

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0005578497-01

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Property

Address 26 Seaview Avenue , Curl Curl , NSW , 2096

Lot/DP 16/14366

NCC Class* 1A

Type New Dwelling

Plans

Main Plan 20-1317

Prepared by Action Plans

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned* 299.0	Open
Unconditioned* 81.0	NatHERS climate zone
Total 380.0	56
Garage 37.0	

Accredited assessor

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Accreditation No. HERA10033

Assessor Accrediting Organisation
HERA

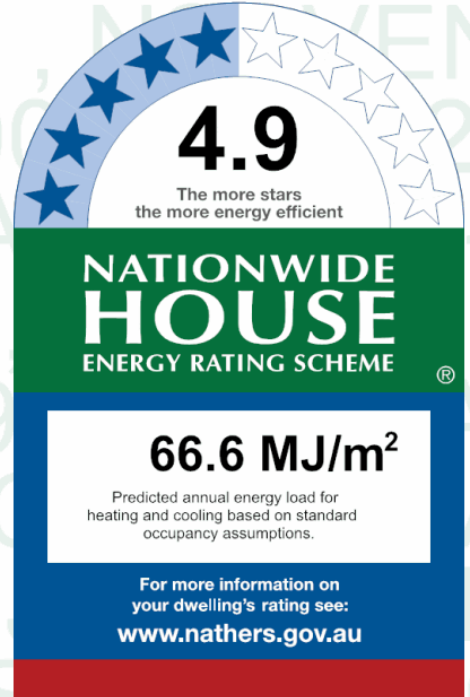
Declaration of interest None

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.



4.9
The more stars
the more energy efficient

**NATIONWIDE
HOUSE**
ENERGY RATING SCHEME

66.6 MJ/m²
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

Thermal performance

Heating	Cooling
41.8 MJ/m ²	24.8 MJ/m ²

About the rating

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

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=JOidPLRJu. When using either link, ensure you are visiting hstar.com.au



Certificate check

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

Genuine certificate

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

Ceiling penetrations*

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

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

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

Assumed LED Downlight 1 per 5m²

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-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.59	0.59
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.51	0.51

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*
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Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Retreat	ALM-004-01 A	n/a	2100	4000	n/a	45	W	No
Garden Store	ALM-003-01 A	n/a	1200	1500	n/a	90	N	No
Games Room	ALM-004-01 A	n/a	2200	2100	n/a	00	N	No
Games Room	ALM-004-01 A	n/a	2100	3300	n/a	60	E	No
Shower	ALM-003-01 A	n/a	600	600	n/a	90	S	No
Bedroom 4	ALM-003-01 A	n/a	1700	2650	n/a	60	E	No
Bedroom 4	ALM-004-01 A	n/a	450	750	n/a	00	S	No
Bedroom 4	ALM-004-01 A	n/a	450	750	n/a	00	S	No
Bath	ALM-004-01 A	n/a	600	2400	n/a	45	N	No
Bedroom 2	ALM-003-01 A	n/a	1200	2650	n/a	60	N	No
Bedroom 3	ALM-004-01 A	n/a	2100	2650	n/a	22	N	No
Office	ALM-004-01 A	n/a	400	3000	n/a	00	W	No
Office	ALM-004-01 A	n/a	2100	1000	n/a	22	N	No
Kitchen/Living	ALM-004-01 A	n/a	2400	4500	n/a	68	N	Yes
Kitchen/Living	ALM-003-01 A	n/a	2100	1360	n/a	10	N	No
Kitchen/Living	ALM-003-01 A	n/a	2600	3557	n/a	90	E	Yes
Kitchen/Living	ALM-003-01 A	n/a	2600	2990	n/a	90	N	Yes
Kitchen/Living	ALM-004-01 A	n/a	2600	3100	n/a	30	E	No
Kitchen/Living	ALM-003-01 A	n/a	600	2650	n/a	10	S	No
Stairs Lv 1	ALM-004-01 A	n/a	2100	2650	n/a	00	N	No
Master bed	ALM-004-01 A	n/a	2400	4445	n/a	60	W	Yes
Master bed	ALM-004-01 A	n/a	2100	2650	n/a	00	N	No
WC	ALM-004-01 A	n/a	772	900	n/a	45	S	No
Ensuite	ALM-004-01 A	n/a	772	2600	n/a	45	S	No
Garage	ALM-004-01 A	n/a	772	2600	n/a	45	S	No
Bathroom	ALM-003-01 A	n/a	1200	970	n/a	90	E	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-012-01 W	Glass	4.0	0.27	0.26	0.28

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Kitchen/Living	VEL-012-01 W	n/a	0	1400	780	N	No	No
Kitchen/Living	VEL-012-01 W	n/a	0	1400	780	N	No	No
Ensuite	VEL-012-01 W	n/a	10	1180	780	N	No	No

Skylight type and performance

Skylight ID	Skylight description
No Data Available	

Skylight schedule

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

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garden Store	2100	900	90	N
Games Room	2620	1250	90	W
Ldy	2040	820	90	S
Garage	2720	3000	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	Bulk Insulation R1.5	No
EW-2	Brick Veneer	0.50	Medium	Bulk Insulation R1.5	No
EW-3	EPS Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R0.8	No
EW-4	Cavity Brick	0.50	Medium	No insulation	No
EW-5	Fibro Cavity Panel on Battens	0.50	Medium	Bulk Insulation R2.5	No
EW-6	EPS Cavity Panel Direct Fix	0.50	Medium	No insulation	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Retreat	EW-1	2400	4700	W	0	NO
Retreat	EW-1	2400	7895	N	0	NO
Retreat	EW-1	2400	395	E	3800	YES

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Retreat	EW-2	2400	6695	S	5800	NO
Storage	EW-1	2400	4190	S	5000	NO
Garden Store	EW-1	2400	5895	N	2100	YES
Garden Store	EW-1	2400	2600	E	0	NO
Garden Store	EW-1	2400	5895	S	5000	NO
Games Room	EW-3	2790	1695	W	3700	YES
Games Room	EW-3	2790	2469	N	309	YES
Games Room	EW-4	2790	2100	N	0	YES
Games Room	EW-3	2790	3845	E	3600	NO
Shower	EW-4	2790	1990	S	0	YES
Ldy	EW-4	2790	3390	S	0	NO
Bedroom 4	EW-3	2790	3645	E	3600	NO
Bedroom 4	EW-4	2790	4895	S	0	NO
Bath	EW-3	2790	4395	N	300	NO
Bath	EW-3	2790	2045	E	400	YES
Bedroom 2	EW-3	2790	4050	N	300	NO
Bedroom 3	EW-3	2790	3706	N	776	NO
Bedroom 3	EW-3	2790	655	N	300	NO
Office	EW-3	2790	3695	W	0	YES
Office	EW-3	2790	1960	N	1498	NO
Kitchen/Living	EW-5	2600	3000	W	300	YES
Kitchen/Living	EW-5	2600	10600	N	2700	NO
Kitchen/Living	EW-5	2700	3800	E	4000	YES
Kitchen/Living	EW-5	2800	3600	N	4300	YES
Kitchen/Living	EW-5	2900	3800	E	400	NO
Kitchen/Living	EW-5	3000	11295	S	600	NO
Pantry	EW-5	3000	2890	S	600	NO
Stairs Lv 1	EW-5	2400	4290	N	400	YES
Master bed	EW-5	2550	400	E	18900	YES
Master bed	EW-5	2550	5195	S	600	NO
Master bed	EW-5	2550	5000	W	1500	NO
Master bed	EW-5	2400	5200	N	400	NO
WC	EW-5	2550	1290	S	600	NO
Ensuite	EW-5	2700	2990	S	600	NO
Garage	EW-6	3000	800	E	100	YES
Garage	EW-6	3000	12000	S	300	NO
Garage	EW-6	3000	3100	W	600	NO
Garage	EW-6	3000	3100	N	2050	YES

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bathroom	EW-2	2400	1695	E	3800	NO
Bathroom	EW-1	2400	2995	N	0	NO

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		173.00	No insulation
IW-2 - Concrete Block		18.00	No insulation
IW-3 - Single Skin Brick		24.00	No insulation
IW-4 - Cavity wall, direct fix plasterboard, single gap		21.00	Bulk Insulation, No Air Gap R2

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Retreat	Concrete Slab on Ground 150mm	41.00	None	No Insulation	Bare
Storage	Concrete Slab on Ground 150mm	4.30	None	No Insulation	Bare
Garden Store	Concrete Slab on Ground 150mm	15.20	None	No Insulation	Bare
Games Room	Suspended Concrete Slab 150mm	29.70	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Games Room/Retreat	Concrete Above Plasterboard 150mm	1.40		No Insulation	Cork Tiles or Parquetry 8mm
Games Room/Storage	Concrete Above Plasterboard 150mm	4.50		No Insulation	Cork Tiles or Parquetry 8mm
Games Room/Garden Store	Concrete Above Plasterboard 150mm	14.80		No Insulation	Cork Tiles or Parquetry 8mm
Games Room	Suspended Concrete Slab 150mm	9.00	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Shower	Suspended Concrete Slab 150mm	4.30	Enclosed	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Ldy	Suspended Concrete Slab 150mm	7.90	Enclosed	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bedroom 4	Suspended Concrete Slab 150mm	17.70	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Bath/Bathroom	Concrete Above Plasterboard 150mm	1.00		No Insulation	Ceramic Tiles 8mm
Bath	Suspended Concrete Slab 150mm	7.70	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bedroom 2/Retreat	Concrete Above Plasterboard 100mm	10.30		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Bathroom	Concrete Above Plasterboard 100mm	3.90		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3/Retreat	Concrete Above Plasterboard 150mm	17.90		No Insulation	Carpet 10mm
Bedroom 3	Suspended Concrete Slab 150mm	1.80	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Office/Retreat	Concrete Above Plasterboard 150mm	6.40		No Insulation	Cork Tiles or Parquetry 8mm
Office	Suspended Concrete Slab 150mm	0.80	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living /Games Room	Timber Above Plasterboard 19mm	11.60		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Games Room	Timber Above Plasterboard 19mm	30.70		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Ldy	Timber Above Plasterboard 19mm	7.40		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 4	Timber Above Plasterboard 19mm	18.10		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 2	Timber Above Plasterboard 19mm	6.10		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended Timber Floor 19mm	13.60	Totally Open	Bulk Insulation in Contact with Floor R2.5	Ceramic Tiles 8mm
Pantry/Shower	Timber Above Plasterboard 19mm	4.10		No Insulation	Ceramic Tiles 8mm
Pantry/Ldy	Timber Above Plasterboard 19mm	0.80		No Insulation	Ceramic Tiles 8mm
Pantry/Garage	Timber Above Plasterboard 19mm	0.70		Bulk Insulation R2	Ceramic Tiles 8mm
Stairs Lv 1/Games Room	Timber Above Plasterboard 19mm	9.10		No Insulation	Cork Tiles or Parquetry 8mm
Master bed/Games Room	Timber Above Plasterboard 19mm	9.00		No Insulation	Carpet 10mm
Master bed/Office	Timber Above Plasterboard 19mm	0.80		No Insulation	Carpet 10mm
Master bed/Garage	Timber Above Plasterboard 19mm	11.90		Bulk Insulation R2	Carpet 10mm
Master bed	Suspended Timber Floor 19mm	4.10	Totally Open	Bulk Insulation in Contact with Floor R2.5	Cork Tiles or Parquetry 8mm
WC/Garage	Timber Above Plasterboard 19mm	2.70		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite/Garage	Timber Above Plasterboard 19mm	6.60		Bulk Insulation R2	Ceramic Tiles 8mm
Garage	Concrete Slab on Ground 19mm	36.70	None	No Insulation	Bare
Bathroom	Concrete Slab on Ground 150mm	4.90	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Retreat	Plasterboard	Bulk Insulation R3	No
Retreat	Concrete Above Plasterboard	No Insulation	No
Storage	Concrete Above Plasterboard	No Insulation	No
Garden Store	Concrete Above Plasterboard	No Insulation	No
Games Room	Timber Above Plasterboard	No Insulation	No
Games Room	Timber Above Plasterboard	No Insulation	No
Shower	Timber Above Plasterboard	No Insulation	No
Ldy	Timber Above Plasterboard	No Insulation	No
Bedroom 4	Timber Above Plasterboard	No Insulation	No
Bath	Plasterboard	Bulk Insulation R3	No
Bedroom 2	Plasterboard	Bulk Insulation R3	No
Bedroom 2	Timber Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom 3	Plasterboard	Bulk Insulation R3	No
Office	Plasterboard	Bulk Insulation R3	No
Office	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R3	No
Pantry	Plasterboard	Bulk Insulation R3	No
Stairs Lv 1	Plasterboard	Bulk Insulation R3	No
Master bed	Plasterboard	Bulk Insulation R3	No
WC	Plasterboard	Bulk Insulation R3	No
Ensuite	Plasterboard	Bulk Insulation R3	No
Garage	Plasterboard	No insulation	No
Garage	Timber Above Plasterboard	Bulk Insulation R2	No
Bathroom	Concrete Above Plasterboard	No Insulation	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Retreat	8	Downlights - LED	150	Sealed
Storage	1	Downlights - LED	150	Sealed
Garden Store	3	Downlights - LED	150	Sealed
Games Room	6	Downlights - LED	150	Sealed
Games Room	6	Downlights - LED	150	Sealed
Shower	1	Downlights - LED	150	Sealed
Shower	1	Exhaust Fans	300	Sealed
Ldy	1	Downlights - LED	150	Sealed
Ldy	1	Exhaust Fans	300	Sealed
Bedroom 4	3	Downlights - LED	150	Sealed
Bath	1	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 2	3	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Office	1	Downlights - LED	150	Sealed
Kitchen/Living	18	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Pantry	1	Downlights - LED	150	Sealed
Stairs Lv 1	1	Downlights - LED	150	Sealed
Master bed	5	Downlights - LED	150	Sealed
WC	1	Downlights - LED	150	Sealed
WC	1	Exhaust Fans	300	Sealed
Ensuite	1	Downlights - LED	150	Sealed

* Refer to glossary.

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	1	Downlights - LED	150	Sealed
Bathroom	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
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.30	Light
Timber Shingles	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	Medium
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

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