

# Nationwide House Energy Rating Scheme

## NatHERS Certificate No. 0009565177

Generated on 26 Jun 2024 using BERS Pro v4.4.1.5 (3.21)

### Property

**Address** 120 Prince Alfred Parade,  
NEWPORT, NSW, 2106

**Lot/DP** 34-35/13457

**NCC Class\*** 1A

**Type** New Dwelling

### Plans

**Main plan** 120 Prince Alfred

**Prepared by** BRFD No 1 Pty Ltd

### Construction and environment

Assessed floor area (m <sup>2</sup> )*	Exposure type
Conditioned* 441.0	Suburban
Unconditioned* 84.0	<b>NatHERS climate zone</b>
Total 525.0	56
Garage 55.0	



### Accredited assessor

**Name** Terry Chapman

**Business name** CHAPMAN ENVIRONMENTAL SERVICES  
PTY LTD

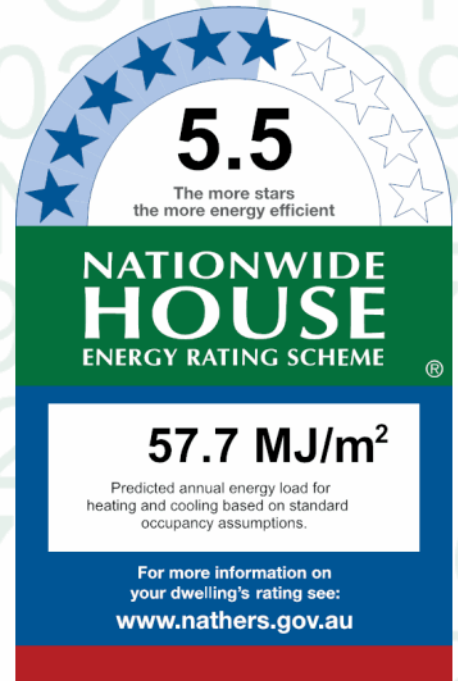
**Email** terry@cesenergy.com.au

**Phone** 0414 265 292

**Accreditation No.** 20920

**Assessor Accrediting Organisation**  
ABSA

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



### Thermal performance

Heating	Cooling
<b>42.0</b>	<b>15.7</b>
MJ/m <sup>2</sup>	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=rbQlrqZLP](https://hstar.com.au/QR/Generate?p=rbQlrqZLP). When using either link, ensure you are visiting [hstar.com.au](https://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](https://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

\*\* R1.2 Slab insulation to be installed on top of the slab and under the timber floating floors on the ground level

only

\*\*

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

ALS-037-29 A	ALS-037-29 A 92mm Carinya Classic Sliding Door DG AGG Is SI EA CI 4/10Ar/4	3.0	0.59	0.56	0.62
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## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALS-022-07 A	ALS-022-07 A Airflow Aluminium Louvre SG 6LE	4.5	0.53	0.50	0.56
ALS-044-05 A	ALS-044-05 A Carinya Select 125 Hinged Door SG 6EVClr	4.6	0.45	0.43	0.47
ALS-027-05 A	ALS-027-05 A 50mm Carinya Classic Fixed Window SG 6EVClr	4.1	0.57	0.54	0.60
ALS-031-29 A	ALS-031-29 A 92mm Carinya Classic Fixed Window DG 001_AGG PRIME Clr 4_10_4	2.8	0.51	0.48	0.54

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALS-037-29 A	n/a	2700	4600	n/a	60	N	No
Kitchen/Living	ALS-037-29 A	n/a	2700	6080	n/a	60	N	No
Living 1	ALS-022-07 A	n/a	2700	650	n/a	90	S	No
Living 1	ALS-022-07 A	n/a	2700	900	n/a	90	W	No
Living 1	ALS-022-07 A	n/a	2700	900	n/a	90	W	No
Living 1	ALS-037-29 A	n/a	2700	5300	n/a	60	N	No
Hall 2	ALS-022-07 A	n/a	2700	1500	n/a	90	E	No
Hall 2	ALS-022-07 A	n/a	2700	1300	n/a	90	S	No
Hall 2	ALS-022-07 A	n/a	2700	1150	n/a	90	W	No
Pantry	ALS-022-07 A	n/a	800	2200	n/a	00	E	No
Pantry	ALS-022-07 A	n/a	2700	1100	n/a	90	S	No
Gym	ALS-037-29 A	n/a	2700	3350	n/a	60	W	No
Gym	ALS-022-07 A	n/a	2700	1700	n/a	90	N	No
Pdr	ALS-022-07 A	n/a	700	1500	n/a	90	S	No
Hall 1	ALS-044-05 A	n/a	2700	1100	n/a	90	W	No
Hall 1	ALS-027-05 A	n/a	2700	2400	n/a	00	S	No
Bedroom 1	ALS-037-29 A	n/a	2700	3140	n/a	45	N	No
Bedroom 1	ALS-022-07 A	n/a	2700	600	n/a	90	N	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
WIR	ALS-022-07 A	n/a	2700	450	n/a	90	E	No
Ensuite 1	ALS-022-07 A	n/a	1450	710	n/a	90	E	No
Ensuite 1	ALS-027-05 A	n/a	1450	2000	n/a	00	E	No
Ensuite 1	ALS-022-07 A	n/a	1800	900	n/a	90	S	No
Linen	ALS-022-07 A	n/a	1800	900	n/a	90	S	No
Bedroom 2	ALS-022-07 A	n/a	2700	600	n/a	90	N	No
Bedroom 2	ALS-037-29 A	n/a	2700	2550	n/a	45	N	No
Bed 2 Ens	ALS-022-07 A	n/a	700	1500	n/a	90	W	No
Bedroom 3	ALS-037-29 A	n/a	2700	2550	n/a	45	N	No
Bedroom 3	ALS-022-07 A	n/a	2700	600	n/a	90	N	No
Bedroom 4	ALS-037-29 A	n/a	2700	2550	n/a	45	N	No
Bedroom 4	ALS-022-07 A	n/a	2700	600	n/a	90	N	No
Void	ALS-031-29 A	n/a	2700	3100	n/a	00	N	No
Media	ALS-022-07 A	n/a	1800	1200	n/a	90	S	No
Bath	ALS-022-07 A	n/a	1800	1800	n/a	45	S	No
Home Office	ALS-022-07 A	n/a	1800	750	n/a	90	W	No
Home Office	ALS-037-29 A	n/a	2700	2350	n/a	45	N	No
Entry	ALS-031-29 A	n/a	2500	3800	n/a	00	N	No
Entry	ALS-027-05 A	n/a	2500	2100	n/a	00	S	No
Entry	ALS-044-05 A	n/a	2500	1350	n/a	90	S	No
Entry	ALS-027-05 A	n/a	500	4070	n/a	00	S	No
Entry	ALS-027-05 A	n/a	480	3150	n/a	00	E	No Shading
Guest Bed	ALS-022-07 A	n/a	2500	600	n/a	90	N	No
Guest Bed	ALS-037-29 A	n/a	2500	2450	n/a	45	N	No
Guest Ens	ALS-022-07 A	n/a	1600	700	n/a	90	S	No
Guest Ens	ALS-022-07 A	n/a	1600	700	n/a	90	S	No
Garage 1	ALS-022-07 A	n/a	900	3100	n/a	30	N	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
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
WIR	VEL-011-01 W	n/a	0	1050	750	N	No	No
Ensuite 1	VEL-011-01 W	n/a	0	850	850	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	N	No	No
Void	VEL-011-01 W	n/a	0	1650	450	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 <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Laundry	2040	900	90	S
Day Time 4	2700	900	90	S
Garage 1	2400	5500	90	S

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Tilt up concrete, lined	0.30	Light	Bulk Insulation R1.2	No
EW-2	Tilt up concrete, lined	0.30	Light	Bulk Insulation R1.2	No
EW-3	Tilt up Concrete	0.30	Light	No insulation	No
EW-4	Tilt up concrete, lined	0.30	Light	Anti-glare foil with bulk no gap R2.5	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living	EW-1	2900	12050	N	1100	NO
Kitchen/Living	EW-1	2900	6150	E	0	YES
Living 1	EW-1	2900	1700	S	8750	YES
Living 1	EW-1	2900	6200	W	500	NO
Living 1	EW-1	2900	6650	N	1100	NO
Hall 2	EW-1	2900	400	N	0	YES
Hall 2	EW-1	2900	1650	E	0	NO
Hall 2	EW-1	2900	3900	S	100	NO
Hall 2	EW-1	2900	1500	W	5000	YES
Pantry	EW-1	2900	4150	E	0	NO
Pantry	EW-1	2900	2050	S	0	NO
Gym	EW-1	2900	5650	S	3025	NO
Gym	EW-1	2900	4300	W	2900	NO
Gym	EW-1	2900	2100	N	8900	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Laundry	EW-1	2900	2400	S	0	NO
Cellar	EW-1	2900	1400	S	0	NO
Day Time 4	EW-1	2900	1750	S	100	NO
Pdr	EW-1	2900	1900	S	4300	NO
Hall 1	EW-1	2900	1300	W	2800	YES
Hall 1	EW-1	2900	4700	S	3750	NO
Bedroom 1	EW-1	2900	4650	N	1400	YES
Bedroom 1	EW-1	2900	5550	E	0	YES
WIR	EW-1	2900	400	N	0	YES
WIR	EW-1	2900	2250	E	0	NO
Ensuite 1	EW-1	2900	3550	E	0	NO
Ensuite 1	EW-1	2900	4750	S	25	NO
Linen	EW-1	2900	2400	S	75	NO
Bedroom 2	EW-1	2900	3750	N	800	NO
Bedroom 2	EW-1	2900	4750	W	0	NO
Bed 2 Ens	EW-1	2900	1600	W	0	NO
Bedroom 3	EW-1	2900	3700	N	800	NO
Bedroom 4	EW-1	2900	3750	N	800	NO
Bedroom 4	EW-1	2900	600	E	4700	YES
Void	EW-1	2900	3100	N	0	NO
Media	EW-1	2900	4300	S	100	NO
Bath	EW-1	2900	1900	S	3000	NO
Home Office	EW-1	2900	3950	S	2575	NO
Home Office	EW-1	2900	4300	W	0	NO
Home Office	EW-1	2900	2800	N	1400	YES
Entry	EW-2	2550	3900	N	0	YES
Entry	EW-2	4000	4500	S	700	YES
Guest Bed	EW-2	2550	5250	N	0	NO
Guest Bed	EW-2	2550	5450	E	0	NO
Guest Ens	EW-2	2550	1550	E	0	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Guest Ens	EW-2	2550	4700	S	0	NO
Guest Ens	EW-2	2550	1100	W	4600	YES
Garage 1	EW-3	2550	7550	S	0	NO
Garage 1	EW-3	2550	7300	W	0	NO
Garage 1	EW-4	2550	1700	N	0	NO
Garage 1	EW-3	2550	5900	N	0	NO
Garage 1	EW-3	2550	1400	E	0	YES

## Internal wall type

Wall ID	Wall type	Area (m <sup>2</sup> )	Bulk insulation
IW-1 - Tilt Concrete		522.00	No insulation
IW-2 - Tilt Concrete		19.00	Bulk Insulation, No Air Gap R1.4

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living	Suspended Concrete Slab 150mm	74.10	Enclosed	No Insulation	Cork Tiles or Parquetry 8mm
Living 1	Suspended Concrete Slab 150mm	41.00	Enclosed	No Insulation	Cork Tiles or Parquetry 8mm
Hall 2	Suspended Concrete Slab 150mm	44.00	Enclosed	No Insulation	Cork Tiles or Parquetry 8mm
Pantry	Concrete Slab on Ground 100mm	8.50	None	No Insulation	Ceramic Tiles 8mm
Gym	Concrete Slab on Ground 100mm	27.20	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab on Ground 100mm	10.00	None	No Insulation	Ceramic Tiles 8mm
Cellar	Concrete Slab on Ground 100mm	5.80	None	No Insulation	Ceramic Tiles 8mm
Day Time 4	Concrete Slab on Ground 100mm	4.20	None	No Insulation	Cork Tiles or Parquetry 8mm
Pdr	Concrete Slab on Ground 100mm	4.70	None	No Insulation	Ceramic Tiles 8mm
Lift	Concrete Slab on Ground 100mm	3.00	None	No Insulation	Ceramic Tiles 8mm



Location	Construction	Area Sub-floor (m <sup>2</sup> )	ventilation	Added insulation (R-value)	Covering
Hall 1/Hall 2	Concrete Above Plasterboard 150mm	33.30		No Insulation	Cork Tiles or Parquetry 8mm
Hall 1/Pdr	Concrete Above Plasterboard 150mm	1.80		No Insulation	Cork Tiles or Parquetry 8mm
Hall 1	Suspended Concrete Slab 150mm	2.90	Totally Open	No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Concrete Above Plasterboard 100mm	25.70		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Hall 2	Concrete Above Plasterboard 100mm	4.00		No Insulation	Carpet+Rubber Underlay 18mm
WIR/Hall 2	Concrete Above Plasterboard 100mm	4.30		No Insulation	Carpet+Rubber Underlay 18mm
WIR/Pantry	Concrete Above Plasterboard 100mm	1.20		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Pantry	Concrete Above Plasterboard 100mm	7.40		No Insulation	Ceramic Tiles 8mm
Ensuite 1/Laundry	Concrete Above Plasterboard 100mm	9.70		No Insulation	Ceramic Tiles 8mm
Ensuite 1/Cellar	Concrete Above Plasterboard 100mm	0.80		No Insulation	Ceramic Tiles 8mm
Linen/Cellar	Concrete Above Plasterboard 100mm	5.00		No Insulation	Cork Tiles or Parquetry 8mm
Linen/Pdr	Concrete Above Plasterboard 100mm	2.60		No Insulation	Cork Tiles or Parquetry 8mm
Lift/Lift	Concrete Above Plasterboard 100mm	2.70		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Living 1	Concrete Above Plasterboard 150mm	17.00		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Suspended Concrete Slab 150mm	2.30	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Bed 2 Ens/Living 1	Concrete Above Plasterboard 150mm	2.70		No Insulation	Ceramic Tiles 8mm
Bed 2 Ens	Suspended Concrete Slab 150mm	1.00	Totally Open	No Insulation	Ceramic Tiles 8mm
Bedroom 3/Kitchen/Living	Concrete Above Plasterboard 100mm	1.80		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Living 1	Concrete Above Plasterboard 100mm	17.30		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 3/Kitchen/Living	Concrete Above Plasterboard 100mm	0.50		No Insulation	Ceramic Tiles 8mm
Ensuite 3/Living 1	Concrete Above Plasterboard 100mm	2.80		No Insulation	Ceramic Tiles 8mm
Ensuite 3/Hall 2	Concrete Above Plasterboard 100mm	0.50		No Insulation	Ceramic Tiles 8mm
Bedroom 4/Kitchen/Living	Concrete Above Plasterboard 100mm	19.10		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area Sub-floor (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Ensuite 4/Kitchen/Living	Concrete Above Plasterboard 100mm	3.30		No Insulation	Ceramic Tiles 8mm
Ensuite 4/Hall 2	Concrete Above Plasterboard 100mm	0.50		No Insulation	Ceramic Tiles 8mm
Void/Kitchen/Living	Concrete Above Plasterboard 100mm	19.10		No Insulation	Ceramic Tiles 8mm
Void/Hall 2	Concrete Above Plasterboard 100mm	0.60		No Insulation	Ceramic Tiles 8mm
Media/Gym	Concrete Above Plasterboard 100mm	13.90		No Insulation	Cork Tiles or Parquetry 8mm
Media/Day Time 4	Concrete Above Plasterboard 100mm	4.30		No Insulation	Cork Tiles or Parquetry 8mm
Bath/Gym	Concrete Above Plasterboard 100mm	8.10		No Insulation	Ceramic Tiles 8mm
Home Office/Gym	Concrete Above Plasterboard 150mm	4.70		No Insulation	Carpet+Rubber Underlay 18mm
Home Office	Suspended Concrete Slab 150mm	12.30	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Entry/Hall 1	Concrete Above Plasterboard 100mm	23.60		No Insulation	Ceramic Tiles 8mm
Entry/Void	Concrete Above Plasterboard 100mm	0.60		No Insulation	Ceramic Tiles 8mm
Lift/Lift	Concrete Above Plasterboard 100mm	3.10		No Insulation	Ceramic Tiles 8mm
Guest Bed/Hall 1	Concrete Above Plasterboard 100mm	4.90		No Insulation	Carpet+Rubber Underlay 18mm
Guest Bed/Bedroom 1	Concrete Above Plasterboard 100mm	4.00		No Insulation	Carpet+Rubber Underlay 18mm
Guest Bed/Ensuite 1	Concrete Above Plasterboard 100mm	7.00		No Insulation	Carpet+Rubber Underlay 18mm
Guest Bed/Linen	Concrete Above Plasterboard 100mm	5.60		No Insulation	Carpet+Rubber Underlay 18mm
Guest Ens/Ensuite 1	Concrete Above Plasterboard 150mm	1.00		No Insulation	Ceramic Tiles 8mm
Guest Ens/Linen	Concrete Above Plasterboard 150mm	2.40		No Insulation	Ceramic Tiles 8mm
Guest Ens	Suspended Concrete Slab 150mm	5.00	Totally Open	No Insulation	Ceramic Tiles 8mm
Garage 1/Hall 1	Concrete Above Plasterboard 100mm	10.60		No Insulation	Bare
Garage 1/Bedroom 2	Concrete Above Plasterboard 100mm	1.90		No Insulation	Bare
Garage 1/Bed 2 Ens	Concrete Above Plasterboard 100mm	4.10		No Insulation	Bare
Garage 1/Bedroom 3	Concrete Above Plasterboard 100mm	1.90		No Insulation	Bare

Location	Construction	Area Sub-floor (m <sup>2</sup> ) ventilation	Added insulation (R-value)	Covering
Garage 1/Ensuite 3	Concrete Above Plasterboard 100mm	4.10	No Insulation	Bare
Garage 1/Media	Concrete Above Plasterboard 100mm	18.80	No Insulation	Bare
Garage 1/Bath	Concrete Above Plasterboard 100mm	8.60	No Insulation	Bare
Garage 1/Home Office	Concrete Above Plasterboard 100mm	5.10	No Insulation	Bare

## Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Living 1	Concrete Above Plasterboard	No Insulation	No
Hall 2	Concrete Above Plasterboard	No Insulation	No
Pantry	Concrete Above Plasterboard	No Insulation	No
Gym	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Cellar	Concrete Above Plasterboard	No Insulation	No
Day Time 4	Concrete Above Plasterboard	No Insulation	No
Pdr	Concrete Above Plasterboard	No Insulation	No
Lift	Concrete Above Plasterboard	No Insulation	No
Hall 1	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Bulk Insulation R2	No
Bedroom 1	Concrete Above Plasterboard	No Insulation	No
WIR	Concrete, Plasterboard	Bulk Insulation R2	No
Ensuite 1	Concrete, Plasterboard	Bulk Insulation R2	No
Ensuite 1	Concrete Above Plasterboard	No Insulation	No
Linen	Concrete Above Plasterboard	No Insulation	No
Lift	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R2	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bed 2 Ens	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Concrete, Plasterboard	Bulk Insulation R2	No
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Ensuite 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 4	Concrete, Plasterboard	Bulk Insulation R2	No
Ensuite 4	Concrete, Plasterboard	Bulk Insulation R2	No
Ensuite 4	Concrete Above Plasterboard	No Insulation	No
Void	Concrete, Plasterboard	Bulk Insulation R2	No
Void	Concrete Above Plasterboard	No Insulation	No
Media	Concrete Above Plasterboard	No Insulation	No
Bath	Concrete Above Plasterboard	No Insulation	No
Home Office	Concrete, Plasterboard	Bulk Insulation R2	No
Home Office	Concrete Above Plasterboard	No Insulation	No
Entry	Plasterboard	Bulk Insulation R3	No
Lift	Concrete, Plasterboard	Bulk Insulation R2	No
Guest Bed	Concrete, Plasterboard	Bulk Insulation R2	No
Guest Ens	Concrete, Plasterboard	Bulk Insulation R2	No
Garage 1	Concrete, Plasterboard	Bulk Insulation R2	No

### Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	26	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Living 1	10	Downlights - LED	150	Sealed
Hall 2	8	Downlights - LED	150	Sealed
Pantry	2	Downlights - LED	150	Sealed
Gym	6	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Cellar	2	Downlights - LED	150	Sealed

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Day Time 4	1	Downlights - LED	150	Sealed
Pdr	2	Downlights - LED	150	Sealed
Pdr	1	Exhaust Fans	300	Sealed
Hall 1	6	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
WIR	1	Downlights - LED	150	Sealed
Ensuite 1	4	Downlights - LED	150	Sealed
Linen	2	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bed 2 Ens	1	Downlights - LED	150	Sealed
Bed 2 Ens	1	Exhaust Fans	300	Sealed
Bedroom 4	4	Downlights - LED	150	Sealed
Ensuite 4	1	Downlights - LED	150	Sealed
Ensuite 4	1	Exhaust Fans	300	Sealed
Media	6	Downlights - LED	150	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Home Office	4	Downlights - LED	150	Sealed
Entry	4	Downlights - LED	150	Sealed
Guest Bed	5	Downlights - LED	150	Sealed
Guest Ens	2	Downlights - LED	150	Sealed
Guest Ens	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 Added Insulation, No air Gap	0.30	Light
Waterproofing Membrane	No Added Insulation, No air Gap	0.30	Light
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.85	Dark
Waterproofing Membrane	No Added Insulation, No air Gap	0.85	Dark

## 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) licenced 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 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>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).