

# Nationwide House Energy Rating Scheme

## NatHERS Certificate No. 0007010721

Generated on 02 Feb 2022 using BERS Pro v4.4.0.6 (3.21)

### Property

**Address** 38 Rochester Street , Strathfield , NSW ,  
2135

**Lot/DP** 1/950953

**NCC Class\*** 1A

**Type** New Dwelling

### Plans

**Main Plan** Chib 38 Rochester Street

**Prepared by** AF

### Construction and environment

Assessed floor area (m <sup>2</sup> )*	Exposure Type
Conditioned* 488.0	Suburban
Unconditioned* 57.0	<b>NatHERS climate zone</b>
Total 545.0	56
Garage 42.0	

### Accredited assessor

**Name** Ian Fry

**Business name** Frys Energywise

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**Phone** 02 9899 2825

**Accreditation No.** DMN/12/1441

**Assessor Accrediting Organisation**  
Design Matters National

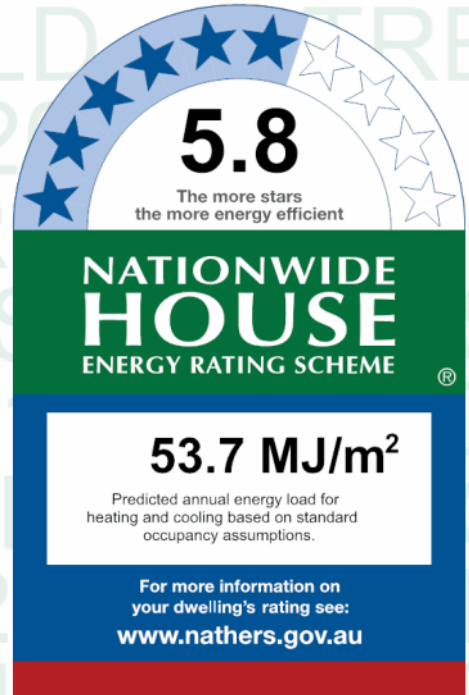
**Declaration of interest** Declaration completed: no conflicts

### 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](http://www.abcb.gov.au).

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



**5.8**  
The more stars  
the more energy efficient

**NATIONWIDE  
HOUSE**  
ENERGY RATING SCHEME

**53.7 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

Heating	Cooling
<b>27.7</b> MJ/m <sup>2</sup>	<b>25.9</b> MJ/m <sup>2</sup>

### 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=zhMoouiDH](http://hstar.com.au/QR/Generate?p=zhMoouiDH). When using either link, ensure you are visiting [hstar.com.au](http://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

Where not noted on plans, default selections to floor coverings and external colours have been used in this assessment, as noted in the NatHERS Technical Notes. Alternative selections past this point can be made to floor coverings and external colours, without requiring an amended certificate.

## 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	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	0.54	0.60
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	0.66	0.73
TIM-001-01 W	TIM-001-01 W Timber A SG Clear	5.4	0.56	0.53	0.59

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76	0.72	0.80

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-001-15 A	BRD-001-15 A ESS Sliding Window (52mm) SG 638CP	4.6	0.46	0.44	0.48
BRD-141-21 A	BRD-141-21 A Signature Sliding Stacking Door DG LightBridge_ClrS0_4-10-4	2.8	0.51	0.48	0.54
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40	0.38	0.42
BRD-043-07 A	BRD-043-07 A SIG Louvre Window (125mm) SG 6Sn	4.9	0.44	0.42	0.46
BRD-063-12 A	BRD-063-12 A SIG Fixed Lite (67mm) SG 638CP	4.1	0.47	0.45	0.49
BRD-024-13 A	BRD-024-13 A ESS Double Hung Window (52mm) SG 638CP	4.4	0.45	0.43	0.47

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Garage	BRD-001-01 A	n/a	900	1600	n/a	45	N	No
Laundry/Mud	ALM-001-01 A	n/a	2400	820	n/a	90	N	No
Laundry/Mud	ALM-001-01 A	n/a	1200	600	n/a	90	N	No
Guest Bedroom	BRD-001-15 A	n/a	1000	2200	n/a	40	N	No
Powder	ALM-002-01 A	n/a	1000	1200	n/a	45	N	No
Office/Meditati	BRD-141-21 A	n/a	2400	2170	n/a	45	N	No
Puja	BRD-026-18 A	n/a	2100	1600	n/a	30	N	No
Kitchen/Family	BRD-043-07 A	n/a	2640	910	n/a	90	E	No
Kitchen/Family	BRD-043-07 A	n/a	2640	910	n/a	90	E	No
Kitchen/Family	BRD-063-12 A	n/a	2640	1210	n/a	00	E	No
Kitchen/Family	BRD-063-12 A	n/a	2640	1210	n/a	00	E	No
Kitchen/Family	BRD-043-07 A	n/a	2640	910	n/a	90	N	No
Kitchen/Family	BRD-063-12 A	n/a	2640	1210	n/a	00	N	No
Kitchen/Family	BRD-141-21 A	n/a	2750	4090	n/a	45	E	No
Kitchen/Family	ALM-002-01 A	n/a	600	2900	n/a	00	S	No
Butlers	ALM-002-01 A	n/a	600	1600	n/a	45	S	No
2nd Master Bedr	BRD-141-21 A	n/a	2400	2170	n/a	45	S	No
Ensuite	ALM-001-01 A	n/a	1000	900	n/a	90	S	No
Ensuite	ALM-001-01 A	n/a	1000	900	n/a	90	S	No
Lounge/Foyer	BRD-063-12 A	n/a	2540	3210	n/a	00	S	No
Lounge/Foyer	BRD-141-21 A	n/a	2400	1810	n/a	45	E	No
Lounge/Foyer	BRD-024-13 A	n/a	2100	900	n/a	45	W	No
Lounge/Foyer	BRD-024-13 A	n/a	2100	900	n/a	45	W	No
Lounge/Foyer	TIM-001-01 W	n/a	2340	1200	n/a	90	W	No
Ensuite 1	ALM-001-01 A	n/a	1200	600	n/a	90	N	No

\* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Ensuite 1	ALM-001-01 A	n/a	1200	600	n/a	90	N	No
Ensuite 1	ALM-001-01 A	n/a	1200	600	n/a	90	N	No
Ensuite 1	ALM-002-01 A	n/a	1500	1800	n/a	23	W	No
Ensuite 1	ALM-002-01 A	n/a	1500	900	n/a	45	W	No
WIR Master Bedr	BRD-024-13 A	n/a	1500	900	n/a	45	W	No
Ensuite 2	ALM-002-01 A	n/a	1200	600	n/a	45	N	No
Bed 2	BRD-001-15 A	n/a	1200	2200	n/a	10	N	No
Ensuite 3	ALM-002-01 A	n/a	1000	600	n/a	45	N	No
Bed 3	BRD-001-15 A	n/a	1200	2200	n/a	10	N	No
Sitting	BRD-026-18 A	n/a	1800	1000	n/a	60	N	No
Sitting	BRD-063-12 A	n/a	2340	3210	n/a	00	S	No
Void Over Livin	BRD-063-12 A	n/a	2340	910	n/a	00	E	No
Void Over Livin	BRD-063-12 A	n/a	2340	910	n/a	00	E	No
Void Over Livin	BRD-063-12 A	n/a	2340	1210	n/a	00	E	No
Void Over Livin	BRD-063-12 A	n/a	2340	1210	n/a	00	E	No
Sitting	BRD-043-07 A	n/a	2060	910	n/a	90	N	No
Sitting	BRD-063-12 A	n/a	2060	1210	n/a	00	N	No
Sitting	BRD-141-21 A	n/a	2400	4090	n/a	45	E	No
Media	BRD-001-15 A	n/a	1000	2600	n/a	40	S	No
Bed 4	BRD-001-15 A	n/a	1200	2200	n/a	10	S	No
Ensuite 4	ALM-002-01 A	n/a	1000	600	n/a	45	S	No
Ensuite 5	ALM-002-01 A	n/a	1000	600	n/a	45	S	No
Bed 5	BRD-001-15 A	n/a	1200	2200	n/a	10	S	No
Bed 5	BRD-001-15 A	n/a	1800	1800	n/a	10	W	No
Master Bedroom	BRD-026-18 A	n/a	1800	1800	n/a	10	E	No
Master Bedroom	BRD-024-13 A	n/a	1500	900	n/a	10	W	No
Master Bedroom	BRD-024-13 A	n/a	1500	900	n/a	10	W	No
Master Bedroom	BRD-024-13 A	n/a	1800	1800	n/a	10	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 <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2700	4810	90	W

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.50	Medium	No insulation	No
EW-2	Single Skin Brick	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	Bulk Insulation R2	No
EW-4	Brick Veneer	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)
Garage	EW-1	3072	7100	N	200	NO
Garage	EW-1	3072	500	E	100	YES
Garage	EW-2	3072	5995	W	100	NO
Laundry/Mud	EW-3	2900	1790	N	100	YES
Guest Bedroom	EW-3	2900	3390	N	100	NO
Powder	EW-3	2900	1590	N	100	NO
Office/Meditati	EW-3	2900	2890	N	100	NO
Puja	EW-3	2900	2090	N	100	NO
Kitchen/Family	EW-3	2900	6095	N	100	NO
Kitchen/Family	EW-3	2900	5700	E	100	YES

\* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Family	EW-3	2900	3000	N	100	YES
Kitchen/Family	EW-3	2900	5600	E	4100	NO
Kitchen/Family	EW-3	2900	8795	S	100	NO
Butlers	EW-3	2900	2590	S	100	NO
2nd Master Bedr	EW-3	2900	5890	S	100	NO
Ensuite	EW-3	2900	3595	S	100	NO
Ensuite	EW-3	2900	2395	W	100	YES
Lounge/Foyer	EW-3	2900	4495	S	100	YES
Lounge/Foyer	EW-3	2900	2400	E	100	YES
Lounge/Foyer	EW-3	2900	4600	S	100	NO
Lounge/Foyer	EW-3	2900	3800	W	600	NO
Lounge/Foyer	EW-3	2900	2000	N	2300	YES
Lounge/Foyer	EW-3	2900	1995	W	2700	YES
Ensuite 1	EW-4	2735	3495	N	400	NO
Ensuite 1	EW-4	2735	3495	W	100	NO
WIR Master Bedr	EW-4	2735	2490	N	400	NO
WIR Master Bedr	EW-4	2735	1790	W	100	YES
Ensuite 2	EW-4	2735	1590	N	400	NO
Bed 2	EW-4	2735	3690	N	400	NO
Ensuite 3	EW-4	2735	2090	N	400	NO
Bed 3	EW-4	2735	3390	N	400	NO
Sitting	EW-4	2735	2090	N	400	NO
Sitting	EW-4	2735	490	E	400	YES
Sitting	EW-4	2735	4490	S	400	YES
Void Over Livin	EW-4	2735	6095	N	400	NO
Void Over Livin	EW-4	2735	5195	E	400	NO
Sitting	EW-4	2735	2995	N	200	YES
Sitting	EW-4	2735	5600	E	4400	NO
Sitting	EW-4	2735	3595	S	400	NO
Media	EW-4	2735	5290	S	400	NO
Bed 4	EW-4	2735	4090	S	400	NO
Ensuite 4	EW-4	2735	1890	S	400	NO
Ensuite 5	EW-4	2735	1890	S	400	NO
Bed 5	EW-4	2735	4095	S	400	NO
Bed 5	EW-4	2735	2400	W	400	YES
Master Bedroom	EW-4	2735	2400	E	400	YES
Master Bedroom	EW-4	2735	4600	S	400	NO
Master Bedroom	EW-4	2735	3700	W	100	YES



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Master Bedroom	EW-4	2735	600	S	100	YES
Master Bedroom	EW-4	2735	2300	W	100	NO
Master Bedroom	EW-4	2735	2600	N	100	YES

## Internal wall type

Wall ID	Wall type	Area (m <sup>2</sup> )	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		37.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		526.00	No insulation

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 175 mm 100mm	42.00	None	Waffle Pod 175mm	Bare
Laundry/Mud	Waffle pod slab 225 mm 100mm	9.30	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Guest Bedroom	Waffle pod slab 225 mm 100mm	16.40	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Powder	Waffle pod slab 225 mm 100mm	5.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Office/Meditati	Waffle pod slab 225 mm 100mm	10.50	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Puja	Waffle pod slab 225 mm 100mm	7.50	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Kitchen/Family	Waffle pod slab 225 mm 100mm	83.90	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Butlers	Waffle pod slab 225 mm 100mm	10.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
2nd Master Bedr	Waffle pod slab 225 mm 100mm	24.10	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite	Waffle pod slab 225 mm 100mm	8.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Lounge/Foyer	Waffle pod slab 225 mm 100mm	37.50	None	Waffle Pod 225mm	40/60 Carpet 10mm/Ceramic
Robe	Waffle pod slab 225 mm 100mm	6.00	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Hallway	Waffle pod slab 225 mm 100mm	28.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
COMS Room	Waffle pod slab 225 mm 100mm	2.00	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 1/Garage	Timber Above Plasterboard 19mm	11.90		Bulk Insulation R3	Ceramic Tiles 8mm
WIR Master Bedr/Garage	Timber Above Plasterboard 19mm	17.70		Bulk Insulation R3	Carpet+Rubber Underlay 18mm
Ensuite 2/Garage	Timber Above Plasterboard 19mm	2.90		Bulk Insulation R3	Ceramic Tiles 8mm
Ensuite 2/Laundry/Mud	Timber Above Plasterboard 19mm	1.30		No Insulation	Ceramic Tiles 8mm
Bed 2/Laundry/Mud	Timber Above Plasterboard 19mm	5.80		No Insulation	Carpet+Rubber Underlay 18mm
Bed 2/Guest Bedroom	Timber Above Plasterboard 19mm	10.70		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Ensuite 3/Guest Bedroom	Timber Above Plasterboard 19mm	2.20		No Insulation	Ceramic Tiles 8mm
Ensuite 3/Powder	Timber Above Plasterboard 19mm	2.40		No Insulation	Ceramic Tiles 8mm
Bed 3/Powder	Timber Above Plasterboard 19mm	1.70		No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/Office/Meditati	Timber Above Plasterboard 19mm	10.60		No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/Hallway	Timber Above Plasterboard 19mm	1.50		No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/COMS Room	Timber Above Plasterboard 19mm	1.20		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Garage	Timber Above Plasterboard 19mm	2.20		Bulk Insulation R3	Carpet+Rubber Underlay 18mm
Sitting/Laundry/Mud	Timber Above Plasterboard 19mm	1.40		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Guest Bedroom	Timber Above Plasterboard 19mm	1.30		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Puja	Timber Above Plasterboard 19mm	7.60		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Kitchen/Family	Timber Above Plasterboard 19mm	8.90		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Lounge/Foyer	Timber Above Plasterboard 19mm	14.70		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Hallway	Timber Above Plasterboard 19mm	20.40		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/COMS Room	Timber Above Plasterboard 19mm	0.90		No Insulation	Carpet+Rubber Underlay 18mm
Void Over Livin/Kitchen/Family	Timber Above Plasterboard 19mm	31.20		No Insulation	Carpet+Rubber Underlay 18mm
Sitting/Kitchen/Family	Timber Above Plasterboard 19mm	19.50		No Insulation	Carpet+Rubber Underlay 18mm
Media/Kitchen/Family	Timber Above Plasterboard 19mm	22.90		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/Butlers	Timber Above Plasterboard 19mm	10.20		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/2nd Master Bedr	Timber Above Plasterboard 19mm	6.50		No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/Hallway	Timber Above Plasterboard 19mm	1.90		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 4/2nd Master Bedr	Timber Above Plasterboard 19mm	4.30		No Insulation	Ceramic Tiles 8mm
Ensuite 5/2nd Master Bedr	Timber Above Plasterboard 19mm	4.30		No Insulation	Ceramic Tiles 8mm
Bed 5/2nd Master Bedr	Timber Above Plasterboard 19mm	2.00		No Insulation	Carpet+Rubber Underlay 18mm
Bed 5/Ensuite	Timber Above Plasterboard 19mm	8.40		No Insulation	Carpet+Rubber Underlay 18mm
Bed 5/Robe	Timber Above Plasterboard 19mm	6.30		No Insulation	Carpet+Rubber Underlay 18mm
Bed 5/Hallway	Timber Above Plasterboard 19mm	2.00		No Insulation	Carpet+Rubber Underlay 18mm
Master Bedroom/Garage	Timber Above Plasterboard 19mm	0.50		Bulk Insulation R3	Carpet+Rubber Underlay 18mm
Master Bedroom/Lounge/Foyer	Timber Above Plasterboard 19mm	22.50		No Insulation	Carpet+Rubber Underlay 18mm
Master Bedroom	Suspended Timber Floor 19mm	5.70	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
WIR Bed 2/Garage	Timber Above Plasterboard 19mm	2.20		Bulk Insulation R3	Carpet+Rubber Underlay 18mm



Location	Construction	Area Sub-floor (m ) ventilation	Added insulation (R-value)	Covering
WIR Bed 2/Laundry/Mud	Timber Above Plasterboard 19mm	1.00	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Guest Bedroom	Timber Above Plasterboard 19mm	2.10	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Powder	Timber Above Plasterboard 19mm	1.30	No Insulation	Carpet+Rubber Underlay 18mm
WIL/Hallway	Timber Above Plasterboard 19mm	1.00	No Insulation	Carpet+Rubber Underlay 18mm
WIR Bed 4/2nd Master Bedr	Timber Above Plasterboard 19mm	3.10	No Insulation	Carpet+Rubber Underlay 18mm
WIR Bed 4/Hallway	Timber Above Plasterboard 19mm	0.90	No Insulation	Carpet+Rubber Underlay 18mm
WIR Bed 5/2nd Master Bedr	Timber Above Plasterboard 19mm	3.10	No Insulation	Carpet+Rubber Underlay 18mm
WIR Bed 5/Hallway	Timber Above Plasterboard 19mm	0.90	No Insulation	Carpet+Rubber Underlay 18mm

## Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage	Plasterboard	Bulk Insulation R4	No
Garage	Timber Above Plasterboard	Bulk Insulation R3	No
Laundry/Mud	Timber Above Plasterboard	No Insulation	No
Guest Bedroom	Timber Above Plasterboard	No Insulation	No
Powder	Timber Above Plasterboard	No Insulation	No
Office/Meditati	Timber Above Plasterboard	No Insulation	No
Puja	Timber Above Plasterboard	No Insulation	No
Kitchen/Family	Timber Above Plasterboard	No Insulation	No
Butlers	Timber Above Plasterboard	No Insulation	No
2nd Master Bedr	Timber Above Plasterboard	No Insulation	No
Ensuite	Timber Above Plasterboard	No Insulation	No
Lounge/Foyer	Timber Above Plasterboard	No Insulation	No
Robe	Timber Above Plasterboard	No Insulation	No
Hallway	Timber Above Plasterboard	No Insulation	No
COMS Room	Timber Above Plasterboard	No Insulation	No
Ensuite 1	Plasterboard	Bulk Insulation R4	No
WIR Master Bedr	Plasterboard	Bulk Insulation R4	No
Ensuite 2	Plasterboard	Bulk Insulation R4	No
Bed 2	Plasterboard	Bulk Insulation R4	No
Ensuite 3	Plasterboard	Bulk Insulation R4	No
Bed 3	Plasterboard	Bulk Insulation R4	No
Sitting	Plasterboard	Bulk Insulation R4	No
Void Over Livin	Plasterboard	Bulk Insulation R4	No
Sitting	Plasterboard	Bulk Insulation R4	No
Media	Plasterboard	Bulk Insulation R4	No

\* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bed 4	Plasterboard	Bulk Insulation R4	No
Ensuite 4	Plasterboard	Bulk Insulation R4	No
Ensuite 5	Plasterboard	Bulk Insulation R4	No
Bed 5	Plasterboard	Bulk Insulation R4	No
Master Bedroom	Plasterboard	Bulk Insulation R4	No
WIR Bed 2	Plasterboard	Bulk Insulation R4	No
WIL	Plasterboard	Bulk Insulation R4	No
WIR Bed 4	Plasterboard	Bulk Insulation R4	No
WIR Bed 5	Plasterboard	Bulk Insulation R4	No

### Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm <sup>2</sup> )	Sealed/unsealed
Powder	1	Exhaust Fans	0	Sealed
Ensuite	1	Exhaust Fans	0	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 3	1	Exhaust Fans	300	Sealed
Ensuite 4	1	Exhaust Fans	300	Sealed
Ensuite 5	1	Exhaust Fans	300	Sealed

### Ceiling fans

Location	Quantity	Diameter (mm)
Guest Bedroom	1	1200
Office/Meditati	1	1200
Kitchen/Family	1	1200
2nd Master Bedr	1	1200
Bed 2	1	1200
Bed 3	1	1200
Sitting	1	1200
Bed 4	1	1200
Master Bedroom	1	1200

### Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.30	Light
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.30	Light

## 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

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<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, 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.
<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>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>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 10m 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>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>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap 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 device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<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.
<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).