## Nationwide House Energy Rating Scheme NatHERS Certificate No. 0007131253-01

Generated on 10 May 2022 using BERS Pro v4.4.1.5 (3.21)

## Property

Address

23 Wakehurst Parkway, Seaforth, NSW 2092

Lot/DP

35/13750

Туре

NCC Class'

1A

New Dwelling

# Plans

Main Plan Prepared by

Fowler Homes

21-1418

## Construction and environ

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

Conditioned*	213.0
Unconditioned*	73.0
Total	286.0
Garage	45.0

# Accredited assessor

Name **Business name** Email Phone Accreditation No. lan Fry Frys Energywise comply@frysenergywise.com.au 02 9899 2825 DMN/12/1441

Exposure Type

NatHERS climate zone

Suburban

### Assessor Accrediting Organisation

**Design Matters National** 

**Declaration of interest** 

Declaration completed: no conflicts

ENERGY RATING SCHEME 63.7 MJ/m<sup>2</sup>

IONWIDE

R

The more stars the more energy efficient

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
38.1	25.6
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=NDaUsawVY. 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**

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.

I have modeled the shading in accordance with NatHERS principles

### Window and glazed door type and performance

#### Default\* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	3160	SHGC lower limit	SHGC upper limit	
TIM-002-01 W	TIM-002-01 W Timber B SG Clear	5.4	0.63	0.60	0.66	
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	0.66	0.73	

#### Custom\* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges			
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit		
TND-024-01 A	TND-024-01 A Trend Al Internal offset glazed window SG 5Clr	6.1	0.75	0.71	0.79		
TND-001-08 A	TND-001-08 A Trend Al Sliding Window SG 6.38CP	4.6	0.44	0.42	0.46		



#### Custom\* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges			
WINDOW ID	Description U-value*		3660	SHGC lower limit	SHGC upper limit		
TND-071-11 A	TND-071-11 A Windsor Sliding Door SG 638CPCIr	4.4	0.54	0.51	0.57		
TND-024-04 A	TND-024-04 A Trend Al Internal offset glazed window SG 6.38CP	4.1	0.46	0.44	0.48		
TND-071-01 A	TND-071-01 A Windsor Sliding Door SG 6Clr	6.1	0.65	0.62	0.68		
TND-001-01 A	TND-001-01 A Trend Al Sliding Window SG 3Clr	6.4	0.73	0.69	0.77		

# Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
DINING KITCHEN	TND-024-01 A	n/a	600	3000	n/a	00	S	No
DINING KITCHEN	TND-001-08 A	n/a	1800	1200	n/a	33	Ν	No
DINING KITCHEN	TND-001-08 A	n/a	1800	1200	n/a	33	Ν	No
DINING KITCHEN	TND-071-11 A	n/a	2400	2700	n/a	61	E	No
DINING KITCHEN	TND-071-11 A	n/a	2400	2100	n/a	60	Ν	No
DINING KITCHEN	TND-001-08 A	n/a	1800	3000	n/a	30	E	No
BUTLERS	TND-024-01 A	n/a	600	1200	n/a	00	S	No
ENTRY HALL	TIM-002-01 W	n/a	2400	400	n/a	00	S	No
ENTRY HALL	TND-001-08 A	n/a	1200	1500	n/a	45	S	No
ENTRY HALL	TND-024-04 A	n/a	720	1800	n/a	00	Ν	No
LAUNDRY	TND-071-01 A	n/a	2400	1570	n/a	45	Ν	No
WC	TND-001-01 A	n/a	1000	600	n/a	45	S	No
POWDER	TND-001-01 A	n/a	1200	600	n/a	45	S	No
POWDER	TND-001-01 A	n/a	400	800	n/a	45	S	No
GUEST SUITE	TND-001-08 A	n/a	400	2400	n/a	45	S	No
GUEST SUITE	TND-071-11 A	n/a	2400	2700	n/a	31	W	No
GARAGE	TND-001-01 A	n/a	600	2700	n/a	45	Ν	No
ENSUITE	TND-001-01 A	n/a	1400	800	n/a	45	S	No
ENSUITE	TND-001-01 A	n/a	1000	1200	n/a	45	E	No
ENSUITE	TND-001-01 A	n/a	1000	1200	n/a	45	E	No
MASTER SUITE	TND-001-08 A	n/a	1000	1200	n/a	10	Ν	No
MASTER SUITE	TND-001-08 A	n/a	1000	1200	n/a	10	Ν	No
MASTER SUITE	TND-071-11 A	n/a	2100	2700	n/a	60	E	No
UF BATH	TND-001-01 A	n/a	1200	1600	n/a	45	S	No
UFWC	TND-001-01 A	n/a	1200	700	n/a	45	S	No
BED 3	TND-001-08 A	n/a	1200	2700	n/a	10	S	No
BED 4	TND-001-08 A	n/a	1400	2700	n/a	10	W	No
HALLWAY LEISURE	ALM-002-01 A	n/a	1800	800	n/a	90	W	No



Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
HALLWAY LEISURE	TND-071-11 A	n/a	2100	2400	n/a	45	W	No
HALLWAY LEISURE	TND-024-04 A	n/a	2280	1800	n/a	00	Ν	No
BED 2	TND-001-08 A	n/a	1200	2700	n/a	10	Ν	No

# Roof window type and performance

#### Default\* roof windows

Window ID	Window	Maximum	SUCC*	Substitution tolerance ranges		
	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
No Data Availa	ble					
Custom* roof v	vindows					
Window ID	Window	Maximum U-value*	SHGC*	Substitution tolerance ranges		
window ID	Description			SHGC lower limit	SHGC upper limit	
	•				F F	

### Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Avai	able							

## 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 (m²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
MASTER WIR	GEN-04-008a	n/a	1115	0.50	S	None	No	0.50
HALLWAY LEISURE	GEN-04-008a	n/a	1115	0.40	S	None	No	0.50
HALLWAY LEISURE	GEN-04-008a	n/a	1615	0.50	S	None	No	0.50

# External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
ENTRY HALL	2340	1200	90	S
GARAGE	2400	4810	90	W



## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.50	Medium	Bulk Insulation R2.5	No
EW-2	Single Skin Brick	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	No insulation	No
EW-4	Fibro Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2.5	No
EW-5	Brick Veneer	0.50	Medium	Bulk Insulation 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)
DINING KITCHEN	EW-1	3426	7795	S	100	NO
DINING KITCHEN	EW-1	3426	1595	N	100	YES
DINING KITCHEN	EW-1	3426	700	W	100	YES
DINING KITCHEN	EW-1	3426	2100	Ν	100	NO
DINING KITCHEN	EW-1	3426	700	E	100	YES
DINING KITCHEN	EW-1	3426	1700	Ν	100	YES
DINING KITCHEN	EW-1	3426	3700	E	6600	YES
DINING KITCHEN	EW-1	3426	3000	Ν	4300	YES
DINING KITCHEN	EW-1	3426	4100	E	600	NO
BUTLERS	EW-1	3426	1895	S	100	NO
BUTLERS	EW-1	3426	1700	W	12500	YES
ENTRY HALL	EW-1	3426	2495	S	1700	YES
ENTRY HALL	EW-1	3426	1700	E	12800	YES
ENTRY HALL	EW-1	3426	1695	S	100	NO
ENTRY HALL	EW-1	3426	2390	N	100	NO
LAUNDRY	EW-1	3426	2090	N	100	NO
WC	EW-1	3426	1890	S	100	NO
POWDER	EW-1	3426	2090	S	100	NO
GUEST SUITE	EW-1	3426	4195	S	100	NO
GUEST SUITE	EW-1	3426	3500	W	100	NO
GUEST SUITE	EW-1	3426	1000	Ν	100	YES
GARAGE	EW-2	2912	5795	W	100	YES
GARAGE	EW-3	2912	6200	Ν	600	NO
GARAGE	EW-3	2912	1500	E	600	YES
GARAGE	EW-3	2912	1995	Ν	100	YES
ENSUITE	EW-4	2590	2795	S	600	NO
ENSUITE	EW-4	2590	3495	E	600	NO
MASTER WIR	EW-4	2590	1990	S	600	NO

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5.1 Star Rating as of 10 May 2022



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
MASTER SUITE	EW-4	2590	5395	Ν	600	NO
MASTER SUITE	EW-4	2590	4295	E	3600	NO
UF BATH	EW-4	2590	3190	S	600	NO
UF WC	EW-4	2590	1790	S	600	NO
BED 3	EW-4	2590	4690	S	600	NO
BED 4	EW-4	2590	4595	S	600	NO
BED 4	EW-4	2590	3500	W	600	NO
BED 4	EW-4	2590	2400	Ν	4900	YES
HALLWAY LEISURE	EW-4	2590	4295	W	2000	YES
HALLWAY LEISURE	EW-4	2590	3095	Ν	600	NO
HALLWAY LEISURE	EW-5	2590	2390	Ν	600	NO
UFWIL	EW-4	2590	2090	Ν	600	NO
BED 2	EW-4	2590	3690	Ν	600	NO

# Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		209.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		50.00	Bulk Insulation, No Air Gap R2

# Floor type

Location	Construction	Area (m²)	Sub-floor ventilation	Added insulation (R-value)	Covering
DINING KITCHEN	Waffle pod slab 225 mm 100mm	53.10	) None	Waffle Pod 225mm	Ceramic Tiles 8mm
BUTLERS	Waffle pod slab 225 mm 100mm	4.80	None	Waffle Pod 225mm	Ceramic Tiles 8mm
ENTRY HALL	Waffle pod slab 225 mm 100mm	28.50	) None	Waffle Pod 225mm	20/80 Carpet 10mm/Ceramic
LAUNDRY	Waffle pod slab 225 mm 100mm	6.30	None	Waffle Pod 225mm	Ceramic Tiles 8mm
WC	Waffle pod slab 225 mm 100mm	3.40	None	Waffle Pod 225mm	Ceramic Tiles 8mm
POWDER	Waffle pod slab 225 mm 100mm	3.70	None	Waffle Pod 225mm	Ceramic Tiles 8mm
GUEST SUITE	Waffle pod slab 225 mm 100mm	14.40	) None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
GARAGE	Waffle pod slab 175 mm 100mm	45.50	) None	Waffle Pod 175mm	Bare
ENSUITE/DINING KITCHEN	Timber Above Plasterboard 19mm	9.50		No Insulation	Ceramic Tiles 8mm
MASTER WIR/DINING KITCHEN	Timber Above Plasterboard 19mm	6.50		No Insulation	Carpet+Rubber Underlay 18mm
MASTER SUITE/DINING KITCHEN	Timber Above Plasterboard 19mm	22.00	)	No Insulation	Carpet+Rubber Underlay 18mm
MASTER SUITE/ENTRY HALL	Timber Above Plasterboard 19mm	0.80		No Insulation	Carpet+Rubber Underlay 18mm



Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
UF BATH/DINING KITCHEN	Timber Above Plasterboard 19mm	0.60		No Insulation	Ceramic Tiles 8mm
UF BATH/BUTLERS	Timber Above Plasterboard 19mm	4.90		No Insulation	Ceramic Tiles 8mm
UF BATH/ENTRY HALL	Timber Above Plasterboard 19mm	3.20		No Insulation	Ceramic Tiles 8mm
UF BATH	Suspended Timber Floor 19mm	2.10	Totally Open	No Insulation	Ceramic Tiles 8mm
UF WC/ENTRY HALL	Timber Above Plasterboard 19mm	1.30		No Insulation	Ceramic Tiles 8mm
UF WC	Suspended Timber Floor 19mm	1.90	Totally Open	No Insulation	Ceramic Tiles 8mm
BED 3/ENTRY HALL	Timber Above Plasterboard 19mm	8.00		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/WC	Timber Above Plasterboard 19mm	3.50		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/POWDER	Timber Above Plasterboard 19mm	3.10		No Insulation	Carpet+Rubber Underlay 18mm
BED 3/GARAGE	Timber Above Plasterboard 19mm	1.30		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/ENTRY HALL	Timber Above Plasterboard 19mm	0.50		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/POWDER	Timber Above Plasterboard 19mm	0.70		No Insulation	Carpet+Rubber Underlay 18mm
BED 4/GUEST SUITE	Timber Above Plasterboard 19mm	14.50		No Insulation	Carpet+Rubber Underlay 18mm
HALLWAY LEISURE/ENTRY HALL	Timber Above Plasterboard 19mm	14.60		No Insulation	Carpet+Rubber Underlay 18mm
HALLWAY LEISURE/GARAGE	Timber Above Plasterboard 19mm	16.30		No Insulation	Carpet+Rubber Underlay 18mm
UF WIL/LAUNDRY	Timber Above Plasterboard 19mm	6.30		No Insulation	Carpet+Rubber Underlay 18mm
BED 2/GARAGE	Timber Above Plasterboard 19mm	11.70		No Insulation	Carpet+Rubber Underlay 18mm

# Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
DINING KITCHEN	Plasterboard	Bulk Insulation R4	No
DINING KITCHEN	Timber Above Plasterboard	No Insulation	No
BUTLERS	Timber Above Plasterboard	No Insulation	No
ENTRY HALL	Timber Above Plasterboard	No Insulation	No
LAUNDRY	Timber Above Plasterboard	No Insulation	No
WC	Timber Above Plasterboard	No Insulation	No
POWDER	Timber Above Plasterboard	No Insulation	No
GUEST SUITE	Timber Above Plasterboard	No Insulation	No
GARAGE	Plasterboard	No insulation	No
GARAGE	Timber Above Plasterboard	No Insulation	No
ENSUITE	Plasterboard	Bulk Insulation R4	No
MASTER WIR	Plasterboard	Bulk Insulation R4	No
MASTER SUITE	Plasterboard	Bulk Insulation R4	No

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Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
UF BATH	Plasterboard	Bulk Insulation R4	No
UF WC	Plasterboard	Bulk Insulation R4	No
BED 3	Plasterboard	Bulk Insulation R4	No
BED 4	Plasterboard	Bulk Insulation R4	No
HALLWAY LEISURE	Plasterboard	Bulk Insulation R4	No
UFWIL	Plasterboard	Bulk Insulation R4	No
BED 2	Plasterboard	Bulk Insulation R4	No

# Ceiling penetrations\*

Location	Quantity	Туре	Diameter (mm <sup>2</sup> )	Sealed/unsealed
WC	1	Exhaust Fans	300	Sealed
POWDER	1	Exhaust Fans	300	Sealed
ENSUITE	1	Exhaust Fans	300	Sealed
UF BATH	1	Exhaust Fans	300	Sealed
UF WC	1	Exhaust Fans	300	Sealed

# **Ceiling** fans

Location	Quantity	Diameter (mm)	
DINING KITCHEN	1	1200	

# Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	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) 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 softw are 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.
Account 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
Assessed floor area	design documents.
Colling popotrotions	features that require a penetration to the ceiling, including dow nlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes
Ceiling penetrations	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
Conditioned	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).
	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmand with scattered
Exposure category – open	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	the NOC groups buildings by their function and use, and assigns a classification code. NatHERS software models NOC Class 1, 2 or 4
(NOC) Class	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.
	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional
Provisional value	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
<b>Reflective wrap</b> (also know n 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
Rooi Willdow	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 hast goin coofficiant (SUCC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released
Solar heat gain coefficient (SHGC)	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 know n 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.
Vortical chading fosturas	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy
Vertical shading features	screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).