

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0006801781

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Property

Address 94 Toronto Avenue , Cromer , NSW ,
2099

Lot/DP 2/404074

NCC Class* 1A

Type New Dwelling

Plans

Main Plan Arcus 20144

Prepared by RR

Construction and environment

Assessed floor area (m ²)*	Exposure Type
Conditioned* 231.0	Open
Unconditioned* 45.0	NatHERS climate zone
Total 276.0	56
Garage 39.0	

Accredited assessor

Name Ian Fry

Business name Frys Energywise

Email comply@frysenergywise.com.au

Phone 02 9899 2825

Accreditation No. DMN/12/1441

Assessor Accrediting Organisation
Design Matters National

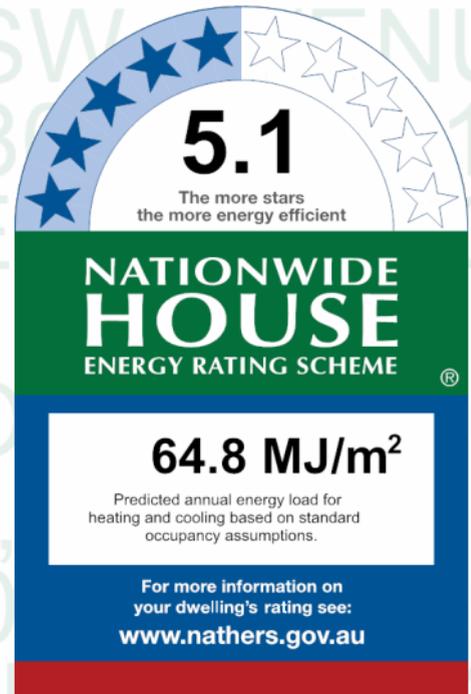
Declaration of interest Declaration completed: no conflicts

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.

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



Thermal performance

Heating	Cooling
38.9 MJ/m ²	25.9 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=QKwISHpL.

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

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.

R2.0 to external walls including where R6.0 walls are shown, this is for software modelling purposes only.

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-002-04 A	ALM-002-04 A Aluminium B SG Low Solar Gain Low-E	5.6	0.41	0.39	0.43

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
STG-007-07 A	STG-007-07 A Aluminium Sliding Window SG 638CP	4.5	0.44	0.42	0.46
STG-007-01 A	STG-007-01 A Aluminium Sliding Window SG 3Clr	6.3	0.73	0.69	0.77

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
STG-002-01 A	STG-002-01 A Aluminium Awning Window SG 3Clr	6.5	0.65	0.62	0.68
STG-005-06 A	STG-005-06 A Aluminium Sliding Door 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*
Entry	STG-007-07 A	n/a	700	2100	n/a	00	NW	No
Guest Suite	STG-007-01 A	n/a	2700	700	n/a	00	SE	No
Guest Suite	STG-002-01 A	n/a	2700	2400	n/a	25	SW	No
Guest Suite	STG-007-01 A	n/a	800	2400	n/a	00	SW	No
Ensuite 2	STG-002-01 A	n/a	1200	600	n/a	90	NW	No
Media	ALM-002-04 A	n/a	600	2700	n/a	40	NW	No
Kitchen/Living	STG-007-07 A	n/a	700	3000	n/a	00	NW	No
Kitchen/Living	ALM-002-04 A	n/a	2700	3000	n/a	25	NE	No
Kitchen/Living	STG-005-06 A	n/a	2700	3200	n/a	60	SE	No
Kitchen/Living	STG-005-06 A	n/a	2700	3200	n/a	60	NE	No
Kitchen/Living	ALM-002-04 A	n/a	2700	2200	n/a	25	SE	No
Suite 2	STG-002-01 A	n/a	1800	1800	n/a	90	SE	No
Bath	STG-002-01 A	n/a	1800	600	n/a	90	SE	No
Suite 3	STG-002-01 A	n/a	1800	1800	n/a	90	SE	No
Principal Suite	STG-005-06 A	n/a	2400	2700	n/a	60	NE	No
Ensuite 1	STG-007-01 A	n/a	600	1600	n/a	90	SE	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-010-01 W	Glass	2.5	0.21	0.20	0.22

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Principal Suite	VEL-010-01 W	n/a	90	1400	550	NW	No	No

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Principal Suite	VEL-010-01 W	n/a	90	1400	550	NW	No	No
Principal Suite	VEL-010-01 W	n/a	90	1400	550	SE	No	No
Principal Suite	VEL-010-01 W	n/a	90	1400	550	SE	No	No
Retreat/Nursery	VEL-010-01 W	n/a	90	1180	550	NW	No	No
Retreat/Nursery	VEL-010-01 W	n/a	90	1180	550	NW	No	No
Retreat/Nursery	VEL-010-01 W	n/a	90	1400	550	SE	No	No
Retreat/Nursery	VEL-010-01 W	n/a	90	1400	550	SE	No	No

Skylight type and performance

Skylight ID	Skylight description
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
Stairwell/Void	GEN-04-008a	n/a	190	0.80	NW	None	No	0.50
WIR Principal	GEN-04-008a	n/a	1000	0.40	NW	None	No	0.50

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2314	1810	90	SE
Garage	2615	5050	90	SW
Entry	2700	1230	90	SW
Utility	2700	820	90	NW

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.30	Light	No insulation	No
EW-2	Single Skin Brick	0.30	Light	No insulation	No
EW-3	Brick Veneer	0.30	Light	Anti-glare foil with bulk no gap R2	No
EW-4	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2	No
EW-5	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R6	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	3086	7395	SE	700	NO
Garage	EW-2	3086	5100	SW	600	NO
Garage	EW-2	3087	600	SW	1500	NO
Garage	EW-1	3086	600	NW	5600	YES
Entry	EW-3	3000	1790	SW	2100	YES
Entry	EW-3	3000	2490	NW	600	YES
Guest Suite	EW-3	3914	1700	SE	8200	YES
Guest Suite	EW-3	3794	3200	SW	400	NO
Guest Suite	EW-3	3000	3795	NW	600	NO
Ensuite 2	EW-3	3000	3295	NW	600	NO
Ensuite 2	EW-3	3000	1100	NE	17800	YES
Media	EW-3	3258	3690	NW	600	NO
Utility	EW-3	2958	595	NW	600	NO
Utility	EW-3	3258	1095	NW	600	NO
Kitchen/Living	EW-3	3258	195	NW	1400	YES
Kitchen/Living	EW-3	2958	800	SW	15600	YES
Kitchen/Living	EW-3	2958	4100	NW	600	NO
Kitchen/Living	EW-3	3258	5000	NW	600	NO
Kitchen/Living	EW-3	3258	5400	NE	600	NO
Kitchen/Living	EW-3	3259	1000	NE	1200	NO
Kitchen/Living	EW-3	3258	3900	SE	6100	YES
Kitchen/Living	EW-3	3258	4000	NE	5100	YES
Kitchen/Living	EW-3	3259	400	SE	2100	NO
Kitchen/Living	EW-3	3258	3195	SE	700	NO
Suite 2	EW-3	3258	3190	SE	700	YES
Bath	EW-3	3258	600	NE	11900	YES
Bath	EW-3	3258	1900	SE	400	NO
Bath	EW-3	3258	600	SW	11200	YES
Suite 3	EW-3	3258	3190	SE	700	YES
Principal Suite	EW-4	2760	4600	NE	3500	NO
Principal Suite	EW-5	2100	4295	SE	100	YES
Principal Suite	EW-5	2100	4295	NW	100	NO
Ensuite 1	EW-5	2360	900	NE	600	YES
Ensuite 1	EW-4	2890	3500	SE	400	NO
Ensuite 1	EW-5	2360	900	SW	600	YES
Retreat/Nursery	EW-5	2100	4795	SE	100	YES
Retreat/Nursery	EW-5	2100	1100	SW	100	YES

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Retreat/Nursery	EW-5	2100	3690	NW	100	YES
Stairwell/Void	EW-5	2100	1395	SE	100	YES
Stairwell/Void	EW-5	2100	1600	SW	100	YES
Stairwell/Void	EW-5	2100	5400	SE	100	YES
Stairwell/Void	EW-5	2100	1800	SW	100	NO
Stairwell/Void	EW-5	2100	5400	NW	100	YES
Stairwell/Void	EW-5	2100	2100	SW	100	YES
Stairwell/Void	EW-5	2100	2500	NW	100	NO
Stairwell/Void	EW-5	2100	2000	NE	100	YES
WIR Principal	EW-5	2100	3490	NW	100	NO

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
W-1 - Cavity wall, direct fix plasterboard, single gap		62.00	Bulk Insulation, No Air Gap R2
W-2 - Cavity wall, direct fix plasterboard, single gap		213.00	No insulation

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 175 mm 100mm	39.20	None	Waffle Pod 175mm	Bare
Entry	Waffle pod slab 225 mm 100mm	37.80	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Guest Suite	Waffle pod slab 225 mm 100mm	11.90	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Ensuite 2	Waffle pod slab 225 mm 100mm	5.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Media	Waffle pod slab 225 mm 100mm	14.60	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Utility	Waffle pod slab 225 mm 100mm	3.80	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Kitchen/Living	Waffle pod slab 225 mm 100mm	67.90	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Suite 2	Waffle pod slab 225 mm 100mm	12.30	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Bath	Waffle pod slab 225 mm 100mm	6.10	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Suite 3	Waffle pod slab 225 mm 100mm	12.30	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
WIR Guest	Waffle pod slab 225 mm 100mm	2.30	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
WIL	Waffle pod slab 225 mm 100mm	2.10	None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Powder	Waffle pod slab 225 mm 100mm	2.30	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Principal Suite/Entry	Timber Above Plasterboard 19mm	3.60		No Insulation	Carpet+Rubber Underlay 18mm
Principal Suite/Kitchen/Living	Timber Above Plasterboard 19mm	19.00		No Insulation	Carpet+Rubber Underlay 18mm
Principal Suite/Powder	Timber Above Plasterboard 19mm	0.50		No Insulation	Carpet+Rubber Underlay 18mm
Principal Suite	Suspended Timber Floor 19mm	0.70	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Entry	Timber Above Plasterboard 19mm	2.70		No Insulation	Ceramic Tiles 8mm

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Ensuite 1/Suite 2	Timber Above Plasterboard 19mm	5.90		No Insulation	Ceramic Tiles 8mm
Retreat/Nursery/Entry	Timber Above Plasterboard 19mm	9.40		No Insulation	Cork Tiles or Parquetry 8mm
Retreat/Nursery/Media	Timber Above Plasterboard 19mm	7.60		No Insulation	Cork Tiles or Parquetry 8mm
Retreat/Nursery/Suite 3	Timber Above Plasterboard 19mm	3.10		No Insulation	Cork Tiles or Parquetry 8mm
Stairwell/Void/Entry	Timber Above Plasterboard 19mm	20.90		No Insulation	Cork Tiles or Parquetry 8mm
WIR Principal/Entry	Timber Above Plasterboard 19mm	1.90		No Insulation	Carpet+Rubber Underlay 18mm
WIR Principal/Utility	Timber Above Plasterboard 19mm	0.60		No Insulation	Carpet+Rubber Underlay 18mm
WIR Principal/Kitchen/Living	Timber Above Plasterboard 19mm	1.10		No Insulation	Carpet+Rubber Underlay 18mm
WIR Principal/Powder	Timber Above Plasterboard 19mm	1.70		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	No insulation	No
Entry	Timber Above Plasterboard	No Insulation	No
Guest Suite	Plasterboard	Bulk Insulation R4	No
Ensuite 2	Plasterboard	Bulk Insulation R4	No
Media	Plasterboard	Bulk Insulation R4	No
Media	Timber Above Plasterboard	No Insulation	No
Utility	Plasterboard	Bulk Insulation R4	No
Utility	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Suite 2	Plasterboard	Bulk Insulation R4	No
Suite 2	Timber Above Plasterboard	No Insulation	No
Bath	Plasterboard	Bulk Insulation R4	No
Suite 3	Plasterboard	Bulk Insulation R4	No
Suite 3	Timber Above Plasterboard	No Insulation	No
WIR Guest	Plasterboard	Bulk Insulation R4	No
WIL	Plasterboard	Bulk Insulation R4	No
Powder	Timber Above Plasterboard	No Insulation	No
Principal Suite	Plasterboard	Bulk Insulation R4	No
Ensuite 1	Plasterboard	Bulk Insulation R4	No
Retreat/Nursery	Plasterboard	Bulk Insulation R4	No
Stairwell/Void	Plasterboard	Bulk Insulation R4	No
WIR Principal	Plasterboard	Bulk Insulation R4	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Entry	9	Downlights - LED	0	Sealed
Guest Suite	2	Downlights - LED	0	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Media	4	Downlights - LED	0	Sealed
Utility	1	Downlights - LED	0	Sealed
Kitchen/Living	17	Downlights - LED	0	Sealed
Suite 2	2	Downlights - LED	0	Sealed
Bath	1	Exhaust Fans	300	Sealed
Suite 3	2	Downlights - LED	0	Sealed
WIR Guest	1	Downlights - LED	0	Sealed
WIL	1	Downlights - LED	0	Sealed
Powder	1	Downlights - LED	0	Sealed
Powder	1	Exhaust Fans	0	Sealed
Principal Suite	7	Downlights - LED	0	Sealed
Ensuite 1	2	Downlights - LED	0	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
Retreat/Nursery	6	Downlights - LED	0	Sealed
WIR Principal	2	Downlights - LED	0	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.30	Light
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	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).