelled based on standard heights for two-story structures, while the horizontal dimensions and building offsets have been aligned with the specifications outlined in the site development plan.
 - The setback from the street of the neighbouring building has been treated as the same setback from the street as the dwelling being rated.
- 9. The actual windows of the project must follow the maximum u-values specified on this report.
- 10. The actual windows of the project must follow the SHGC value(s), and their tolerance ranges, written on this report.
- 11. In accordance with the available Wideline WERS codes in the FR5 library, fixed and louvered windows have been modeled with awning variants.
- 12. The 'Sitting' area on the first floor was assumed to function as a retreat space connected to the bedrooms. As such, it was zoned as Night Time along with the adjacent spaces, including the 'WIL' and 'WC 1'. These spaces are intended to serve as auxiliary areas for the bedrooms and are separated from the primary living zones.



Room *schedule*

Room	Zone Type	Area [m ²]
Media	living	16.4
Store	unconditioned	7.4
Kitchen/Living/Meals	kitchen	57.1
WIP	dayTime	6.7
Wine	dayTime	3.8
Entry/Hallway	dayTime	26.2
Laundry	unconditioned	6.5
Garage	garage	32.9
Powder	unconditioned	4.4
Lounge	living	11.2
Guest Bed	bedroom	12.7
Bed 3	bedroom	15.4
Void	doubleHeightVoid	4.2
Bed 4	bedroom	11.1
WIL	nightTime	2.6
Void	doubleHeightVoid	23.5
WIR 1	nightTime	7.7
Master Bed	bedroom	19
Ens1/WC	nightTime	10.5
Bath	unconditioned	7.5
WC1	nightTime	2.5
WIR 2	nightTime	2.5
Ens 2	nightTime	4.3
Bed 2	bedroom	15.9
Stairs/Hallway	nightTime	20.6
Sitting	nightTime	23.5

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
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit



WID-033-01 A	BSSD Ascend Sliding Stacker Door DG 4CS_12Ar_4mmClr	3.14	0.55	0.52	0.58
WID-023-01 A	Alu Semi Comm ASCEND Awning DG 6CS_12Ar_6CS	2.9	0.42	0.4	0.44
WID-031-01 A	BSW40 Sliding Window DG 4CS_12Ar_4mmClr	3.86	0.49	0.47	0.51

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Media	WID-033-01 A	SD2_Media	2400	3010	sliding	60.0	S	No
Kitchen/Living/- Meals	WID-023-01 A	W7_Living	2400	2410	louvre	60.0	W	Yes
Kitchen/Living/- Meals	WID-023-01 A	W8A_Living	2400	850	fixed	0.0	W	No
Kitchen/Living/- Meals	WID-033-01 A	SD1_Living	2400	3010	sliding	60.0	S	No
Kitchen/Living/- Meals	WID-023-01 A	W8B_Living	2400	610	fixed	0.0	S	No
Powder	WID-031-01 A	W4_Powder	600	970	sliding	45.0	W	No
Lounge	WID-023-01 A	W1_Lounge	2600	850	louvre	90.0	N	No
Lounge	WID-023-01 A	W2A_Lounge	2600	1435	fixed	0.0	N	No
Lounge	WID-023-01 A	W2B_Lounge	2600	850	fixed	0.0	W	No
Lounge	WID-023-01 A	W3_Lounge	1411	1800	fixed	0.0	W	No
Guest Bed	WID-031-01 A	W5_GuestBed	1200	1810	sliding	45.0	W	No
Bed 3	WID-023-01 A	W10_Bed3	2400	850	louvre	90.0	E	No
Bed 3	WID-023-01 A	W11_Bed3	2400	1210	louvre	90.0	N	No
Void	WID-023-01 A	W12_Void	2400	1400	fixed	0.0	N	No
Bed 4	WID-023-01 A	W13_Bed4	2400	878	louvre	90.0	E	No
Bed 4	WID-023-01 A	W14_Bed4	2400	850	louvre	90.0	N	No
Bed 4	WID-023-01 A	W15A_Bed4	2400	850	fixed	0.0	N	No
Bed 4	WID-023-01 A	Opening 38	1883	1200	fixed	0.0	W	No
Bed 4	WID-023-01 A	W15B_Bed4	2400	850	fixed	0.0	W	No
Void	WID-023-01 A	W19_Void	2400	2410	fixed	0.0	W	No
Void	WID-023-01 A	W20A_Void	2400	850	fixed	0.0	W	No
Void	WID-023-01 A	W21_Void	1460	3010	fixed	0.0	S	No
Void	WID-023-01 A	W20B_Void	2400	610	fixed	0.0	S	No
WIR 1	WID-031-01 A	W24_WIR1	1030	1210	sliding	45.0	S	No
Master Bed	WID-023-01 A	W22_MasterBed	1030	1210	fixed	0.0	W	No
Master Bed	WID-023-01 A	W23_MasterBed	1030	3610	awning	60.0	S	No
Ens1/WC	WID-031-01 A	W26_Ens1	1030	1570	sliding	45.0	E	No



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Ens1/WC	WID-031-01 A	W25_WC2	1030	850	sliding	45.0	E	No
Bath	WID-031-01 A	W29_Bath	1030	1570	sliding	45.0	E	No
Ens 2	WID-031-01 A	W28_Ens2	1030	1201	sliding	45.0	E	No
Bed 2	WID-031-01 A	W27_Bed2	600	2650	sliding	45.0	E	No
Stairs/Hallway	WID-023-01 A	W16_Stairs	2600	1810	fixed	0.0	W	No
Sitting	WID-023-01 A	W17_Sitting	2400	1210	awning	30.0	W	No

Roof window* *type and performance value*

Default* roof windows

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

Custom* roof windows

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

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
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
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Store	2340	820	100.0	E
Entry/Hallway	2340	1400	100.0	N
Laundry	2340	820	100.0	E
Garage	2400	4810	100.0	N

External wall *type*



Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	Hebel Wall	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	Yes
2	FR5 - Fibro Clad Framed	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Media	1	3000	4104	W	4464	Yes
Media	1	3000	4005	S	0	Yes
Store	1	3000	1789	S	0	Yes
Store	1	3000	4107	E	0	Yes
Kitchen/Living/Meals	1	3000	5350	E	0	Yes
Kitchen/Living/Meals	1	3000	5351	W	0	Yes
Kitchen/Living/Meals	1	3000	4501	S	4194	Yes
WIP	1	3000	2234	E	0	Yes
Entry/Hallway	2	3000	1730	N	2233	Yes
Entry/Hallway	1	3000	2089	W	596	Yes
Laundry	1	3000	1762	E	0	Yes
Garage	2	3000	5475	N	2237	Yes
Garage	1	3000	6015	E	0	Yes
Powder	1	3000	1482	W	312	Yes
Lounge	1	3000	1156	E	7387	Yes
Lounge	1	3000	706	N	970	Yes
Lounge	1	3000	2292	N	970	Yes
Lounge	1	3000	3741	W	311	Yes
Guest Bed	1	3000	158	W	592	No
Guest Bed	1	3000	3632	W	0	Yes
Bed 3	2	2740	1159	W	0	Yes
Bed 3	2	2740	3520	E	1171	Yes
Bed 3	2	2740	4375	N	0	No
Void	2	2740	1731	N	0	Yes
Bed 4	2	2740	1157	E	0	Yes
Bed 4	2	2740	2992	N	0	Yes
Bed 4	2	2740	3843	W	0	Yes
WIL	2	2740	1388	W	0	Yes
Void	1	2740	230	W	0	Yes
Void	1	2740	5115	W	0	Yes



Void	1	2740	4391	S	0	Yes
WIR 1	2	2740	1976	S	0	Yes
WIR 1	2	2740	3892	E	0	Yes
Master Bed	2	2740	1530	W	0	Yes
Master Bed	2	2740	3823	S	0	Yes
Ens1/WC	2	2740	2886	E	0	Yes
Bath	2	2740	1099	N	3584	Yes
Bath	2	2740	2696	E	0	Yes
Ens 2	2	2740	1472	E	0	Yes
Bed 2	2	2740	3388	E	0	Yes
Stairs/Hallway	2	2740	2086	W	0	Yes
Sitting	1	2740	1113	W	273	Yes
Sitting	1	2740	1086	W	0	Yes
Sitting	1	2740	1203	W	280	Yes
Sitting	1	2740	393	W	0	Yes

Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	78.1	Glass fibre batt: R2.0 (R2.0)
2	FR5 - Internal Plasterboard Stud Wall	245.3	
3	FR5 - Internal Plasterboard Stud Wall	33.4	Glass fibre batt: R2.5 (R2.5)

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Media	225mm Waffle Pod Floor System	10.3	Enclosed	R0.6	Carpet
Media	225mm Waffle Pod Floor System	6.1	Enclosed	R0.6	Carpet
Store	225mm Waffle Pod Floor System	4.6	Enclosed	R0.6	none
Store	225mm Waffle Pod Floor System	2.7	Enclosed	R0.6	none
Kitchen/Living/Meals	225mm Waffle Pod Floor System	57.1	Enclosed	R0.6	Tiles
WIP	225mm Waffle Pod Floor System	6.7	Enclosed	R0.6	Tiles
Wine	225mm Waffle Pod Floor System	3.8	Enclosed	R0.6	Tiles
Entry/Hallway	225mm Waffle Pod Floor System	26.2	Enclosed	R0.6	Tiles
Laundry	225mm Waffle Pod Floor System	6.5	Enclosed	R0.6	Tiles



Garage	225mm Waffle Pod Floor System	30.5	Enclosed	R0.6	none
Garage	225mm Waffle Pod Floor System	2.4	Enclosed	R0.6	none
Powder	225mm Waffle Pod Floor System	4.4	Enclosed	R0.6	Tiles
Lounge	225mm Waffle Pod Floor System	11.2	Enclosed	R0.6	Carpet
Guest Bed	225mm Waffle Pod Floor System	12.7	Enclosed	R0.6	Carpet
Bed 3	FR5 - Timber Lined	10.3	Enclosed	R4.0	Carpet
Bed 3	FR5 - Timber Lined	5.1	Elevated	R4.0	Carpet
Void	No Floor	4.2	Enclosed	R0.0	No Floor
Bed 4	FR5 - Timber Lined	11.1	Enclosed	R4.0	Carpet
WIL	FR5 - Timber Lined	2.6	Enclosed	R4.0	Carpet
Void	No Floor	23.5	Enclosed	R0.0	No Floor
WIR 1	FR5 - Timber Lined	7.7	Enclosed	R4.0	Carpet
Master Bed	FR5 - Timber Lined	19	Enclosed	R4.0	Carpet
Ens1/WC	FR5 - Timber Lined	10.5	Enclosed	R4.0	Tiles
Bath	FR5 - Timber Lined	7.5	Enclosed	R4.0	Tiles
WC1	FR5 - Timber Lined	2.5	Enclosed	R4.0	Tiles
WIR 2	FR5 - Timber Lined	1	Enclosed	R4.0	Carpet
WIR 2	FR5 - Timber Lined	1.4	Enclosed	R4.0	Carpet
Ens 2	FR5 - Timber Lined	1.8	Enclosed	R4.0	Tiles
Ens 2	FR5 - Timber Lined	2.5	Enclosed	R4.0	Tiles
Bed 2	FR5 - Timber Lined	15.9	Enclosed	R4.0	Carpet
Stairs/Hallway	FR5 - Timber Lined	5.2	Enclosed	R4.0	Carpet
Stairs/Hallway	FR5 - Timber Lined	15.4	Enclosed	R4.0	Carpet
Sitting	FR5 - Timber Lined	23.5	Enclosed	R4.0	Carpet

Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Media	Plasterboard	R7.0	Yes
Media	FR5 - Timber Lined	R4.0	No
Store	Plasterboard	R7.0	Yes
Store	FR5 - Timber Lined	R4.0	No
Kitchen/Living/M- eals	FR5 - Timber	R0.0	No
Kitchen/Living/M- eals	FR5 - Timber Lined	R4.0	No
WIP	FR5 - Timber Lined	R4.0	No
Wine	FR5 - Timber Lined	R4.0	No



Entry/Hallway	FR5 - Timber	R0.0	No
Entry/Hallway	FR5 - Timber Lined	R4.0	No
Laundry	FR5 - Timber Lined	R4.0	No
Garage	FR5 - Timber Lined	R4.0	No
Garage	Plasterboard	R0.0	Yes
Powder	FR5 - Timber Lined	R4.0	No
Lounge	FR5 - Timber Lined	R4.0	No
Guest Bed	FR5 - Timber Lined	R4.0	No
Bed 3	Plasterboard	R7.0	Yes
Bed 3	Plasterboard	R7.0	Yes
Void	Plasterboard	R7.0	Yes
Bed 4	Plasterboard	R7.0	Yes
WIL	Plasterboard	R7.0	Yes
Void	Plasterboard	R7.0	Yes
WIR 1	Plasterboard	R7.0	Yes
Master Bed	Plasterboard	R7.0	Yes
Ens1/WC	Plasterboard	R7.0	Yes
Bath	Plasterboard	R7.0	Yes
WC1	Plasterboard	R7.0	Yes
WIR 2	Plasterboard	R7.0	Yes
WIR 2	Plasterboard	R7.0	Yes
Ens 2	Plasterboard	R7.0	Yes
Ens 2	Plasterboard	R7.0	Yes
Bed 2	Plasterboard	R7.0	Yes
Stairs/Hallway	Plasterboard	R7.0	Yes
Stairs/Hallway	Plasterboard	R7.0	Yes
Sitting	Plasterboard	R7.0	Yes

Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Media	1	Downlights	90	90	Sealed
Store	1	Downlights	90	90	Sealed
Kitchen/Living/Meals	4	Downlights	90	90	Sealed
Kitchen/Living/Meals	1	Exhaust Fans	200	200	Sealed
WIP	1	Downlights	90	90	Sealed
Wine	1	Downlights	90	90	Sealed
Entry/Hallway	3	Downlights	90	90	Sealed
Laundry	1	Downlights	90	90	Sealed
Laundry	1	Exhaust Fans	200	200	Sealed



Garage	4	Downlights	90	90	Sealed
Powder	1	Downlights	90	90	Sealed
Powder	1	Exhaust Fans	200	200	Sealed
Lounge	1	Downlights	90	90	Sealed
Guest Bed	1	Downlights	90	90	Sealed
Bed 3	1	Downlights	90	90	Sealed
Void	1	Downlights	90	90	Sealed
Bed 4	1	Downlights	90	90	Sealed
WIL	1	Downlights	90	90	Sealed
WIR 1	1	Downlights	90	90	Sealed
Master Bed	1	Downlights	90	90	Sealed
Ens1/WC	2	Downlights	90	90	Sealed
Ens1/WC	1	Exhaust Fans	200	200	Sealed
Bath	1	Downlights	90	90	Sealed
Bath	1	Exhaust Fans	200	200	Sealed
WC1	1	Downlights	90	90	Sealed
WC1	1	Exhaust Fans	200	200	Sealed
WIR 2	1	Downlights	90	90	Sealed
Ens 2	1	Downlights	90	90	Sealed
Ens 2	1	Exhaust Fans	200	200	Sealed
Bed 2	1	Downlights	90	90	Sealed
Stairs/Hallway	2	Downlights	90	90	Sealed
Sitting	3	Downlights	90	90	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
Media	1	1400
Kitchen/Living/Meals	2	1800
Lounge	1	1400
Master Bed	1	1400
Sitting	1	1400

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Cont:Attic-Continuous	1.3	0.3	Light
Vent:Attic-Vented	1.3	0.3	Light

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]
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No Data
Available

Appliance *schedule*

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

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

Cooling system

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

Heating system

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

Hot water system

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

Pool/spa equipment

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

Onsite renewable energy *schedule*

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

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

Battery *schedule*

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

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

Explanatory Notes

About this report

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

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

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

Accredited assessors

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

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

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

Disclaimer

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

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

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

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

Glossary

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)