

# Nationwide House Energy Rating Scheme NatHERS Certificate No. 0006212203-02

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## Property

**Address** Forestwood Drive , Glenmore Park ,  
NSW , 2745

**Lot/DP** 342/0

**NCC Class\*** 1A

**Type** New Dwelling

## Plans

**Main Plan** Sielicki 207916

**Prepared by** WCL

## Construction and environment

Assessed floor area (m <sup>2</sup> *)	Exposure Type
Conditioned* 315.0	Suburban
Unconditioned* 63.0	<b>NatHERS climate zone</b>
Total 378.0	28
Garage 48.0	



## Accredited assessor

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**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](http://www.abcb.gov.au).

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

**6.4**  
The more stars  
the more energy efficient

**NATIONWIDE  
HOUSE**  
ENERGY RATING SCHEME

**80.5 MJ/m<sup>2</sup>**  
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](http://www.nathers.gov.au)

## Thermal performance

Heating	Cooling
<b>45.0</b> MJ/m <sup>2</sup>	<b>35.5</b> 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=IRLYqTjg](http://hstar.com.au/QR/Generate?p=IRLYqTjg).

When using either link, ensure you are visiting [hstar.com.au](http://hstar.com.au)



\* Refer to glossary.

## 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

## 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
TIM-001-01 W	TIM-001-01 W Timber A SG Clear	5.4	0.56	0.53	0.59

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
TND-002-19 A	TND-002-19 A Trend AI Awning Window DG LightBridge_ClrS0_4-10-4	3.3	0.45	0.43	0.47
TND-002-01 A	TND-002-01 A Trend AI Awning Window SG 3Clr	6.5	0.66	0.63	0.69
TND-001-21 A	TND-001-21 A Trend AI Sliding Window DG LightBridge_ClrS0_4-10-4	3.2	0.46	0.44	0.48
TND-031-05 A	TND-031-05 A Trend AI Internal offset glazed window DG LightBridge_ClrS0_4-10-4	2.3	0.52	0.49	0.55
TND-071-01 A	TND-071-01 A Windsor Sliding Door SG 6Clr	6.1	0.65	0.62	0.68

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
TND-024-01 A	TND-024-01 A Trend AI Internal offset glazed window SG 5Clr	6.1	0.75	0.71	0.79

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Office	TND-002-19 A	n/a	1800	610	n/a	60	S	No
Office	TND-002-19 A	n/a	1800	1570	n/a	60	S	No
PWD 1	TND-002-01 A	n/a	400	1570	n/a	45	E	No
LDRY	TND-002-01 A	n/a	1030	610	n/a	90	E	No
Home Theatre	TND-001-21 A	n/a	600	2650	n/a	45	E	No
Kitchen/Leisure	TIM-001-01 W	n/a	2340	1640	n/a	90	W	No
Kitchen/Leisure	TND-031-05 A	n/a	600	3850	n/a	00	W	No
Kitchen/Leisure	TND-071-01 A	n/a	2270	4420	n/a	60	N	No
Kitchen/Leisure	TND-001-21 A	n/a	2035	2650	n/a	30	W	No
Kitchen/Leisure	TND-031-05 A	n/a	2270	4810	n/a	00	N	No
Kitchen/Leisure	TND-002-19 A	n/a	2270	1210	n/a	60	E	No
Kitchen/Leisure	TND-002-19 A	n/a	2270	1210	n/a	60	E	No
Bedroom 1	TND-002-19 A	n/a	1800	610	n/a	60	S	No
Bedroom 1	TND-071-01 A	n/a	2140	1580	n/a	45	S	No
Dressing Room	TND-031-05 A	n/a	400	2650	n/a	00	E	No
Ensuite 1	TND-002-01 A	n/a	1800	1510	n/a	30	E	No
WIR 1	TND-002-19 A	n/a	1200	730	n/a	90	S	No
WC	TND-024-01 A	n/a	1800	400	n/a	00	E	No
Ensuite 2	TND-002-01 A	n/a	1800	850	n/a	60	E	No
Bedroom 2	TND-002-19 A	n/a	1200	2100	n/a	45	N	No
Bedroom 3	TND-001-21 A	n/a	1030	2410	n/a	45	W	No
Ensuite 3	TND-002-01 A	n/a	1800	850	n/a	60	W	No
Bedroom 4	TND-002-19 A	n/a	1200	730	n/a	90	S	No
Bedroom 4	TND-002-19 A	n/a	1200	730	n/a	90	S	No
Bedroom 4	TND-002-19 A	n/a	1200	730	n/a	90	S	No
Ensuite 4	TND-002-01 A	n/a	1500	850	n/a	90	W	No
Upper Lounge	TND-001-21 A	n/a	600	2410	n/a	45	W	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

## 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
No Data Available					

## 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

Skylight ID	Skylight description
No Data Available	

## Skylight schedule

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

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2040	820	90	N
Garage	2140	4800	90	S
Garage	2140	2410	90	S
LDRY	2040	820	90	E
Entry/Foyer	2040	1200	90	S

## 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	No insulation	No
EW-2	Single Skin Brick	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	Bulk Insulation R2	No
EW-4	Fibro Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2	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	2760	5500	W	100	NO
Garage	EW-1	2760	3895	N	100	YES
Garage	EW-1	2760	700	E	6700	YES
Garage	EW-2	2760	5600	S	100	NO
Garage	EW-1	2760	600	W	100	YES
Garage	EW-2	2760	2900	S	100	YES
Office	EW-3	2590	1800	W	2500	YES
Office	EW-3	2590	2895	E	100	NO
Office	EW-3	2590	1000	S	100	YES
Office	EW-3	2590	500	E	100	YES
Office	EW-3	2590	3400	S	2100	NO
PWD 1	EW-3	2590	2790	E	100	NO
LDRY	EW-3	2590	2790	E	100	NO
Home Theatre	EW-3	2590	595	E	100	YES
Home Theatre	EW-3	2590	600	N	100	YES
Home Theatre	EW-3	2590	3595	E	100	NO
Entry/Foyer	EW-3	2590	2190	S	3900	YES
Kitchen/Leisure	EW-3	2590	10000	W	100	YES
Kitchen/Leisure	EW-3	2590	5300	N	4100	YES
Kitchen/Leisure	EW-3	2590	3500	W	5900	YES
Kitchen/Leisure	EW-3	2590	5300	N	600	NO
Kitchen/Leisure	EW-3	2590	7495	E	100	NO
Bedroom 1	EW-4	2440	1000	S	3100	YES
Bedroom 1	EW-4	2440	500	E	1600	YES
Bedroom 1	EW-4	2440	3400	S	2600	NO
Bedroom 1	EW-4	2440	1100	W	7400	YES
Bedroom 1	EW-3	2440	3495	E	600	NO
Bedroom 1	EW-4	2440	400	E	600	NO
Dressing Room	EW-3	2440	3190	E	600	NO
Ensuite 1	EW-3	2440	2490	E	600	NO
WIR 1	EW-4	2440	2190	S	3700	YES
WC	EW-3	2440	1090	E	600	NO
Ensuite 2	EW-3	2440	600	N	5100	YES
Ensuite 2	EW-3	2440	1395	E	600	NO
Bedroom 2	EW-4	2440	3195	N	600	NO
Bedroom 2	EW-3	2440	4495	E	600	YES
WIR 2	EW-4	2440	1000	W	5800	YES

\* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
WIR 2	EW-4	2440	2195	N	600	NO
Bedroom 3	EW-3	2440	3695	W	600	NO
Bedroom 3	EW-4	2440	5195	N	600	YES
Ensuite 3	EW-3	2440	1890	W	600	NO
Bedroom 4	EW-4	2440	4595	S	600	NO
Bedroom 4	EW-4	2440	3895	W	600	NO
Ensuite 4	EW-4	2440	1890	W	600	NO
Upper Lounge	EW-4	2440	495	W	600	NO
Upper Lounge	EW-3	2440	3095	W	600	NO

## Internal wall type

Wall ID	Wall type	Area (m <sup>2</sup> )	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		26.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		297.00	No insulation

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 225 mm 100mm	48.30	None	Waffle Pod 225mm	Bare
WIP	Waffle pod slab 300 mm 100mm	5.50	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Office	Waffle pod slab 300 mm 100mm	14.20	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
PWD 1	Waffle pod slab 300 mm 100mm	5.60	None	Waffle Pod 300mm	Ceramic Tiles 8mm
LDRY	Waffle pod slab 300 mm 100mm	9.10	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Home Theatre	Waffle pod slab 300 mm 100mm	20.40	None	Waffle Pod 300mm	Carpet+Rubber Underlay 18mm
Entry/Foyer	Waffle pod slab 300 mm 100mm	26.10	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Leisure	Waffle pod slab 300 mm 100mm	87.40	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Office	Timber Above Plasterboard 19mm	14.20		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/PWD 1	Timber Above Plasterboard 19mm	2.10		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Entry/Foyer	Timber Above Plasterboard 19mm	3.40		No Insulation	Carpet+Rubber Underlay 18mm
Dressing Room/PWD 1	Timber Above Plasterboard 19mm	3.60		No Insulation	Carpet+Rubber Underlay 18mm
Dressing Room/LDRY	Timber Above Plasterboard 19mm	4.50		No Insulation	Carpet+Rubber Underlay 18mm
Dressing Room/Entry/Foyer	Timber Above Plasterboard 19mm	1.60		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/LDRY	Timber Above Plasterboard 19mm	4.50		No Insulation	Ceramic Tiles 8mm

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Ensuite 1/Home Theatre	Timber Above Plasterboard 19mm	5.30		No Insulation	Ceramic Tiles 8mm
WIR 1/Entry/Foyer	Timber Above Plasterboard 19mm	4.10		No Insulation	Carpet+Rubber Underlay 18mm
WIR 1	Suspended Timber Floor 19mm	1.40	Very Open	No Insulation	Carpet+Rubber Underlay 18mm
WC/Home Theatre	Timber Above Plasterboard 19mm	1.70		No Insulation	Ceramic Tiles 8mm
Ensuite 2/Home Theatre	Timber Above Plasterboard 19mm	4.40		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Home Theatre	Timber Above Plasterboard 19mm	1.90		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Kitchen/Leisure	Timber Above Plasterboard 19mm	13.10		No Insulation	Carpet+Rubber Underlay 18mm
PWD 2/Home Theatre	Timber Above Plasterboard 19mm	2.20		No Insulation	Ceramic Tiles 8mm
WIR 2/Kitchen/Leisure	Timber Above Plasterboard 19mm	3.90		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	18.80		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	5.20		No Insulation	Ceramic Tiles 8mm
WIR 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	3.10		No Insulation	Carpet+Rubber Underlay 18mm
WIL/Kitchen/Leisure	Timber Above Plasterboard 19mm	1.80		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Garage	Timber Above Plasterboard 19mm	17.60		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 4/Garage	Timber Above Plasterboard 19mm	5.20		No Insulation	Ceramic Tiles 8mm
WIR 4/Garage	Timber Above Plasterboard 19mm	2.90		No Insulation	Carpet+Rubber Underlay 18mm
Circulation/Home Theatre	Timber Above Plasterboard 19mm	1.70		No Insulation	Carpet+Rubber Underlay 18mm
Circulation/Kitchen/Leisure	Timber Above Plasterboard 19mm	4.30		No Insulation	Carpet+Rubber Underlay 18mm
Upper Lounge/WIP	Timber Above Plasterboard 19mm	5.80		No Insulation	Carpet+Rubber Underlay 18mm
Upper Lounge/Home Theatre	Timber Above Plasterboard 19mm	2.50		No Insulation	Carpet+Rubber Underlay 18mm
Upper Lounge/Entry/Foyer	Timber Above Plasterboard 19mm	17.10		No Insulation	Carpet+Rubber Underlay 18mm
Upper Lounge/Kitchen/Leisure	Timber Above Plasterboard 19mm	10.50		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
Garage	Timber Above Plasterboard	No Insulation	No
WIP	Timber Above Plasterboard	No Insulation	No
Office	Timber Above Plasterboard	No Insulation	No
PWD 1	Timber Above Plasterboard	No Insulation	No
LDRY	Timber Above Plasterboard	No Insulation	No
Home Theatre	Timber Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Entry/Foyer	Timber Above Plasterboard	No Insulation	No
Kitchen/Leisure	Plasterboard	Bulk Insulation R3.5	No
Kitchen/Leisure	Timber Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3.5	No
Dressing Room	Plasterboard	Bulk Insulation R3.5	No
Ensuite 1	Plasterboard	Bulk Insulation R3.5	No
WIR 1	Plasterboard	Bulk Insulation R3.5	No
WC	Plasterboard	Bulk Insulation R3.5	No
Ensuite 2	Plasterboard	Bulk Insulation R3.5	No
Bedroom 2	Plasterboard	Bulk Insulation R3.5	No
PWD 2	Plasterboard	Bulk Insulation R3.5	No
WIR 2	Plasterboard	Bulk Insulation R3.5	No
Bedroom 3	Plasterboard	Bulk Insulation R3.5	No
Ensuite 3	Plasterboard	Bulk Insulation R3.5	No
WIR 3	Plasterboard	Bulk Insulation R3.5	No
WIL	Plasterboard	Bulk Insulation R3.5	No
Bedroom 4	Plasterboard	Bulk Insulation R3.5	No
Ensuite 4	Plasterboard	Bulk Insulation R3.5	No
WIR 4	Plasterboard	Bulk Insulation R3.5	No
Circulation	Plasterboard	Bulk Insulation R3.5	No
Upper Lounge	Plasterboard	Bulk Insulation R3.5	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm <sup>2</sup> )	Sealed/unsealed
PWD 1	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed
PWD 2	1	Exhaust Fans	300	Sealed
Ensuite 3	1	Exhaust Fans	300	Sealed
Ensuite 4	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, No Air Gap Above R1.3	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 software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

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