# Nationwide House Energy Rating Scheme NatHERS Certificate No. 0011892189

Generated on 04 May 2025 using AccuRate Sustainability V2.4.3.21

### **Property**

Address 40 Sunrise Road,

Palm Beach, NSW, 2108

**Lot/DP** Lot 151 DP 6937

NCC Class\* 1a

Type New Home

### **Plans**

Main plan DA100 to DA110 dated 13/03/23

Prepared by Susan Rothwell Architects

### Construction and environment

Assessed floor area (m<sup>2</sup>)\* Exposure type

Conditioned\* 455.2 Suburban

Unconditioned\* 54.4 NatHERS climate zone

Total 509.5

Garage 43.6



Name Andrew Spaile

Business name Andrew Spaile & Associates

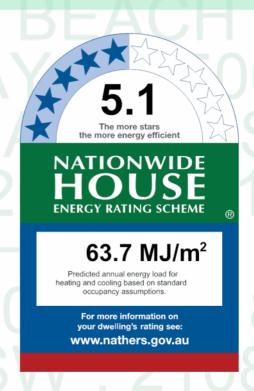
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Accreditation No. 20068

**Assessor Accrediting Organisation** 

**ABSA** 

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



### Thermal performance

Heating Cooling 37.9 25.8

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



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p=imZBtrkTK.

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**

### Window and glazed door type and performance

#### **Default\* windows**

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	U-value*	э*	SHGC lower limit	SHGC upper limit
No Data Availa	ible				

#### **Custom\* windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow ib	Description	U-value*	SHGC	SHGC lower limit	SHGC upper limit	
LOT-010-01 A	Frameless Al Bi Fold Door-100mm SG 12Clr	5.9	0.60	0.57	0.63	
ANE-001-04 A	Al Sashless Double Hung Window SG 6SnClr	4.8	0.46	0.44	0.48	
AWS-013-73 A	541/542 Al Sliding Door DG 5-12-5ClimaTech	3.0	0.50	0.48	0.53	



### **Custom\* windows**

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
Window ID	Description	U-value*	эпис	SHGC lower limit	SHGC upper limit	
AWS-008-06 A	516 Al Awining Window DG 5SG/8Ar/5ET	3.7	0.32	0.30	0.34	

# Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Rumpus	LOT-010-01 A	W107	2400	6010	Other	90	N	None
Cinema	AWS-013-73 A	W101	2400	3400	Other	60	W	None
Laundry	ANE-001-04 A	W101a	2400	900	Double Hung	90	Е	None
Bed 3	AWS-013-73 A	W106	2400	3800	Sliding	45	N	None
Bed 3	AWS-008-06 A	W105a	1900	500	Awning	60	E	None
Bed 3	AWS-008-06 A	W105b	1900	500	Awning	60	E	None
Bed 4	AWS-008-06 A	W104	1900	1000	Awning	60	E	None
Bed 4	AWS-008-06 A	W105	1900	1000	Awning	60	E	None
Bed 7	AWS-008-06 A	W102	1900	1000	Awning	60	E	None
Bed 7	AWS-008-06 A	W102a	1900	1000	Awning	60	E	None
Bed 5	AWS-013-73 A	W108	2400	3330	Sliding	45	N	None
Bed 5	AWS-008-06 A	W108a	2230	500	Awning	60	W	None
Bed 5	AWS-008-06 A	W108b	2230	500	Awning	60	W	None
Bed 6	AWS-008-06 A	W110a	2230	500	Awning	60	W	None
Bed 6	AWS-008-06 A	W110b	2230	500	Awning	60	W	None
Bed 6	AWS-013-73 A	W111	2400	2120	Other	45	S	None
Ensuite 3	ANE-001-04 A	W106	2400	1300	Double Hung	22	N	None
Ensuite 7	ANE-001-04 A	W103	1900	1000	Double Hung	45	E	None
Ensuite 5	ANE-001-04 A	w109	2230	800	Double Hung	45	W	None
Ensuite 6	ANE-001-04 A	W110	2230	800	Double Hung	45	W	None
Garage	AWS-008-06 A	W202	1770	700	Awning	60	E	None
Garage	AWS-008-06 A	W203	1770	700	Awning	60	E	None
Kitchen	AWS-013-73 A	W212	2400	3750	Sliding	60	S	None
Kitchen	AWS-013-73 A	W211	2400	4110	Sliding	60	W	None
Kitchen	AWS-013-73 A	W210	2400	2120	Sliding	45	S	None



Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen	AWS-008-06 A	W209a	2230	1710	Awning	60	W	None
Living Dining	AWS-008-06 A	W208	2230	2260	Awning	22	W	None
Living Dining	AWS-008-06 A	W209	2230	2280	Awning	22	W	None
Living Dining	LOT-010-01 A	W206	2400	8540	Other	90	N	None
Living Dining	LOT-010-01 A	W205	2400	4190	Other	90	W	None
Living Dining	AWS-008-06 A	W204	1900	5370	Other	00	N	None
Living Dining	ANE-001-04 A	W203b	1780	1200	Double Hung	22	E	None
Living Dining	ANE-001-04 A	W203c	1780	1200	Double Hung	22	Е	None
Living Dining	AWS-008-06 A	W203a	1780	900	Awning	60	N	None
Living Dining	ANE-001-04 A	W203b	1780	1200	Double Hung	22	E	None
Living Dining	ANE-001-04 A	W203c	1780	1200	Double Hung	22	E	None
Lobby	AWS-008-06 A	W301C	2200	300	Other	00	E	None
Lobby	AWS-008-06 A	W301	2200	300	Other	00	S	None
Bed 1	AWS-008-06 A	W305	2030	1200	Awning	10	W	None
Bed 1	AWS-013-73 A	W304	2300	5850	Sliding	60	N	None
Ensuite 1 dress	AWS-008-06 A	W303	2030	1920	Other	00	N	None
Ensuite 1 dress	ANE-001-04 A	W302	1100	700	Double Hung	45	E	None
Bed 2	AWS-008-06 A	W307	1500	900	Awning	60	W	None
Bed 2	AWS-013-73 A	W306	2300	3850	Other	60	N	None
Ensuite 2	ANE-001-04 A	W308	2030	800	Double Hung	22	W	None

# Roof window type and performance

### **Default\* roof windows**

Window ID	Window	Maximum	SHGC*	Substitution to	olerance ranges	
	Description	U-value*	энос	SHGC lower limit	SHGC upper limit	
No Data Availa	ble					

### **Custom\* roof windows**

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



### 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

t description
1

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	2150	5000	100	S
Entry	2400	1200	100	S

# External wall type

Wall ID	Wall type	Solar absorptance		Bulk insulation (R-value)	Reflective wall wrap*
EW-001	Brick wall	50	Medium	Polyethylene foam (k = 0.04): R0.1	Yes
EW-002	Sandstone/Concrete block	50	Medium		No
EW-003	Sandstone/Concrete block	50	Medium		No
EW-004	Brick wall/Concrete wall	50	Medium	Polyethylene foam (k = 0.04): R0.1	Yes
EW-005	Fibre-cement sheet/Plasterboard	50	Medium	Glass fibre batt: 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)
Rumpus	EW-001	2500	6400	N	3800	Yes
Cinema	EW-002	2500	5900	S		No
Cinema	EW-001	2500	3580	W	1200	Yes
Laundry	EW-001	2500	2300	Е		No
LG lift	EW-003	2900	3300	S		No
Bed 3	EW-001	2500	3990	N		No
Bed 3	EW-001	2500	4180	Е		No
Bed 4	EW-001	2500	3800	Е		No
Bed 7	EW-001	2500	3200	Е		No
Bed 5	EW-001	2500	1750	Е	6400	Yes
Bed 5	EW-001	2500	3730	N	1700	Yes
Bed 5	EW-001	2500	3990	W		No
Bed 6	EW-001	2500	4110	W		No
Bed 6	EW-001	2500	3500	S	4400	Yes
Ensuite 3	EW-001	2500	1500	N		No
Ensuite 3	EW-001	2500	2470	W	10700	Yes
Ensuite 7	EW-001	2500	1500	Е		No
Ensuite 5	EW-001	2500	1500	W		No
Ensuite 6	EW-001	2500	1500	W		No
Garage	EW-001	2150	6000	Е		No
Garage	EW-001	2600	5600	S		No
GF Lift	EW-004	3200	1650	S		No
Entry	EW-001	2700	1710	S	1800	Yes
Kitchen	EW-001	2700	450	Е	1800	Yes
Kitchen	EW-001	2700	4160	S	1050	Yes
Kitchen	EW-001	2700	6500	W		No
Kitchen	EW-001	2700	2300	S		No
Kitchen	EW-001	2700	1800	W		No
Living Dining	EW-001	2700	6200	W		No



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Living Dining	EW-001	2700	10400	N		No
Living Dining	EW-001	2700	4500	W		No
Living Dining	EW-001	2700	5600	N		No
Living Dining	EW-001	2700	4000	E		No
Living Dining	EW-001	2700	1200	N		No
Living Dining	EW-001	2700	4400	E		No
1stFl Lift	EW-004	2500	1690	S		No
1stFI Lift	EW-004	2500	1600	Е		No
Lobby	EW-001	4000	1200	Е		No
Lobby	EW-001	4000	1600	S		No
Lobby	EW-005	1000	3700	N		No
Bed 1	EW-001	2300	2950	W		No
Bed 1	EW-001	2300	6150	N		No
Ensuite 1 dress	EW-001	2300	2100	N		No
Ensuite 1 dress	EW-001	2300	5710	Е		No
Ensuite 1 dress	EW-001	2300	4600	S		No
Bed 2	EW-001	2700	4800	W		No
Bed 2	EW-001	2300	4160	N		No
Ensuite 2	EW-001	2300	1530	W		No
Ensuite 2	EW-001	2300	4160	S		No
Ensuite 2	EW-001	2300	450	E		No
LG Store	EW-002	2500	6800	S		No

# Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-001	Brick wall	338.71	
IW-002	Concrete wall	36.98	



# Floor type

Location	Construction	Area Sub-floor (m²) ventilation	Added insulation (R-value)	Covering
Rumpus/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	18.49	R1.0	Ceramic tile
Rumpus/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	49.25	R1.0	Ceramic tile
Cinema/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	1.50	R1.0	Ceramic tile
Cinema/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	29.20	R1.0	Ceramic tile
Laundry/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	8.83	R1.0	Ceramic tile
LG lift/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	2.60	R1.0	Ceramic tile
Bed 3/Outdoor Air	LG Concrete Slab 200 mm: carpet/bare R1 insulation	15.77	R1.0	Carpet 10 + felt underlay 10
Bed 4/Ground	LG Concrete Slab 200 mm: carpet/bare R1 insulation	1.71	R1.0	Carpet 10 + felt underlay 10
Bed 4/Outdoor Air	LG Concrete Slab 200 mm: carpet/bare R1 insulation	12.53	R1.0	Carpet 10 + felt underlay 10
Bed 7/Ground	LG Concrete Slab 200 mm: carpet/bare R1 insulation	16.40	R1.0	Carpet 10 + felt underlay 10
Bed 5/Outdoor Air	LG Concrete Slab 200 mm: carpet/bare R1 insulation	15.06	R1.0	Carpet 10 + felt underlay 10
Bed 6/Outdoor Air	LG Concrete Slab 200 mm: carpet/bare R1 insulation	15.37	R1.0	Carpet 10 + felt underlay 10
Ensuite 3/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	5.33	R1.0	Ceramic tile
Ensuite 4/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	5.10	R1.0	Ceramic tile
Ensuite 7/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	4.22	R1.0	Ceramic tile
Ensuite 5/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	4.56	R1.0	Ceramic tile
Ensuite 6/Outdoor Air	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	4.70	R1.0	Ceramic tile
Garage/Laundry	GF concrete/PB ceiling below	8.35		
Garage/Bed 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	16.00		Ceramic tile
Garage/Ground	GF Concrete Slab 200 mm: bare/bare	19.20		
GF Lift/LG lift	GF Concrete Slab 200 mm: bare/bare	2.60		
Entry/Rumpus	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	9.58		Ceramic tile



Location	Construction	Area Sub-floor Added (m <sup>2</sup> ) ventilation (R-value)	Covering
Entry/Cinema	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	15.40	Ceramic tile
Entry/Plant	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	3.48	Ceramic tile
Kitchen/Cinema	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	18.00	Ceramic tile
Kitchen/Bed 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	7.40	Ceramic tile
Kitchen/Outdoor Air	GF concrete/PB ceiling below	4.20	
Living Dining/Rumpus	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	54.67	Ceramic tile
Living Dining/Bed 3	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	10.00	Ceramic tile
Living Dining/Bed 4	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	14.24	Ceramic tile
Living Dining/Bed 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	0.40	Ceramic tile
Living Dining/Bed 5	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	4.07	Ceramic tile
Living Dining/Bed 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	7.77	Ceramic tile
Living Dining/Ensuite 3	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	5.33	Ceramic tile
Living Dining/Ensuite 4	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	5.10	Ceramic tile
Living Dining/Ensuite 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	4.22	Ceramic tile
Living Dining/Ensuite 5	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	4.56	Ceramic tile
Living Dining/Ensuite 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard	4.70	Ceramic tile
1stFl Lift/GF Lift	1st Conc fl 200mm: tile/Ceiling: 7	2.60	Ceramic tile
Lobby/Entry	1st Conc fl 200mm: tile/Ceiling: 7	14.87	Ceramic tile
Bed 1/Garage	1st Fl Concrete Slab 200 mm: carpet/plasterboard	1.50	Carpet 10 + felt underlay 10
Bed 1/Entry	1st Fl Concrete Slab 200 mm: carpet/plasterboard	6.63	Carpet 10 + felt underlay 10
Bed 1/Living Dining	1st Fl Concrete Slab 200 mm: carpet/plasterboard	12.00	Carpet 10 + felt underlay 10
Ensuite 1 dress/Living Dining	1st Conc fl 200mm: tile/Ceiling : 7	9.60	Ceramic tile
Ensuite 1 dress/Garage	1st Conc fl 200mm: tile/Ceiling: 7	9.50	Ceramic tile
Bed 2/Kitchen	1st Fl Concrete Slab 200 mm: carpet/plasterboard	19.45	Carpet 10 + felt underlay 10



Location	Construction	Area Sub-floor (m <sup>2</sup> ) ventilation	Added insulation (R-value)	Covering
Ensuite 2/Kitchen	1st Conc fl 200mm: tile/Ceiling : 7	6.76		Ceramic tile
Roofspace 1 (Dress)/Ensuite 1 dress	Plasterboard 10 mm + R3.5 bulk insulation	13.36	R3.5	
Roofspace 2 (Ens2)/Bed 2	Plasterboard 10 mm + R3.5 bulk insulation	5.80	R3.5	
Roofspace 2 (Ens2)/Ensuite 2	Plasterboard 10 mm + R3.5 bulk insulation	7.00	R3.5	
LG Store/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	7.32	R1.0	Ceramic tile
Plant/Ground	LG Concrete Slab 200 mm: ceramic tiles/bare R1 insulation	3.48	R1.0	Ceramic tile

# Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Living Dining/Rumpus	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Entry/Rumpus	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Kitchen/Cinema	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Entry/Cinema	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Garage/Laundry	GF concrete/PB ceiling below		No
GF Lift/LG lift	GF Concrete Slab 200 mm: bare/bare		No
Living Dining/Bed 3	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Bed 4	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Garage/Bed 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Bed 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Bed 5	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Kitchen/Bed 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Bed 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Ensuite 3	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Living Dining/Ensuite 4	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Ensuite 7	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Ensuite 5	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Living Dining/Ensuite 6	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No
Bed 1/Garage	1st Fl Concrete Slab 200 mm: carpet/plasterboard		No
Ensuite 1 dress/Garage	1st Conc fl 200mm: tile/Ceiling : 7		No
1stFl Lift/GF Lift	1st Conc fl 200mm: tile/Ceiling : 7		No
Lobby/Entry	1st Conc fl 200mm: tile/Ceiling : 7		No
Bed 1/Entry	1st Fl Concrete Slab 200 mm: carpet/plasterboard		No
Bed 2/Kitchen	1st Fl Concrete Slab 200 mm: carpet/plasterboard		No
Ensuite 2/Kitchen	1st Conc fl 200mm: tile/Ceiling : 7		No
Bed 1/Living Dining	1st Fl Concrete Slab 200 mm: carpet/plasterboard		No
Ensuite 1 dress/Living Dining	1st Conc fl 200mm: tile/Ceiling : 7		No
Roofspace 1 (Dress)/Ensuite 1 dress	Plasterboard 10 mm + R3.5 bulk insulation	R3.5	No
Roofspace 2 (Ens2)/Bed 2	Plasterboard 10 mm + R3.5 bulk insulation	R3.5	No
Roofspace 2 (Ens2)/Ensuite 2	Plasterboard 10 mm + R3.5 bulk insulation	R3.5	No
Entry/Plant	GF Concrete Slab 200 mm: ceramic tiles/plasterboard		No

# Ceiling penetrations\*

Location	Quantity	Туре	Diameter (mm)	Sealed/unsealed	
Rumpus	9	Downlight		Sealed	
Cinema	8	Downlight		Sealed	
Laundry	3	Downlight		Sealed	
Bed 3	6	Downlight		Sealed	
Bed 4	6	Downlight		Sealed	
Bed 7	5	Downlight		Sealed	



Location	Quantity	Туре	Diameter (mm)	Sealed/unsealed	
Bed 5	5	Downlight		Sealed	
Bed 6	6	Downlight		Sealed	
Ensuite 3	2	Downlight		Sealed	
Ensuite 4	2	Downlight		Sealed	
Ensuite 7	2	Downlight		Sealed	
Ensuite 5	2	Downlight		Sealed	
Ensuite 6	2	Downlight		Sealed	
Garage	4	Downlight		Sealed	
Entry	4	Downlight		Sealed	
Kitchen	6	Downlight		Sealed	
Living Dining	16	Downlight		Sealed	
Lobby	4	Downlight		Sealed	
Bed 1	4	Downlight		Sealed	
Ensuite 1 dress	6	Downlight		Sealed	
Bed 2	4	Downlight		Sealed	
Ensuite 2	2	Downlight		Sealed	

# Ceiling fans

Quantity	Diameter (mm)
2	1400
1	1400
1	1400
1	1400
1	1400
1	1400
1	1400
1	1400
	2 1 1 1 1 1



# Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Copper roof raked ceiling	R3.5	50	Medium
LG: Terrace above insulated below R1.5	R1.5	50	Medium
GF Terrace above insulated below R1.5	R1.5	50	Medium
Planter above insulated below R1.5	R0.5	50	Medium
Copper roof on ply		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).