

# Nationwide House Energy Rating Scheme®

## NatHERS® Certificate No. 1HO6W6IR77

Generated on 22 Apr 2025 using FirstRate5: 5.5.5a (3.22)

### Property

**Address** 316 Hudson Parade,  
Clareville, NSW, 2107

**Lot/DP** 1/827733

**NCC Class\*** Class 1a

**Floor/all Floors**

**Type** New Home

### Plans

**Main plan** Issue 2 DA 16/04/2025

**Prepared by** Baxter & Jacobson

### Construction and environment

<b>Assessed floor area [m<sup>2</sup>]*</b>		<b>Exposure type</b>
Conditioned*	556.7	exposed
Unconditioned*	509.2	<b>NatHERS climate zone</b>
Total	1065.9	56 Mascot AMO
Garage	477.4	



### Accredited assessor

**Name** Jennifer Edwards

**Business name** LivSmart Solutions

**Email** contact@livsmartsolutions.com.au

**Phone** 0414405009

**Accreditation No.** DMN/17/1795

**Assessor Accrediting Organisation**

Design Matters National

**Declaration of interest** No

### NCC Requirements

**NCC provisions** Volume 2

**State/Territory variation** Yes

#### National Construction Code (NCC) requirements

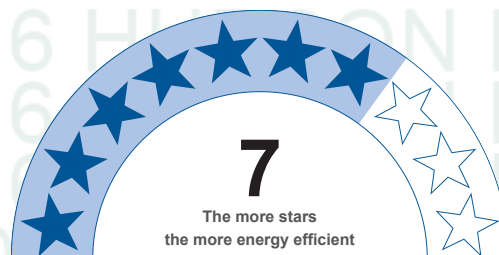
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two.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

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

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

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

### Thermal performance star rating



**NATIONWIDE**  
**HOUSE**  
ENERGY RATING SCHEME®

**29.8 MJ/m<sup>2</sup>**

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

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

### Thermal performance [MJ/m<sup>2</sup>]

Limits taken from ABCB Standard 2022

	Heating	Cooling
<b>Modelled</b>	23	6.8
<b>Load limits</b>	N/A	N/A
<b>Features determining load limits</b>		
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=1HO6W6IR77>. When using either link, ensure you are visiting [www.fr5.com.au](http://www.fr5.com.au).





## About the ratings

### Thermal performance rating

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

### Whole of Home performance rating

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

## Heating & Cooling Load Limits

### Additional information

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

### Setting options:

Floor type:

CSOG – Concrete Slab on Ground

SF – Suspended Floor (or a mixture of CSOG and SF)

NA – Not Applicable

NCC climate Zone 1 or 2:

Yes

No

NA – not applicable

Outdoor living area:

Yes

No

NA – not applicable

Outdoor living area ceiling fan:

Yes

No

NA – not applicable

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

\*Refer to glossary.



## Certificate check

Continued

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

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

#### Thermal bridging

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

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

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

#### Appliances

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

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

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

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

#### Additional notes

1. Main dwelling and Studio are attached through the garage so modelled together.
2. Store/Plant room vent is unsealed. Therefore this area is excluded.
3. Custom windows selected. These are reference only for the U value and SHGC. Must match opening type but not frame.





## Room *schedule*

Room	Zone Type	Area [m <sup>2</sup> ]
Garage 1 / Den	garage	371.7
Bath 1	unconditioned	9
Ensuite 1	nightTime	9.5
Lift 1	dayTime	2.1
Bar	dayTime	37.6
Hallway 1 / Cellar	dayTime	34.7
Bedroom 1	bedroom	19.3
WIR 1	nightTime	7.5
Electrical Room	unconditioned	15.7
Games Room	living	114.8
Lift 2	dayTime	2.1
Pantry	dayTime	4
Laundry	dayTime	8.3
Ensuite 2	nightTime	4.9
Ensuite 3	nightTime	6.6
Bedroom 3	bedroom	18.7
Bedroom 2	bedroom	14.5
Hallway 2	dayTime	32
Kitch/Din/Living	kitchen	129.5
Hallway 3	dayTime	4
Garage Extension	garage	56
Garage 2	garage	49.7
WC	dayTime	3.1
Bedroom 4	bedroom	26.8
Robe 1	dayTime	10.6
Robe 2	dayTime	19.4
Ensuite 4	nightTime	23
Lift 3	dayTime	2.4
Bath 2 (Gym)	unconditioned	7.2
Gym/Studio	dayTime	46.6

## Window and glazed door *type and performance*

### Default\* windows

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



ALM-001-01 A	Aluminium A SG Clear	6.7	0.57	0.54	0.6
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## Custom\* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
SOV-024-08 W	300 Series Fixed Window-TPS 4/14Ar/4EA	1.93	0.57	0.54	0.6
CAN-004-04 W	Timber Awning Window DG 3/12/3	2.54	0.52	0.49	0.55
THC-041-02 A	Series EC55TB Inward Opening Bi-fold Door DG 4-12Ar-4ET	2.4	0.52	0.49	0.55
MAR-030-11 W	Integrity Casement Picture DG 4clr / 10 / 4LoE 180	1.93	0.55	0.52	0.58
SOV-008-17 W	600 Series Sliding Door-TPS 4/12Ar/4/12Ar/4LE272	1.37	0.35	0.33	0.37
SOV-001-04 W	800 Series Sliding Window 4/12Ar/4EA	2.05	0.55	0.52	0.58
SOV-002-10 W	325 High Fixed Window-TPS 4LE272/14Ar/4	1.5	0.33	0.31	0.35
HAF-004-09 B	SL60eco TB floor spt open out bifold door DG 6Gn-12Ar-6EA	2.08	0.34	0.32	0.36

Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Garage 1 / Den	ALM-001-01 A	D01	2700	10150	other	90.0	W	No
Bath 1	SOV-024-08 W	W02 - fixed	1200	970	fixed	0.0	N	No
Bath 1	CAN-004-04 W	W02 - awning	800	970	awning	90.0	N	No
Ensuite 1	SOV-024-08 W	W05	2100	990	fixed	0.0	S	No
Bar	THC-041-02 A	D03	2500	4000	other	90.0	N	No
Bar	THC-041-02 A	D04	2500	6630	other	90.0	W	No
Hallway 1 / Cellar	CAN-004-04 W	W02A - awning	800	970	awning	90.0	N	No
Hallway 1 / Cellar	SOV-024-08 W	W02A - fixed	1200	970	fixed	0.0	N	No
Hallway 1 / Cellar	MAR-030-11 W	D02	2500	970	casement	90.0	N	No
Bedroom 1	SOV-008-17 W	D06	2400	3800	sliding	45.0	W	No
Games Room	SOV-008-17 W	D05	2400	5420	sliding	45.0	W	No
Games Room	SOV-024-08 W	W03	2400	1500	fixed	0.0	W	No
Games Room	SOV-024-08 W	W04	2400	1500	fixed	0.0	W	No
Ensuite 3	SOV-024-08 W	W11a Fixed	1390	970	fixed	0.0	S	No
Ensuite 3	CAN-004-04 W	W11b Awning	730	970	awning	90.0	S	No
Bedroom 3	SOV-008-17 W	D15	2580	3780	sliding	45.0	W	No
Bedroom 3	SOV-024-08 W	W10a Fixed	1390	970	fixed	0.0	S	No
Bedroom 3	CAN-004-04 W	W10b Awning	730	970	awning	90.0	S	No



Bedroom 2	SOV-001-04 W	W12	1550	1800	sliding	10.0	S	No
Hallway 2	MAR-030-11 W	D10	2580	1080	casement	90.0	N	No
Hallway 2	SOV-002-10 W	W06	1800	2700	fixed	0.0	N	No
Kitch/Din/Livin- g	SOV-008-17 W	D11	2580	3800	sliding	45.0	N	No
Kitch/Din/Livin- g	SOV-008-17 W	D12	2580	6650	sliding	60.0	W	No
Kitch/Din/Livin- g	SOV-008-17 W	D13	2580	1860	sliding	45.0	N	No
Kitch/Din/Livin- g	SOV-002-10 W	W07	2900	1414	fixed	0.0	W	No
Kitch/Din/Livin- g	SOV-002-10 W	W08	3768	5542	fixed	0.0	W	No
Kitch/Din/Livin- g	SOV-002-10 W	W09	2900	1413	fixed	0.0	W	No
Kitch/Din/Livin- g	SOV-008-17 W	D14	2580	1860	sliding	45.0	S	No
Kitch/Din/Livin- g	MAR-030-11 W	D16 glass	1300	1800	casement	100.0	E	No
Kitch/Din/Livin- g	SOV-024-08 W	W14	3045	820	fixed	0.0	E	Yes
Kitch/Din/Livin- g	SOV-024-08 W	W13	3045	820	fixed	0.0	E	Yes
Kitch/Din/Livin- g	SOV-024-08 W	W15	974	3900	fixed	0.0	E	No
Bedroom 4	CAN-004-04 W	W18	420	3520	awning	90.0	N	No
Bedroom 4	SOV-008-17 W	D20	2190	5570	sliding	45.0	W	No
Bedroom 4	SOV-024-08 W	W19	538	5570	fixed	0.0	W	No
Robe 1	CAN-004-04 W	W17	420	4320	awning	90.0	N	No
Ensuite 4	CAN-004-04 W	W20	420	1195	awning	90.0	S	No
Ensuite 4	SOV-024-08 W	W21	530	5665	fixed	0.0	E	No
Ensuite 4	CAN-004-04 W	W16	420	2520	awning	90.0	N	No
Bath 2 (Gym)	CAN-004-04 W	W28	420	1500	awning	90.0	N	No
Bath 2 (Gym)	SOV-024-08 W	W23	907	2205	fixed	0.0	E	No
Gym/Studio	HAF-004-09 B	D45	2100	2585	other	90.0	W	No
Gym/Studio	SOV-002-10 W	W25A	480	2586	fixed	0.0	W	No
Gym/Studio	HAF-004-09 B	D45	2100	2585	other	90.0	W	No
Gym/Studio	SOV-002-10 W	W25B	480	2585	fixed	0.0	W	No
Gym/Studio	SOV-002-10 W	W22	2110	474	fixed	0.0	E	No
Gym/Studio	MAR-030-11 W	D21	2100	990	casement	90.0	E	No
Gym/Studio	CAN-004-04 W	W29	420	1500	awning	90.0	N	No
Gym/Studio	CAN-004-04 W	W30a awning	420	2610	awning	90.0	N	No
Gym/Studio	SOV-002-10 W	W30b fixed	420	2610	fixed	0.0	N	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
GEN-04-004a	DC: Double Clear	

## Skylight\* schedule

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orientation	Outdoor shade	Diffuser
WC	GEN-04-004a	S02	1800	2.5	E	None	No

## External door schedule

Location	Height [mm]	Width [mm]	Opening %	Orientation
Kitch/Din/Living	1745	1800	100.0	E
Garage Extension	2450	6100	100.0	S
Garage 2	2200	5200	100.0	N
Ensuite 4	2290	3020	100.0	E

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	Concrete - Concrete Block 190/Core FilledR3	0.3	Light	Polystyrene expanded: R3.0 (R3.0)	No
2	Cavity Brick - Rendered Brick Cavity PB R1.75	0.3	Light	Polystyrene extruded (k = 0.028) (R1.8)	Yes
3	Insulated panel - Insulated Panel R4.61	0.3	Light	Polystyrene expanded (k = 0.039) (R4.6)	No

## External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Garage 1 / Den	1	3080	269	W	0	Yes
Garage 1 / Den	1	3080	1583	W	2590	Yes
Garage 1 / Den	1	3080	119	W	0	Yes





Garage 1 / Den	1	3080	5528	W	2607	Yes
Garage 1 / Den	1	3080	8797	S	970	Yes
Garage 1 / Den	1	3080	38754	E	822	Yes
Garage 1 / Den	1	3080	11784	N	1006	Yes
Garage 1 / Den	1	3080	10252	W	0	Yes
Bath 1	2	2700	1211	N	2850	Yes
Ensuite 1	2	2700	1813	S	2111	Yes
Ensuite 1	2	2700	2107	S	0	Yes
Bar	2	2690	5350	N	4991	Yes
Bar	2	2690	6994	W	3072	Yes
Hallway 1 / Cellar	2	2700	2503	N	2865	Yes
Bedroom 1	2	2700	4404	W	3017	Yes
Bedroom 1	2	2700	4387	S	2111	Yes
Electrical Room	2	2700	1047	S	0	Yes
Electrical Room	2	2700	2505	S	8495	Yes
Games Room	2	2700	555	S	6633	Yes
Games Room	2	2700	568	N	12108	Yes
Games Room	2	2700	9062	W	2461	No
Pantry	2	2800	1266	N	3518	Yes
Laundry	2	2800	847	S	4944	Yes
Laundry	2	2800	2078	E	599	Yes
Ensuite 2	2	2800	2074	E	598	Yes
Ensuite 2	2	2800	843	N	4966	Yes
Ensuite 3	2	2800	2204	S	583	Yes
Bedroom 3	2	2800	4261	W	3480	Yes
Bedroom 3	2	2800	4387	S	582	No
Bedroom 2	2	2800	3557	S	583	Yes
Bedroom 2	2	2800	4418	E	598	No
Hallway 2	2	2800	142	S	0	Yes
Hallway 2	2	2800	4098	N	3486	Yes
Kitch/Din/Living	2	2800	952	N	3478	Yes
Kitch/Din/Living	2	2800	3815	N	3478	Yes
Kitch/Din/Living	2	2800	7086	W	3469	Yes
Kitch/Din/Living	2	3700	2300	N	10564	Yes
Kitch/Din/Living	2	3950	1722	W	1762	Yes
Kitch/Din/Living	2	3950	332	N	12287	Yes
Kitch/Din/Living	2	4050	5688	W	1430	No
Kitch/Din/Living	2	4050	323	S	6794	Yes
Kitch/Din/Living	2	4050	1722	W	1753	Yes



Kitch/Din/Living	2	3700	2313	S	5072	Yes
Kitch/Din/Living	2	3700	121	W	3486	Yes
Kitch/Din/Living	2	4300	4640	E	2501	Yes
Garage Extension	1	2850	7984	S	651	Yes
Garage Extension	1	2850	7016	E	293	Yes
Garage Extension	1	2850	7984	N	11895	Yes
Garage 2	1	2400	2925	N	0	Yes
Garage 2	1	2400	5487	N	0	Yes
Garage 2	1	2400	5559	W	972	Yes
Garage 2	1	2400	458	W	0	Yes
Garage 2	1	2400	5740	S	0	Yes
Garage 2	1	2400	127	E	0	Yes
Garage 2	1	2400	2644	S	0	Yes
Garage 2	1	2400	1818	E	0	Yes
Garage 2	1	2400	3948	E	1105	Yes
Bedroom 4	3	2000	3813	N	682	Yes
Bedroom 4	3	2635	7019	W	2737	Yes
Bedroom 4	3	800	3813	S	698	Yes
Robe 1	3	2000	5257	N	679	Yes
Robe 2	3	300	3630	W	0	No
Robe 2	3	300	3630	E	0	No
Robe 2	3	2400	5237	S	705	Yes
Robe 2	3	380	2795	N	0	No
Robe 2	3	380	2795	S	0	No
Ensuite 4	3	2400	2849	S	706	Yes
Ensuite 4	3	2635	1992	E	642	Yes
Ensuite 4	3	2435	3051	E	642	Yes
Ensuite 4	3	2435	1963	E	642	Yes
Ensuite 4	3	2400	2852	N	678	Yes
Bath 2 (Gym)	3	2330	1862	N	951	Yes
Bath 2 (Gym)	3	2650	1835	S	2174	Yes
Bath 2 (Gym)	3	2650	1295	E	722	No
Bath 2 (Gym)	3	2765	2575	E	722	Yes
Gym/Studio	3	2765	2780	W	1724	Yes
Gym/Studio	3	2650	2810	W	1724	Yes
Gym/Studio	3	2650	553	W	1724	Yes
Gym/Studio	3	2100	5696	S	0	No
Gym/Studio	3	2100	1967	S	174	Yes
Gym/Studio	3	2650	2003	E	2676	Yes



Gym/Studio	3	2330	2176	N	930	Yes
Gym/Studio	3	2330	207	E	4890	Yes
Gym/Studio	3	2330	5497	N	732	Yes

## Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	Concrete - Concrete Block 190/Core FilledR3 + Ren	81.3	Polystyrene expanded: R3.0 (R3.0)
2	Concrete - Concrete Block 190/Core FilledR3	44.2	Polystyrene expanded: R3.0 (R3.0)
3	Int - IntPlsR3.6	132.5	Polyethylene foam (k = 0.04) (R3.6)
4	FR5 - Internal Plasterboard Stud Wall	208.7	
5	W2R - Wall to RoofR4	17.5	Glass fibre batt: R4.0 (R4.0)
6	Int - IntPlsR3.6	10.6	Polyethylene foam (k = 0.04) (R3.6)

## Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Garage 1 / Den	CSOG - Concrete Slab on Ground	47.9	Enclosed	R0.0	none
Garage 1 / Den	CSOG - Concrete Slab on Ground	62	Enclosed	R0.0	none
Garage 1 / Den	CSOG - Concrete Slab on Ground	261.2	Enclosed	R0.0	none
Bath 1	CSOG - CSOG: Slab on GroundR4.6	9	Enclosed	R4.6	Tiles
Ensuite 1	CSOG - CSOG: Slab on GroundR4.6	9.5	Enclosed	R4.6	Tiles
Lift 1	CSOG - CSOG: Slab on GroundR4.6	2.1	Enclosed	R4.6	none
Bar	CSOG - CSOG: Slab on GroundR4.6	9.8	Enclosed	R4.6	Tiles
Bar	CSOG - CSOG: Slab on GroundR4.6	27.7	Enclosed	R4.6	Tiles
Hallway 1 / Cellar	CSOG - CSOG: Slab on GroundR4.6	34.7	Enclosed	R4.6	Tiles
Bedroom 1	CSOG - CSOG: Slab on GroundR4.6	13.1	Enclosed	R4.6	Timber
Bedroom 1	CSOG - CSOG: Slab on GroundR4.6	6.2	Enclosed	R4.6	Timber
WIR 1	CSOG - CSOG: Slab on GroundR4.6	7.5	Enclosed	R4.6	Timber
Electrical Room	CSOG - CSOG: Slab on GroundR4.6	15.7	Enclosed	R4.6	Tiles
Games Room	CSOG - CSOG: Slab on GroundR4.6	2.9	Enclosed	R4.6	Timber



Games Room	CSOG - CSOG: Slab on Ground	111.9	Enclosed	R4.6	Timber
Lift 2	FR5 - 300mm concrete slab Lined	2.1	Enclosed	R0.0	none
Pantry	FR5 - 300mm concrete slab Lined	4	Enclosed	R0.0	Tiles
Laundry	FR5 - 300mm concrete slab Lined	7.4	Enclosed	R0.0	Tiles
Laundry	FR5 - 300mm concrete slab Lined	0.9	Enclosed	R0.0	Tiles
Ensuite 2	FR5 - 300mm concrete slab Lined	0.8	Enclosed	R0.0	Tiles
Ensuite 2	FR5 - 300mm concrete slab Lined	4	Enclosed	R0.0	Tiles
Ensuite 3	FR5 - 300mm concrete slab Lined	1.1	Enclosed	R0.0	Tiles
Ensuite 3	FR5 - 300mm concrete slab Lined	5.5	Enclosed	R0.0	Tiles
Bedroom 3	FR5 - 300mm concrete slab Lined	14.6	Enclosed	R0.0	Timber
Bedroom 3	FR5 - 300mm concrete slab Lined	4.1	Enclosed	R0.0	Timber
Bedroom 2	FR5 - 300mm concrete slab Lined	10.7	Enclosed	R0.0	Timber
Bedroom 2	FR5 - 300mm concrete slab Lined	3.7	Enclosed	R0.0	Timber
Hallway 2	FR5 - 300mm concrete slab Lined	32	Enclosed	R0.0	Tiles
Kitch/Din/Living	FR5 - 300mm concrete slab Lined	1	Elevated	R0.0	Timber
Kitch/Din/Living	FR5 - 300mm concrete slab Lined	94.5	Enclosed	R0.0	Timber
Kitch/Din/Living	FR5 - 300mm concrete slab Lined	15.9	Enclosed	R0.0	Timber
Kitch/Din/Living	FR5 - 300mm concrete slab Lined	18	Enclosed	R0.0	Timber
Hallway 3	FR5 - 300mm concrete slab Lined	4	Enclosed	R0.0	Timber
Garage Extension	FR5 - 400mm concrete slab Lined	6.8	Enclosed	R0.0	none
Garage Extension	FR5 - 400mm concrete slab Lined	3.6	Enclosed	R0.0	none
Garage Extension	FR5 - 400mm concrete slab Lined	17.9	Enclosed	R0.0	none
Garage Extension	FR5 - 400mm concrete slab Lined	27.7	Enclosed	R0.0	none



Garage 2	FR5 - 400mm concrete slab Lined	1.1	Elevated	R0.0	none
Garage 2	FR5 - 400mm concrete slab Lined	45.9	Enclosed	R0.0	none
Garage 2	FR5 - 400mm concrete slab Lined	2.7	Elevated	R0.0	none
WC	FR5 - 300mm concrete slab Lined	3.1	Enclosed	R0.0	Tiles
Bedroom 4	TMBR - Timber LinedR2	26.8	Enclosed	R2.0	Timber
Robe 1	TMBR - Timber LinedR2	10.6	Enclosed	R2.0	Timber
Robe 2	TMBR - Timber LinedR2	19.4	Enclosed	R2.0	Timber
Ensuite 4	TMBR - Timber LinedR2	23	Enclosed	R2.0	Tiles
Lift 3	TMBR - Timber LinedR2	2.4	Enclosed	R2.0	Timber (Mountain ash)
Bath 2 (Gym)	Concrete slab 300 - Concrete slab 300 Lined R4.6R	3.1	Enclosed	R4.6	Tiles
Bath 2 (Gym)	Concrete slab 300 - Concrete slab 300 Lined R4.6R	4.1	Elevated	R4.6	Tiles
Gym/Studio	Concrete slab 300 - Concrete slab 300 Lined R4.6R	46.6	Enclosed	R4.6	Timber

## Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Garage 1 / Den	FR5 - 400mm concrete slab Lined	R0.0	No
Garage 1 / Den	FR5 - 400mm concrete slab Lined	R0.0	No
Garage 1 / Den	Plasterboard	R0.0	No
Bath 1	FR5 - 300mm concrete slab Lined	R0.0	No
Ensuite 1	FR5 - 300mm concrete slab Lined	R0.0	No
Lift 1	FR5 - 300mm concrete slab Lined	R0.0	No
Bar	Plasterboard	R2.0	No
Bar	FR5 - 300mm concrete slab Lined	R0.0	No
Hallway 1 / Cellar	FR5 - 300mm concrete slab Lined	R0.0	No
Bedroom 1	FR5 - 300mm concrete slab Lined	R0.0	No
Bedroom 1	Plasterboard	R2.0	No

\*Refer to glossary.





WIR 1	FR5 - 300mm concrete slab Lined	R0.0	No
Electrical Room	FR5 - 300mm concrete slab Lined	R0.0	No
Games Room	Plasterboard	R2.0	No
Games Room	FR5 - 300mm concrete slab Lined	R0.0	No
Lift 2	TMBR - Timber LinedR2	R2.0	No
Pantry	TMBR - Timber LinedR2	R2.0	No
Laundry	Plasterboard	R5.0	Yes
Laundry	Plasterboard	R2.5	Yes
Ensuite 2	Plasterboard	R2.5	Yes
Ensuite 2	Plasterboard	R5.0	Yes
Ensuite 3	Plasterboard	R2.5	Yes
Ensuite 3	Plasterboard	R5.0	Yes
Bedroom 3	Plasterboard	R5.0	Yes
Bedroom 3	Plasterboard	R2.5	Yes
Bedroom 2	Plasterboard	R5.0	Yes
Bedroom 2	Plasterboard	R2.5	Yes
Hallway 2	TMBR - Timber LinedR2	R2.0	No
Kitch/Din/Living	Plasterboard	R4.3	Yes
Kitch/Din/Living	Plasterboard	R4.3	Yes
Kitch/Din/Living	Plasterboard	R5.0	Yes
Kitch/Din/Living	TMBR - Timber LinedR2	R2.0	No
Hallway 3	Plasterboard	R5.0	Yes
Garage Extension	Plasterboard	R0.0	Yes
Garage Extension	Plasterboard	R0.0	Yes
Garage Extension	Plasterboard	R0.0	Yes
Garage Extension	TMBR - Timber LinedR2	R2.0	No
Garage 2	Plasterboard	R0.0	No
Garage 2	Concrete slab 300 - Concrete slab 300 Lined R4.6R	R4.6	No
Garage 2	Concrete slab 300 - Concrete slab 300 Lined R4.6R	R4.6	No
WC	Plasterboard	R5.0	Yes
Bedroom 4	Plasterboard	R4.3	Yes



Robe 1	Plasterboard	R4.3	Yes
Robe 2	Plasterboard	R4.3	Yes
Ensuite 4	Plasterboard	R4.3	Yes
Lift 3	Plasterboard	R4.3	Yes
Bath 2 (Gym)	Plasterboard	R4.3	Yes
Bath 2 (Gym)	Plasterboard	R4.3	Yes
Gym/Studio	Plasterboard	R4.3	Yes

## Ceiling penetrations\*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bath 1	1	Exhaust Fans	250	250	Unsealed
Ensuite 1	1	Exhaust Fans	250	250	Sealed
Games Room	1	Heater Flues	300	300	Unsealed
Laundry	1	Exhaust Fans	250	250	Sealed
Ensuite 2	1	Exhaust Fans	250	250	Sealed
Ensuite 3	1	Exhaust Fans	250	250	Sealed
Kitch/Din/Living	1	Heater Flues	300	300	Unsealed
Kitch/Din/Living	2	Exhaust Fans	250	250	Sealed
WC	1	Exhaust Fans	250	250	Sealed
Bedroom 4	1	Heater Flues	300	300	Unsealed
Ensuite 4	1	Exhaust Fans	250	250	Sealed
Bath 2 (Gym)	1	Exhaust Fans	250	250	Unsealed

## Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

## Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 400mm: 400mm Suspended Slab	0.0	0.5	Medium
Slab:Slab - Suspended Slab : 300mm: 300mm Suspended Slab	0.0	0.5	Medium
Cont:Attic-Continuous	1.3	0.5	Medium
Cont:Attic-Continuous	0.0	0.5	Medium
Framed:Flat - Flat Framed (Metal Deck)	0.0	0.5	Medium
Slab:Slab - Suspended Slab : 250mm: 250mm Suspended Slab	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
No Whole of Home performance assessment conducted for this certificate.				

### Heating system

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

### Hot water system

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

### Pool/spa equipment

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

## Onsite renewable energy *schedule*

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

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

## Battery *schedule*

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

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



## Explanatory Notes

### About this report

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

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

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

### Accredited assessors

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

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

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

### Disclaimer

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

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

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

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

## Glossary

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

\*Refer to glossary.



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