Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0007122443

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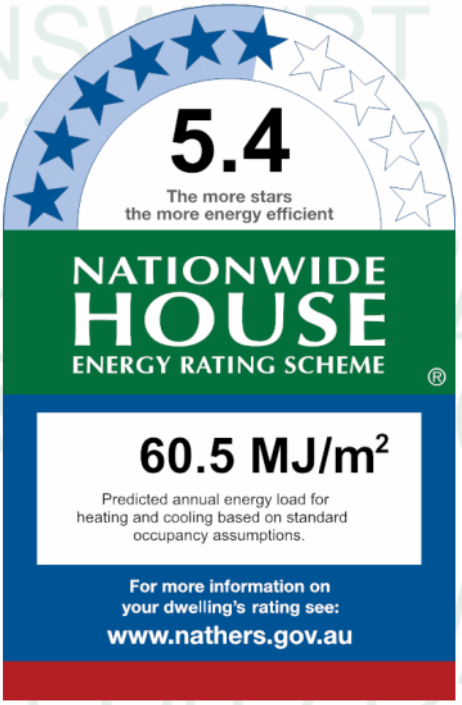

Property

Address	7 Solomon Court , GREENACRE , NSW , 2190
Lot/DP	5/200837
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	ISSUE A
Prepared by	VISION GROUP ARCHITECTS

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	371.0	Suburban
Unconditioned*	186.0	**NatHERS climate zone**
Total	558.0	56
Garage	152.0	

Thermal performance

Heating	Cooling
46.3 MJ/m^2	**14.3** MJ/m^2

Accredited assessor

Name	Diana Alexandra Slavescu
Business name	Diana Alexandra Slavescu
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Phone	0414879194
Accreditation No.	HERA10113
Assessor Accrediting Organisation	HERA
Declaration of interest	Declared, refer to Additional Notes on page 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=hhjbpbzOX.
When using either link, ensure you are visiting hstar.com.au

National Construction Code (NCC) requirements

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

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

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

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

Architect is also NatHERS assessor.

Walls modelled as light, dark and medium according to the finishes schedule.

Basement level- lift modelled as part of the garage according to Basix.

Ground floor- lift modelled as part of day time zone with entry and hallway according to Basix.

First floor- lift modelled as day time zone with hallway and WIR as part of Master Bed according to Basix.

According to Technical notes: Garages have concrete floors, Wet areas and kitchens have ceramic tiles. All

other areas have carpets with rubber underlay.

Roof colour modelled as medium colour according to the finishes schedule..

LED lights and exhaust fans are modelled as per Basix, and sealed according to Client's instructions.

Cavity brick with Kingspan Kooltherm K8 25mm (R1.4), or similar in cavity. Or, wall system reaching a total R-

value R 1,8.

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-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61

Custom* windows

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

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
ENTRY STAIR	ALM-001-03 A	n/a	2900	2100	n/a	90	N	No
ENTRY STAIR	ALM-002-03 A	n/a	2900	700	n/a	00	N	No
ENTRY STAIR	ALM-002-03 A	n/a	2900	700	n/a	00	N	No
ENTRY STAIR	ALM-001-03 A	n/a	600	600	n/a	90	NW	No
ENTRY STAIR	ALM-001-03 A	n/a	2000	600	n/a	45	N	No
PWD WEST	ALM-001-03 A	n/a	900	600	n/a	90	S	No
PRAYER	ALM-001-03 A	n/a	2100	900	n/a	60	N	No
PRAYER	ALM-001-03 A	n/a	2100	900	n/a	60	N	No
OFFICE	ALM-001-03 A	n/a	2500	900	n/a	60	N	No
OFFICE	ALM-001-03 A	n/a	2500	900	n/a	60	N	No
PWD EAST	ALM-001-03 A	n/a	900	600	n/a	90	E	No
LDRY	ALM-001-03 A	n/a	2400	900	n/a	90	E	No
LDRY	ALM-001-03 A	n/a	1300	600	n/a	90	E	No
SCULLERY	ALM-002-03 A	n/a	1300	1300	n/a	45	E	No
LOUNGE	ALM-001-03 A	n/a	2400	1600	n/a	90	W	No
LOUNGE	ALM-001-03 A	n/a	2400	1600	n/a	90	W	No
KITCHEN LIV DIN	ALM-001-03 A	n/a	2400	2100	n/a	90	S	No
KITCHEN LIV DIN	ALM-001-03 A	n/a	2400	2100	n/a	90	S	No
KITCHEN LIV DIN	ALM-001-03 A	n/a	2400	2100	n/a	90	S	No
KITCHEN LIV DIN	ALM-001-03 A	n/a	2400	600	n/a	90	S	No
KITCHEN LIV DIN	ALM-001-03 A	n/a	2400	1500	n/a	90	S	No
KITCHEN LIV DIN	ALM-002-03 A	n/a	800	800	n/a	00	W	No
KITCHEN LIV DIN	ALM-002-03 A	n/a	800	800	n/a	00	W	No
BED 3	ALM-001-03 A	n/a	1500	750	n/a	45	N	No
BED 3	ALM-001-03 A	n/a	1500	750	n/a	45	N	No
BED 3	ALM-001-03 A	n/a	1500	750	n/a	45	N	No
BED 4	ALM-002-03 A	n/a	900	900	n/a	45	E	No
BED 4	ALM-002-03 A	n/a	900	900	n/a	45	E	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
BED 4	ALM-002-03 A	n/a	900	900	n/a	45	N	No
POOL EQUIP	ALM-001-03 A	n/a	900	900	n/a	90	E	No
POOL EQUIP	ALM-001-03 A	n/a	2400	900	n/a	90	S	No
BATH FFP	ALM-002-03 A	n/a	900	1800	n/a	45	E	No
BED 5	ALM-002-03 A	n/a	900	1800	n/a	45	E	No
MASTER BED+WIR	ALM-001-03 A	n/a	2400	1800	n/a	90	S	No
MASTER BED+WIR	ALM-001-03 A	n/a	2400	1800	n/a	90	S	No
MASTER BED+WIR	ALM-001-03 A	n/a	2400	1500	n/a	45	S	No
MASTER BED+WIR	ALM-002-03 A	n/a	800	800	n/a	00	W	No
MASTER BED+WIR	ALM-002-03 A	n/a	800	800	n/a	00	W	No
MASTER ENS	ALM-001-03 A	n/a	2400	1800	n/a	45	S	No
ENS BED 2	ALM-002-03 A	n/a	900	900	n/a	45	S	No
BED 2	ALM-001-03 A	n/a	2400	900	n/a	90	N	No
BED 2	ALM-001-03 A	n/a	2400	900	n/a	90	N	No
BED 2	ALM-002-03 A	n/a	900	900	n/a	45	W	No
HALLWAY FF+VOID	ALM-001-03 A	n/a	2000	600	n/a	45	NW	No
HALLWAY FF+VOID	ALM-001-03 A	n/a	600	600	n/a	90	N	No
VOID OVER LOUNG	ALM-002-03 A	n/a	2400	2400	n/a	00	W	No

Roof window *type and performance*

Default* roof windows

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

Custom* roof windows

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

Roof window *schedule*

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

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

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

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage 1	2400	3500	90	N

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	Cavity Brick	0.30	Light	Bulk Insulation R1.4	No
EW-3	Cavity Brick	0.50	Medium	Bulk Insulation R1.4	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	EW-1	2900	4100	N	2950	YES
Garage 1	EW-1	2900	3350	W	4150	YES
Garage 1	EW-1	2900	825	NW	103	NO
Garage 1	EW-1	2900	820	NW	106	NO
Garage 1	EW-1	2900	838	N	103	NO
Garage 1	EW-1	2900	900	N	100	NO
Garage 1	EW-1	2900	930	NE	71	NO
Garage 1	EW-1	2900	894	E	4808	NO
Garage 1	EW-1	2900	7300	E	8550	YES
Garage 1	EW-1	2900	4650	N	9850	YES
Garage 1	EW-1	2900	8750	E	3900	NO
Garage 1	EW-1	2900	12300	S	5800	NO
Garage 1	EW-1	2900	12350	W	50	NO
ENTRY STAIR	EW-2	2900	3900	N	2750	YES
ENTRY STAIR	EW-2	2900	750	W	7500	YES
ENTRY STAIR	EW-3	2900	895	N	50	NO
ENTRY STAIR	EW-2	2900	295	S	18400	YES
ENTRY STAIR	EW-2	2900	450	W	75	YES
ENTRY STAIR	EW-3	2900	825	NW	103	NO
ENTRY STAIR	EW-3	2900	820	NW	90	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
ENTRY STAIR	EW-3	2900	838	N	103	NO
ENTRY STAIR	EW-3	2900	950	N	100	NO
ENTRY STAIR	EW-3	2900	960	NE	90	NO
ENTRY STAIR	EW-3	2900	783	E	56	NO
ENTRY STAIR	EW-2	2900	550	E	8800	YES
PWD WEST	EW-2	2900	2645	S	18400	NO
PWD WEST	EW-2	2900	1695	W	50	NO
PRAYER	EW-2	2900	2845	W	50	NO
PRAYER	EW-2	2900	4045	N	100	YES
OFFICE	EW-2	2900	2750	E	300	NO
OFFICE	EW-2	2901	495	E	50	NO
OFFICE	EW-2	2900	3595	N	750	NO
PWD EAST	EW-2	2900	1740	E	50	NO
LDRY	EW-2	2900	2290	E	50	NO
SCULLERY	EW-2	2900	2440	E	50	NO
LOUNGE	EW-2	2900	5090	W	3100	YES
KITCHEN LIV DIN	EW-2	2900	6090	E	50	NO
KITCHEN LIV DIN	EW-2	2900	9450	S	5800	YES
KITCHEN LIV DIN	EW-2	2901	2200	S	7800	NO
KITCHEN LIV DIN	EW-2	2900	5345	W	3100	NO
BED 3	EW-3	2700	2200	E	600	NO
BED 3	EW-3	2701	495	E	4250	YES
BED 3	EW-2	2700	1450	W	3800	YES
BED 3	EW-2	2701	700	W	550	NO
BED 3	EW-2	2700	3850	N	600	NO
BED 3	EW-2	2700	1900	E	600	YES
BED 3	EW-3	2700	600	N	2500	YES
BED 3	EW-3	2701	400	N	700	NO
BED 4	EW-2	2700	3945	E	600	NO
BED 4	EW-2	2701	600	N	3450	YES
BED 4	EW-2	2700	3050	N	600	NO
POOL EQUIP	EW-2	2900	4645	E	50	NO
POOL EQUIP	EW-2	2900	1450	S	1100	NO
POOL EQUIP	EW-2	2900	4645	W	14750	YES
BATH FFP	EW-2	2700	2090	E	600	NO
BED 5	EW-2	2700	4040	E	600	NO
MASTER BED+WIR	EW-2	2700	3890	E	600	NO
MASTER BED+WIR	EW-2	2700	800	W	8650	YES
MASTER BED+WIR	EW-2	2701	600	S	4050	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
MASTER BED+WIR	EW-2	2700	7450	S	600	NO
MASTER BED+WIR	EW-2	2700	5345	W	600	NO
MASTER ENS	EW-2	2700	2595	E	600	NO
MASTER ENS	EW-2	2700	5050	S	600	NO
MASTER ENS	EW-2	2700	2595	W	600	NO
ENS BED 2	EW-2	2701	545	S	10400	YES
ENS BED 2	EW-2	2700	2450	S	600	NO
ENS BED 2	EW-2	2700	1545	W	600	NO
BED 2	EW-2	2700	4045	N	600	YES
BED 2	EW-2	2700	3795	W	600	NO
HALLWAY FF+VOID	EW-3	2700	400	W	4700	YES
HALLWAY FF+VOID	EW-3	2700	765	W	588	NO
HALLWAY FF+VOID	EW-3	2700	860	NW	555	NO
HALLWAY FF+VOID	EW-3	2700	808	N	515	NO
HALLWAY FF+VOID	EW-3	2700	1000	N	600	NO
HALLWAY FF+VOID	EW-3	2700	652	NE	527	NO
HALLWAY FF+VOID	EW-3	2701	354	NE	2652	NO
HALLWAY FF+VOID	EW-3	2700	773	E	5100	YES
VOID OVER LOUNG	EW-2	2700	3795	W	600	NO
VOID OVER LOUNG	EW-2	2701	550	W	3650	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Single Skin Brick		348.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage 1	Concrete Slab on Ground 100mm	151.90	None	No Insulation	Bare
ENTRY STAIR/Garage 1	Concrete Above Plasterboard 200mm	35.70		Bulk Insulation R1.5	Carpet+Rubber Underlay 18mm
ENTRY STAIR	Suspended Concrete Slab 200mm	31.00	Enclosed	No Insulation	Carpet+Rubber Underlay 18mm
PWD WEST/Garage 1	Concrete Above Plasterboard 100mm	4.50		Bulk Insulation R1.5	Ceramic Tiles 8mm
PRAYER	Suspended Concrete Slab 200mm	11.50	Very Open	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
OFFICE	Suspended Concrete Slab 200mm	12.50	Enclosed	No Insulation	Carpet+Rubber Underlay 18mm
PWD EAST	Suspended Concrete Slab 200mm	4.00	Enclosed	No Insulation	Ceramic Tiles 8mm
LDRY	Suspended Concrete Slab 200mm	10.80	Enclosed	No Insulation	Ceramic Tiles 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
SCULLERY/Garage 1	Concrete Above Plasterboard 200mm	2.20		Bulk Insulation R1.5	Ceramic Tiles 8mm
SCULLERY	Suspended Concrete Slab 200mm	9.30	Enclosed	No Insulation	Ceramic Tiles 8mm
LOUNGE/Garage 1	Concrete Above Plasterboard 200mm	24.30		Bulk Insulation R1.5	Carpet+Rubber Underlay 18mm
LOUNGE	Suspended Concrete Slab 200mm	0.60	Enclosed	No Insulation	Carpet+Rubber Underlay 18mm
KITCHEN LIV DIN/Garage 1	Concrete Above Plasterboard 200mm	50.10		Bulk Insulation R1.5	Carpet+Rubber Underlay 18mm
KITCHEN LIV DIN	Suspended Concrete Slab 200mm	23.60	Enclosed	No Insulation	80/20 Carpet 10mm/Ceramic
BED 3/ENTRY STAIR	Concrete Above Plasterboard 200mm	9.70		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/OFFICE	Concrete Above Plasterboard 200mm	0.50		No Insulation	Carpet+Rubber Underlay 18mm
BED 3	Suspended Concrete Slab 200mm	10.00	Very Open	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
BED 4/ENTRY STAIR	Concrete Above Plasterboard 200mm	3.70		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/OFFICE	Concrete Above Plasterboard 200mm	2.30		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/PWD EAST	Concrete Above Plasterboard 200mm	4.20		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/LDRY	Concrete Above Plasterboard 200mm	6.80		No Insulation	Carpet+Rubber Underlay 18mm
POOL EQUIP	Suspended Concrete Slab 200mm	6.70	Enclosed	No Insulation	Ceramic Tiles 8mm
BATH FFP/LDRY	Concrete Above Plasterboard 200mm	3.30		No Insulation	Ceramic Tiles 8mm
BATH FFP/SCULLERY	Concrete Above Plasterboard 200mm	5.20		No Insulation	Ceramic Tiles 8mm
BED 5/SCULLERY	Concrete Above Plasterboard 200mm	4.90		No Insulation	Carpet+Rubber Underlay 18mm
BED 5/KITCHEN LIV DIN	Concrete Above Plasterboard 200mm	12.70		No Insulation	Carpet+Rubber Underlay 18mm
MASTER BED+WIR/KITCHEN LIV DIN	Concrete Above Plasterboard 200mm	60.00		No Insulation	Carpet+Rubber Underlay 18mm
MASTER BED+WIR/POOL EQUIP	Concrete Above Plasterboard 200mm	1.10		No Insulation	Carpet+Rubber Underlay 18mm
MASTER BED+WIR	Suspended Concrete Slab 200mm	2.80	Very Open	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
MASTER ENS/POOL EQUIP	Concrete Above Plasterboard 200mm	3.80		No Insulation	Ceramic Tiles 8mm
MASTER ENS	Suspended Concrete Slab 200mm	9.30	Very Open	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
ENS BED 2/PWD WEST	Concrete Above Plasterboard 200mm	2.00		No Insulation	Ceramic Tiles 8mm
ENS BED 2	Suspended Concrete Slab 200mm	2.30	Very Open	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
BED 2/ENTRY STAIR	Concrete Above Plasterboard 200mm	5.70		No Insulation	Carpet+Rubber Underlay 18mm
BED 2/PWD WEST	Concrete Above Plasterboard 200mm	2.50		No Insulation	Carpet+Rubber Underlay 18mm
BED 2/PRAYER	Concrete Above Plasterboard 200mm	11.50		No Insulation	Carpet+Rubber Underlay 18mm
HALLWAY FF+VOID/ENTRY STAIR	Concrete Above Plasterboard 200mm	47.00		No Insulation	Carpet+Rubber Underlay 18mm
HALLWAY FF+VOID/LDRY	Concrete Above Plasterboard 200mm	0.80		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
HALLWAY FF+VOID/SCULLERY	Concrete Above Plasterboard 200mm	1.50		No Insulation	Carpet+Rubber Underlay 18mm
HALLWAY FF+VOID/LOUNGE	Concrete Above Plasterboard 200mm	2.30		No Insulation	Carpet+Rubber Underlay 18mm
VOID OVER LOUNG/LOUNGE	Concrete Above Plasterboard 200mm	22.60		No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage 1	Concrete, Plasterboard	No insulation	No
Garage 1	Concrete Above Plasterboard	Bulk Insulation R1.5	No
ENTRY STAIR	Concrete, Plasterboard	Bulk Insulation R2.5	No
ENTRY STAIR	Concrete Above Plasterboard	No Insulation	No
PWD WEST	Concrete, Plasterboard	Bulk Insulation R2.5	No
PWD WEST	Concrete Above Plasterboard	No Insulation	No
PRAYER	Concrete, Plasterboard	Bulk Insulation R2.5	No
PRAYER	Concrete Above Plasterboard	No Insulation	No
OFFICE	Plasterboard	Bulk Insulation R3.5	No
OFFICE	Concrete Above Plasterboard	No Insulation	No
PWD EAST	Concrete, Plasterboard	Bulk Insulation R2.5	No
PWD EAST	Concrete Above Plasterboard	No Insulation	No
LDRY	Concrete, Plasterboard	Bulk Insulation R2.5	No
LDRY	Concrete Above Plasterboard	No Insulation	No
SCULLERY	Concrete, Plasterboard	Bulk Insulation R2.5	No
SCULLERY	Concrete Above Plasterboard	No Insulation	No
LOUNGE	Concrete, Plasterboard	Bulk Insulation R2.5	No
LOUNGE	Concrete Above Plasterboard	No Insulation	No
KITCHEN LIV DIN	Concrete, Plasterboard	Bulk Insulation R2.5	No
KITCHEN LIV DIN	Concrete Above Plasterboard	No Insulation	No
BED 3	Plasterboard	Bulk Insulation R3.5	No
BED 4	Plasterboard	Bulk Insulation R3.5	No
POOL EQUIP	Concrete, Plasterboard	Bulk Insulation R3.5	No
POOL EQUIP	Concrete Above Plasterboard	No Insulation	No
BATH FFP	Plasterboard	Bulk Insulation R3.5	No
BED 5	Plasterboard	Bulk Insulation R3.5	No
MASTER BED+WIR	Plasterboard	Bulk Insulation R3.5	No
MASTER ENS	Plasterboard	Bulk Insulation R3.5	No
ENS BED 2	Plasterboard	Bulk Insulation R3.5	No
BED 2	Plasterboard	Bulk Insulation R3.5	No
HALLWAY FF+VOID	Plasterboard	Bulk Insulation R3.5	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
VOID OVER LOUNG	Plasterboard	Bulk Insulation R3.5	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Garage 1	4	Downlights - LED	150	Sealed
ENTRY STAIR	27	Downlights - LED	150	Sealed
PWD WEST	2	Downlights - LED	150	Sealed
PWD WEST	1	Exhaust Fans	300	Sealed
PRAYER	4	Downlights - LED	150	Sealed
OFFICE	5	Downlights - LED	150	Sealed
PWD EAST	2	Downlights - LED	150	Sealed
PWD EAST	1	Exhaust Fans	300	Sealed
LDRY	4	Downlights - LED	150	Sealed
LDRY	1	Exhaust Fans	300	Sealed
SCULLERY	4	Downlights - LED	150	Sealed
LOUNGE	10	Downlights - LED	150	Sealed
KITCHEN LIV DIN	29	Downlights - LED	150	Sealed
KITCHEN LIV DIN	1	Exhaust Fans	300	Sealed
BED 3	8	Downlights - LED	150	Sealed
BED 4	6	Downlights - LED	150	Sealed
POOL EQUIP	2	Downlights - LED	150	Sealed
BATH FFP	3	Downlights - LED	150	Sealed
BATH FFP	1	Exhaust Fans	300	Sealed
BED 5	7	Downlights - LED	150	Sealed
MASTER BED+WIR	26	Downlights - LED	150	Sealed
MASTER ENS	5	Downlights - LED	150	Sealed
MASTER ENS	1	Exhaust Fans	300	Sealed
ENS BED 2	2	Downlights - LED	150	Sealed
ENS BED 2	1	Exhaust Fans	300	Sealed
BED 2	8	Downlights - LED	150	Sealed
HALLWAY FF+VOID	20	Downlights - LED	150	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Added Insulation, No air Gap	0.50	Medium
Corrugated Iron	Foil, No Gap, Reflective Side Down, Anti-glare Up	0.50	Medium
Waterproofing Membrane	No Added Insulation, No 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 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).