

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0008249278-02

Generated on 29 Nov 2022 using BERS Pro v4.4.1.5d (3.21)

Property

Address 206 Hudson Parade , Clareville , NSW ,
2107

Lot/DP 38/13760

NCC Class* 1A

Type New Dwelling

Plans

Main Plan 22009-ISSUE A-15/11/2022

Prepared by RM DESIGNERS

Construction and environment

Assessed floor area (m ² *)	Exposure Type
Conditioned*	347.0
Unconditioned*	75.0
Total	422.0
Garage	35.0

NatHERS climate zone
56



Accredited assessor

Name Abbas Chatfirouzeh

Business name SYMEC Group Pty. Ltd. T/As SDS Engineering

Email abbas@sdsengineering.com.au

Phone (02) 9098 4729

Accreditation No. 101512

Assessor Accrediting Organisation ABSA

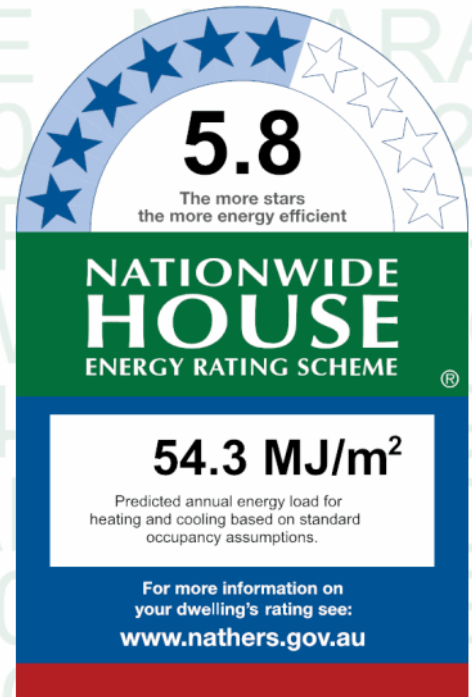
Declaration of interest Declaration completed: no conflicts

National Construction Code (NCC) requirements

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

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

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



Thermal performance

Heating	Cooling
39.9 MJ/m ²	14.4 MJ/m ²

About the rating

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

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=lwiJDwIdi.

When using either link, ensure you are visiting hstar.com.au



Certificate check

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

Genuine certificate

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

Ceiling penetrations*

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

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

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

Provisional* values

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

Additional notes

For the external cavity brick walls in lieu of the bulk insulation Foilboard green 20 need to be installed to reach a total of R2

The garage door should have R0.5 insulation

I have modeled the shading in accordance with NatHERS principles

Window and glazed door *type and performance*

Default* windows

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

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-001-16 A	BRD-001-16 A ESS Sliding Window (52mm) SG 638CPClr	4.6	0.61	0.58	0.64
BRD-033-10 A	BRD-033-10 A ESS Sliding Door (80mm) SG 6.38CPClr	4.3	0.60	0.57	0.63

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-041-11 A	BRD-041-11 A SIG Fixed Lite Externally Glazed (125mm) SG 638CPClr	4.2	0.60	0.57	0.63
BRD-081-16 A	BRD-081-16 A Signature Awning Window 100 SG 4Clr	6.9	0.64	0.61	0.67
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76	0.72	0.80
BRD-043-06 A	BRD-043-06 A SIG Louvre Window (125mm) SG 6EA	4.5	0.52	0.49	0.55
BRD-043-01 A	BRD-043-01 A SIG Louvre Window (125mm) SG 6Clr	6.1	0.60	0.57	0.63

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
BED 2	BRD-001-16 A	n/a	900	2000	n/a	45	N	Yes
BED 2	BRD-033-10 A	n/a	2900	3680	n/a	66	W	No
ENS BED 2	BRD-001-16 A	n/a	700	900	n/a	45	N	No
ENS BED 4	BRD-001-16 A	n/a	700	900	n/a	45	S	No
BED 4	BRD-001-16 A	n/a	900	2000	n/a	45	S	Yes
BED 4	BRD-033-10 A	n/a	2900	3700	n/a	66	W	No
BED 3	BRD-033-10 A	n/a	2900	3600	n/a	66	W	No
KIT/DIN/LIV	BRD-041-11 A	n/a	700	2500	n/a	00	N	Yes
KIT/DIN/LIV	BRD-081-16 A	n/a	3350	630	n/a	56	E	No
KIT/DIN/LIV	BRD-033-10 A	n/a	3350	5120	n/a	66	W	No
KIT/DIN/LIV	BRD-033-10 A	n/a	3350	5210	n/a	66	W	No
WIP	BRD-001-16 A	n/a	900	900	n/a	45	N	No
LDRY	BRD-001-01 A	n/a	700	900	n/a	45	N	No
PWDR	BRD-001-01 A	n/a	700	850	n/a	45	N	No
GARAGE	BRD-081-16 A	n/a	2900	630	n/a	52	W	No
GARAGE	BRD-001-01 A	n/a	900	2000	n/a	45	N	No
KIT/DIN/LIV	BRD-041-11 A	n/a	850	2000	n/a	00	S	No
LIVING/OFFICE	BRD-043-06 A	n/a	2900	2495	n/a	45	E	No
VOID	BRD-033-10 A	n/a	2900	2800	n/a	66	W	No
VOID	BRD-041-11 A	n/a	2700	2000	n/a	00	S	No
MAS BED	BRD-033-10 A	n/a	2900	3700	n/a	66	W	No
ENS	BRD-041-11 A	n/a	2900	1991	n/a	00	NE	No
ENS	BRD-081-16 A	n/a	2900	1875	n/a	28	E	No
BED 1	BRD-043-01 A	n/a	2900	3713	n/a	51	E	Yes
BATH BED 1	BRD-081-16 A	n/a	2900	960	n/a	52	E	No
BATH BED 1	BRD-041-11 A	n/a	2900	1823	n/a	00	SE	No

* Refer to glossary.

Roof window type and performance

Default* roof windows

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

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
VEL-011-01 W	Glass	2.6	0.24	0.23	0.25

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
VOID	VEL-011-01 W	n/a	0	3300	2580	N	No	No
WIR	VEL-011-01 W	n/a	0	2300	1300	N	No	No

Skylight type and performance

Skylight ID	Skylight description
No Data Available	

Skylight schedule

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

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
POOL PUMPS	2040	820	90	W
GARAGE	2900	5270	90	E
KIT/DIN/LIV	2900	1600	90	E
STAIRS	2040	820	90	W

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Concrete Block	0.50	Medium	No insulation	No
EW-2	Concrete Block	0.50	Medium	No insulation	No
EW-3	Cavity Brick	0.57	Medium	Bulk Insulation R1.6	No

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-4	Cavity Brick	0.57	Medium	Bulk Insulation R1.6	No
EW-5	Concrete Block	0.57	Medium	Bulk Insulation R2	No
EW-6	Concrete Block	0.57	Medium	Bulk Insulation R2	No
EW-7	Cavity Brick	0.53	Medium	Bulk Insulation R1.6	No
EW-8	Concrete Block	0.50	Medium	Bulk Insulation R2	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
POOL PUMPS	EW-1	2700	2900	N	0	NO
POOL PUMPS	EW-2	2700	3505	E	3600	NO
POOL PUMPS	EW-2	2700	3505	W	8625	NO
SAUNA	EW-2	2700	2460	E	3600	YES
SAUNA	EW-1	2700	2460	W	8625	NO
SHOWERS	EW-2	2700	3505	N	6250	YES
SHOWERS	EW-2	2700	2155	E	0	NO
LIFT 1	EW-1	2700	1755	S	0	NO
LIFT 1	EW-2	2700	1855	W	8650	NO
BED 2	EW-3	2700	4345	N	0	NO
BED 2	EW-4	2900	3645	W	2000	YES
ENS BED 2	EW-3	2700	1895	N	0	NO
ENS BED 2	EW-3	2700	1450	E	6650	YES
CINEMA ROOM	EW-5	3150	6445	N	0	YES
CINEMA ROOM	EW-5	3150	5345	E	5750	NO
HALL 1	EW-5	3150	4295	E	5250	NO
HALL 1	EW-6	2700	4595	S	0	NO
LIFT 2	EW-4	2700	1740	S	0	NO
ENS BED 4	EW-3	2700	2140	S	0	NO
BED 4	EW-3	2700	4045	S	0	NO
BED 4	EW-3	2900	3745	W	3600	YES
BED 3	EW-3	2700	1500	S	3800	YES
BED 3	EW-3	2900	3700	W	1300	NO
BED 3	EW-3	2700	1500	N	3700	YES
KIT/DIN/LIV	EW-3	3150	6000	N	0	NO
KIT/DIN/LIV	EW-3	3350	1450	E	6650	YES
KIT/DIN/LIV	EW-3	3150	5945	S	0	NO
KIT/DIN/LIV	EW-3	3350	11200	W	3100	NO
WIP	EW-3	2700	2190	N	0	YES
LDRY	EW-3	2700	2090	N	0	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
PWDR	EW-3	2700	1490	N	0	NO
GARAGE	EW-3	2700	495	N	0	YES
GARAGE	EW-4	2900	1450	W	6650	YES
GARAGE	EW-7	2700	5600	N	0	NO
GARAGE	EW-7	2901	700	E	975	NO
GARAGE	EW-4	2900	5300	E	800	NO
GARAGE	EW-3	2700	1900	S	6150	YES
KIT/DIN/LIV	EW-3	2900	2490	E	2450	YES
KIT/DIN/LIV	EW-3	2700	4690	S	0	YES
LIVING/OFFICE	EW-3	2900	2500	E	900	NO
LIVING/OFFICE	EW-7	2701	1050	E	775	NO
LIVING/OFFICE	EW-3	2700	5100	S	0	NO
LIVING/OFFICE	EW-3	2700	950	W	0	YES
LIVING/OFFICE	EW-3	2700	1400	N	8600	YES
LIFT 3	EW-3	2700	1740	S	0	NO
LIFT	EW-4	2700	1950	W	1200	NO
LIFT	EW-3	2700	300	N	8400	YES
LIFT	EW-3	2700	1795	S	600	NO
VOID	EW-3	2900	3940	W	1500	YES
VOID	EW-3	2700	5790	S	600	NO
MAS BED	EW-3	2900	3695	W	1500	NO
MAS BED	EW-4	2700	4495	N	600	NO
WIR	EW-3	2700	3240	N	600	NO
ENS	EW-3	2700	1895	N	600	NO
ENS	EW-3	2900	2011	NE	2497	NO
ENS	EW-3	2900	2060	E	1411	YES
BED 1	EW-3	2900	3702	E	1179	YES
BATH BED 1	EW-3	2900	945	E	950	YES
BATH BED 1	EW-3	2900	1844	SE	1578	NO
BATH BED 1	EW-3	2700	1545	S	600	NO
STAIRS	EW-1	2700	1360	W	8650	NO
STAIRS	EW-8	2700	1155	E	0	NO
STAIRS	EW-8	2700	4555	S	0	NO

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Concrete Block		42.00	No insulation
IW-2 - Single Skin Brick		326.00	No insulation

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
POOL PUMPS	Concrete Slab on Ground 120mm	10.20	None	No Insulation	Ceramic Tiles 8mm
SAUNA	Concrete Slab on Ground 120mm	7.10	None	No Insulation	Ceramic Tiles 8mm
SHOWERS	Concrete Slab on Ground 120mm	7.60	None	No Insulation	Ceramic Tiles 8mm
LIFT 1	Concrete Slab on Ground 120mm	3.30	None	No Insulation	Bare
BED 2	Suspended Concrete Slab 200mm	18.20	Enclosed	Bulk Insulation in Contact with Floor R1	Carpet+Rubber Underlay 18mm
ENS BED 2	Suspended Concrete Slab 200mm	4.40	Enclosed	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
CINEMA ROOM/POOL PUMPS	Concrete Above Plasterboard 120mm	10.20		No Insulation	Carpet+Rubber Underlay 18mm
CINEMA ROOM/SAUNA	Concrete Above Plasterboard 120mm	6.50		No Insulation	Carpet+Rubber Underlay 18mm
CINEMA ROOM	Concrete Slab on Ground 120mm	19.90	None	No Insulation	Carpet+Rubber Underlay 18mm
HALL 1/SAUNA	Concrete Above Plasterboard 200mm	1.00		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1/SHOWERS	Concrete Above Plasterboard 200mm	7.80		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1/STAIRS	Concrete Above Plasterboard 200mm	10.60		No Insulation	Carpet+Rubber Underlay 18mm
HALL 1	Suspended Concrete Slab 200mm	9.80	Enclosed	Bulk Insulation in Contact with Floor R1	Carpet+Rubber Underlay 18mm
LIFT 2/LIFT 1	Concrete Above Plasterboard 200mm	3.30		No Insulation	Bare
ENS BED 4	Suspended Concrete Slab 200mm	4.10	Enclosed	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
BED 4	Suspended Concrete Slab 200mm	16.50	Enclosed	Bulk Insulation in Contact with Floor R1	Carpet+Rubber Underlay 18mm
BED 3	Suspended Concrete Slab 200mm	17.80	Enclosed	Bulk Insulation in Contact with Floor R1	Carpet+Rubber Underlay 18mm
ENS BED 3	Suspended Concrete Slab 200mm	4.60	Enclosed	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
KIT/DIN/LIV/BED 2	Concrete Above Plasterboard 120mm	17.40		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/ENS BED 2	Concrete Above Plasterboard 120mm	4.60		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/HALL 1	Concrete Above Plasterboard 120mm	8.00		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/ENS BED 4	Concrete Above Plasterboard 120mm	4.40		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/BED 4	Concrete Above Plasterboard 120mm	15.60		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/BED 3	Concrete Above Plasterboard 120mm	11.60		No Insulation	80/20 Carpet 10mm/Ceramic
KIT/DIN/LIV/ENS BED 3	Concrete Above Plasterboard 120mm	5.10		No Insulation	80/20 Carpet 10mm/Ceramic
WIP/CINEMA ROOM	Concrete Above Plasterboard 120mm	6.90		No Insulation	Ceramic Tiles 8mm
LDRY/CINEMA ROOM	Concrete Above Plasterboard 120mm	6.90		No Insulation	Ceramic Tiles 8mm
PWDR/CINEMA ROOM	Concrete Above Plasterboard 120mm	4.90		No Insulation	Ceramic Tiles 8mm
GARAGE/CINEMA ROOM	Concrete Above Plasterboard 120mm	1.30		No Insulation	Bare

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
GARAGE	Concrete Slab on Ground 120mm	33.70	None	No Insulation	Bare
KIT/DIN/LIV/CINEMA ROOM	Concrete Above Plasterboard 120mm	15.40		No Insulation	Carpet+Rubber Underlay 18mm
KIT/DIN/LIV/HALL 1	Concrete Above Plasterboard 120mm	21.70		No Insulation	Carpet+Rubber Underlay 18mm
KIT/DIN/LIV	Concrete Slab on Ground 120mm	10.40	None	No Insulation	Carpet+Rubber Underlay 18mm
LIVING/OFFICE	Concrete Slab on Ground 120mm	17.60	None	No Insulation	Carpet+Rubber Underlay 18mm
LIFT 3/LIFT 2	Concrete Above Plasterboard 120mm	3.30		No Insulation	Bare
LIFT/LIFT 3	Concrete Above Plasterboard 120mm	3.40		No Insulation	Bare
VOID/GARAGE	Concrete Above Plasterboard 200mm	0.90		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
VOID/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	37.30		No Insulation	Carpet+Rubber Underlay 18mm
VOID/LIVING/OFFICE	Concrete Above Plasterboard 200mm	2.60		No Insulation	Carpet+Rubber Underlay 18mm
MAS BED/WIP	Concrete Above Plasterboard 200mm	6.40		No Insulation	Carpet+Rubber Underlay 18mm
MAS BED/LDRY	Concrete Above Plasterboard 200mm	7.20		No Insulation	Carpet+Rubber Underlay 18mm
MAS BED/PWDR	Concrete Above Plasterboard 200mm	1.10		No Insulation	Carpet+Rubber Underlay 18mm
MAS BED/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	1.90		No Insulation	Carpet+Rubber Underlay 18mm
WIR/PWDR	Concrete Above Plasterboard 200mm	4.00		No Insulation	Carpet+Rubber Underlay 18mm
WIR/GARAGE	Concrete Above Plasterboard 200mm	7.30		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
WIR/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	0.70		No Insulation	Carpet+Rubber Underlay 18mm
ENS/GARAGE	Concrete Above Plasterboard 200mm	10.10		Bulk Insulation R2	Ceramic Tiles 8mm
BED 1/GARAGE	Concrete Above Plasterboard 200mm	2.50		Bulk Insulation R2	Carpet+Rubber Underlay 18mm
BED 1/KIT/DIN/LIV	Concrete Above Plasterboard 200mm	6.50		No Insulation	Carpet+Rubber Underlay 18mm
BED 1/LIVING/OFFICE	Concrete Above Plasterboard 200mm	1.20		No Insulation	Carpet+Rubber Underlay 18mm
BED 1	Suspended Concrete Slab 200mm	1.30	Totally Open	Bulk Insulation in Contact with Floor R1	Carpet+Rubber Underlay 18mm
BATH BED 1/LIVING/OFFICE	Concrete Above Plasterboard 200mm	5.50		No Insulation	Ceramic Tiles 8mm
STAIRS	Concrete Slab on Ground 120mm	9.80	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
POOL PUMPS	Concrete Above Plasterboard	No Insulation	No
SAUNA	Concrete Above Plasterboard	No Insulation	No
SHOWERS	Concrete Above Plasterboard	No Insulation	No
LIFT 1	Concrete Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
BED 2	Concrete, Plasterboard	Bulk Insulation R4	No
BED 2	Concrete Above Plasterboard	No Insulation	No
ENS BED 2	Concrete Above Plasterboard	No Insulation	No
CINEMA ROOM	Concrete Above Plasterboard	No Insulation	No
HALL 1	Concrete Above Plasterboard	No Insulation	No
LIFT 2	Concrete Above Plasterboard	No Insulation	No
ENS BED 4	Concrete Above Plasterboard	No Insulation	No
BED 4	Concrete, Plasterboard	Bulk Insulation R4	No
BED 4	Concrete Above Plasterboard	No Insulation	No
BED 3	Concrete, Plasterboard	Bulk Insulation R4	No
BED 3	Concrete Above Plasterboard	No Insulation	No
ENS BED 3	Concrete Above Plasterboard	No Insulation	No
KIT/DIN/LIV	Concrete, Plasterboard	Bulk Insulation R4	No
WIP	Concrete, Plasterboard	Bulk Insulation R4	No
WIP	Concrete Above Plasterboard	No Insulation	No
LDRY	Concrete Above Plasterboard	No Insulation	No
PWDR	Concrete Above Plasterboard	No Insulation	No
GARAGE	Concrete, Plasterboard	Bulk Insulation R4	No
GARAGE	Concrete Above Plasterboard	Bulk Insulation R2	No
KIT/DIN/LIV	Concrete, Plasterboard	Bulk Insulation R4	No
KIT/DIN/LIV	Concrete Above Plasterboard	No Insulation	No
LIVING/OFFICE	Concrete, Plasterboard	Bulk Insulation R4	No
LIVING/OFFICE	Concrete Above Plasterboard	No Insulation	No
LIFT 3	Concrete Above Plasterboard	No Insulation	No
LIFT	Concrete, Plasterboard	Bulk Insulation R4	No
VOID	Concrete, Plasterboard	Bulk Insulation R4	No
MAS BED	Concrete, Plasterboard	Bulk Insulation R4	No
WIR	Concrete, Plasterboard	Bulk Insulation R4	No
ENS	Concrete, Plasterboard	Bulk Insulation R4	No
BED 1	Concrete, Plasterboard	Bulk Insulation R4	No
BATH BED 1	Concrete, Plasterboard	Bulk Insulation R4	No
STAIRS	Concrete Above Plasterboard	No Insulation	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
SHOWERS	1	Exhaust Fans	300	Sealed
ENS BED 3	1	Exhaust Fans	300	Sealed
KIT/DIN/LIV	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Insulation, Only an Air Gap	0.50	Medium

Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

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

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au .
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).